St. James Church: architectural, historic jewel

Review 5/25/90 Edison: Churches

Episcopal congregation survives Revolution, tornado

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By Bonnie Giannattasio

EDISON — There are many structures and sites in the township that help residents make a connection to Edison's rich and varied past. Many provide links to the history of the community and an understanding of how it became what it is today.

One need only look at such places as the Laing house, the Benjamin Shotwell house, the Col. John Dunham house, the Forman Martin house, the Grace Reformed Church, the New Dover United Methodist Church and the Edison Memorial Tower for a diverse architectural overview of the township's history. Some of these houses, churches and monuments have been described as "architectural jewels."

Clearly, one of the "crown jewels" of the collection is the St. James Episcopal Church at 2136 Woodbridge Avenue in the Piscatawaytown Historic District. "Crown jewel" is an especially apt description of St. James in light of its Anglican heritage, for it was Queen Anne of England who "granted a charter to the Wardens and Congregation of Saint James ... when the Rev. John Brooke became the regular missionary in Piscataqua."

Early records indicate that the parish was established in 1694. Other accounts give the generally accepted December 24, 1714, as the date that "the Parish of St. James entered into full organization."

"The first Vestry," the reports continue, "was made up of James Barron, a prominent local man, Thomas Wetherell, one of the early settlers, as Wardens, with Robert Webster, a Proprietor in 1669, Charles Glover, Hopewell Hull Jr., whose father was known in Piscataqua as early as 1666 and was deputy to the General Assembly in 1675, Henry Langstaff, whose descendants James, John and John Jr. were delegates to nearly all the Conventions of the Diocese of New Jersey from 1785 to 1817, Samuel Walker, an early settler and member of a party that came in 1689, John Jennings, William Olden and Samuel Royce."

Several of these names live on in street names throughout the township today.

In the histories, it is noted that "Barron agreed to build a timber church; floored, plastered and provided with a 'descent Communion Table and Pulpit' for the sum of One Hundred Pounds." He wrote, "We are a people who are only the beginning of a Country. The township is ten miles long and ten miles broad, contains but one hundred families and not more than ten of these families truly affected to the Church or live a convenient distance for giving constant attendance on the Lord's Day."

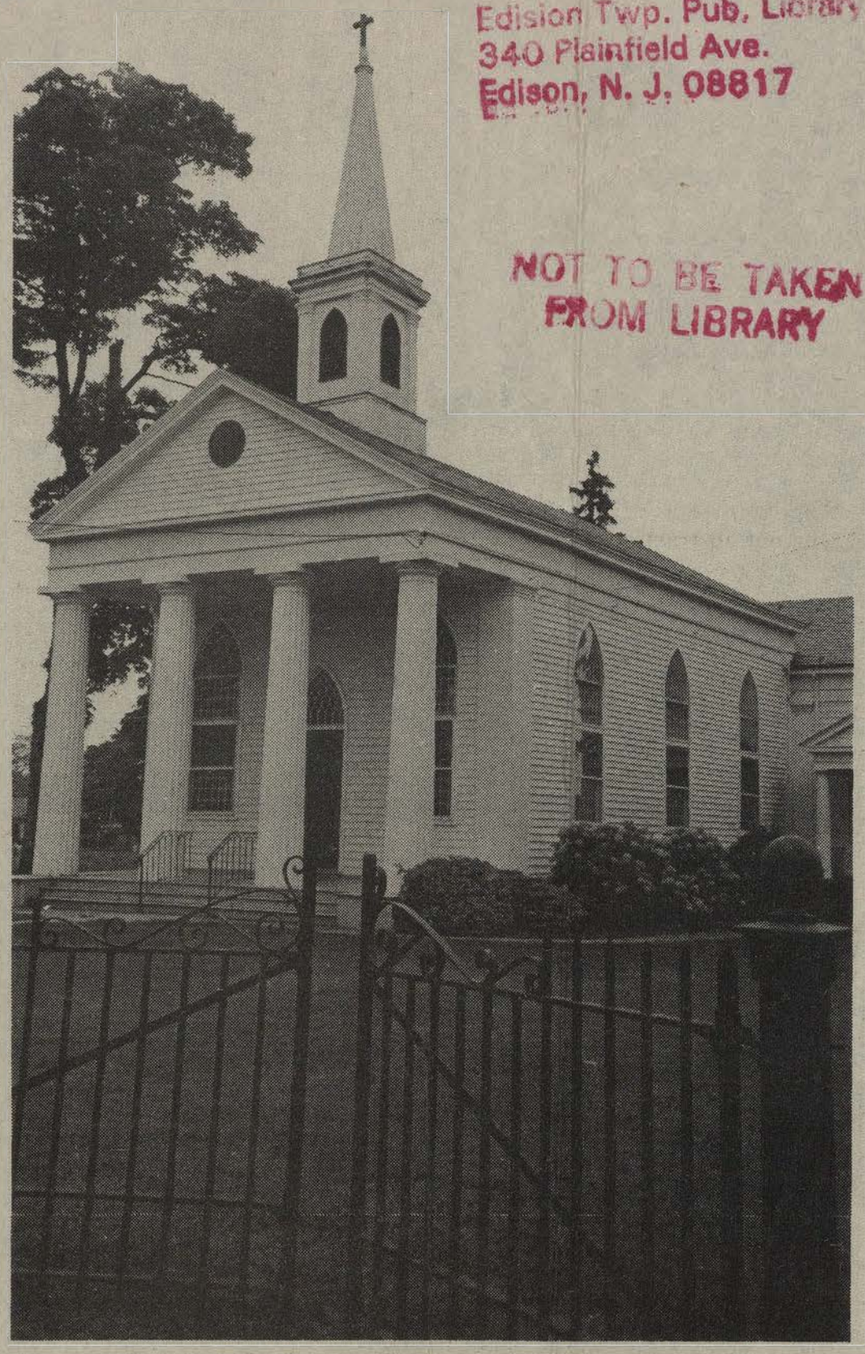
The congregation had met in the old Town Meeting House, but it was said that in that building "there is nothing among us like the face of the Church of England, no surplice, no Bible, no Communion Tables, an old broken house insufficient to keep us from the injuries of the weather."

In 1724 a "handsome wooden chapel" was completed. Still, the congregants had to endure the lack of a bishop who was needed to perform confirmation and baptismal rites. A few people of means went to England for confirmation in those days, but a written account of the early days of St. James adds that "there is no record of anyone from this locality having done so."

To this day, St. James is sometimes referred to as "The English Church."

One of the first pastors of the congregation was the Rev. Abraham Beach. An American, he journeyed to England in 1767 and was there "ordained deacon and priest." He returned later that year to New Brunswick with the "oversight and pastoral care ... of Saint James, Piscataway." And according to the account, "his ministry was happily blessed until the dispute between the Colonists and the Mother Country became acute."

The history reports that "although an American, Abraham Beach could not feel justified on throwing off all allegiance to Britain, and therein he suffered as could be expected. On Sunday, July 4th, 1776, Beach was in St. James Church, Piscataway, when he was challenged by a soldier who declared that his safety could not be assured if he prayed for the King."



—Photo by Thomas R. DeCaro

Originally completed in 1724 and rebuilt after a tornado destroyed it in 1834, St. James Episcopal Church stands at 2136 Woodbridge Avenue, Edison.

Beach's own letters reveal that he "thought it would be advisable to shut the church for the present ... from the 7th of July to the 8th of December; since which time I have officiated ... at New Brunswick, the church at Piscataqua being at present occupied as a barrack for part of the forty-second regiment. The farmers in this neighborhood seem to have been antagonistic to the British."

The church is known to have served as a barrack for the British soldiers in the area during the time of the Revolution and also as a hospital for their injured. In fact, written histories of St. James reveal that "thirty British Troops were killed or subsequently died of their wounds, and were buried, simply by having the earthworks or breastworks turned in upon them" on the grounds surrounding the church.

The church bell was cast in Leeds, England, and was brought to the church in 1702. It is cracked but remains in the steeple of St. James. Aside from its use as a church bell to call worshipers to services, it also served in this century to summon volunteer firefighters to duty.

In 1834, a tornado struck the area, and while some nearby structures were spared the wrath of the winds, the entire church is reported to have been leveled. The pulpit is said to have been found somewhere near the banks of the Raritan River. The congregants salvaged almost all the timbers and fittings from the demolished church and, using them, rebuilt the church in approximately one year's time.

Recognized as "the oldest purely colonial church in the Episcopal Diocese of New Jersey," St. James was selected by the Historic American Buildings Survey for its exceptional historic and architectural interest. And members of the congregation are aware of their church's importance to the community, not only as a center for worship but for its architectural uniqueness.

Accordingly, they have completed the volumes of paperwork and research necessary to submit an application to the Department of the Interior for inclusion of the church on the National Register of Historic Places. Approval of the application could come as early as this year.

Inside the church, visitors and worshipers find a classically colonial-style church with simple woodwork, wide-plank flooring, wide-plank wainscotting and clear-glass windows. The pillared porch of the church was recently restored to reflect more authentically the pillars' relation to the floor of the porch when the church was first constructed.

In its research for the National Register of Historic Places application, church members discovered architectural blueprints drawn up during the WPA days of the Great Depression. These reveal details of the construction and ornamentation of the church and have proven invaluable to maintaining the authentic appearance of the church.

The original three-tiered pulpit dominates the area directly behind the altar. From this pulpit, Samuel Seabury, the first Episcopal bishop in America, and John Croes, the first bishop of New Jersey, have preached.

Church historians report that access to the pulpit originally was gained by the priest leaving the altar area to a door which led outside. Once there, the priest would climb some stairs which led to a door behind the pulpit. Opening the door, he would approach the lecturn and begin his sermon.

An addition was made to the rear of the church in this century for use as a church hall, and access to the pulpit was enclosed as a result.

Today's St. James Church, with the Rev. William Gerhart as rector, is a very active community tending to the spiritual and temporal needs of its communicants and neighbors.

It recently served as host site for the Edison Township portion of the celebration of the bicentennial of George Washington's inauguration. Held on the grounds and inside the church, "President Washington" arrived by coach, retracing his exact route of 1789 to New York City for his first inaugural.

At St. James, he was greeted by Father Gerhart and the parishioners, Acting Mayor Henry Cackowski, members of the Township Council and about 400 residents who were on hand to celebrate the reenactment. Many members of the congregation dressed in colonial garb to welcome "the president" to Edison.

Washington was given a tour of the church and grounds, delivered words of thanks to those assenbled and remained at the church for nearly two hours while his team of horses rested for the remainder of the journey.

St. James Episcopal Church continues to serve as a unique and irreplaceable piece of the township's architectural, cultural and civic past. It is indeed a "crown jewel."

Bonnie Gannattasio is an officer and charter member of the Edison Township Historical Society. This article is one in a series by society members on the history of the area.

ommon cents

mes change.
e other day I was getting out
y car at the Foodtown. I no-
d a bunch of pennies on the
nd where someone had evi-
ly emptied his car ashtray.
ound money! I stooped down,
ed up the pennies and
nted six. Finding money al-
s gives me a little thrill.
y daughter, who was with me,
not share my excitement.
Pennies are passe," she said.
ey're worthless today."
e proceeded to tell me about
cent TV show where they did
experiment with people and
nies. The pennies were
ted on the sidewalk. In the
allotted, not one person
ped to pick up the pennies.
pennies were exchanged for
els and dimes, and the pe-
rians were fighting over them.
was about this time I saw my
ghter looking over her shoul-
to see if there was a hidden
camera in the parking lot, just
ting to catch the first nerd who
ld stoop down to pick up the
y penny.
ll be honest. I still stoop down
ick up one penny. It was great
to find six.
A penny saved is a penny
ned." That was true for Ben
anklin and it's true for me. Of
rse a penny went a lot farther
his day than it does in mine,
they still add up.
Ben Franklin died 200 years
. They don't make 'em like him
more. When he died, he be-
eathed to two communities
0 pounds sterling, his salary as
ernor of Pennsylvania. Frank-
didn't think public servants
uld be paid; serving the public
s a privilege and an honor.
His will included the stipulation
t some of the money could be
tributed only after 200 years.
ess how much money today's
iticians are working hard at

bits o' breezes

M. CHARBELL

figuring out how to spend? We're looking at a whopping $6.5 million.

Ben Franklin's original purpose for the money was that it should go toward helping young tradesmen get started in their jobs. I don't know where the money will end up, but I find myself wondering what Franklin would think if he could roam the cities of our great nation today.

I find myself wondering what Franklin would think of the politics of today. It seems to me we've lost something in these past 200 years — and it goes a lot deeper than the worth of a lowly penny.

Here we are, saddled with the biggest deficit in our country's history. Political leaders are racking up debt and saddling future generations with a gruesome inheritance that defies a solution. And then we have Ben Franklin, dead for 200 years, coming up with a cool $6.5 million for the young.

We've come a long way, baby.

Ben Franklin should be required reading for every politician and public servant.

If every politician gave a few thousand dollars today for a future date, with compound interest, would that help take care of our debt?

I sure wish Ben Franklin was around these parts today.

eam places third spring event

DISON — John Acams Middle
hool placed third in the state in
recent Spring 1990 Knowledge
sters Open.
he team was directed by John
lley, computer instuctor.
eld twice yearly, the contest
nsisted of 200 questions which
vered 15 subject areas includ-
history, literature, math, sci-
ce, health and art.
Among the students on the
owledge Masters team were
drew Goldfine, Minjae Kim,
ctoria Zolotarvor, Mario Crifo,
son Garby, Daniel Hodes,
chard Krychowecky, Rajib Pal.

Temple welcomes Soviet families

EDISON — Temple Emanu-El has responded to the influx of Soviet Jews by opening its doors to the families who have relocated to New Jersey.

Through a board resolution, all resettled emigrees fleeing the Soviet Union are given one year's free membership, and four families have joined the temple under the plan.

Rabbi Al Landsberg treats these new members with a trip to the Ark. For most of these Soviet Jews, this is the first time they have seen a Torah.

The families are also given free admission to all temple functions. At the annual congregational seder, 50 Soviets were invited as guests. This was paid for by anonymous contributions of other temple members and a contribution



Amanda LoPiccolo, 11, of Edison poses with a trophy and bicycle she won when she captured the National Junior Teen Universe title.

Women's group to meet, dine

The Association of Women Business Owners will hold a dinner meeting on June 4 at the Hyatt Regency Hotel, New Brunswick.

Networking will be at 6 p.m., and dinner will begin at 7 p.m.

The subject will be "Be All that You Can Be." The speaker will be Jim Desena.

Parking for members will be free.

For more information, call Della Menechella at 985-6512.

June 4 meeting on CROP walk

METUCHEN — A meeting is scheduled for Monday, June 4, to discuss plans for the CROP walk this fall.

The meeting begins at 7:30 p.m. in St. Luke's Episcopal Church, Route 27 and Oak Avenue. Scheduled to attend are representatives of churches, synagogues and other organizations in Metuchen and Edison.

Of the money raised from the CROP walk, 20 percent goes toward feeding the hungry and

'Y' plans latchkey program this fall

METUCHEN — The YMCA of Metuchen-Edison is now taking applications for its fall latchkey program.

The program, which begins after Labor Day, serves children in all Metuchen schools and many Edison schools. It is available to pupils in kindergarten through 6th grade.

Latchkey activities at the "Y" are staffed by trained program coordinators. The program includes swimming, sports, arts and crafts, special events, snacks, homework time and quiet time.

For more information, call the "Y" at 548-2044.

Fantasy artist at comic store

NEW BRUNSWICK — Fantasy artist Tim Hildebrandt will be autographing copies of his 1991 fantasy calendar "Visions of Other Worlds" Saturday, July 28, from 11 a.m. to 4 p.m. at Comic Attitudes, 88 Albany Street in the Kilmer Square shopping mall.

Hildebrandt will offer a display

Edison youth wins pageant

EDISON — Amanda LoPiccolo, an 11-year-old sixth-grader at Thomas Jefferson Middle School recently traveled to Easton, Pa., to capture the title of National Junior Teen Universe.

She won a trophy, crown, banner, robe and 10-speed bicycle.

The victory came on the heels of a March competition in Monmouth County, where she won the Grand Sugar 'n' Spice Overall and received $200, a banner and crown.

Amanda studies ballet, tap and gymnastics, and she participates in softball and cheerleading.

Two family outings planned for June

METUCHEN — Two family outings are being offered this spring, courtesy of the Metuchen Recreation Commission.

The first outing is the Yankees game vs. Baltimore on Sunday, June 3, the Yankees' annual Bat Day. All fans 14 and under who attend the game receive a free bat. The bus will leave from Borough Hall at 11:30 a.m.

Cost is $22 per person, including round-trip transportation and seats in the lower deck or loge level.

A whitewater rafting trip in the Poconos is planned for Sunday, June 17, leaving Borough Hall at 8 a.m. Families are welcome to come; all who go on this trip must be at least 10 years old.

Cost for the rafting trip is $35 per person. A life vest, paddle and waterproof food container are included. Those who come are urged to bring their own brown-bag lunch; a box lunch will be provided on request.

Pamphlets with details about the rafting trip are available in the recreation office at Borough Hall. For more information or reservations, call 632-8502.

births

METUCHEN — Mary Jane and Joseph Patikowski are parents of a son, Joseph David Jr., born April 15 at Robert Wood Johnson University Hospital.



MAUREEN RYAN
and
JOHN ESPOSITO

Maureen Ryan to marry in June

METUCHEN — Announcemer
has been made of the engagemer
of Maureen Ann Ryan of th
community and John Patrick E
posito of Ocean City.

The bride-to-be is the daughte
of Mr. and Mrs. Patrick D. Ryan
Elm Avenue. The bridegroom-t
be is the son of Joseph Esposito
Andover, Mass., and Judy Walke
of Tarpon Springs, Fla.

Miss Ryan graduated in 198
from Metuchen High School ar
in 1986 from Douglass Colleg
She is an account consultant wi
Metropolitan Life Insurance C
at its Paramus offices.

Mr. Esposito graduated in 198
from Ocean City High School ar
in 1986 from the University
South Florida. He is an analy
with the law firm of Goldsmith
Weiss, Atlantic City.

The wedding will take plac
June 8 at St. Francis Cathedral.

Aerobics classes move to church

METUCHEN — Aerobics classe
sponsored by the Metuche
Edison YMCA have moved to th
Reformed Church of Metuche
150 Lake Avenue, near the Y.

"The room is larger and bett
ventilated, which creates a nic
atmosphere," said Paula Lehma
the Y's senior program director.

Classes are for all levels of e
ercise and are held Tuesdays ar
Thursdays from 9:15 to 10:15 a.
For more information, call th
YMCA at 548-2044.

BLVD. WHOLESALE FOODS

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Alva
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WIZARD OF MENLO PARK

ASK AT DESK

Thomas Alva Edison Invents a New Century

by David A. Flory

A major exhibit in honor of Thomas Alva Edison, the "Wizard of Menlo Park," opens October 26. Sponsored by the Middlesex County Cultural and Heritage Commission, this landmark exhibit will be held at the Middlesex County Museum/Cornelius Low House at 1225 River Road in Piscataway. Co-sponsors are the Middlesex County Freeholders, the New Jersey Committee for the Humanities and the New Jersey Historical Commission in cooperation with the National Project.

The exhibit features working Edison artifacts and reconstructions, many of which have been borrowed and may never travel again after this show. Included are the Edison Nickel-In-The-Slot machine, cylinder and disc phonographs dating from 1878 to 1925, a replica of the tinfoil phonograph (1878), a projecting kinetoscope showing movies in a reconstructed kinetoscope parlor and a home projector that shows both movies and glass plate slides. Reconstructed sitting rooms of the early part of this century, many wall photo displays and posters are also part of the exhibit. There are also technical drawings and engravings, as well as reproduced front pages of the *Daily Graphic*, a tabloid of the day which took a lively interest in Edison's work and gave him a great deal of front-page coverage.

Several of the room reconstructions, as well as an audio-visual presentation, will show how Edison geared his phonograph and record sales to certain segments of the American public, with a directness and cleverness that really place him in the front ranks of early American promotion and marketing experts. Edison's singular abilities as a promoter are perhaps less well understood than his creative genius, but he was, in fact, an excellent and eminently successful businessman.



Thomas A. Edison in his library inspecting early film footage for his Home Projecting Kinetoscope, circa 1912.

The photographs and documents on display include many pieces of early phonograph advertising, family scenes showing the phonograph in the home, Edison's laboratory drawings of the phonograph and moving picture camera, movie posters and film stills from early Edison motion pictures.

There are three room settings on the first floor of the museum, one showing a circa 1912 living room with an early phonograph, another a replica of an "Edison Room," which was a decorating scheme used in phonograph stores to promote and sell disc phonographs. A third room will be converted into a phonograph and record store, circa 1915.

On the second floor is a small room setting for the home projector, which will continuously project Edison slides during the course of the exhibit. Working kinetoscopes will also be located on the second floor, as well as a movie theater with an Edison period projector.

The principal theme of the exhibit will

Early phonograph arcade, circa 1891.

be the impact of Edison's inventions on American life, especially on the arts, with an additional emphasis on his entrepreneurship. Edison once said, "I am not really a man of science. I am simply a commercial inventor, and the things I do must be commercially right." This fact is often overlooked because of the tendency to romanticize and idealize in retrospect the motives of men of genius, whose inspiration is usually revered as being almost religious. Edison is really in the tradition of Henry Ford, one of his ardent admirers, who parleyed an inventive genius into a financial empire. Edison and Ford, taken together, are almost a mini-history of the inventive and entrepreneurial spirit of late 19th-century America. Capitalism was by no means a dirty word in the decades just prior to the turn of the century. On the contrary, it was seen as the very life-blood of a vigorous and bustling new country whose destiny and promise seemed unlimited. Simple cleverness and ingenuity applied to the marketplace were the ingredients of an ethic that not only dominated America and its politics, but assumed myth-like proportions. Years later, Walt Disney, who in his own lifetime became a part of popular American folklore, could say at the end of his life that his proudest accomplishment—far from being the creation of Donald Duck or Mickey Mouse—was having been able to hold a financial empire together. This remark, given to a magazine interviewer, did not win him any friends. It seemed, in the 1960s, to run counter to then-prevailing changes of attitude about the impeccability of the profit motive.



Thomas Edison after 72 hours perfecting the phonograph, circa 1888.

Edison's world, however, was far removed from the 1960s. The period from the end of the Civil War to about 1920 was marked by an expansion and consolidation of industry, assisted by coast-to-coast rail transportation, telegraphy and other advances in communication and transportation. Together, they marked the beginning of consumerism. Mail order catalogs and department stores were introduced and more and more people were making their living by selling their time to industry instead of being independent craftsmen or farmers. Men like Edison and Ford were integral parts, intellectually and spiritually, of this bold adventure and both had a powerful intuitive feeling for the impact of their technology on American lifestyle.

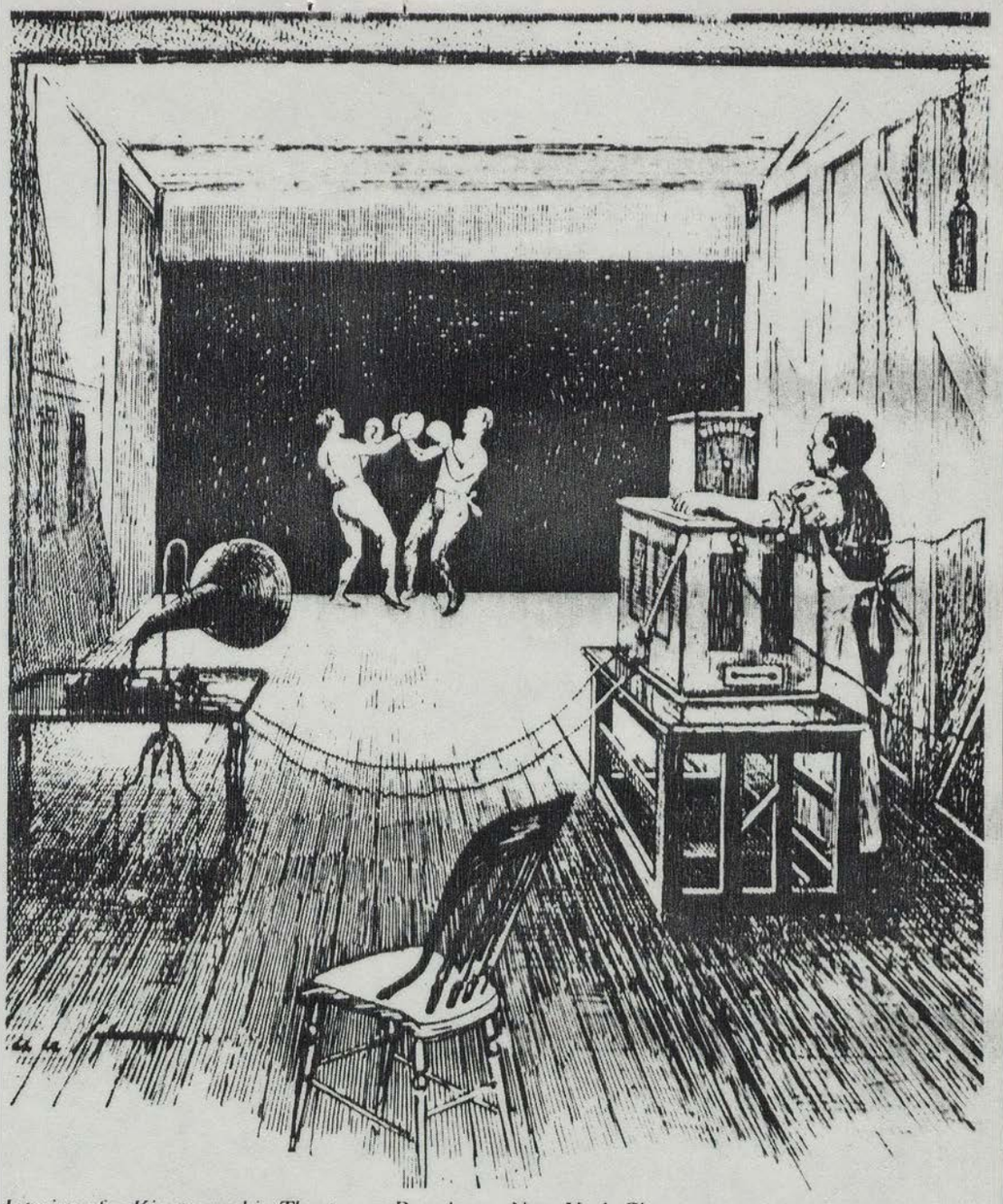
The basic article of faith which supported this enthusiasm was the idea that what is good for business is good for everybody.

After all, everybody wanted a car, a phonograph, electric lights. Something like electric light has only to be invented to become an immediate necessity, or at least a perceived necessity. Never mind that mankind survived without it since the days of the cave—it was now a necessity. We might be tempted to think that any inventor of the period was bound to become rich just by inventing something useful in a time of such unprecedented technological expansion, but this really isn't the case. There was something special about men like Edison and Ford. Take the Wright brothers, as an example. They were approximate contemporaries of Edison and Ford and no one can deny the impact of the airplane on modern civilization, but they did not build a financial empire, or become corporate giants. The principal reason is that their invention, although it seemed to be the fulfillment of an age-old dream, was in fact not very practical in most people's minds. It was viewed as a whimsical undertaking at best and an outright sacrilege at worst ("If God had intended me to fly, young man. . ."). The *Dayton Daily News*, the Wrights' hometown newspaper, carried only a scant notice of the Kitty Hawk flight, and buried it in the back of the newspaper. It was years before the use of the airplane in warfare became evident, and it is virtually due to this fact alone that it began to be taken seriously.

How different Edison's impulse was—he could almost feel the desire of a growing middle class to have access to the forms of entertainment which before were the privilege of the wealthy, not to mention the universal desire to participate in totally new forms of entertainment, such as moving pictures. To invent a phonograph is one thing, but to sense how its marketing could be made to relate to such emotionally resonant themes as "the family at home," "the family taking its dignified ease at eventide in the parlor," "patriotic songs for the boys away at war," etc., is an entirely different kind of genius.

Like Ford, Edison had an uncanny sense of what people wanted, and a highly unusual ability to make it or produce it, usually fairly inexpensively. Well, almost. Not all his inventions hit the mark. In all, he patented 1,097 of them, and not every one became a household word. One of his more spectacular losers was cement furniture. The idea behind this, apparently, was to create a market for the Portland cement he had been perfecting. The mind boggles at the idea of scooting it around on wooden porches, or of an elderly lady trying to rearrange her furniture. Generally speaking, however, Edison could tune in with precision.

Between Edison and Henry Ford, it is hard to know which was the more clever. The story is told of Ford, for instance, that he once put out bid contracts for transmission gears, and when the winning bid was announced, he insisted that the manufacturer ship the gears in wooden boxes of a specific dimension, with bold holes drilled in specified locations. The bidder probably thought Ford was crazy, but he complied in order to nail down a very lucrative contract. Ford's assemblymen thought Ford might have slipped a gear himself until the day the transmission parts arrived. After (carefully) taking apart the boxes, then laying them out flat, it became apparent to his astonished line foremen that they were looking at the floorboards of the Model T!

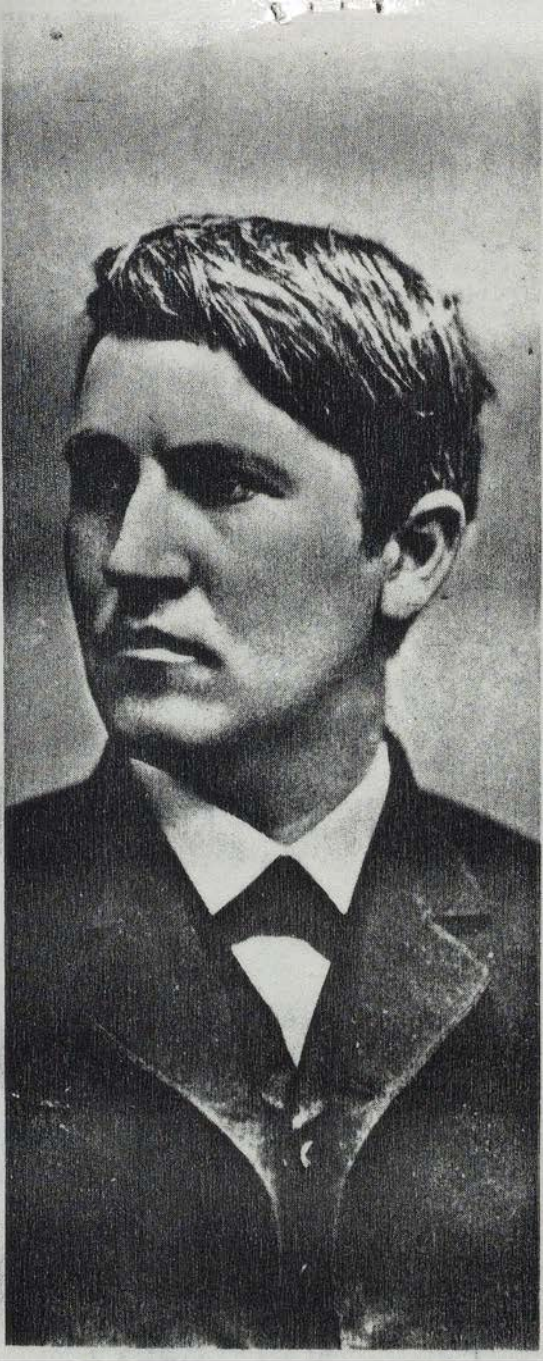


Interior of a Kinetographic Theatre on Broadway, New York City.

Of such mental stuff were Edison and Ford made. The list of Edison's inventions is staggering. Of his 1,097 patents, consider the following: an electrical vote recorder, the teletype stock ticker (for which he received $40,000 in 1870, when he was all of 23 years old), the "electric pen," which became the mimeograph, the carbon telephone transmitter, the phonograph, the incandescent lamp, the magnetic ore separator, the first passenger electric railway, ship-to-shore wireless telegraphy, the motion picture camera and projector, the fluoroscope (which he generously did not patent, but left to the public domain to benefit science), the dictaphone, the flourescent electric lamp, the alkaline storage battery, electric safety lanterns for miners, synthetic carbolic acid and the telescribe (combining the telephone and dictating phonograph).

It is hard to imagine a more practical and usable list of inventions, and this is only a small sampling. Edison was additionally a patriot, and during World War I he dedicated a great deal of effort to trying to make the United States independent of rubber imports by finding the constituent parts for an artificial rubber. After checking 15,000 varieties of plant fiber, he decided that common goldenrod offered the best hope. By 1931, the year of his death, he had the satisfaction of seeing some rubber vulcanized from goldenrod grown in his experimental gardens at Ft. Meyers, Florida. The process never became standard, but it was technically feasible at least, and considering the thousands of varieties of plant life he experimented with, it is stark testimony to his oft-quoted dictum that genius is "one percent inspiration and ninety-nine percent perspiration."

The Middlesex County celebration is timed to coincide with a national series of related events, publications, exhibits and programs. Culminating the Middlesex County exhibit and celebration will be a series of symposia to be held at the Eagleton



Young Thomas Edison.

Institute, on the Douglass campus of Rutgers University in New Brunswick on March 1, 8, 15 and 22nd. Featured speakers will be Bernard Finn, curator of the Division of Electricity for the Smithsonian Institution; John T. Cunningham, author and New Jersey historian; Paul Israel, historian with the Edison Papers Project; Edward Pershy, curator of the Edison National Historic Site; Louise Duus, associate dean and film historian at Douglass College, Rutgers University; Robert Friedel, author and historian from Washington, D.C.; and Leonard Reich, historian with the Edison Papers Project.

In November, 1987, "Edison and the Art of Invention" opens at the Zimmerli Art Museum at Rutgers University, in New Brunswick. An integral part of Middlesex County's celebration will be workshops and tours for school children. The children will have the opportunity to take two-hour workshops and gain first hand acquaintance with many of the historic artifacts and reproductions.

Those interested in attending the exhibit or those wishing to inquire about school tours or workshops may call the Middlesex County Cultural and Heritage Commission at 201-745-4489. ♦

Day Wizard

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maturity

Inventors

Widow

Recalls

45 95

Children

Thomas. A. Edison

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The Edisons of West Orange

by Ruth Brown

Photos courtesy of U.S. Dept. of the Interior, National Park Service.
Edison National Historic Site.

Can you believe that Thomas Alva Edison, the most prolific inventor of all time, was sent home from school because he was "too dumb to teach and asked too many questions?" Or that a teacher once described him as "addled"?

These are only two of the tidbits that will make you relish a visit to the Edison National Historic Site in West Orange, New Jersey. The site consists of the laboratory and factory buildings and Glenmont, the Edison family home a quarter of a mile down the road. Seen together, they add up to a fascinating Horatio Alger who patented 1,093 inventions but exploited the labor that brought them to life, a rough old curmudgeon who smoked ten to 12 cigars a day himself, but fired his employees for smoking a cigarette, and an honorable but forgetful husband and father.

West Orange was the dividing point in Edison's life. His first wife had died two years before. He'd remarried, bought Glenmont, a $235,000 chateau on a 13-acre estate for Mina, his new wife, and built a new laboratory on West Orange's quiet Main Street.

Finished in 1887, it comprised a main laboratory building and five smaller buildings. The complex stands today exactly as it was when Edison worked there, housing machine shops, a library, music room, physics and chemical laboratories, chemical storage room and pattern shop, metallurgical laboratory, and power boiler room. Many of his inventions - failures as well as successes - are on view, including the storage battery, talking doll, electric motors, dictating machine, and electric pen.



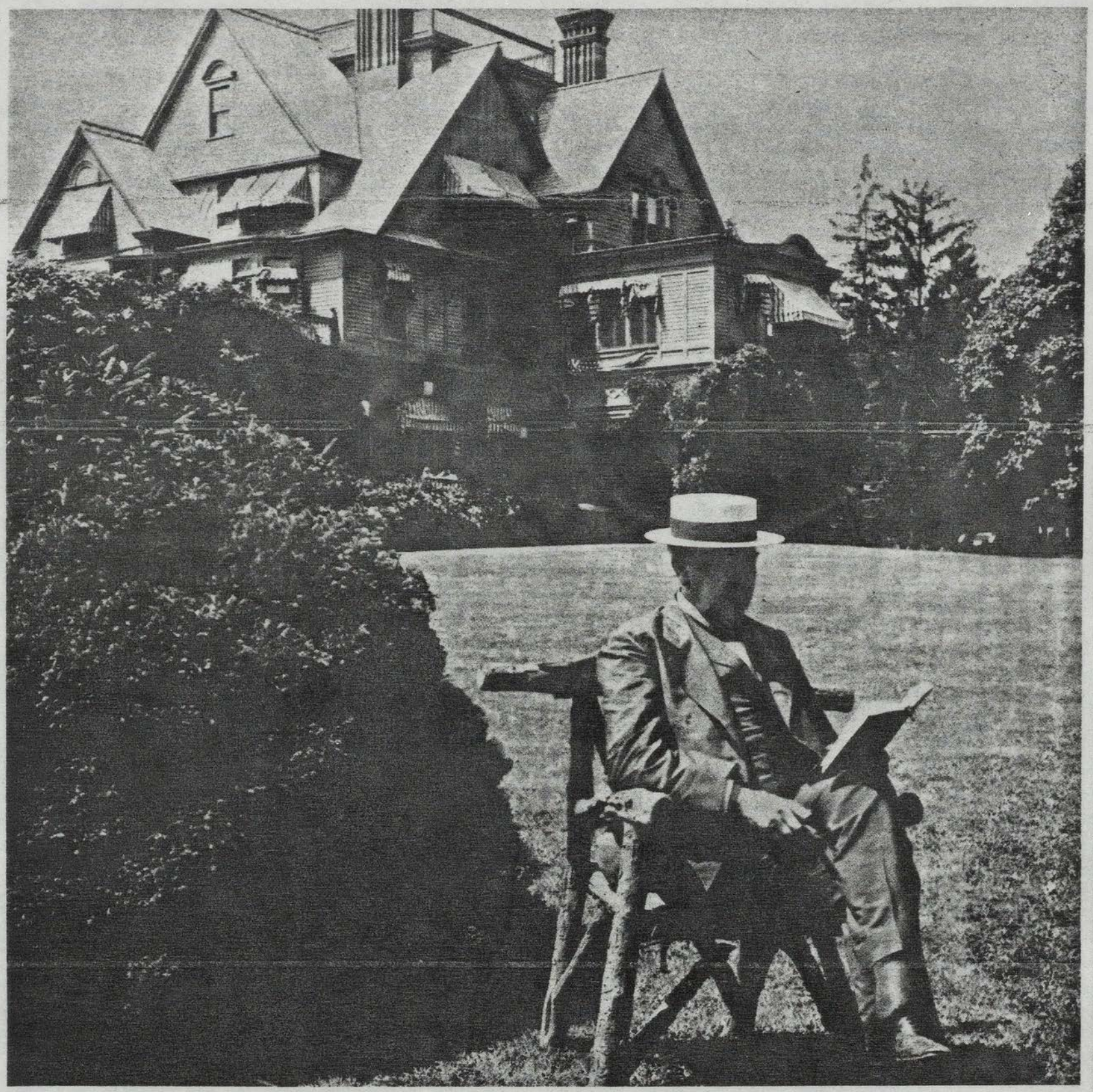
Edison loved this laboratory. Even Sundays, which he tried to reserve for his children at Glenmont, he couldn't stay away and would wander back to it. In the library, a quilt-covered cot is made up for sleeping. Mina had it installed, one day, after she found him "catnapping" on a shop floor.

He and his research team - the "Insomnia Squad", as they were called - often worked 72 hours without a break. He would get a new idea and discuss it with his staff theoreticians. Embodied in rough sketches and notes, the idea would be reduced by others to drawings and plans. Slowly, a prototype model would be detailed on paper. The plan then went to the machine shops for building and testing.

Unwilling to leave the factory until he was satisfied with the results of his current experiments, he'd forget to go home to eat, and Mina often had to send his dinner to him by his coachman. Like his workers, he punched himself in and out on the factory timeclock. You can still see the prominent sign on the timeclock, which warns: "Cigarette smoking in the laboratory must be stopped. Anyone disobeying this order will be dismissed."

Ruler absolute of his invention kingdom, he'd fire a man one week and hire him back the next. Those who couldn't bear such cavalier treatment, left. Others, caught by the magic of his genius, stayed long years, sacrificing their families to satisfy his needs. Among these was John Ott, a draftsman who worked for Edison fifty years. Mr. Ott lamented that his children grew up without knowing their father. "When I got home at night, which was seldom", he said, "they were in bed."

N.J. Living -



Edison at 70 relaxing on the lawn of his home, Glenmont

Which was just how Edison treated his own family. Madeleine, his daughter, recalls that, "When we were very young, we weren't sure we had a father. He always worked so long and so late."

"In those days", Mr. Ott added, "we all hoped to get rich with him".

Although Edison became rich - an industrial baron, in fact, many of his employees were sorely underpaid. In 1947, trying to right the balance, Theordore, his son, donated half of his total inheritance, $1,260,000, to the employees of Thomas A. Edison Industries.

Edison spent over ten years perfecting the phonograph. It was his favorite invention "because", he wrote in his Diary, "I haven't heard a bird sing since I was 12 years old, but I can hear anything upon the phonograph."

"I haven't heard a bird sing since I was 12 years old, but I can hear anything upon the phonograph."

Intent upon more than one invention at a time, as always, he was also trying to perfect the motion picture camera. In 1890, he designed a special building, covered it with tarpaper outside and painted it dead black inside to bring actors into sharp relief. It resembled a police paddy wagon, so he named it the "Black Maria." It was the world's first motion picture studio - and cost exactly $638 to construct.

In 1903, his company made the first movie with a plot, "The Great Train Robbery". Surprisingly entertaining, the movie is projected for you in the present-day Black Maria.

while guides escort you from one room to another, they relate anecdotes about Edison's life. A sickly, lonely child suffering form chronic bronchial infections, he amused himself with experiements from early childhood on. At the age of five, he set fire to his father's barn "just to see what it would do," as he innocently explained. He saw it burned to the ground.

A poor student because he couldn't hear, he was always at the foot of his class. After three months, he stayed home permanently,

depending upon his mother to teach him.

At 12, he became deaf. Forced to entertain himself, he devoured books of every sort. "I have read", he said, "the public library."

When he was only 16, he sold an improved stock market ticker for $40,000. This enabled him to set up his first factory and laboratory in Newark.

When he was only 16 he sold an improved stock market ticker for $40,000

He moved to Menlo Park in 1876, where he set up an improved laboratory. Of the 400 inventions he patented there, Menlo Park will be remembered forever for the electric light bulb. It gave birth to a new age.

A year after his first wife died, he met beautiful, 18-year old Mina Miller, the daughter of a wealthy midwestern manufacturer. For Edison, it was love at first sight. It took Mina a little longer, but fame and wealth being powerful aphrodisiacs, she was soon smitten, too. They were married the next year and went to live in Glenmont.

Mina tried to be a good stepmother to the three children of Edison's first marriage. Having been raised in a deeply religious home, she considered it her duty. However, during the two years between their mother's death and their father's remarriage, they had run wild, and she found it difficult to assert her authority.

She was only seven years older than Marion, his oldest child. Jealous of her stepmother as a rival, Marion fled to Europe, where she met and married a German army lieutenant. She didn't see her father again for 16 years.

Her two younger brothers were also unhappy at Glenmont. Sensitive because they lacked their father's brilliance, they dropped out of school early and left Glenmont to live with their mother's relatives.

Edison's three children by Mina were all born in the master bedroom at Glenmont. On your tour, your guide will show you the large, canopied bed that they were born in. It is the same bed that Edison died in.

Madeleine, the oldest, was endowed with her father's peppery, articulate personality. A portrait in the drawing room shows her as a striking brunette. Charles, the next-born, began to go deaf at an early age, like his father. He served as Secretary of the Navy under President Roosevelt, later, as Governor of New Jersey. Theodore, the youngest, a graduate of the Massachusetts Institute of Technology, worked for his father for a time, then established his own engineering consulting company.

The Edison Library and Glenmont

The Edison Laboratory is at Main Street and Lakeside Avenue, West Orange, New Jersey. Entrance is at the Museum and Visitors Center in the main laboratory building on Lakeside Avenue. It is open year round, Wednesday through Sunday, including legal holidays. Continuous 90-minute guided tours from 9:30 a.m. to 3:00 p.m.

Glenmont 40-minute guided tours start every hour on the hour from 12 noon to 4 p.m. Tour size is limited and arrangements must be made at the laboratory on the day of your visit. Open year round Wednesday through Sunday, but closed on legal holidays.

Both Glenmont and the laboratory are closed Thanksgiving, Christmas and New Year's Day. Combination admission fee is 50¢ for ages 16 and over, free for senior citizens.

For updated tour information call (201) 736-5050.

To get there: By car, two miles west of Garden State Parkway and a half mile north of Interstate 280.

By Bus, from Port Authority Terminal at 41st Street and 8th Avenue, Manhattan, take Community Transit Bus no. 77 to West Orange. Morning buses leave every hour, 15 minutes after the hour, and arrive in 48 minutes. Afternoon buses return from West Orange Arena 13 minutes after every hour. One way fare is $2.85. Senior citizens who may find the three-quarter mile walk to the laboratory somewhat taxing may wish to take a cab from the Bolen Taxi Service across the way from the bus stop. One way cab fare is approximately $2.50.

From Newark, New Jersey, Transit New Jersey Bus no. 21 leaves Penn Station for West Orange every ten minutes Monday through Friday, every 15 minutes Saturday and Sunday.

By train and bus: Path trains leave from 33rd Street or World Trade Center, Manhattan, to Penn Station, Newark, every ten minutes. Connect at Newark for the TNJ bus to West Orange.

Mina dedicated her life to Edison. After the children were born, she learned to put his work first and organized their home and family life to that end.

Their favorite room was the living room adjacent to the master bedroom on the second floor. It is the most charming, informal room of the house - large, book-lined, and

He called his desk his "thought bench" from which he got ideas for his "workbench"

filled with family portraits and personal memorabilia. A broad picture window looks out over sweeping lawns. Edison would sit at a desk in one corner, Mina in the other. He called the desk his "thought bench" from which he got ideas for his "work bench" in the laboratory. Mina's desk concealed an array of push buttons which she used to summon the servants. Occasionally, Edison indulged the children with a game of parchesi. More often, he read for hours at a time. Madeleine claimed that he could read a newspaper page in "nothing flat" and remember every word of it.

United States presidents, including Coolidge, Harding, and Wilson, and world-famous luminaries such as Helen Keller, Leopold Stokowsi, and the King of Siam, enjoyed the Glenmont hospitality. Mina entertained them with musicales in the exquisitely furnished drawing room, opulent with silk tapestried walls and sofas. You can see her portrait above the grand piano. Painted when she was already a grandmother, she was still beautiful, her face unlined.

The family took their meals in the formal dining room, the children usually eating an hour earlier than the adults. After dinner, they gathered together in the enormous "den" behind the dining room. Edison's innumerable gifts and awards from private citizens and governments of foreign lands bedeck the tables, walls, and mantels.

In the last two years of his life, ill and weak, Edison absented himself from his beloved laboratory for longer and longer intervals and tried to work at home. Mina always stayed close by. On his deathbed, she was the last person that he saw and recognized.

He died October 18, 1931. The hands on the library clock in the laboratory stopped at 3:26, the exact moment of his death. No one knows how; no worker in his factory admitted doing it.

Mina outlived her husband by 16 years, remaining at Glenmont. They are buried side by side in the quiet green bower behind the house. Their tombstones are simple, inscribed only with their names and dates of birth and death.

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Edison, Thomas A.

Middlesex County
HISTORY

ASK AT DESK



The SIGNAL FIRE

OFFICIAL NEWSLETTER OF THE
MIDDLESEX COUNTY CULTURAL & HERITAGE COMMISSION

Vol. II, No. 8 | Middlesex County, New Jersey | October, 1986

S P E C I A L ★ E D I T I O N

A Landmark Exhibition

The Wizard of Menlo Park

Thomas Alva Edison Invents a New Century: Exploring the Discoveries and Social Impact of a Genius

The Middlesex County Cultural and Heritage Commission has mounted a major exhibition in honor of Thomas Alva Edison, America's greatest inventor and one of the greatest inventors of all time. The exhibit (October 26, 1986-April, 1987) at the Middlesex County Museum/Cornelius Low House, 1225 River Road in Piscataway, is co-sponsored by the Middlesex County Freeholders; the New Jersey Committee For The Humanities; the New Jersey Historical Commission and New Jersey State Department of Education, in cooperation with Edison's West Orange Laboratory/Centennial Committee; The U.S. Department of Interior, National Park Service; Edison National Historic Site in West Orange; Rutgers, The State University of New Jersey; and Very Special Arts/New Jersey.

The Middlesex County celebration coincides with a national series of related events, publications, exhibits and programs. Culminating the Middlesex County exhibit will be a series of symposia to be held at the Eagleton Institute, on the Douglass Campus of Rutgers University in New Brunswick on March 1, 8, 15 and 22, featuring nationally prominent historians and humanists.

An outstanding advisory board has been brought together for the planning of this extraordinary exhibit: Howard Green, Research Director of the New Jersey Historical Commission; Reese Jenkins, Director of the Edison Papers Project; Edward Pershy, Curator of the Edison National Historic Site; and John Venable, Member of the Board of Trustees of the Charles Edison Fund.

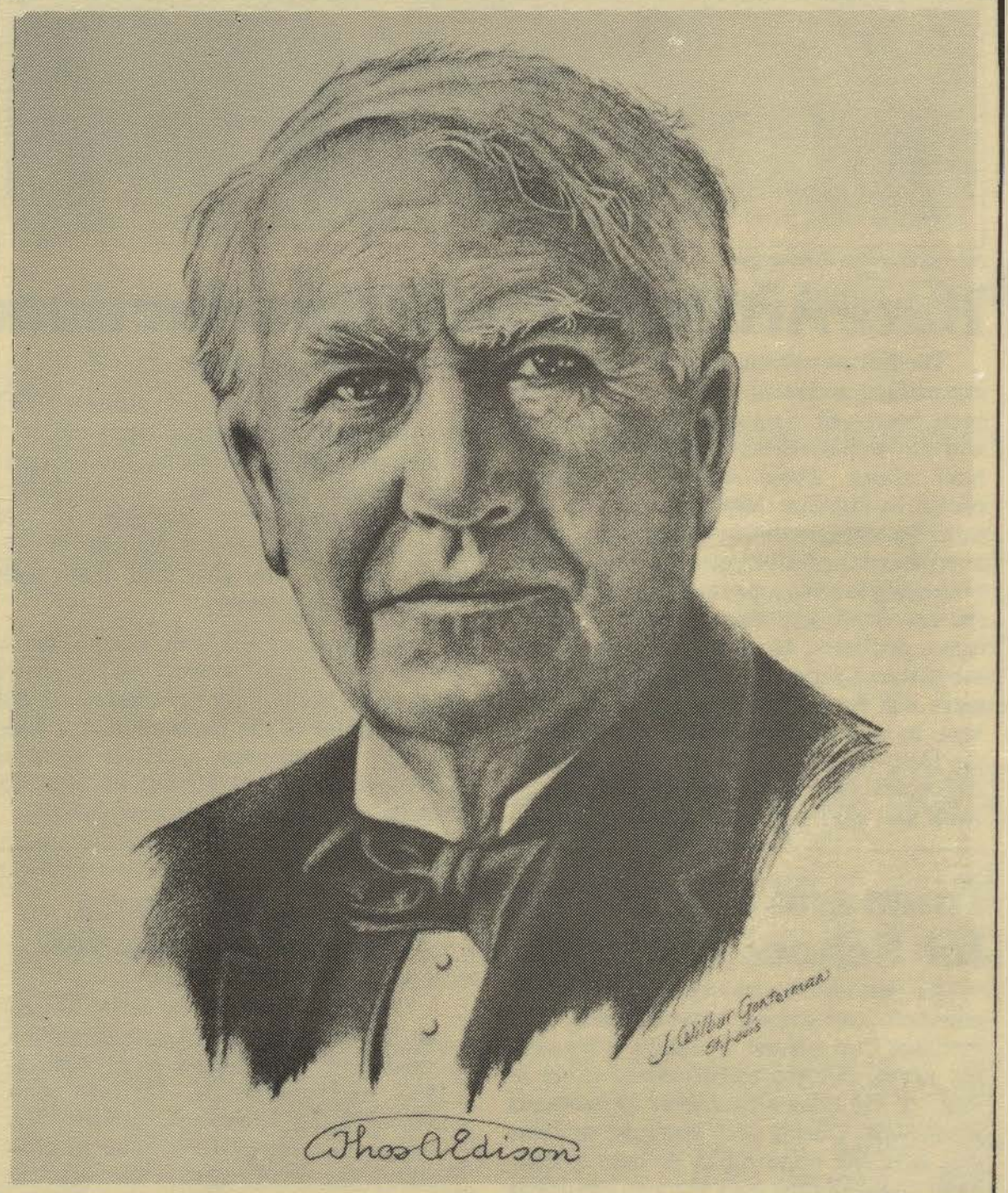

Photo courtesy National Park Service/Edison National Historic Site.

An integral part of the exhibit will be workshops and tours for school children, who will have the opportunity to gain first-hand acquaintance with many of the rare artifacts and documents to be exhibited. There is also a slide presentation available for loan to school and community groups

(Cont'd. on page 2)

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Photo courtesy National Park Service/Edison National Historic Site.



Peter Baciagalupi Kinetoscope Arcade, San Francisco, Cal.

Rare Artifacts and Reproductions

The Edison exhibit features many working artifacts and reconstructions which have been borrowed especially for this project and may well never travel again after the exhibit closes. These include the Edison Nickel-In-The-Slot Machine, cylinder and disc phonographs dating from 1878 to 1925, a replica of the tinfoil phonograph (1878), a projecting kinetoscope showing movies in a reconstructed kinetoscope parlor, and a home projector capable of showing both movies and glass plate slides. In addition, there will be a display of technical drawings, as well as reproduced front pages of the *Daily Graphic,* a newspaper of Edison's day which took a particular interest in his work and gave him a great deal of prominent, front-page coverage.

The photographs and documents which are being displayed include many pieces of early phonograph advertising, family scenes showing the phonograph in the home, Edison's laboratory drawings of the phonograph and moving picture camera, movie posters, and film stills from early Edison motion pictures.

Two large photo wall murals depict Edison and his staff at work on the second floor of his Meno Park Laboratory, as well as the interior of the Baciagalupi and MacDonald Kinetoscope Arcade showing kinetoscopes and Nickel-In-The-Slot phonographs in the Kinetoscope Parlor.

Room Settings Recall Turn-of-Century Ambiance

Throughout the Museum, reconstructed room settings will transport the visitor to another period of American life. Two settings are on the first floor of the Museum, one showing a circa 1912 living room with an early home phonograph; a second replicating an "Edison Room," which was a decorating scheme used in phonograph stores to promote and sell disc phonographs. Also on the first floor is an interior similar to a phonograph and record store, circa 1915.

A small room setting for the home projector, which will be constantly projecting Edison slides while the exhibit is open, greets visitors to the second floor. The working kinetoscopes are also found on this level, as is a reconstructed movie theater featuring an Edison period projector.

A Landmark Exhibition

(Cont'd. from page 1.)

which may be used for pre-visit preparation or post-visit retrospection.

Those interested in attending this landmark exhibition — which is the culmination of three year's effort by the Cultural and Heritage Commission — or those wishing to inquire about school tours or workshops for young people may call the Cultural and Heritage Commission at (201) 745-4489.

Tours and Workshops for School Children

As part of the Museum's educational outreach component, the Cultural and Heritage Commission is making it possible for school children to participate either in tours of the Edison exhibit or in two-hour workshops. During such sessions, students will have the opportunity to gain a first-hand acquaintance with the many artifacts and reproductions. **Tours** of the exhibition are offered October through April, between the hours of 1:00 to 4:00 p.m., Tuesday through Friday. **Workshops,** on the other hand, are offered January through April only and may be scheduled during school hours. To inquire about school tours or workshops, call the Commission at (201) 745-4489. We suggest you call quickly, as many workshops are already booked.

Gov. Kean Issues Edison Proclamation

On May 29, 1986, New Jersey Governor Thomas Kean issued a proclamation setting aside the period from June 1, 1986, to December 31, 1987, to commemorate the Thomas A. Edison West Orange Laboratory Centennial in New Jersey. The proclamation calls upon the citizens of New Jersey to plan and carry out appropriate activities in the community, schools, institutions and organizations of New Jersey in observance of this occasion, particularly to recognize and study the achievements of Edison and other inventors in promoting the progress and enlightenment of mankind through technology.

The
SIGNAL FIRE

MIDDLESEX COUNTY CULTURAL AND HERITAGE COMMISSION
841 Georges Road
North Brunswick, New Jersey 08902
(201) 745-4489

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The Signal Fire is the official newsletter of the Middlesex County Cultural & Heritage Commission and is published monthly except July and August for the benefit of County Residents. It is available free of charge upon request to the Commission.

David A. Flory, Editor

Entrepreneur Par Excellence

Phonographs and moving pictures have had an incalculable effect not only on American cultural life, but on world culture, and Thomas Edison is responsible for both these creations. As a result, the Middlesex County Cultural and Heritage Commission has chosen to highlight the impact of Edison's inventions on American life, especially the arts, as a principal theme for the exhibit. Additionally, the exhibit will stress Edison's entrepreneurship, which is less well known, but no less remarkable.

Edison was an enthusiastic and eminently successful businessman, and had no aversion to accumulating wealth. "You know," he once said, "I am not really a man of science. I am simply a commercial inventor, and the things I do must be commercially right." This attitude does not place him outside the mainstream of turn-of-the-century America, as such a concept was a motivating ethic of almost myth-like proportions during that period, and Edison (like Henry Ford) was an exemplar of the ethic.

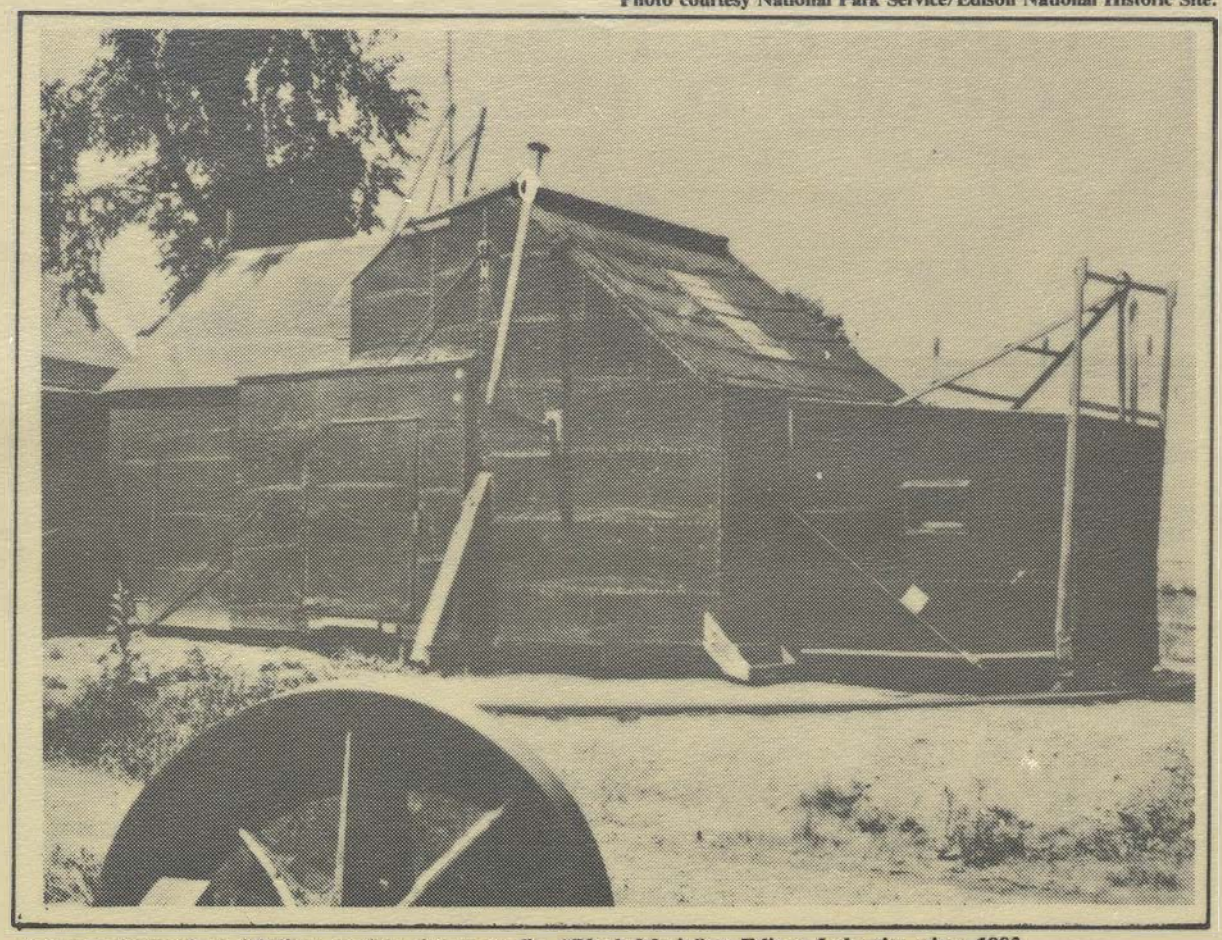
Extraordinary Promoter

From the exhibit, a viewer will realize that Edison promoted sales of his phonograph and phonograph records to different segments of the consumer market with great cleverness and expertise. He had the ability to tune in on emotionally resonant themes, such as the "family at home in the sitting parlor," to which an emerging middle-class consumer eagerly responded. Except for a few vagabond years in his earliest youth (overemphasized in popular Edison history) he was always a well-to-do man, surrounded by considerable affluence and elegance. When he was only 23 years old, in 1870, he received $40,000 for his teletype stock ticker patent. In 1870 that was easily enough to insure that there would be very few financial problems in his future, and in fact there weren't.

Visitors will gain a clear sense of Edison's marketing emphasis and abilities, particularly from the advertising posters and period settings such as the "Edison Room."

Why not visit the Museum on Edison's birthday, February 11

Photo courtesy National Park Service/Edison National Historic Site.



Antique photo of world's first motion picture studio, "Black Maria" at Edison Labs site, circa 1893.

Eminent Speakers to be Featured at Edison Symposia

Culminating Middlesex County's exhibit and celebration will be a series of symposia to be held at the Eagleton Institute, on the Douglass Campus of Rutgers University in New Brunswick on March 1, 8, 15 and 22nd.

Nationally prominent Edison historians and humanists will address wide-ranging topics relating to Edison's work and his great impact on modern civilization and culture.

On March 1, Wyn Wachhorst, humanist and author from California, and John T. Cunningham, author and New Jersey historian, will speak on "Edison: The Symbol and the Myth," exploring the phenomenon of Edison as a symbol; of the mythology of Edison in relationship to popular culture and America's national image.

On March 8, Bernard Finn, Curator of the Division of Electricity at the Smithsonian, and Paul Israel, Historian with the Edison Papers Project, will speak on "Networks of Communication," in which they assess the impact of the telegraph, telephone and phonograph on space, time and daily communications.

On March 15, Edward Pershy, Curator of the Edison National Historical Site, and Louise Duus, Associate Dean at Douglass College and film historian, will speak on "Visions and Reflections of American Society," focusing on Edison's social visions revealed in his film imagery, and the cultural impact of the phonograph and motion pictures.

Finally, on March 22, Robert Friedel, author and historian from Washington, D.C., and Leonard Reich, Historian with the Edison Papers Project, will speak on "The Invention of Invention," exploring Edison's effect on the popular image of science and technology and how this relates to industrial researchers and the images they portray to the public.

An interpreter for the hearing impaired will be made available upon request to those inviduals requiring same.

Funding has been provided by the New Jersey Committee for the Humanities, the National Endowment For The Humanities, the Middlesex County Cultural and Heritage Commission, and the Middlesex County Board of Chosen Freeholders.

In April, Rutgers University will once again host a panel of professional historians who will participate in a half-day symposium. Sponsored by Edison's West Orange Laboratory/ Centennial Committee, the historical symposium will address Edison and Industrial Research, with information gleamed, in part, from the resources of the Edison Archives housed at the Edison site in West Orange.

For further information on the symposia series, including exact time of the lectures, please call the Commission at 745-4489.

EDISON CENTENNIAL SCHEDULE OF EVENTS

October 26, 1986/April 24, 1987 - Exhibit: ***The Wizard of Menlo Park: Thomas Alva Edison Invents a New Century,*** Cornelius Low House/Middlesex County Museum, 1225 River Road, Piscataway.

March, 1987 - Edison Symposia: Eagleton Institute, Douglass College Campus, New Brunswick.

March 1 - "Edison: The Symbol and the Myth," Dr. Wyn Wachhorst, Mr. John T. Cunningham.

March 8 - "Networks of Communication," Dr. Bernard Finn, Mr. Paul Israel.

March 15 - "Visions and Reflections of American Society," Dr. Edward Pershy, Dr. Louise Duus.

March 22 - "The Invention of Invention," Dr. Robert Friedel, Dr. Leonard Reich.

For further information on the Edison Symposia series, please call the Commission at (201) 745-4489.

April, 1987 - Historical Symposium on Edison and Industrial Research. Rutgers University. Location and time to be announced.

November 24, 1987 - Official Centennial Celebration at the Laboratory at the Edison National Historic Site in West Orange. Concluding event of the 18-month celebration.

November 22, 1987/Feb. 21, 1988. "Edison and the Art of Invention," Jane Voorhees Zimmerli Art Museum, Rutgers, The State University of New Jersey, New Brunswick.

How To Get To The Museum

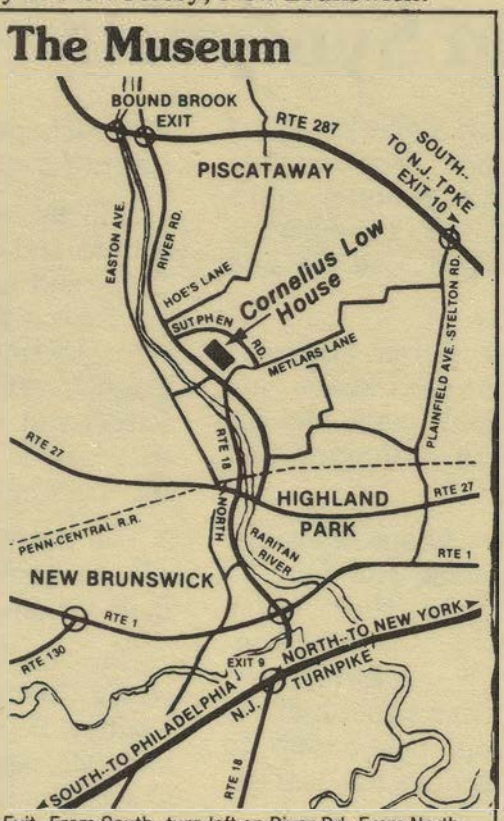
The Cornelius Low House/Middlesex County Museum is located at 1225 River Road in Piscataway. A visitors' parking lot is located on Sutphen Rd. with a walkway to the Museum. Handicapped parking is available on the River Rd. entrance, with parking next to the Museum.

NEW JERSEY TURNPIKE (Exit 9 from South or North)

Turn off at Exit 9 (New Brunswick). Follow Rt. 18 past New Brunswick and over J. Lynch Bridge to traffic light at River Rd. intersection. Continue straight up hill on Metlars Lane to first left, Sutphen Rd. Visitors parking lot is on the left.

GARDEN STATE PARKWAY (Exit 129 from South or North)

Turn off at Exit 129 (N.J. Turnpike). Take Turnpike south to Exit 9. Follow directions above from the N.J. Turnpike.



INTERSTATE 287

Turn off at Bound Brook, Highland Park Exit. From South, turn left on River Rd. From North, turn right on River Rd. At the 4th traffic light, turn left on Metlars Lane to first left, Sutphen Rd. Visitors parking lot is on the left.

Edison Twp. Pub. Library
340 Plainfield Ave.
Edison, N. J. 08817

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ASK AT DESK

Thomas Edison in Middlesex County: A Chronology

Born in Ohio on February 11, 1847, Thomas Edison was already an established inventor by the age of 29, when he moved to his laboratory in Menlo Park, New Jersey, in 1876. Many of the major scientific and personal events in his life occured during his Middlesex County years. Following is a chronology of those important years:

1876: April—moved from Newark to Menlo Park. This was the first laboratory for organized industrial research.

1877: April 27—applied for patent on the carbon telephone transmitter.

1877: August 12—invented the phonograph.

1878: Writing for "North American Review," he predicts important uses for the phonograph.

1878: July 29—tests the microtasimeter, which registered minute heat variations by electrical means.

1878: October 24—incorporated the Edison Electric Light Company.

1879: July—first Edison experimental marine electrical plant installed aboard S.S. Jeanette for the De Long expedition to the Arctic.

1879: Invented the first practical incandescent electric lamp. Perfected on October 21. Lamp burned for more than 40 hours.

1879: Radical improvements in construction of dynamos. Invented systems of distribution, regulation and measurement of electric current.

1879: December 31—gave a public demonstration of his electric lighting system in streets and building at Menlo Park.

1880: April 3—invented the magnetic ore separator.

1880: May 13—started operation of the first passenger electric railways in the country at Menlo Park.

1880: Ushered in seven years of invention and endeavor in extending and improving electric light, heat and power systems. Took out 300 patents during this seven-year period.

1880: October 1—first commercial manufacture of incandescent lamps at Edison Lamp Works, Menlo Park.

1881: January 31—opened offices of the Edison Electric Light Company in New York City.

1881: March 2—opened the Edison Machine Works in New York City.

1882: January 12—opened the first commercial incandescent lighting and power station at Holborn Viaduct, London, England.

1882: September 4—began operation of the first commercial central station for incandescent lighting in this country in New York City.

1883: July 4—first three-wire system central station for electric lighting started operation in Sunbury, Pennsylvania.

1884: August 9—His wife, Mary Stilwell Edison, died at Menlo Park, New Jersey.

1885: March 27—patent executed on a system for communicating by means of wireless induction telegraphy between moving trains and railway stations.

1885: May 14—patent executed on a ship-to-shore wireless telegraphy system, by induction.

1886: Bought Glenmont, a residence in Llewellyn Park, West Orange.

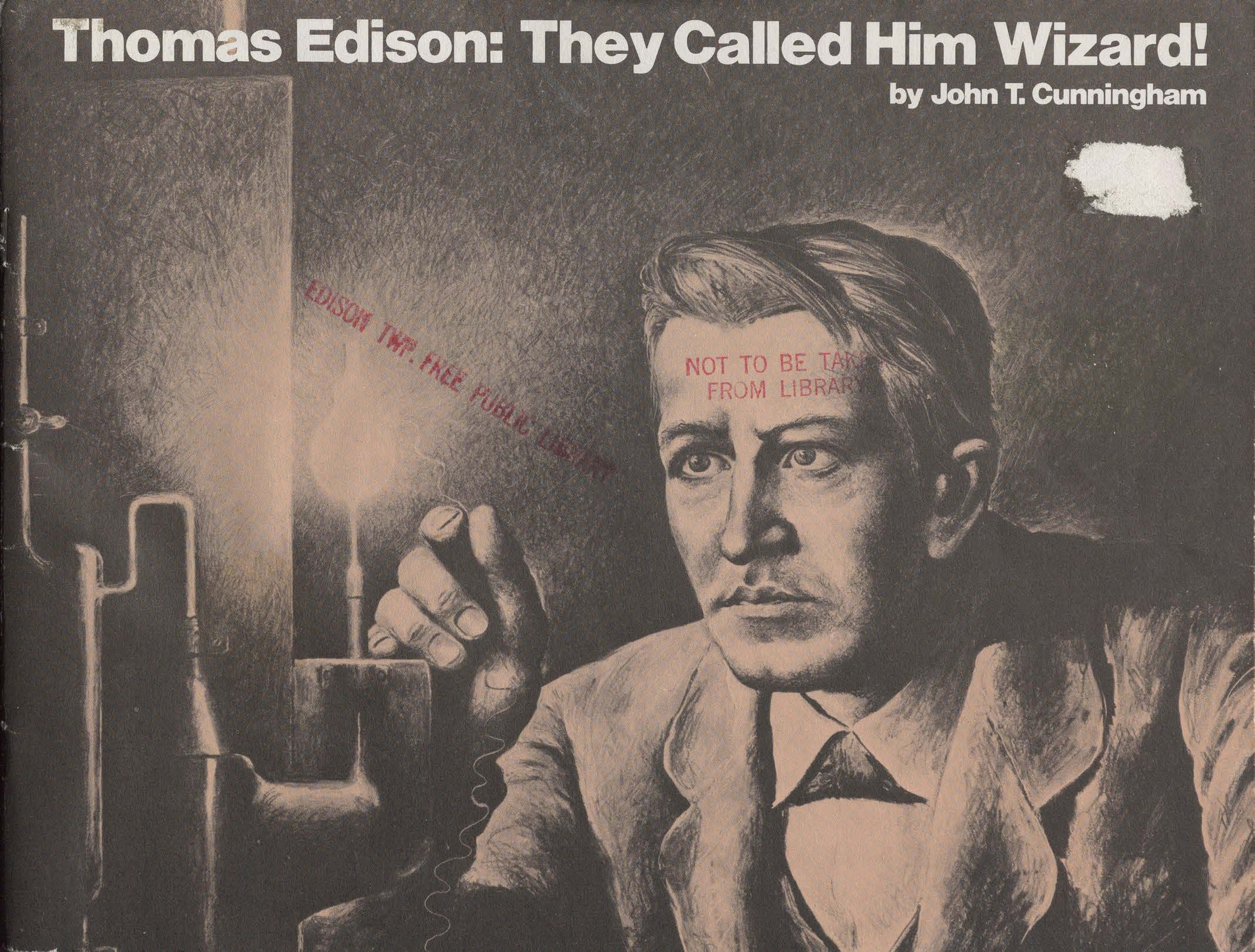
1886: February 24—married Mina Miller, daughter of Lewis Miller, founder of Chautauqua, inventor and manufacturer of agricultural machinery, of Akron, Ohio.

1887: November 24—moved his laboratory to West Orange.

From a chronology compiled by John C. F. Coakley, Historian of Edison Pioneers.

Thomas Edison: They Called Him Wizard!

by John T. Cunningham



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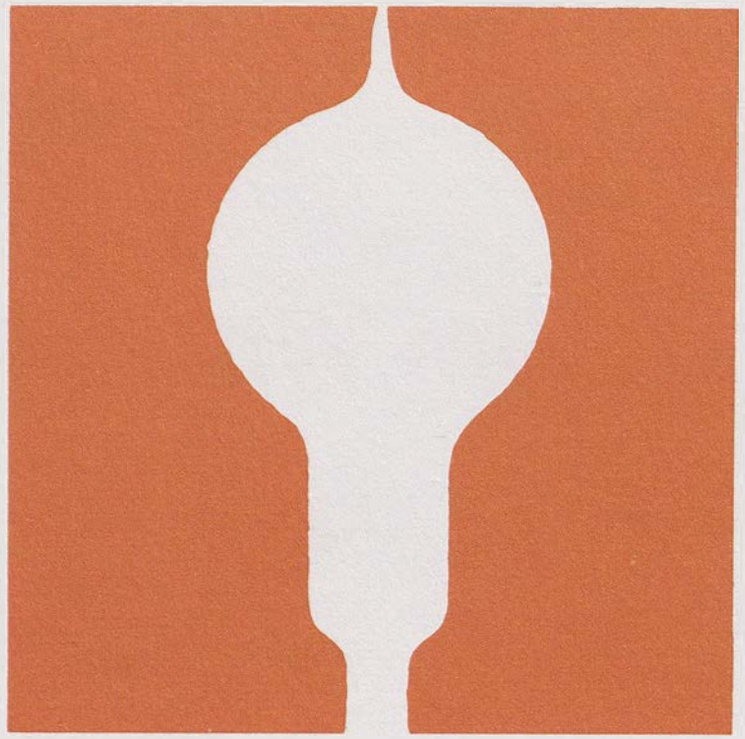
Thomas Edison: They Called Him Wizard!

by John T. Cunningham

(Based on a series of 18 articles written for the International Committee for the Centennial of Light. Special illustrations by Bill Canfield).

Presented by

Public Service Electric & Gas Company
Newark, New Jersey



Information on Thomas Alva Edison is easy to find, but it varies widely in both quantity and quality. Sources used for these chapters have all been secondary—previously printed books or articles. Most of them perpetuate what might well prove to be some imaginative embellishments by Edison himself, for he enjoyed teasing interviewers with "new" versions of his boyhood or his adventures as an inventor.

Two relatively new books seek to redefine Edison — *A Streak of Luck* by Robert Conot (1979, Seaview Books) and *The Man Who Made The Future* by R.W. Clark (1977, G.P. Putnam). Perhaps the most readable — and still most complete — telling of Edison's life is *Edison, A Biography* by Matthew Josephson (1959, McGraw-Hill).

The three volumes of *Menlo Park Reminiscences* by Francis Jehl, a long-time Edison co-worker, were written between 1936 and 1941, and are exceptionally valuable, although Jehl did not know Edison personally before 1878. *Edison, His Life, His Work, His Genius* by William A. Simonds (1934, Bobbs-Merrill) is a fast-moving account of the inventor's life. A 1978 short book, *Edison — The Man Who Turned Darkness Into Light* by James G. Cook is a concise summary of Edison's life.

The "real Edison" is almost certain to emerge some day, (perhaps soon after the year 2000) because of an exciting project now being conducted in the Edison papers and artifacts by Dr. Reese Jenkins, an eminent technological historian of Rutgers, The State University. In addition to his academic credentials, Dr. Jenkins also has a much-needed asset — the relative youth necessary to complete the more than 20 years of study and writing that will be required ultimately to study, arrange, and publish a 20-volume "life of Edison," in the inventor's own day-to-day words and from his own meticulous records.

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Few people have affected world history more than Thomas A. Edison. He perfected a practical incandescent light bulb and created a system of electrical power. He invented the phonograph and brought music to millions upon millions of persons who had never known it. He made movies workable and changed entertainment styles and values for generations of people. Nearly all persons in the world are still touched by Edison's genius.

Fittingly, therefore, the United States — and the world — joined in 1979 to observe the International Centennial of Light, focused on the 100th anniversary of Edison's perfection of a workable, inexpensive light blub. Many types of industry cooperated, for Edison created many of the products and the economic climate that made them prosper. Equally, the celebration embraced the many cultural and technological groups eager to honor Edison.

As one means of bringing the Edison story to a broad public, the International Committee for the Centennial of Light invited historian-journalist John T. Cunningham to research and write a series of 18 articles on Thomas Edison for distribution to newspapers and other publications throughout the United States.

Mr. Cunningham, one of the nation's most respected popular historians, sought to portray an Edison other than the traditional "wizard" who was "always right." Edison was shown to be a man who was greater than fiction.

As this nation, and the world, seeks scientific leadership and as it seeks to encourage the careful nurturing of young minds, the many-sided personality of Thomas Edison, so well delineated by Mr. Cunningham, needs to be remembered.

Perhaps another Edison never will emerge. Perhaps the world is too organized, too computerized, too fragmented for an individual ever again to reach as high as Thomas Edison. Hopefully this will not be so for the problems of the world will only be solved with new, fresh ideas — technological and humanistic.

To encourage and stimulate the creation of new ideas — and new "Edisons" — has been the objective in celebrating the Centennial of Light. Surely there will evolve a genius who will triumph if given a chance.

Robert I. Smith

Robert I. Smith
Chairman
International Committee
Centennial of Light

Chairman
Public Service Electric
and Gas Company
Newark, New Jersey

Preface



Scarcely past age 31, Thomas Edison was hailed in the press as "The Wizard of Menlo Park." He was so acclaimed nationally that noted photographer Matthew Brady asked him to pose for this portrait in the White House, where Edison had been invited by President R.B. Hayes to demonstrate his ingenious phonograph.

Thomas Edison completely defies any attempt to define him or to describe his deeds in words.

Genius is a good start, yet that provides images of sparks of sudden inspiration, followed by scintillating mental action. In Edison's case that would overlook the painstaking care, often to the point of being tedious, that Edison gave to any project that he decided to undertake.

Genius is too easy a word to characterize a man whose life would be beyond the inventive powers of even the most imaginative of fiction writers.

Born in 1847 in the then-obscure town of Milan, Ohio, Edison drifted in and out of schools. He was a nuisance; his father called him "a little addled." Neighbors disliked him and children avoided him.

The boy began working at age 12, taught himself the Morse Code and became an itinerant telegrapher by age 17. As he drifted from place to place through the Midwest he dreamed constantly of ways to improve telegraphic communication, as much to escape work as to win a reputation for great thinking.

Edison's own rosy, romantic remembrance of his boyhood and young manhood possibly masked two decades of what must have been dreadful frustration and humiliation, for no one heeded his dreams. Most laughed outright at his pretensions.

Then after inventing a vote recording machine — which politicians detested — Edison proclaimed himself an inventor and took off for New York City, the land where inventors supposedly walked on golden streets.

Amazingly, he succeeded in the big city, chiefly because chance placed him in the office of a major stock dealer at precisely the time when a vital recording and transmitting machine broke down. As others raced about in panic, Edison calmly replaced a faulty part and was acclaimed as an instant genius.

That was in 1869. He rose meteorically from that point, the very prototype of the Horatio Alger "pluck and luck" stories of the day.

In 1870, at age 23, he opened a major factory in Newark, New Jersey, to manufacture stock tickers and telegraph instruments. He invented multiplex telegraph systems to speed messages, made workable Alexander Graham Bell's faulty telephone transmitter, and made sense out of Christopher Sholes' first poor typewriter.

Then, at age 29, he turned his back on a certain fortune, escaped to the rural countryside in Menlo Park, New Jersey, and grandiosely announced that he had opened an "invention factory."

And so he had.

After one year at Menlo Park, he had invented the phonograph. That, by the way, was pure genius; Edison discovered the process of recording and transmitting sound by accident as he was seeking another improvement in the telephone.

So it went — he became the man who perfected the incandescent lamp in 1879, who envisioned and developed an entire system of electrical generation and distribution, who made good his boast to pour inventions out of Menlo Park as if they were so much water from a bottomless jug.

Work meant nothing to Edison. He worked 16 to 18 or more hours a day, seven days a week. He felt that if he were working, everyone else should be on the job as well. Strangely, his co-workers worshipped him (at least in the early years).

Obviously he was an indifferent husband to the 16-year-old lass, Mary Stilwell, whom he had married in 1871, almost on a whim. Their three children seldom saw him and when they did, he had no time for games or picnics.

Mary died in 1884. Two years later Edison married beautiful, talented, and religious Mina Miller of Akron, Ohio. They settled down to a happy, if disjointed, life in West Orange, New Jersey. In 1887, Edison opened a new laboratory and factory close to their mansion.

Mina Miller Edison succeeded in partially domesticating her world-famed husband. At home, he dressed in suits (ordered on the telephone without a care for style) and cut down his tobacco chewing and profanity. Mina called him "Thomas" when she saw him. She did not succeed in cutting his work schedule to any degree.

His cronies in the plant and laboratory called him "Al" and were not surprised at either his flashes of crudity or his fantastic mind that could flare into new ideas at any time.

The mind soared again and again. It soared, to make movies a household word, soared into the mountains of New Jersey to test the electro-magnetic separation of iron ore, soared outward to the Delaware River to make and to use cement in ways never before attempted.

Fortunes came and fortunes went — as much as $4 million was lost in the electro-magnetic venture alone. Edison's idea was valid; it was merely about 50 years ahead of the time that it was needed.

Age only slightly dimmed Edison's mind and only mildly curbed his appetite for work. At age 60 he was perfecting a new storage battery, one of his most profitable undertakings. At age 70 he was still working 16 hours a day. At age 80 he started experiments to develop a new source of rubber.

Edison loved publicity. He seldom refused an interview and he usually took pains to see that facts did not stand in the way of a good story, particularly when he was re-inventing his youth. He often boasted prematurely that something was finished, then worked desperately to make the boast come true (succeeding most of the time).

Thus the myths began. Newspapermen were the first to call him "wizard," for his genius was beyond understanding. If he had hidden in a laboratory, emerging only to accept momentary bows, that could have been comprehended.

That was not his way. He answered all questions, discussing the past, present or future with equal flamboyance. He joked and laughed and occasionally clowned outrageously. If the press wanted a "wizard" or a "mad scientist," he would oblige. He would have been incredible on a TV "talk show."

Reporters used nearly every adjective akin to genius to describe Edison — brilliant, driving, forceful, highly intelligent, farsighted, incredible.

But less complimentary adjectives might also be used to round out the complexity of this man who so dominated much of world thought and movement in the late 19th and early 20th centuries — such words as stubborn, reckless, foolish, boastful, brash, presumptuous, impractical.

As proof, brilliant and foolish are linked in a major instance that proves the paradox that was Edison.

Edison was, as is commonly known, the man whose brilliance perfected the incandescent lamp and devised almost the total electrical system needed to bring electrical power within the grasp of all people.

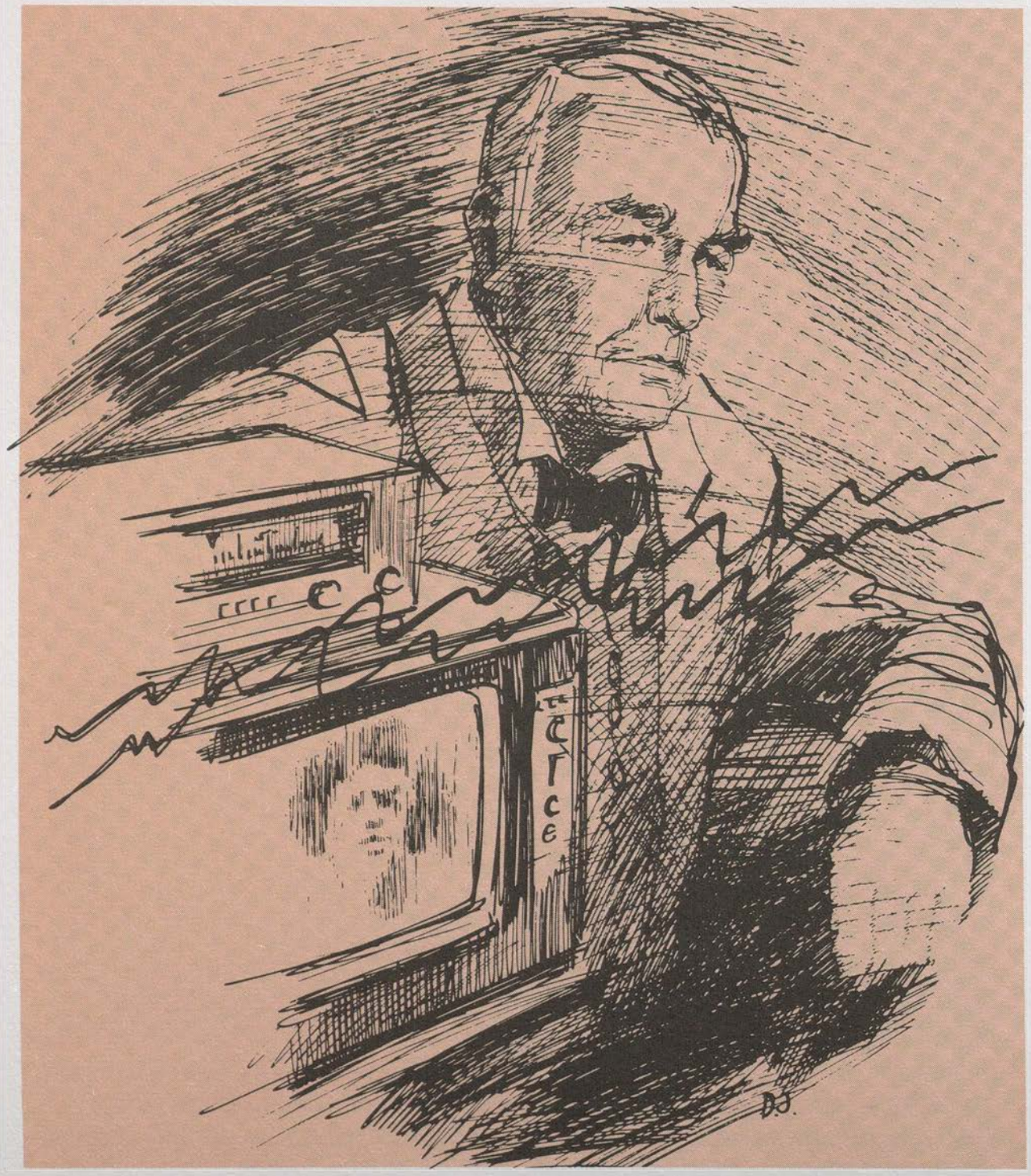
Yet Edison was also the man who refused to admit that alternating current was workable, even long after nearly everyone else had deserted the direct current system that Edison cherished.

The reason for Edison's intractable stand against alternating current boiled down to little more than pure pique — it had been invented by Nikola Tesla, a former employee who had quit after an argument regarding a bonus that Edison had promised him.

How could a man who undoubtedly knew more about electricity than any 19th century person let pride and anger override his great genius?

If anyone knew that answer the mystery of the man called Edison would be closer to solution.

They Called Him "Wizard"



Seldom given to unlimited praise, much less exaggeration, the *Scientific American* in December, 1878, spotlighted the emerging myth of Thomas Alva Edison by hailing him as "one of the wonders of the world" as well as "the greatest inventor of the age."

Edison then was only 31 years old, a largely self-taught ex-telegrapher; a man of few social graces and an inventor whose genuine greatness still lay well in his future. He headed a very small research laboratory in an obscure town called Menlo Park, New Jersey. Yet, in 1878 his fame already was echoing around the world.

The ecstatic praise of the *Scientific American* and other leading publications stemmed largely from a single invention — the phonograph. Journalists flocked to Menlo Park and left to write sensational stories of "the New Jersey Columbus," or, in the nickname that stuck, "the Wizard of Menlo Park." Edison was good copy.

Myths and legends thereafter followed Edison all of his days, many of them started by himself, for he often posed as something of a clown in the presence of the public and was usually a colorful boaster in front of the press. His "official" biographies, some endorsed by himself, picked up the legends and expanded them. Eventually, it became nearly impossible to separate fact from fiction in Edison's life.

Edison scoffed at the name "wizard," preferring to treat listeners to such homilies as "invention is one percent inspiration and 99 percent perspiration" or "there is no expedient to which man will not resort to avoid the real labor of thinking." Even as he uttered such bromides, he tried to make himself more mysterious through commonplace legends concerning his own past.

The years have so entwined the real Edison with the mythical "wizard" that he often emerges as less than he would in a straight recounting of his contributions to the world. Fiction pales beside Edison's actuality.

Thomas Edison was the inventor of the phonograph. He was the man who perfected the electric lamp and devised much of the means of generating and distributing electrical power. He became the dominant name in motion pictures. His 1,093 patents ranged from the storage battery to scores of telegraphic improvements; from a "writing pen" to a magnetic ore separator; from a "talking" doll to dozens of improvements on the telephone.

If Edison could be measured only in terms of contributions to the international economy and to world life styles, consider a world without the electric lamp, practical electric power, the phonograph (or sound recording), the movies, radio, television, and, by extension, TV commercials.

Linking radio and television to Edison is not just another far fetched invention of Edison worshippers. Early in the 1879 experiments with filaments for a practical incandescent lamp, Edison noticed the strange phenomenon of current being transmitted through space without wires. He called it "the etheric force," and without knowing it, had discovered the forerunner of what would become radio and TV transmission.

The myths endure — that he had only a few weeks of schooling, that he became deaf when an irate employer pulled his ears, that he seldom slept. Edison was very careful to see that few persons really knew him in his lifetime; it is not strange that for decades he has been buried under layers of near-fiction.

Few biographies have been written about Edison, despite his amazing contributions to world history. Each new biographer dutifully records that he has looked "for the first time" at Edison's vast legacy of papers and artifacts. In truth, no one has ever looked at all of Edison's papers and other materials.

A recent survey showed that there were millions of pages of Edison materials available around the nation. A project currently is underway to sort, catalogue, and publish that immense store of Edisonia. It is conservatively estimated that it will take at least 20 years and more than $5 million to bring order out of the mass of material.

Perhaps, by the year 2000 or so, the real Edison will emerge, and perhaps then the nation's academicians and scholars finally will pay attention to this giant of an inventor. Few scholars have ever bothered with Edison, possibly because in life Edison flaunted his own lack of formal training in front of the academic community at every opportunity.

Few men have affected the world more than Thomas Edison — in science, in invention, in the performing arts, in the electronic media, in the movies, in the preservation of beautiful sounds, in the advancement of education.

The real Edison needs to be separated from the legends, so many of which number among his own unpatented inventions.

The problem may be that Edison is too big for any one book or any movie, much less a Ph.D. thesis. Perhaps television could do him proper honor, as it so effectively chronicled the saga of the far-less-important Adams family. However, no in-depth treatment is in prospect for the life and legacy of the man who made TV possible.

Edison: man or myth? He would laugh at the question, for he always very much enjoyed being both.

"He Was A Little Addled"



Edison was a newsboy at age 14. He preferred spending his off hours "experimenting" rather than playing with other boys on the Port Huron waterfront.

The only persons who took the boy called Alva Edison seriously in either Milan, Ohio, or Port Huron, Michigan, were his mother — who doted on him — and his succession of school teachers, who were convinced that Thomas Alva Edison was doomed to certain failure.

Indeed, Edison's father recalled years later that "some folks thought he was a little addled." The father elaborated: "Teachers told us to keep him in the streets because he would never make a scholar."

Born in Milan, Ohio, on February 11, 1847, young Edison was sickly, slightly deaf, inattentive, and disruptive in and out of the classroom. He was the youngest of seven children; and Mrs. Edison, who already had seen three of her children die, was especially protective of Alva, as she always called him.

Alva was seven when Samuel, the father, moved the family to a military base at Port Huron, where Sam became the lighthouse keeper. The Edisons lived in a huge house overlooking the broad sweep of the lake.

Young Edison's life was lonely. The only brother still at home was 15 years older, and there were few other children on the military base. Boys tended to avoid him, since his ungainly, uncoordinated body made him poor in sports.

Edison's first formal schooling was in Port Huron. He entered a private school in the fall of 1854, at age 7½, and so disturbed the headmaster that the boy often felt the severe sting of the tutor's switch. Alva fled from the school within a few weeks.

Mrs. Edison took on the boy's education. She was a stern taskmaster, for all her affection, and largely shaped Edison's mind. He attended schools in Port Huron only sporadically. Sam tended to let his son fend for himself, perhaps believing too much in the neighborhood belief that Alva was addled.

Young Edison was an omnivorous reader, absorbing every kind of printed material. He leaned toward science, sometimes with disastrous effects, as when he burned his father's barn to the ground while experimenting with ways to start a fire.

Alva's formal education ended at age 12, when he took a job on the railroad between Port Huron and Detroit. He sold newspapers, candy, and other sundries. The boy left home at 6 A.M. and returned shortly

before 11 P.M. six days a week. Edison later claimed that he learned his lifelong ability to "cat nap" by sleeping on the train's hard seats.

Ever a believer in turning spare time into cash, Alva bought an old printing press and began publishing the *Grand Trunk Herald* in 1862. The *Herald* was a lively, gossipy, close to slanderous recounting of life along the railroad. It was always hot off the press, since Edison's printing equipment was set up in a baggage car.

Alva also experimented with chemicals in the baggage car, doing very well until a bottle of phosphorus caught fire, fell to the floor, and set the car afire. The flames did little damage, but Edison's career as a chemist was temporily snuffed out.

The boy's quick mind flashed into action on April 6, 1862, when the savage Civil War battle was fought at Shiloh, sending shock waves across the land. Hearing in Detroit about the awesome fatalities, Edison talked the circulation department of the *Detroit Free Press* into selling him 1,000 papers rather than his usual allotment of 300. The extra 700 were on credit.

Edison bribed a friendly telegrapher into sending a "flash" message on the battle to every station along the line. At the first station, where he usually sold two copies, Edison sold 35. He tripled the price at the next stop and by the end of the run had priced the paper at 25 cents (against the usual three cents). He had far more customers than papers.

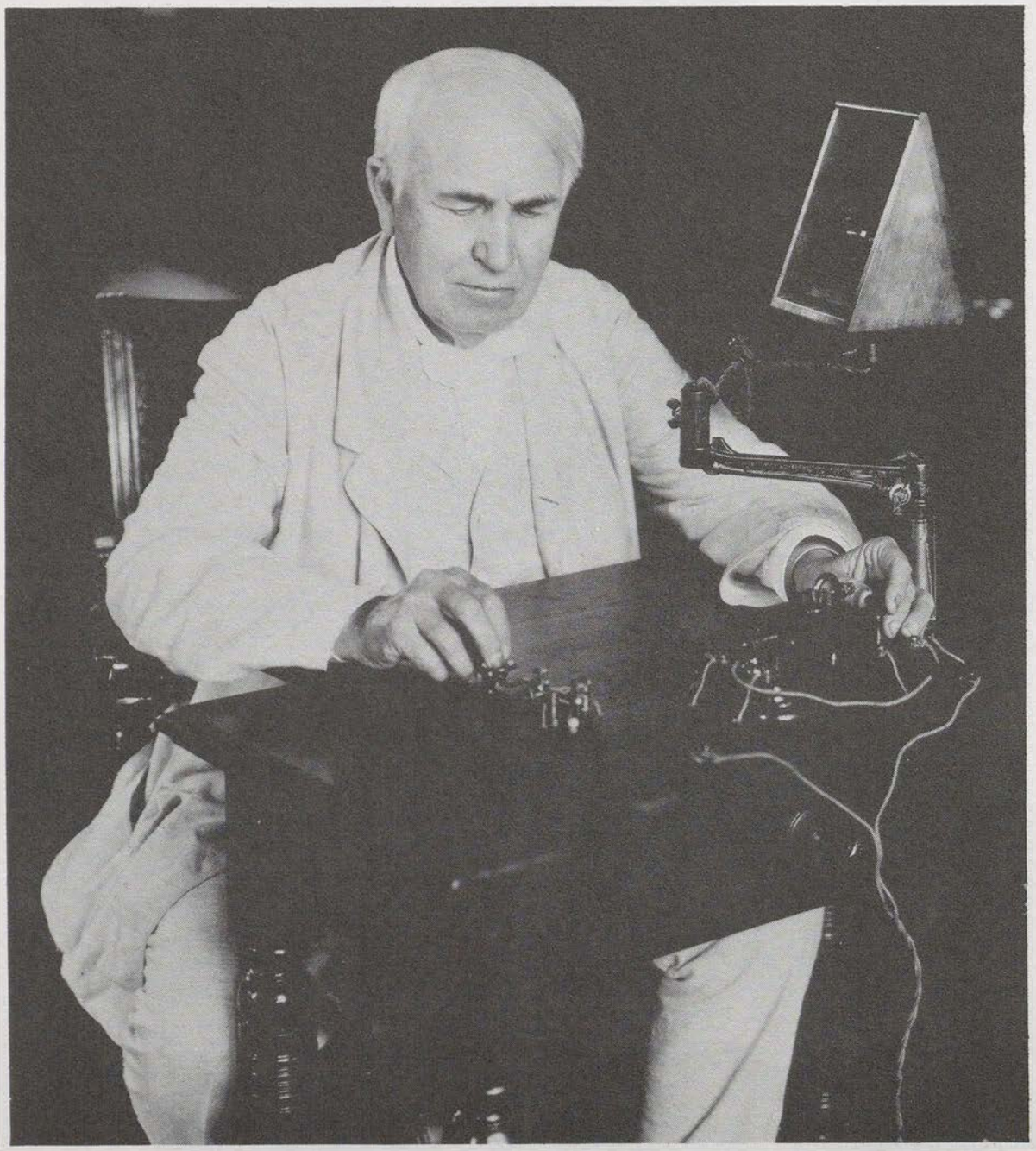
Sickness struck Alva again in the winter of 1863, and Edison's mother insisted that he stay home. The 16-year-old boy became friendly with a lady schoolteacher boarding in his mother's house. When the teacher taught him the Morse Code, Edison devised a crude sending key and learned simple telegraphy.

Undoubtedly Edison pursued telegraphy initially with the same mix of curiosity and indifference that had characterized all his life to that point. He knew that he now could leave behind the selling of newspapers and become a telegrapher, especially since the Civil War had put operators in short supply.

Telegraphy at the time was just something else that Alva wanted to learn, but Edison had found the first key to changing the world.



"Lightning Slinger" On The Loose



Never losing his touch, Edison claimed to be still "a Lightning Slinger" when he sat down to this telegraph key in 1920. He said his deafness was an asset, shutting out distracting noises to permit concentration on the clicking key.

Tom Edison's genius for combining intelligence with showmanship had its first sparkling in the winter of 1863, when ice snapped telegraph wires at Port Huron, Michigan, and threatened to isolate the town for weeks.

Seventeen years old and thoroughly bored in his job as Port Huron's telegraph operator, Tom knew that his town was scarcely aware of his existence. He also realized that whoever found a way to get Port Huron back in touch with the string of neighboring Canadian towns across the St. Claire River would be an instant local hero.

Edison acted with the speed and style that would become his hallmark He ordered: "Get a locomotive down by the river — and fast."

The mystified town fathers complied. Edison instructed the engineer to give a series of long blasts and short blasts on the locomotive whistle, sending out an S.O.S. in Morse code. A telegrapher on the Canadian side understood and answered in kind. Contact was restored. Who needed wires?

Newspapers accorded Edison glowing attention, winning the fledgling telegrapher a better job at Stratford Junction in Ontario, Canada.

Edison had to report hourly on his 7 P.M. to 7 A.M. shift to assure superiors in other towns that Stratford Junction was fully alive and alert. Since that interfered with his rest, Tom devised an ingenious clockwork mechanism to trip the telegraph key every hour while he napped.

Inevitably, the company investigated and put the sleeping Tom on warning. Soon after, he was fired when a locomotive ran unchecked through Stratford Junction and narrowly missed a collision with an oncoming train. Edison apparently was not to blame, but any excuse was good enough to get rid of a careless hand.

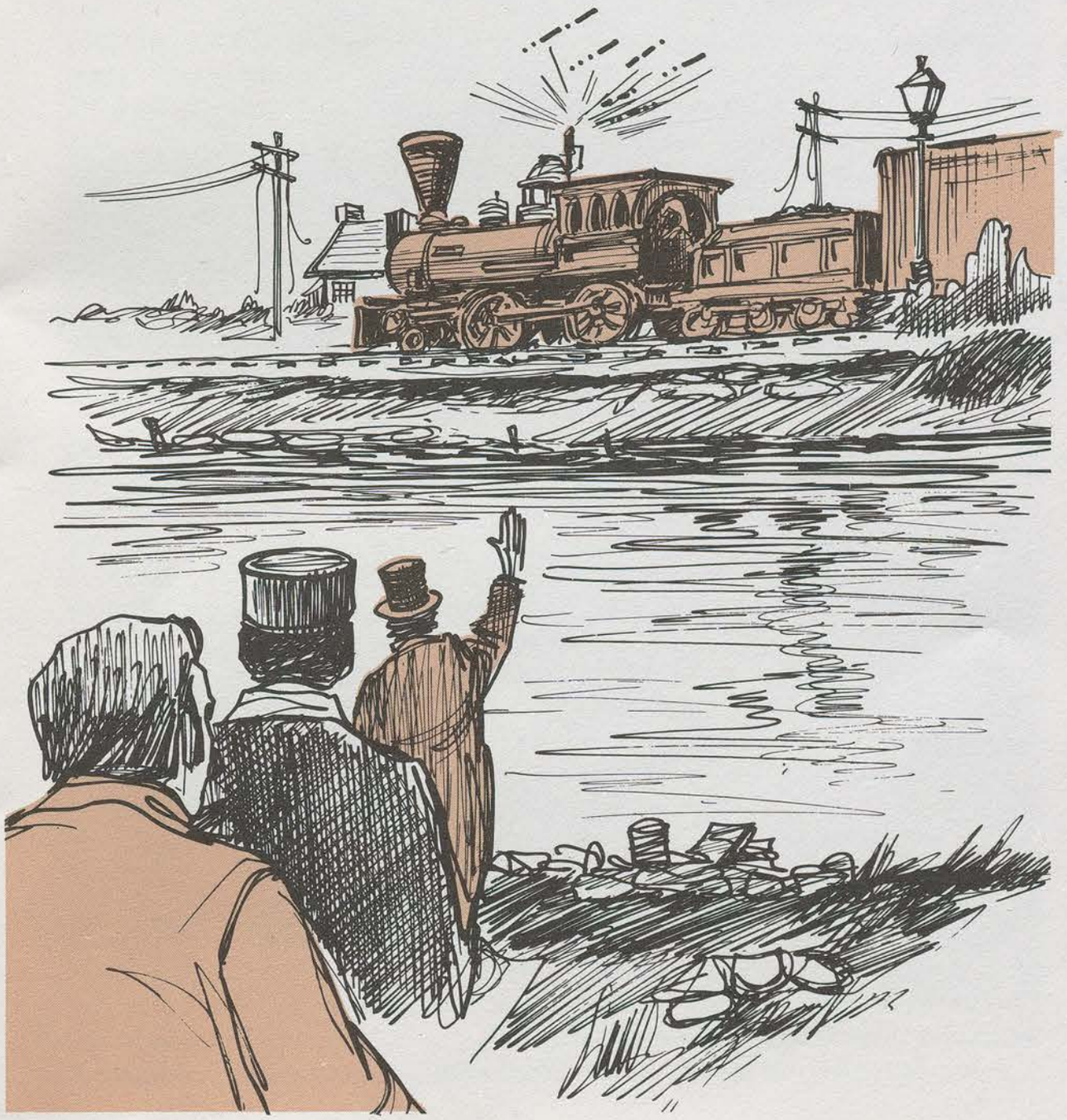
Off went the young operator to join the wandering band of "Lightning Slingers," as telegraphers called themselves. On and on he drifted — to nearby Adrian, Michigan; then to Fort Wayne, Cincinnati, Louisville, Indianapolis, Memphis, Nashville, New Orleans, and points in between over a four-year period.

By age 20, Edison had not convinced anyone that he was more than a disheveled, untrustworthy tramp. He was usually sleepy, often arrogant, sometimes careless, occasionally incompetent, and nearly always openly rebellious.

EDISON TWP. FREE PUBLIC LIBRARY

Perhaps the only thing that saved young Tom was his strong dislike of alcohol. One early encounter had left him violently ill and a confirmed abstainer. He did become a tobacco chewer (and spitter), as did most telegraphers.

Telegraphy bored Edison, although he was adept at the key. He recognized quickly that both manpower and equipment were being badly wasted. He set his sights on easing the work and the boredom.



At age 17 Tom perfected a machine that taped incoming messages and ran them back at a slower speed to be transcribed at his leisure. Scoffing old-timers refused to use the equipment. Edison then experimented with various kinds of script until he perfected a handwriting that enabled him to transcribe at the exceptionally fast rate of 55 words a minute. No one wanted the script except Edison, who used it all his life.

Edison fretted especially at the inefficiency of telegraph wires. In Memphis, at age 18, Tom told the office manager, a Colonel Coleman, that he was sure he could send messages both ways on the same wire at the same time. The Colonel roared, just before he fired the dreamer:

"Any damn fool ought to know that one wire can't be worked both ways at the same time!"

Weary, discouraged, and nearly beaten, Edison headed for Boston early in the winter of 1867-68. He arrived hungry and dirty and sought a job in the telegraph office. Edison wrote later in understatement:

"My appearance caused much mirth."

The Boston crowd stifled its laughter when rustic-looking Edison sat down to the key. They had arranged for the fastest operator in New York to send messages while Edison received. The sender tried every trick; Edison kept up.

Recognizing that he was supposed to be the butt of a joke, Tom went along until there was a pause in the incoming messages. Then he signaled:

"Say, young, man, change off and send with the other foot."

Edison's triumph was short-lived. Overcome by despair and frustration at age 20, he told a friend:

"I have got so much to do and life is so short. I must hustle."

Experimenting every spare moment – during working hours or after – with whatever he could beg or borrow, he finally perfected a duplex telegraph that could send messages both ways on the same wire. Edison was joyous.

The joy was premature. Long-distance tests proved the device workable, but unsuited for the poor wires of the day. Nevertheless, Tom quit his job and placed this boyishly boastful advertisement in the January, 1869, issue of *The Telegrapher:*

> T.A. Edison has resigned his situation in the Western Union office, Boston, and will devote his time to bringing out his inventions.

"T.A." hoped above all that Colonel Coleman and a good-sized army of doubtful "Lightning Slingers" in a string of midwestern towns might see the ad and realize that Edison at last was on his way.

"Would $3,000 Be Too Much?"



Friendless and penniless, the self-styled "T.A. Edison — Inventor" arrived in New York City in late spring, 1869, the very image of the "poor lad" in the "pluck and luck" stories that Horatio Alger would make famous 20 years later.

Breakfast presented the first New York challenge to the 22-year-old inventor. He begged a bit of tea in a wholesale tea emporium, then traded the tea for a breakfast of apple dumplings and coffee (which he later recalled was "the finest repast" of his life).

Edison set out to explore New York on foot. He walked all day and, by his own account, "a whole night long." He had no alternative, since he had no money for a room.

Twenty-four hours of walking gave Tom ample time to reflect on his life to date as a self-taught, poorly disciplined, wandering telegrapher who naively thought he would be recognized as an inventor merely because he had so advertised himself.

True, he had secured one patent — for a mechanical vote counter that would instantaneously record votes as Congressmen pulled either a "yes" or "no" switch. He had thought politicians surely would welcome that convenience.

Edison remembered forever the cool reception he received when he showed the vote recorder to a committee of Congressmen. "Young man," said the chairman, "that is exactly what we *don't* want." Anonymous, slow votes subject to change suited Congress just fine, the chairman explained.

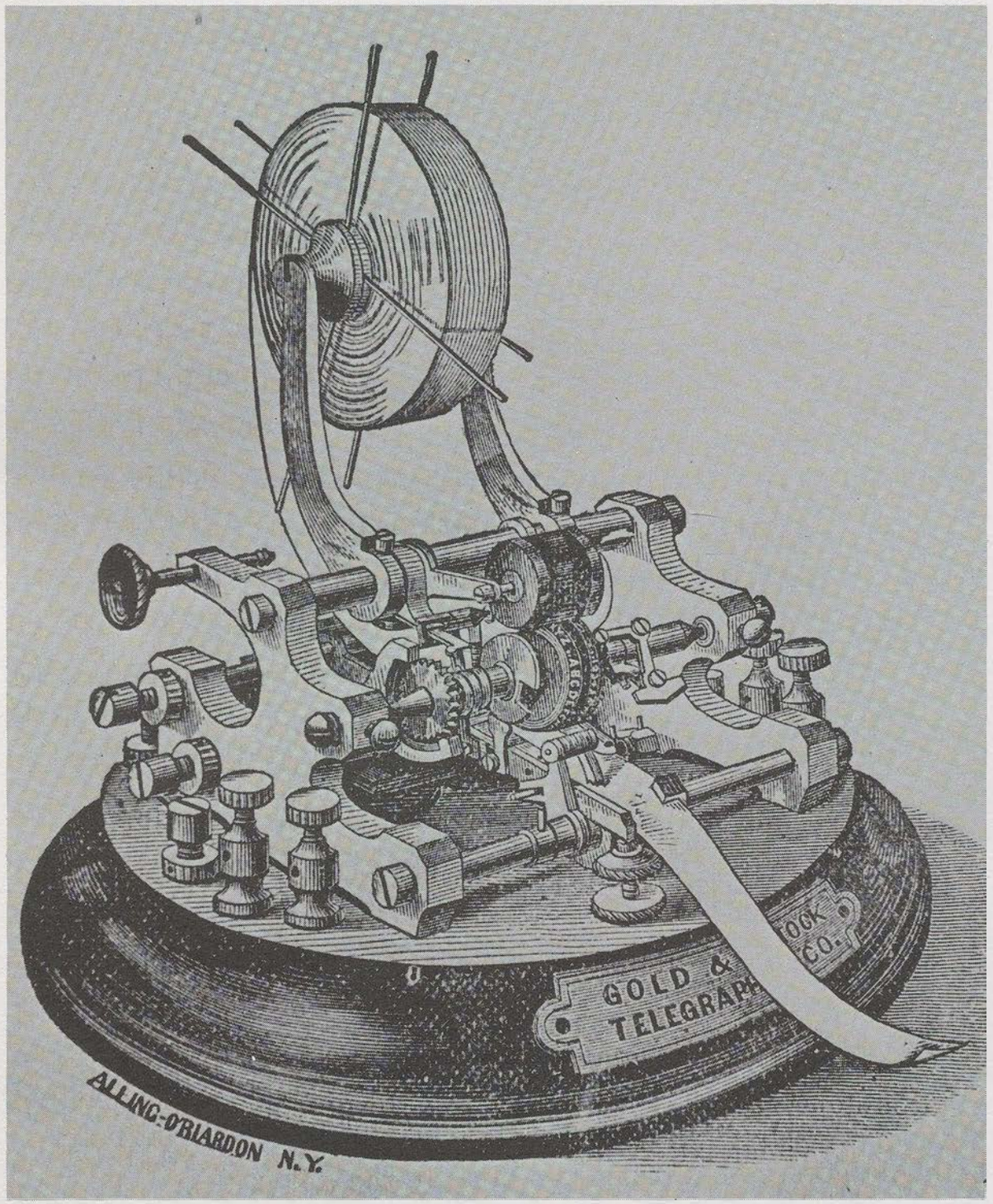
Edison vowed on the spot that he would in the future invent only items that would be "in commercial demand."

Now here he was in New York, where financiers madly pursued untold millions of dollars and where inventors toiled to keep up with Wall Street's incessant demands for faster service and better communication.

The brash youth waited only until his second day before knocking on the door of Franklin Pope, probably New York's best-known electrical engineer.

Pope was employed by a major financial house that circulated prices of gold on an ingenious mechanical "Gold Indicator." Since prices of gold fluctuated wildly minute by minute, it was absolutely vital that the machines be precise and prompt.

A few days after his arrival in New York, Edison was in a gold company's



"Commercial demand," Edison's goal, followed his invention of the "Universal Printer" (stock ticker) that could send and receive reports of stock prices.

headquarters, observing the central indicator as it flashed gold prices to dozens of offices around the city. Suddenly the machine stopped.

Panic overwhelmed the firm. Pope began extensive and complicated tests on the machine. Screaming messenger boys poured in from customers around the city. Nearby customers rushed in to add angry demands. The company manager yelled wildly for help.

Unperturbed by the uproar, Edison calmly pointed out the trouble — a broken spring. He replaced the spring, reset the machine and put Wall Street back on the gold standard within minutes. Edison shrugged it off as merely common sense and good luck.

Naturally the youth was hired. Soon he and Pope formed a small company to construct "various types of electrical devices." Edison lived in Pope's home in Elizabeth, New Jersey, and worked 16 to 18 hours daily in a tiny Jersey City laboratory.

The real target for any inventor was Western Union, and vice versa, since Western Union was not about to let upstart inventors become competitors. Western Union bought out Edison and Pope within six months. Marshall Lefferts, a top executive, asked Edison to devote his talents exclusively to Western Union.

No financial terms were set. Edison made dozens of minor improvements in Western Union equipment. Finally, when he made major improvements on the company's stock ticker, sure to reap huge savings, Lefferts decided it was time to settle accounts before Edison recognized his real worth.

Lefferts summoned Tom to New York in the winter of 1871 and asked him how much the company owed him. The inventor recalled in later years that he secretly believed that he should get $5,000 and would settle for not less than $3,000. He countered Lefferts:

"General, suppose you make me an offer?"

Lefferts replied (according to Edison's version):

"How would $40,000 strike you?

Edison said that he felt "as near fainting as I ever got." He accepted, cashed the check and, by his own account, went back to New Jersey by ferryboat and train with his overcoat and suit pockets stuffed with small bills.

Within 30 days Edison had spent virtually the entire fortune for new experimental equipment. He explained:

"Mine was too sanguine a temperament to keep money in solitary confinement."

Something more important finally had been released from confinement: Edison's genius. "T.A. Edison — Inventor" had arrived.

"Let's Find The Bugs"



Mary Stilwell and Thomas Edison were married in Newark on Christmas Day, 1871, she was 16 and he was 24. Their 13 married years were marked by solitude for Mary, since Tom's life centered on his laboratory rather than in his home.

Money meant only one thing to Thomas Edison: Spend it as fast as possible.

Buoyed by an order from Western Union in the winter of 1871 for 1,200 stock tickers (to be worth nearly $500,000 on completion), Edison rented two factories in Newark, New Jersey.

Edison's debts grew as he pushed credit to the maximum by buying the best of equipment, supplies, books, and chemicals. Edison also sought top-flight aides, and when he advertised for men with "light fingers," they applied in a steady stream.

In came John Ott who could repair or build anything; Charles Batchelor, a black-bearded Englishman who was a splendid mechanical draftsman; John Kruesi, a Swiss clockmaker who could make machines from Batchelor's exacting designs; and Sigmund Bergman, a German who spoke little English, but knew the universal language of machinery.

Every potential employee was astounded by the youthfulness of Edison, this 24-year-old inventor who was so acclaimed in the newspapers. Yet he was affectionately called "The Old Man" by the crew of men older than he.

Edison's wages were no attraction; he paid even his best men on a low piecework basis. In return, Edison worked everyone, including himself, long and hard.

On one occasion, an entire order of stock tickers was faulty. Edison summoned his top aides, locked the door and said:

"Well, let's find the bugs."

They stayed locked in that room for 60 hours without sleep and with little food, and worked with Edison until the "bugs" were cleared away. Only then did "The Old Man" grudgingly agree that his plant had been "turned into a prison" for nearly three days.

Edison's meticulous attention to detail was manifested on July 28, 1871, when he began his extraordinary day-to-day notes — a practice he kept for nearly 70 years, using up 3,400 notebooks in the process. He started the first notebook by writing:

"This will be a daily record containing ideas previously formed, some of which have been tried, some that have been sketched and described, and some that have never been sketched, tried, or described."

Edison's pace left him little time for socializing, but in 1871 he met 16-

year-old Mary Stilwell, a worker in his factory. Legends eventually grew about their romance. The only agreement was that the courtship was brief.

One account recalled that Edison stopped at Mary's bench in the shop one day in the summer of 1871 and said:

"What do you think of me, little girl? Do you like me?"

Understandably, Mary hesitated. Edison hastened on:

"Don't be in a hurry about telling me. It doesn't matter much, unless you would like to marry me."

They were married on Christmas Day, 1871, quite possibly because everyone on the work force expected the day off anyway. After the wedding, Edison went down to the laboratory and, according to an old story, forgot until long after midnight that he had been married that day.

Mary suffered, along with all wives of Edison's staff members, from "The Old Man's" unending passion for work. She was often alone, forgotten or ignored, despite evidence that Edison was in love with her.

They had three children: Marion, Thomas Jr., and William. In Morse code fashion, Edison whimsically nicknamed Marion "Dot" and Thomas "Dash."

Inventions began to pour out of Edison's Newark plants. In 1872 alone he secured 34 patents, mostly for improvements in telegraph instruments or procedures.

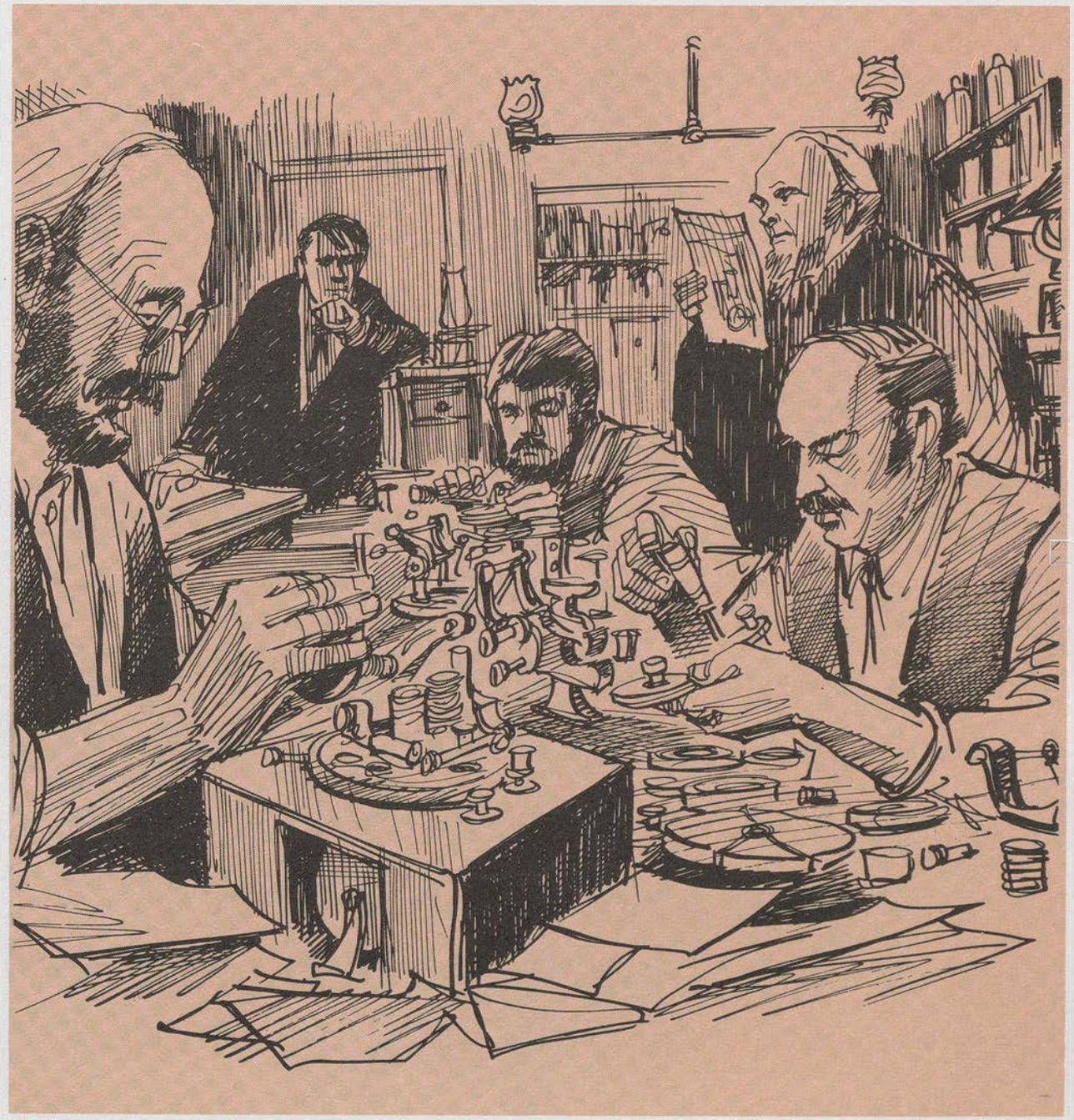
More than anything, Edison had become a rallying point for aspiring young inventors, such as Christopher Sholes, a Wisconsin printer who brought a "typewriter" to Newark. Edison made it work, and Sholes went on to become known as the inventor of the typewriter.

Remarkably, Edison also devised, in 1875, an electric typewriter with type on a revolving ball (similar to the modern IBM Selectric). Ironically, he couldn't find sufficient electric current to run his machine!

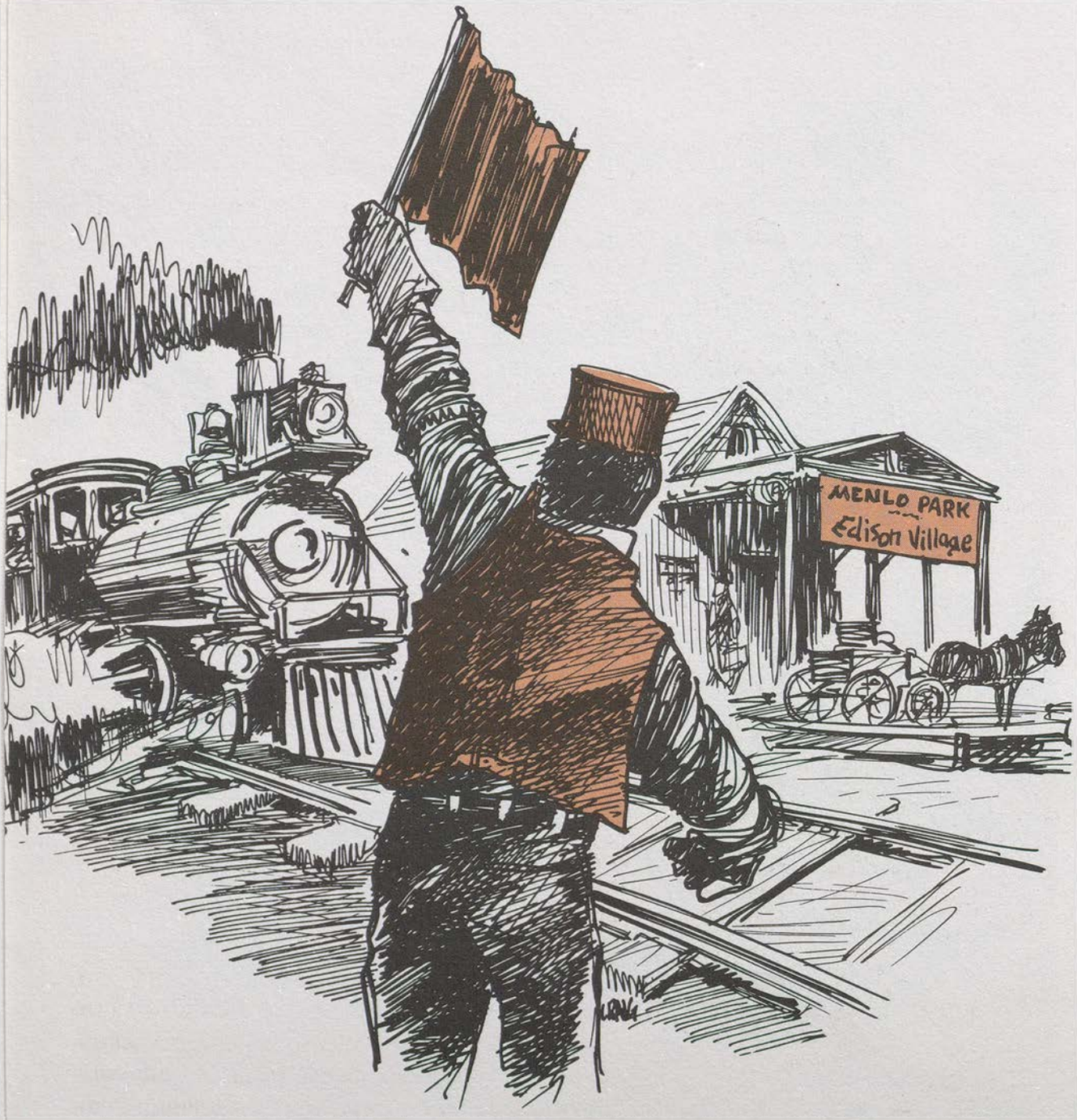
Edison was constantly in desperate financial straits, partially because of his own spendthrift habits and partially because of the severe economic depression that swept the nation in 1873.

Wearying of his debts, the drag of his factories, and a series of complex legal quarrels that swirled about him, Edison sought peace and quiet. Striving for that goal, he purchased in 1876 a large property about 15 miles southwest of Newark on the main line of the Pennsylvania Railroad between New York and Philadelphia.

Suddenly, Menlo Park, New Jersey, was on the map. Tom Edison would make sure that it stayed there forever.



The Invention Factory



Fellow inventors sympathized with Edison's hope to find a quiet place where he might think in peace. But they could not accept that he was headed in the spring of 1876 for an obscure country place to devote all his time to inventions.

What had gotten into this 29-year-old ex-telegrapher, who already had acquired and spent several small fortunes, and who already had won more attention than any inventor in the nation?

Edison simply informed friends that he had wearied of being both manufacturer and inventor. Now he would simply be an inventor. He boasted to the noted physicist, Dr. George Beard, that at Menlo Park he would turn out "a minor invention every ten days and a major one every six months or so."

His building at Menlo Park, Edison announced candidly and perhaps ostentatiously, would be "an invention factory."

This "factory" might well have been Edison's greatest "invention," for it was the world's first organized research laboratory. No one before him thought of bringing gifted people together in a secluded location, furnishing them with scientific instruments and supplies, and encouraging them to seek new ideas.

Foes quickly predicted failure. Theoretical scientists sniffed that this poorly-educated ex-telegrapher lacked the credentials for pure research. His frank determination to seek only devices of "commercial utility" earned him disdain in academic circles.

Yet every theoretical scientist, if invited, would have jumped at the chance to work with the instruments and facilities in the Menlo Park laboratory. It was a time when even major American universities and colleges had the scantiest of laboratory equipment. In contrast, Edison spent more than $40,000 on instruments and machines in his first two years at Menlo Park.

Edison's best aides joined him, particularly Charles Batchelor, John Kruesi, and John Ott. They were eager to continue the exhausting, exciting pace that Edison had set in the manufacturing-research operations in Newark.

The new two-story laboratory, 100 feet long and 30 feet wide, stood on what Edison believed was the highest hill between New York and Philadelphia. Most of the scientific equipment was on the second floor.

Around the walls were expensive chemicals and collections of the world's known precious metals and rare minerals. Books were everywhere. Flaring gas jets on the walls provided garish light after dark.

Edison shrewdly knew that eager industrialists would seek him out. His value to competing sides in the raging war over control of the telegraph and telephone made it certain that his advice and experience would be sought.

It was certain, too, that New York City journalists were not going to abandon this bright source of copy. However, a reporter for the *New York Daily Graphic* summed up the shock of anyone who saw Edison's new location for the first time:

"Menlo Park is not a park. It is not a city. It is not a town. Although it is on the Pennsylvania Railroad, it is not even a stopping place, except when the station agent flags down the train to take on waiting passengers."

Aspiring young mechanics, inventors, and scientists were not put off by the seclusion. They came often, looking for work. One of them, William J. Hammer, then a boy but later a major force in the electrical industry, recalled his first meeting with the inventor.

When Hammer told Edison that he would like a job, Edison said, only half-jokingly:

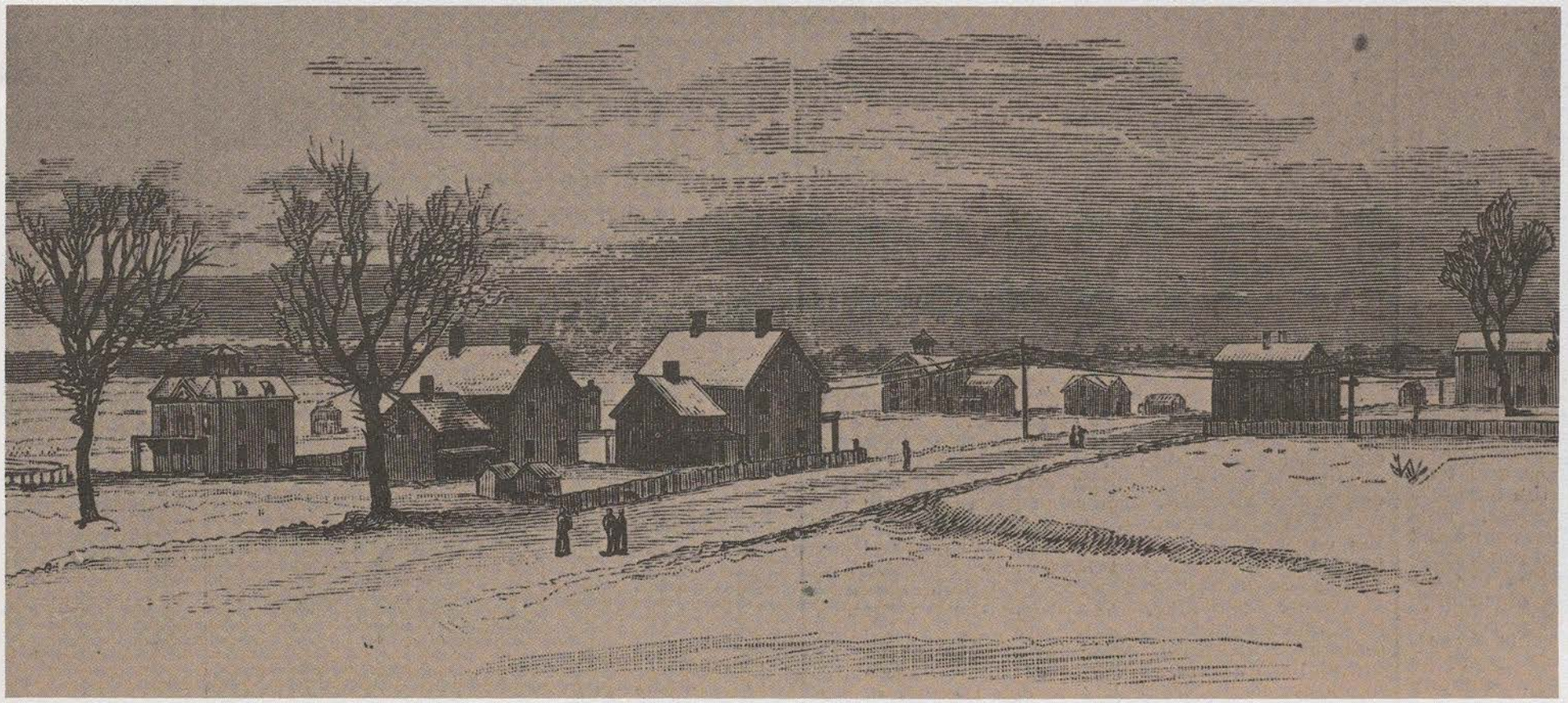
"Everyone wants to know two things — how much we pay and how long we work. Well, we don't pay anything, and we work all the time."

It wasn't all work and no pay, although the latter was never very high. Despite the long hours, often from the time the beginning whistle blew at 7 A.M. until after midnight, the spirit of intense enthusiasm seldom left the laboratory.

Most of the employees lived in Mrs. Jordan's boarding house, only a few steps from the laboratory. Edison himself lived with his wife and children in a large frame house two blocks away. Across the street from the Edisons, John Kruesi and Charles Batchelor, both married, shared a house.

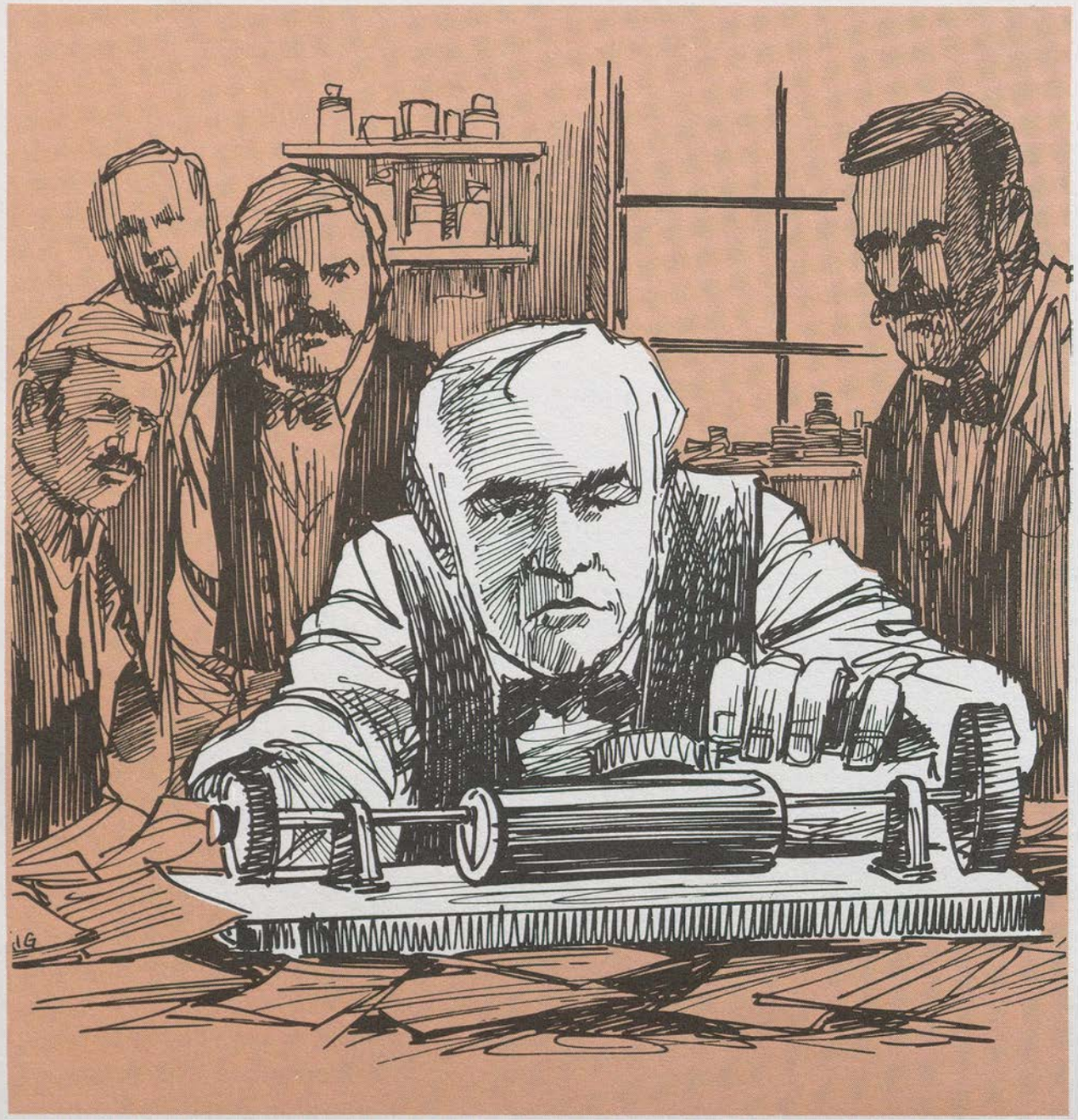
The grueling, fabulous "Menlo Park Years" had begun. Edison saw the laboratory as both a supreme opportunity and possibly a last chance for seclusion. He told an assistant:

"When the public tracks me out here, I shall simply have to take to the woods."



Menlo Park's bleakness was apparent in this sketch of Menlo Park, drawn by a visiting artist to illustrate an article on Edison in Frank Leslie's Illustrated Newspaper *for January 10, 1880. Wires ran from the laboratory to a few buildings in the village, put in place for Edison's New Year's Eve demonstration of his incandescent lamp.*

"Mary Had A Little Lamb"



America's top recording in 1877 was "Mary Had A Little Lamb," arranged and recited at Menlo Park, New Jersey, by Thomas A. Edison. But the most important happening in sound that year was a faint "Halloo" that Edison had recorded and played back some time in July, 1877.

Edison had been working that summer on trying to improve the quality of the messages spoken and received on the telephone that had just been invented by Alexander Graham Bell, with experiments concentrated on the vibrating diaphragm of Bell's imperfect receiver.

Deciding to try to record the vibrations, as he had earlier recorded telegraphic dots and dashes, Edison affixed a needle to the telephone diaphragm. He then pulled wax paper slowly beneath the needle, trying to get impressions on the paper.

As Edison experimented, his device occasionally seemed to "mutter" indistinctly, creating sounds that Edison thought were musical and at times "almost human."

One day in mid-July, 1877, acting on a sudden whim when he and associate Charles Batchelor were alone in the laboratory, Edison shouted "Halloo" into the diaphragm as a piece of waxed paper was passed beneath the needle.

"The paper was pulled through again, my friend Batchelor and I listening breathlessly," Edison wrote. "We heard a distinct sound, which strong imagination might have translated into the original 'Halloo.' That was enough to lead me to a further experiment."

Batchelor was skeptical. He bet Edison a barrel of apples that he "couldn't make the thing go."

Edison, for his part, was supremely optimistic. He wrote in his notebook on July 18:

"There is no doubt that I shall be able to store up and reproduce automatically at any future time the human voice perfectly."

The story of Edison's confidence appeared in the *Scientific American* – a story possibly leaked as a trial balloon by Edison himself. The tremendous response, both favorable and negative, forced him to prove his rash promise.

Early in December, 1877, Edison handed a rough sketch of a device to John Kruesi, his most trusted machine maker, and scribbled, "Make this."

The machine was the first phonograph: a cylinder turned by a crank, with a needle and diaphragm that would etch the lines of sound impulses into tin foil on the revolving cylinder.

Edison admitted that he had doubts about the machine. Kruesi thought it was "absurd."

On December 6, surrounded by his staff, Edison placed tin foil on the cylinder. He began turning the handle, and shouted into the diaphragm the first thing that came to mind:

"Mary had a little lamb, its fleece was white as snow . . ."

Edison replaced the needle on the diaphragm at the starting point and turned the handle again. Out of the machine came the words of "Mary," considerably less than high fidelity, yet loud and clear.

Tradition says that Kruesi exclaimed: "Gott in Himmel!" ("God in Heaven!"). What Batchelor said is not known, but clearly he owed Edison a barrel of apples.

As for Edison, he wrote:

"I was never so taken aback in all my life. Everybody was astonished. I was always afraid of things that worked the first time."

The next day, Edison took the machine to the office of the *Scientific American* in New York. He placed the phonograph on the desk of the highly-respected editor, who later told his readers:

"The machine inquired as to our health, asked how we liked the phonograph, informed us that it was very well, and bid us a cordial good night."

The spoken word had been proclaimed.

As usual, the doubters rushed into print. A Yale professor read of the phonograph in the *New York Sun* and called the *Sun's* writer, "a common penny-a-liner in the incipient stages of delerium tremens."

The idea of a talking machine, wrote the distinguished Yale man, was "ridiculous." Others called Edison a cheap ventriloquist and trickster.

The prestigious National Academy of Sciences invited Edison to Washington, D.C., on April 18, 1878, to demonstrate the phonograph. The noisy crowd jamming the hall fell into a hush when Edison talked into the machine and played back the sound. It was reported that several ladies fainted on hearing the machine repeat Edison's voice.

Late that evening, shortly before midnight, Edison was invited to the White House to play the phonograph for President and Mrs. Rutherford B. Hayes and friends. The party broke up at 3:30 A.M.

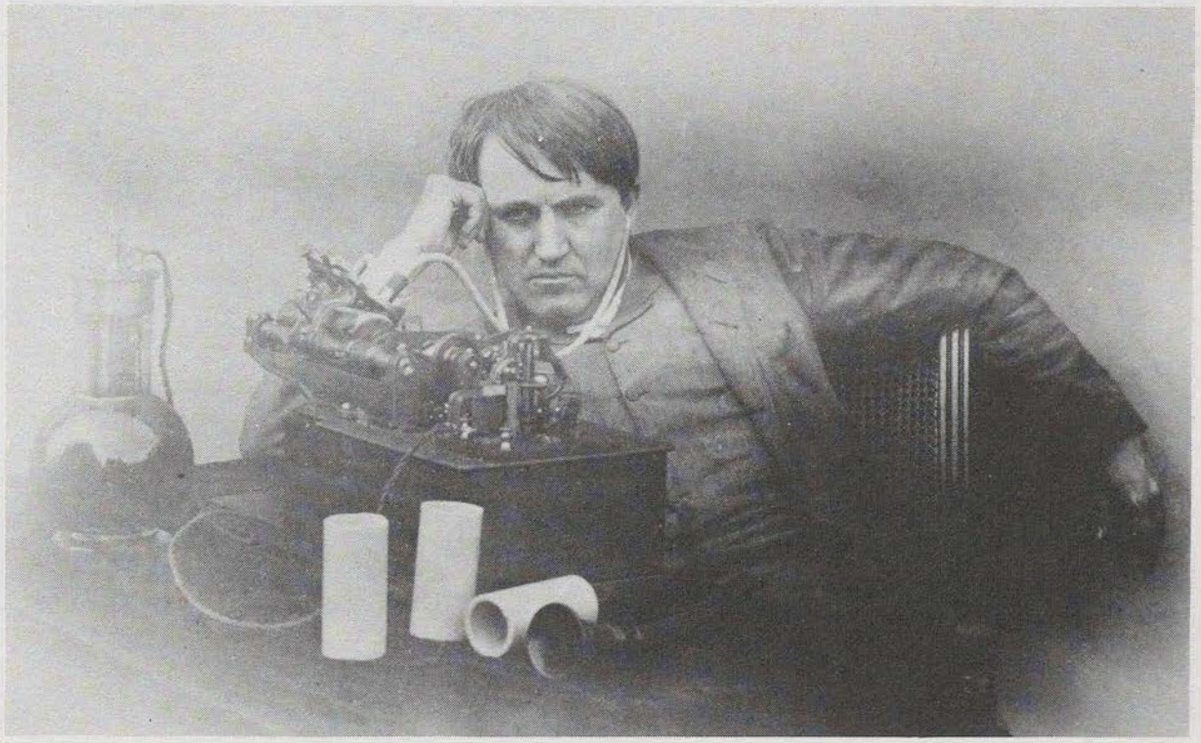
Now, beyond all doubt, Edison was the "Wizard of Menlo Park" and the "Columbus of New Jersey." Hordes of reporters descended on the Menlo Park laboratories, and the Pennsylvania Railroad ran special excursion trains so that the curious public might catch a glimpse of the great inventor.

Edison predicted that the phonograph could store up the sounds of symphony orchestras, capture the melodies of the opera, repeat the popular songs for a mass audience, and even inscribe an entire book on a single cylinder.

The predictions were wild, although they all came true — and then some. In truth, the talking machine of 1878 was still only a crude, imperfect phenomenon for all its remarkable proof that sound could be recorded and played back.

Edison loved the phonograph as his "favorite invention." And it might well have been his only "pure" invention, since most of his hundreds of patents (including the incandescent lamp and the movies) were ingenious perfections of principles already known.

Edison abandoned his favorite invention for a decade while he pursued yet another phantom: an inexpensive light bulb. As Edison faced the light, the phonograph gathered dust.



Dispirited and weary, Edison posed in January, 1888, after 72 straight hours of work on his phonograph, which he had laid aside for 10 years to work on electricity.

Reaching For Light



Artist's concept of the night of October 19, 1879, when Thomas Edison and his aides started the test that was to end 40 hours later in dramatic proof that a practical incandescent light bulb had been perfected in the Menlo Park lab.

Electricity was crackling in scientific minds around the world on September 8, 1878, when Thomas Edison visited William Wallace in Ansonia, Connecticut. Wallace enjoyed fame as a co-inventor with Moses Farmer of the first American electric dynamo. Eight brilliant electric arc lights made his factory glow.

Edison excitedly examined the dynamo, the arc lights, the instruments, then turned to Wallace and said confidently:

"I believe I can beat you in making the electric light. I do not think you are working in the right direction."

Electric lights had been much in Edison's thoughts for at least two years. That was not unusual, since scores of keen minds in many nations had sought a practical incandescent lamp for more than half a century. Electric arc lights had glowed in English lighthouses since the 1860's, and lately were appearing on Paris streets and elsewhere.

But arc lights were fit only to hang high above city streets because of their intense glare. Furthermore, they gave forth unpleasant odors, required high volumes of electricity, and were hazardous.

Soon after visiting Wallace, Edison said (correctly, as it turned out):

"I saw that what had been done had never been made practically useful. The intense light had not been subdivided so that it could be brought into private houses."

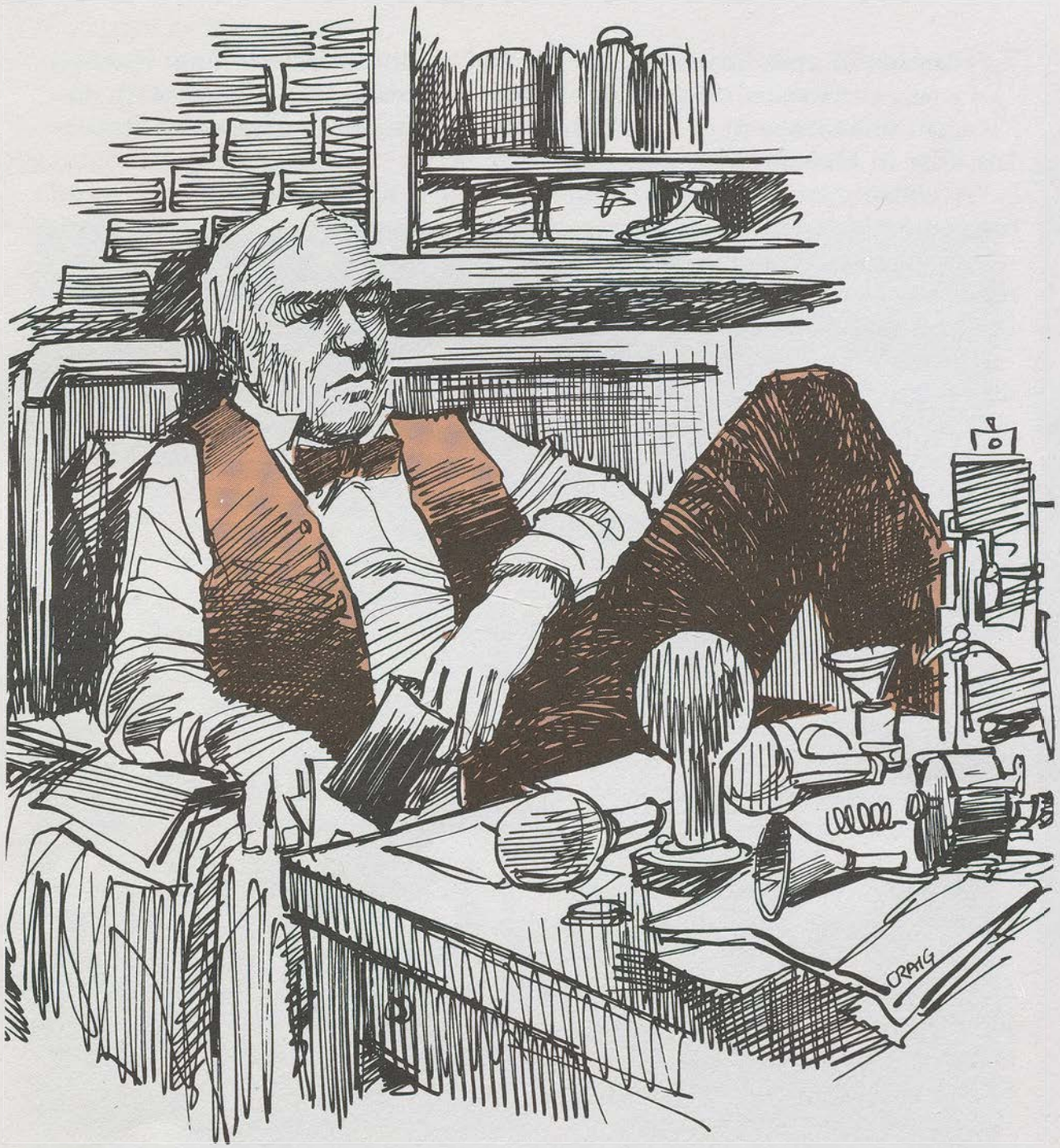
Never one to let his vivid imagination interfere with practicality, Edison told a reporter in September, 1878, that he already knew the secret of subdividing electrical current. His dream soared high as he talked: He would light streets, houses, factories; he would manufacture quantities of electricity and would deliver it to individual rooms.

Edison predicted that he could distribute electrical current so that individual lamps could be lighted or turned off without affecting all other lights on the same circuit. Moreover, he vowed, his current would light entire towns, provide energy for cooking and heating, and even create power to run small motors.

The time required to do all this? Oh, about six weeks, Edison said grandly.

That boasting brought an indignant howl from John T. Sprague, the noted English electrician, who responded:

"Neither Mr. Edison nor anyone else can override the well-known laws



of Nature, and when he is made to say that the same wire which brings you light will also bring you power and heat, there is no difficulty in seeing that more is promised than can possibly be performed . . ."

Official England agreed that Edison was whistling in the dark. Knowing absolutely nothing about electricity, Parliament conducted a full-scale "investigation" of Edison's claims. It concluded early in 1879 that Edison's work might be "good enough for our transatlantic friends," but was not "worthy" of the attention of "our practical or scientific men."

Sprague and Parliament notwithstanding, much of the rest of the world believed that whatever the "Wizard of Menlo Park" promised must come about. Edison's prediction of unlimited electrical energy was enough to send stock prices of gas companies plummeting in the world's markets.

The vain promise to deliver "practical electricity" in six weeks was exposed soon enough. Month after month wore away. Tension mounted at Menlo Park, for the researchers knew that many others were nearly as close as Edison in the search for the elusive, inexpensive incandescent lamp.

Edison's thoughts, jotted down in his ever-handy notebook, told an agonizing story. He wrote on January 29, 1879:

"Suffered the pains of Hell with my eyes last night from 10 P.M. till 4 A.M., then got to sleep with a big dose of morphine. Eyes getting better and do not pain much at 4 P.M., but I lose today!"

Edison's anguish could not bear another day lost without a practical lamp. He already had made hundreds of short-burning, extremely expensive incandescent lamps using platinum and other scarce materials. Only the very rich could have afforded them. He knew the secret of the lamp, but the cost was far too high.

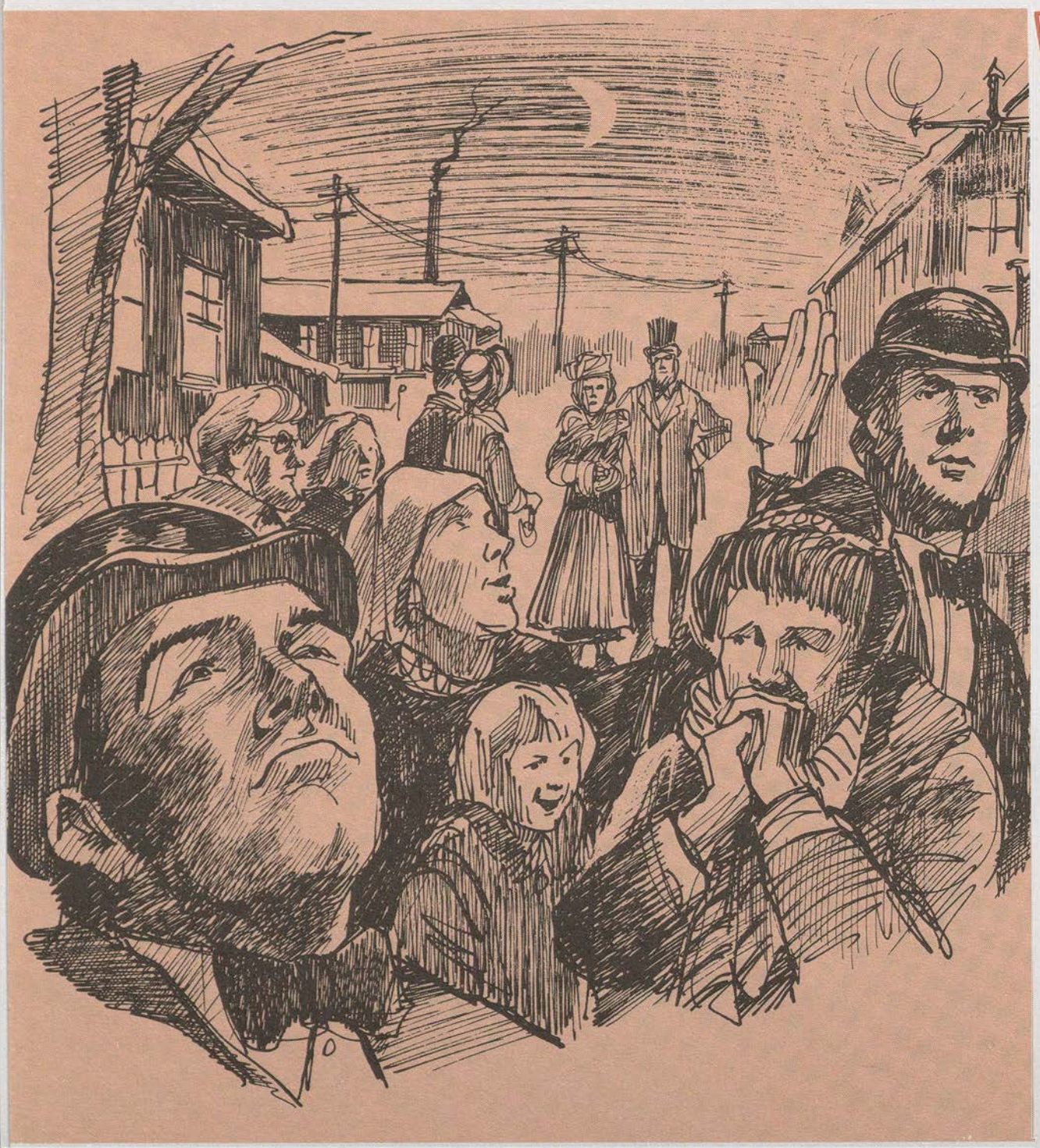
Edison and his team inched closer to success through the summer and early autumn of 1879. Finally success hung on a thread as the third week in October neared an end.

The story of that epoch October weekend is familiar to nearly everyone. Edison rolled a piece of ordinary thread in carbon, shaped it as a filament, hardened the carbonized thread in a furnace, put it in a bulb, exhausted the vacuum, and lighted the lamp on the evening of October 19, 1879.

The carbonized thread glowed through the night, through another whole day, and on into a second day until Edison increased the power at the end of 40 hours, and the lamp burned out in a blaze of glory.

Edison had found the lamp! The world finally had a dependable torch to light the way into tomorrow.

"The Moon Goes Into Mourning"



Word of Thomas Edison's perfection of the incandescent lamp was met with vociferous skepticism. Nearly all scientists agreed with the critical assessment of the lamp by Professor Henry Morton of Stevens Institute in Hoboken, New Jersey:

"A conspicuous failure, trumpeted as a wonderful success. A fraud upon the public!"

Edison ignored the taunts; by December 17, 1879, he and his staff had made and tested 260 successful incandescent lamps. That day, Edison filed his U.S. patent for the lamp.

Then, on Sunday, December 21, two months after Edison's first long-duration lamp (40 hours), the *New York Herald* devoted its front page to articles saying that Edison had unquestionably found the lamp.

Herald reporter Marshall Fox, who had carefully followed that Edison story for 18 months, wrote that the lamp was "like the mellow sunshine of an Italian autumn...a little globe of sunshine, a veritable Aladdin's lamp."

Stimulated by Fox's glowing words, Edison blithely agreed to an open house to demonstrate his lamps on New Year's Eve.

Long excursion trains ran into Menlo Park on December 31, 1879, carrying more than 3,000 persons to see Menlo Park's wondrously illuminated main street. Lights blazed in the laboratory and in village homes.

That holiday eve, people walked the streets of Menlo Park in awe, fully in agreement with what a correspondent for an English magazine would write: "The moon goes into mourning."

As evidence that crowds behave about the same in any century, nearly a dozen incandescent lamps were stolen.

The stolen lamps were souvenirs, nothing more. They were useless anywhere else in the world — and that was the core of Edison's problem. He and his team had to invent or devise nearly everything needed to transform the lamp from a laboratory curiosity to a practical source of light.

The team made improved generators, insulated wire, fuses, relays, sockets, meters, switches, and conduits. Still needed was a cheaper, longer-burning filament.

Edison sent assistants around the world in search of natural fibers (such

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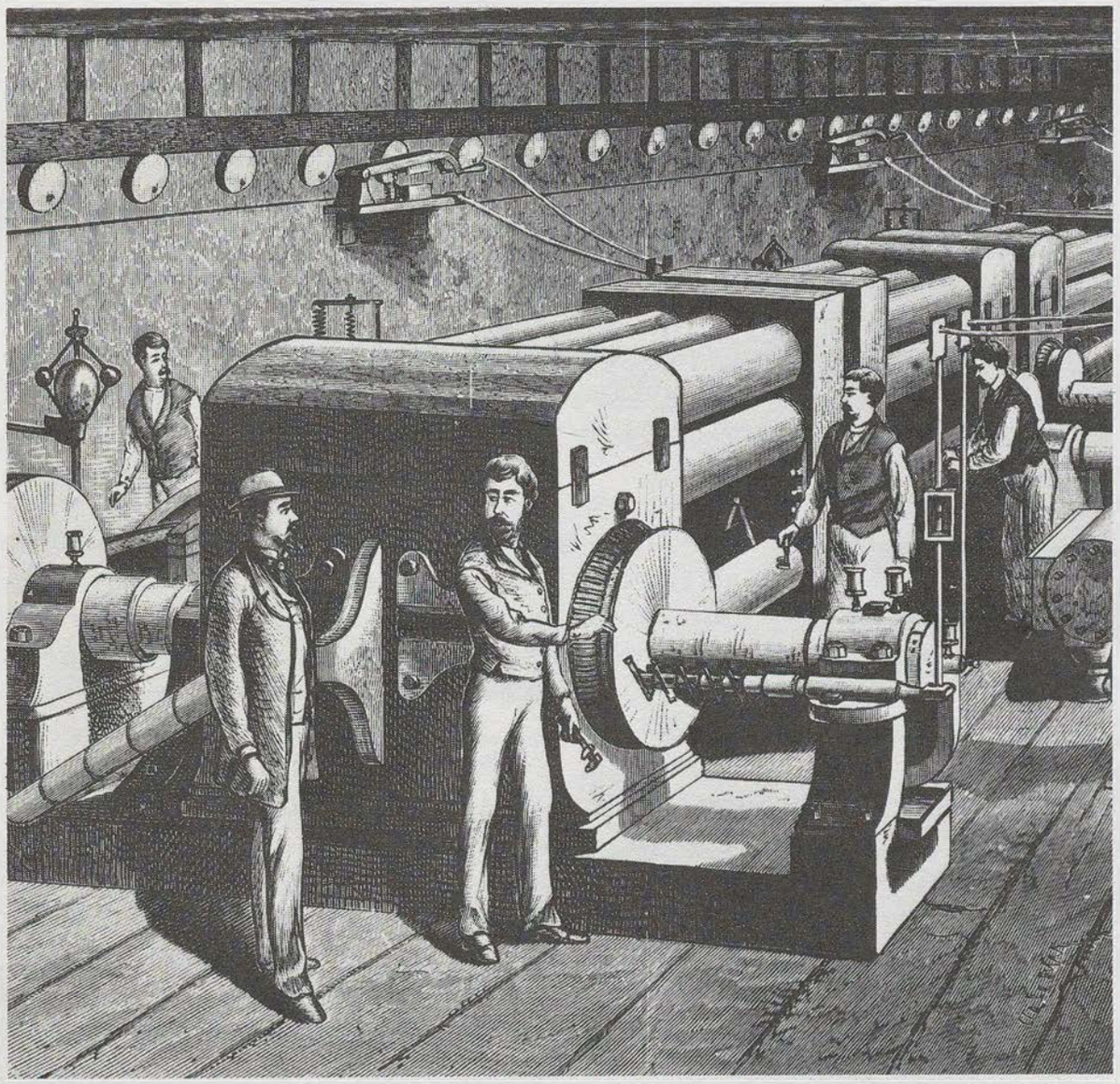
as bamboo). In Menlo Park, he tried fish line, cotton, tar, celluloid, rags, vegetable fibers, wood shavings, even the hair from the beards and sideburns of laboratory aides.

Attacks on Edison's character and ability picked up pace, many of the charges stemming from rivals who hoped to slow Edison's progress. The inventor realized that to retain credibility he had to prove — soon — that a large commercial area could be lit at rates cheaper than gas.



The Scientific American *for August 25, 1882, featured in this sketch of Pearl Street Station's dynamo room, two weeks before it lit up lower New York City.*

With his usual audacity, Edison announced late in 1880 that he would light a full square mile in New York City, with all current coming from one central generating station. All wires would be in underground conduits in the streets, Edison said, and switches would make every light unit independent of all others.

Hundreds of workers laid insulated wires in ditches through lower New York in an area surrounding the generating station being built at 255 Pearl Street. Scores of other skilled workers put wires and lamps into houses, stores, and industries in the area.

Edison grew increasingly moody after numerous setbacks. Financial backers became pessimistic. As Edison's stock slumped, he told a reporter:

"I'm getting tired of this business . . . I'm getting out just as quick as I can."

He did not "get out," and on September 4, 1882, a switch was thrown on the generator at the Pearl Street Station. Immediately 800 lamps burst into a glow in more than 30 buildings, including the important *New York Times* headquarters.

Pearl Street's capacity was gradually extended. Other cities slowly accepted the Edison system. Several small towns, including Roselle, New Jersey, and Sunbury, Pennsylvania, were lighted entirely by Edison lamps.

Electrical lighting was not a quick success, however. Edison established a lamp factory in East Newark (now Harrison), New Jersey, in 1881. During the first year the factory made about 135,000 lamps — and sold or gave away fewer than 45,000.

The noisy doubters were silenced, only to be replaced by charges that others had discovered the incandescent lamp before Edison.

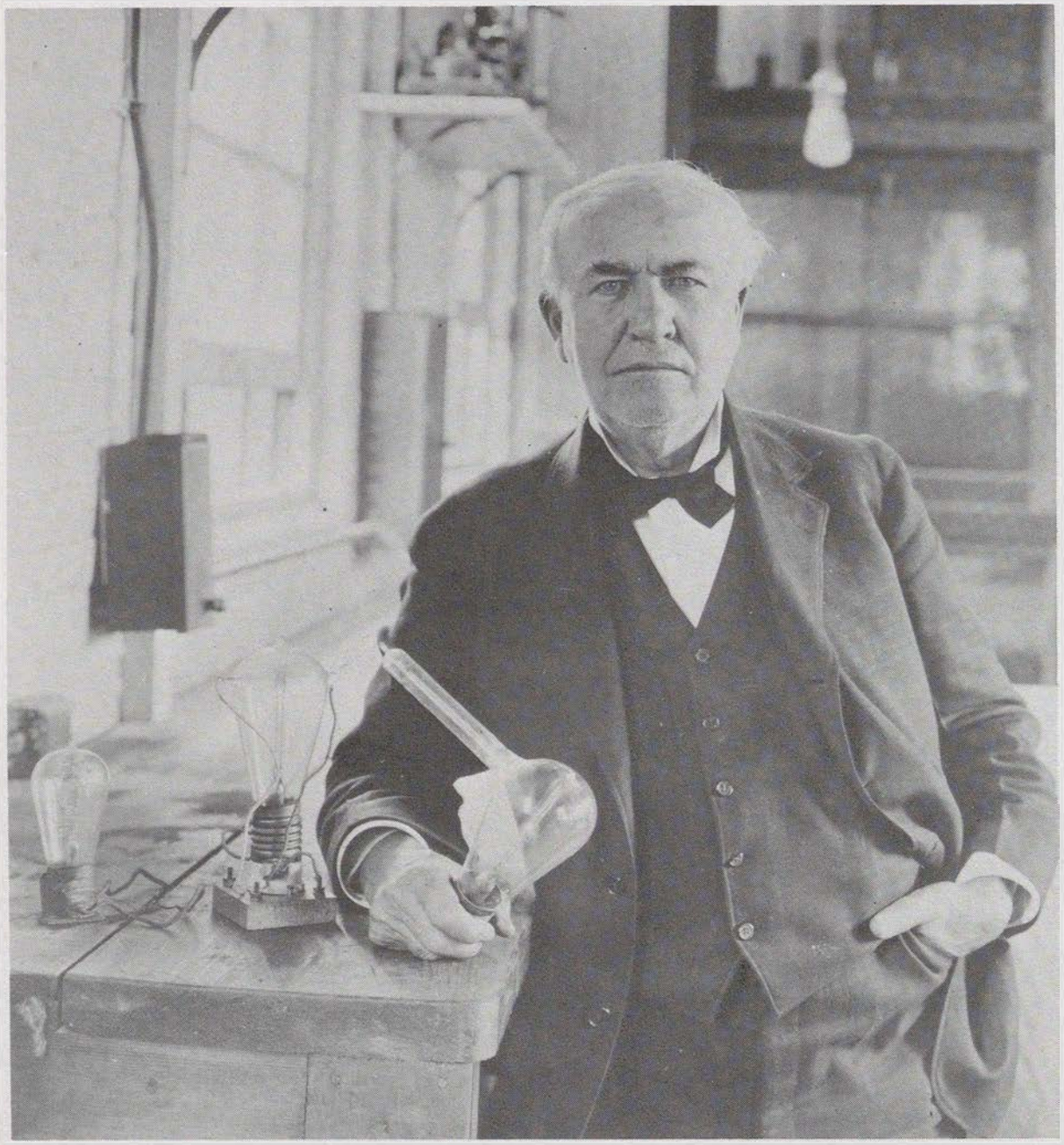
It was true that many inventors had developed varying versions of the lamp. But Edison had the thing which no one else had — a complete system of electricity. He made power, distributed it to separate buildings, wired houses, supplied everything from lamps to switches, from fuses to meters.

Startlingly, there was nothing mysterious or obscure about the Edison system of electrical power.

After Edison's system was demonstrated in London, scientists recognized how relatively simple it was. Someone asked England's prestigious Lord Kelvin why no one had ever thought of such a system before. Lord Kelvin replied:

"The only answer I can think of is that no one else is like Edison."

A Sooty Provocation



Forty years after he had discovered, patented, and filed away his mysterious "Edison Effect" in 1883, Edison was photographed holding one of his original "effect" lamps that led to the vacuum tube and the start of the "radio age."

Nothing provoked — or intrigued — Thomas Edison more than the thick strange deposits of black soot that continuously accumulated on the inside glass surfaces of his early carbon filament incandescent lamps.

And nothing placed Edison closer to a distant future than that inexplicable soot.

The deposits annoyed Edison doubly. Eliminating the darkening build up would mean a better lamp. Edison also had the feeling that the carbon deposits were trying to tell him a great secret that he could not yet comprehend.

Edison first experimented with the dark annoyance in 1880. More than 50 years later, on November 21, 1932, a replica of one of his early sooted lamps was placed in a radio set to replace a then-sophisticated radio tube. The reception was perfect.

Thus, in 1883, a full 20 years before the first simple radio tubes were even invented, Edison had unknowingly discovered the basic secret of radio, television, and all other electronic devices that find and reproduce signals in the air.

True, in the 1932 test, the original sooted lamp of 1880 was modified by an additional wire inside the bulb. But Edison himself had added such a wire in 1883. He patented that modified lamp on November 15, 1883, calling it simply the "Edison Effect."

Edison had not invented radio or TV, for he did not have the slightest notion of what to do with his "Effect." Others would use the discovery to inaugurate the era of electronics.

Incredibly, Edison foresaw long before 1883 that future generations would send signals through the air and receive them at great distances — hundreds, even thousands, of miles away.

In 1875 Edison had discovered at his Newark workshop what he called an "etheric force." The "force" was, simply stated, a spark (or signal) that leaped through space. It could be picked up without wires at another place. It was, therefore, simplified wireless communication.

Edison was 28 years old in 1875, still a struggling inventor of telegraph devices. That year Guglielmo Marconi, who eventually and properly would get most of the credit for developing a practical wireless telegraphy, was a one-year-old child in Italy.

The 1875 "etheric force" must be set in perspective to appreciate the tremendously perceptive mind of Edison and to appreciate the frustration that he must have felt.

Electricity was still in its infancy, scorned by nearly all theoretical scientists and feared by most people. Telegraphy was yet a crude system. Alexander Graham Bell was a year away from announcing his telephone.

Yet Edison already knew that signals could be sent without wires!

Eight years after the "etheric force" discovery Edison agonized over the sooted lamps. The black deposits, while annoying, were at least understandable since their source obviously was the carbon filaments.

Totally perplexing was a clear streak always visible within the soot, proving that some unknown force systematically arranged the soot on the glass surface. Trying to control that force, Edison inserted another piece of copper wire into the lamp in 1883, taking care not to touch the lamp filaments.

Continuous experiments proved that a current flowed within the tube's vacuum, but only if the extra wire was connected to the *positive* terminal of the lamp. Edison had found a controllable source of free electrons, in a time when the knowledge was useless.

So the inventor merely filed a patent application for the unexplainable (and, in 1883, frivolous) knowledge and let the "Edison Effect" drop into the files of things that he might get around to someday.

Others beat Edison to the vacuum tube used in early radios. In 1880, England's Sir John Fleming found a way to control the electrons. Then, in 1906, Lee DeForest transformed Fleming's work (and Edison's "Effect") into a genuine radio tube by adding a zig-zag piece of wire, or grid, to the lamp.

At the same time, wireless telegraphy advanced rapidly, particularly through the work of Marconi and Professor Heinrich Hertz of Germany, who pushed wireless communication ahead dramatically in the middle 1880's.

More than 60 years after the patent for the "Edison Effect," Orrin E. Dunlap Jr., author of the authoritative "How Radio Works," recognized Edison's proper place in the development of radio.

Dunlap wrote, without qualification, that the "Edison Effect" was "fundamental to every radio tube." Thank Edison, then, for radio and TV.



"Got Thinking About Mina"



Mina Miller of Akron, Ohio, the poised beauty who shattered widower Edison's composure when he first saw her in 1885. She initially returned his stares with cool dignity, but they were married in 1886, when he was 38 and she was 19.

Thomas Edison had been on the run for most of his life when he celebrated his 37th birthday in 1884. He had been on the move as a telegrapher and as an inventor; now he was racing to cope with business ventures that were expanding as fast as his fame.

Such a man had little time for relaxation, even if Edison had been so inclined.

Suffering most from Edison's unrelenting, at times frantic, pace was Mary Stilwell Edison, the girl Tom had married in Newark, New Jersey, on Christmas Day in 1871.

Edison apparently loved Mary and was absentmindedly fond of their three children, yet his absences from home were constant. He usually worked at least 18 hours a day, including Saturdays and Sundays.

Edison was generous to Mary, buying her a fine home in Menlo Park and giving her handsome allowances when his funds were high. She was lonely, and she grew ever more stout ("tremendously fat," one writer observed).

Life came full cycle for Edison in July, 1884, when Mary was stricken with deadly typhoid fever at Menlo Park. She grew steadily worse and died on August 9.

Edison awakened his daughter Marion, 12 years old, to tell her that her mother was dead. Marion recalled that her father was "shaking with grief, weeping and sobbing."

Edison's hard-driving concentration diminished after Mary's death. He found it difficult to cope with the intense financial demands of his growing business ventures.

Mary's death made Tom one of the nation's most eligible widowers. Women wrote him constantly, offering love, money, or both. His friends set out to find Edison a new wife.

His closest acquaintance was Ezra Gilliland, a friend from the old days when both were wandering telegraphers in the Midwest. Gilliland had become a successful Boston businessman and often came to Menlo Park to assist in Edison's projects.

After Mary's death, Edison visited the Gillilands often in Boston, frankly enjoying the numerous attractive young potential wives that Mrs. Gilliland paraded before him at dinner parties and afternoon teas.

"Come to Boston," Edison wired a friend, "At Gill's house there is lots of pretty girls."

Eventually Mrs. Gilliland's parade of eligibles included 18-year-old Mina Miller, daughter of a wealthy Akron, Ohio, toolmaker. Edison and Mina met during the winter of 1885. There is strong evidence that it was a matter of love at first sight — for Tom.

Edison had become used to females who nearly swooned when they met him. Mina Miller greeted him with cool dignity verging on disinterest. She played the piano and sang for a few minutes at a parlor reception after they met. When Edison stared at her in undisguised admiration, Mina calmly returned his gaze.

This was no woman to be overwhelmed by Edison's reputation, and furthermore, he was twice as old as she. Edison admitted that he was "staggered" by Mina Miller. He returned to New York and wrote in his diary:

"Saw a lady who looked like Mina. Got thinking about Mina and came near being run over by a streetcar. If Mina interferes much more will have to take out an accident policy."

Mina was won over, bit by bit; but Edison still had to write a formal letter to her father, requesting permission to marry. Mr. Miller agreed, although having some misgivings about the age differential, Edison's lack of religious affiliation, and his unpolished manners.

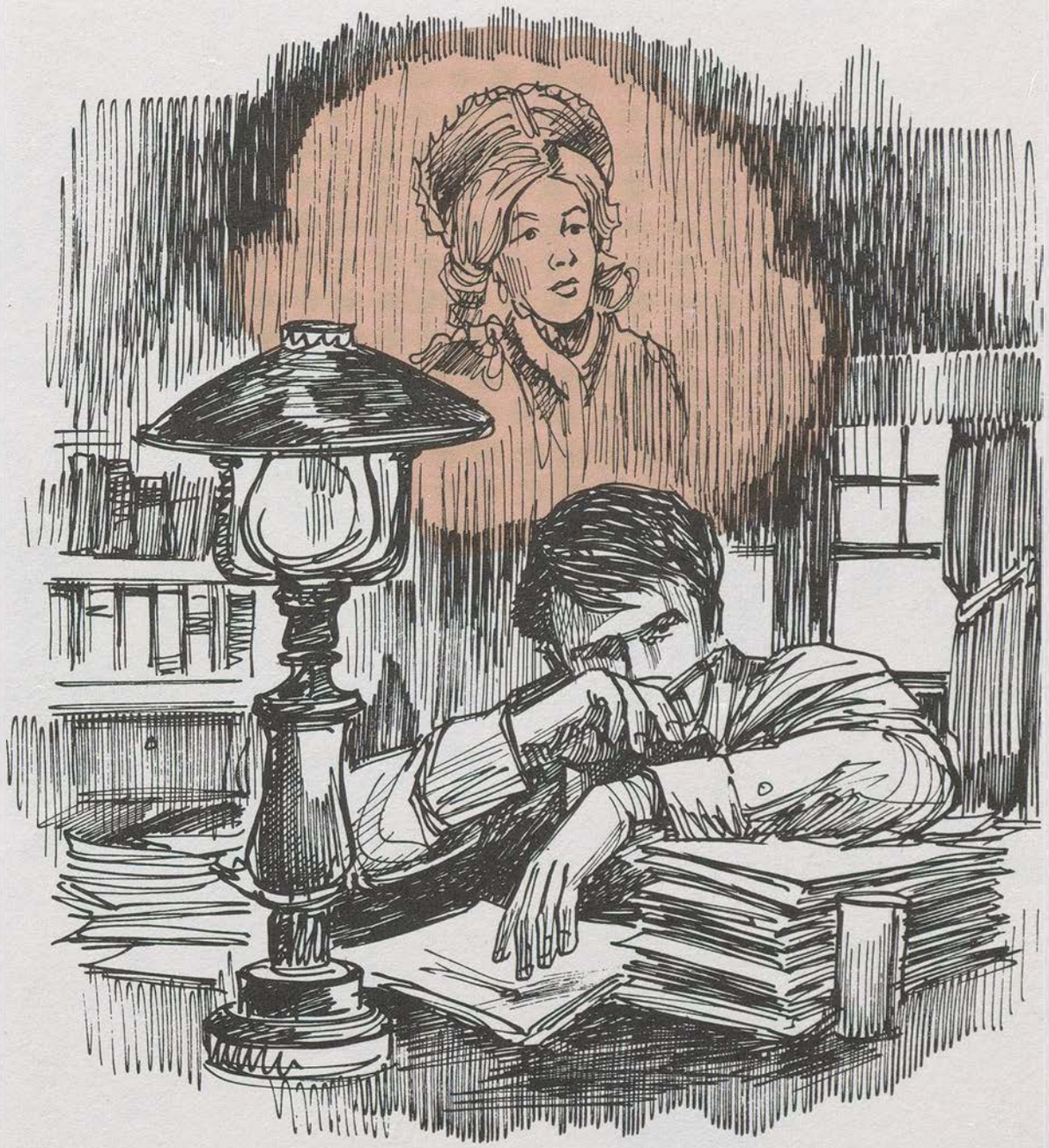
Thomas Edison, age 38, and Mina Miller, age 19, were married in Akron on February 24, 1886. They boarded a train for a honeymoon in Fort Myers, Florida, where Edison was building a winter home and winter laboratory. The newly-wedded wizard refused to answer urgent business messages for more than three weeks.

Edison already had bought his Mina a home in an exclusive residential park on the mountainside at West Orange, New Jersey. The house had cost $200,000 when built a short time before. Edison bought the property for $50,000 because the owner had been forced into bankruptcy.

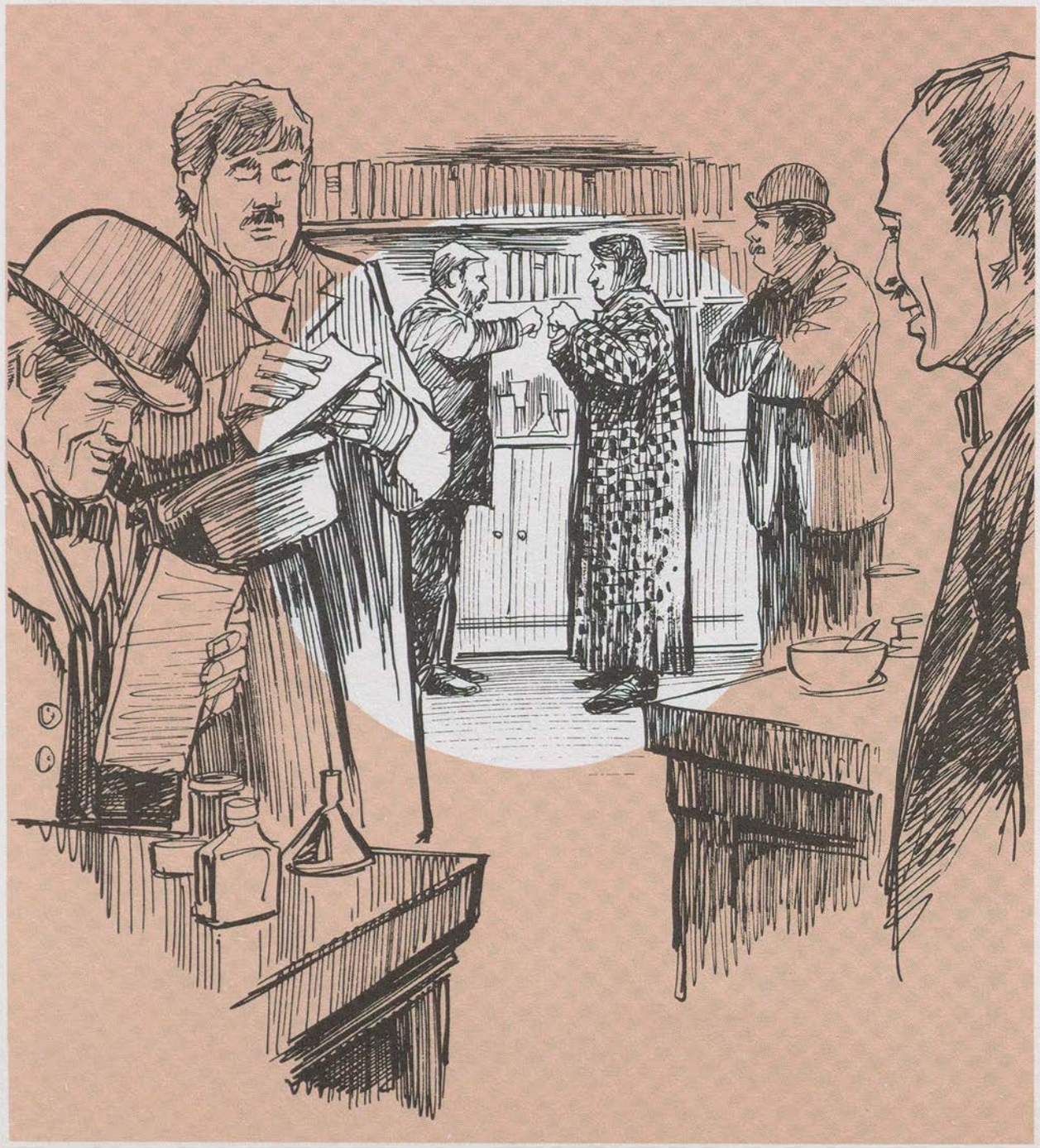
Mina Edison constantly tried to polish her rough diamond of a husband — and occasionally succeeded. He restrained his language around home, tried not to spit tobacco juice, dressed in clothes becoming a famous man, saved his spicy stories for the men at the office, and sought to keep some reasonable kind of work schedule.

Thomas Edison finally had been tamed, but only as far as his appearance and schedule were concerned. Nothing, and no one, could tame or restrict his roving, active mind.

But he needed to escape the whirl of romancing and socializing. He had to challenge his mind. The honeymoon was over.



A Factory of Creativity



Late in the spring of 1887, Thomas Edison and his secretary, Alfred Tate, rode through a valley beneath the mountains that separated Newark, New Jersey, from the rural regions to the west.

"Tate," said Edison, "See that valley?"

"It's beautiful," Tate responded.

"Well, I'm going to make it even more beautiful," Edison declared. "I'm going to dot it with factories!"

Whatever Edison said, a respectful public believed. He had just turned 40 years old and was celebrated around the world for his electric lamp and his scores of other inventions. He was in the early years of his happy second marriage.

Then, suddenly, Edison met the fear of death.

He had pushed himself hard during December, 1886, at his lamp factory at East Newark. Just after Christmas, in a spirit of festivity, Edison had lingered in the factory yard to talk with old co-workers who had helped him to success.

Edison ignored the damp, bitterly-cold air. That night he felt chills; the next day he was stricken with pleurisy and pneumonia. Either sickness could have been fatal in a time when medicine was closer to witch doctor treatment than it was to science.

Edison lingered between life and death for many days, and even when the major crisis passed, the inventor had to remain in bed.

As he rested, Edison's thoughts strayed constantly to the valley below the mountainside mansion where he and his bride lived. He needed a new laboratory; why not build it in the valley within walking distance of home?

The dramatic years of the Menlo Park laboratory studies had ended when Edison transferred most of his research work to a small fifth-floor laboratory in New York City in 1881, shortly after he began his project to illuminate lower New York with electric lamps.

Menlo Park's abandoned buildings were being used in various ways — as a small church, as homes, as farm buildings. The upper floor of the laboratory was first used as a dance hall, and later, as a building to hatch chicken eggs with warmth created by electricity.

Edison enjoyed at the idea of the hatchery. He wrote in his notebook:

"Just think of electricity used to cheat a poor hen out of the pleasures of maternity!"



Practical Tom Edison combined his office and library, surrounding himself with stacks of books when he opened his handsome West Orange laboratory in 1887.

Edison was determined that his new West Orange laboratory would make the frame buildings at Menlo Park seem more fitting for a chicken coop than a place for invention.

Foundations for the 250-foot-long, three-story main brick West Orange laboratory building were poured in May and June, 1887, and the structure was operational by the end of the year — although not yet to Edison's satisfaction. He refused interviews on the structure, even to old friends at the *Scientific American.*

Edison devoted major attention to buying supplies. Expressing the belief that "an experimenter never knows five minutes ahead what he does want," Edison spent a fortune on a strange list of substances.

He bought large quantities of chemicals and minerals. He also ordered such items as tanned walrus hide, elephant tusks, a pound of peacock's tails, a dozen bulls' horns, 25 pounds of marlin, exotic seashells, quantities of hog bristles, porcupine quills, and all kinds of grains.

Edison wrote that he wanted to have handy "everything from an elephant's hide to the eyeballs of a United States senator." There is no record that he every acquired the eyeballs.

Four smaller buildings were added, each 100 feet long; one for metallurgy, one for chemistry, one for woodworking, and one for testing galvonometers.

Edison's special pride was his combined office and library in the main laboratory building. His desk was in the center of the room, surrounded by tiers of shelves that he planned to fill with volumes dealing with scientific thought and invention.

Edison believed that the laboratory would be a creative factory to take the "raw material" of ideas and transform them into useful products that would attract factories to the valley.

By the spring of 1888, Edison was back in full health and vigor, welcoming visitors, particularly the press. He knew that the press loved "characters," and he played the part. Over his black suit, Edison wore a long smock of checked gingham, reaching from chin to heels, to protect his clothes from acids, dust, and oil.

Visitors wrote of the strange costume. One summed it up:

"Edison in his working gown is a sight to laugh at — until you remember that it *IS* Edison."

Thomas Alva Edison was no laughing matter, and he was back in action.

Pictures That Move



The "sights" lasted only about 16 seconds, but the peephole Kinetoscope was a sensation after it was first viewed in 1894. The "short subjects" might include anything from a prize fight to a kiss, both then considered daring.

Anticipation rose on Saturday morning, April 14, 1894, in a crowd milling outside 1155 Broadway in New York City. Above the throng, flashing electric lamps in the eyes of a fiery dragon blinked on and off to attract attention to a sign:

THE WIZARD'S LATEST INVENTION.

The blinking dragon was not needed. This crowd was gathering because word had passed that Thomas Edison's much-rumored "moving pictures" finally would be shown inside the Broadway hall.

Astonishingly, the people were on hand despite the fact that the first public showing was not scheduled until the following Monday — two full days away!

Frank Gammon and Alfred Tate, partners in this first "movie theater," surveyed both the crowd and their ten idle Edison "Kinetoscopes," really only peep-hole devices through which a viewer could see a 16-second movie.

Each machine had a slot into which a silver quarter could be dropped to start the brief movie. Thoughts of all the potential quarters waiting outside motivated the partners to open their doors on Saturday afternoon, 48 hours ahead of schedule.

When the doors closed at 1 A.M. on Sunday morning, 480 customers, all apparently delighted at the chance, had parted with their quarters to see such "unbelievable sights" as a man sneezing for 16 seconds.

The "Wizard" again was thrilling the masses.

Edison's worshipful biographers (aided by the inventor's own exaggerations and his convenient forgetfulness) have perpetuated for decades the tradition that Edison "invented" the movies. He did not — but he did make them practical and popular.

Devices to simulate motion had been known since the 1830's. Edison himself had noted as early as 1878 that it should be possible to make a machine to capture motion, much as his phonograph captured sound.

Edison began his work with motion pictures in February, 1888, inspired by an English inventor- photographer named Eadweard Muybridge. The Englishman had won fame for his sequential "moving" photographs of racehorses and other animals.

Each picture was taken by an individual camera, each capturing a different split second of motion. Muybridge mounted the photographs

and projected them in sequence to simulate motion. The drawback was that Muybridge would have needed 720 cameras to make a one-minute "movie."

After talking with Muybridge, Edison summoned an aide named William K.L. Dickson. Edison instructed Dickson to begin improving on Muybridge's basic theory. Edison suggested a series of tiny negatives — each 1/16th of an inch square — photographed on a revolving cylinder.

Much of the credit for Edison's eventual motion picture success must go to Dickson, a young Englishman who had begun begging Edison for a job in 1879. He finally was hired in 1885.

Ready to file his first motion picture camera patent in October, 1888, Edison sought a word to represent "a moving object." He combined "kinesis," the Greek word for motion, with "graph," to make "Kinetograph." The device for watching the pictures would be a "Kinetoscope."

Ever mindful of small sums, Edison erred grievously in his patent applications, both in the United States and abroad. On one occasion, rather than pay $65 for a patent appeal, Edison decided to let the matter "soak for awhile." That "soaking" later cost Edison millions of dollars in lost revenue when patents were violated.

Reading of George Eastman's experiments with flexible photographic film, Edison sent for a supply. When it arrived, he told Dickson:

"That's it — we've got it! Now we work like hell!"

Filming was a tricky business, requiring brilliant sunshine for light. Edison built the world's first motion picture studio at West Orange in 1893. The roof could be entirely opened, and the building could be revolved on wheels to catch any trace of the sun.

Dickson worked overtime to make several short films in the studio. Often a week was required to make as little as 15 seconds of film. Subjects ranged from dancing girls to a celebrated 15-second kiss (shocking for the time).

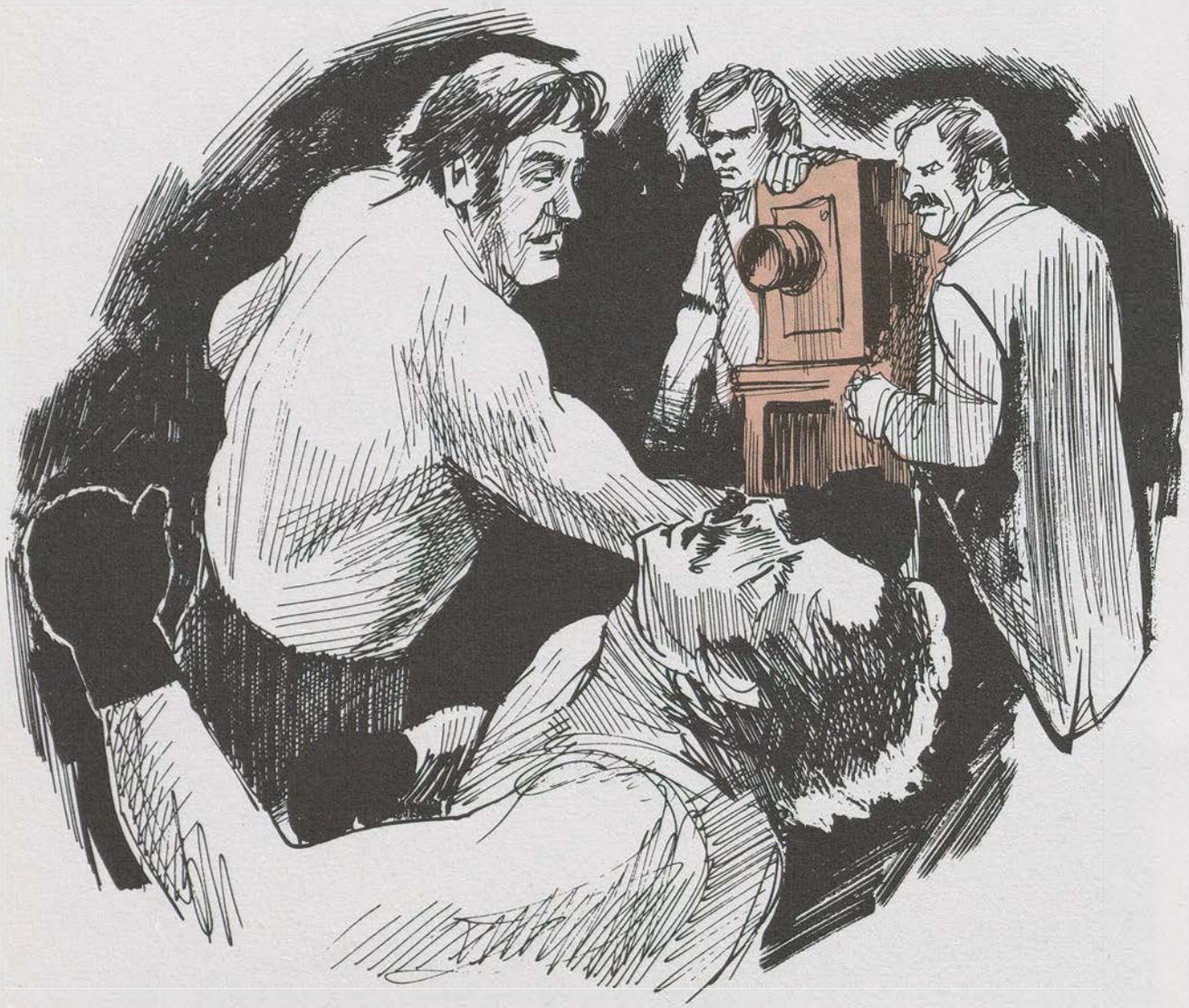
Serious supporters of motion pictures knew that Edison's peep-hole Kinetoscope was not satisfactory, but since the inventor already had received orders for several hundred of them, he stubbornly resisted Dickson's appeals to make a projector.

A Washington, D.C., realtor named Thomas Armat entered the picture at this point. He asked Edison to collaborate in merchandising a superior "Vitascope" projector that Armat had invented. Edison agreed, but no mention of Armat was made when the machine was unveiled in April, 1896, as "Thomas A. Edison's latest marvel, the Vitascope." Omission of Armat's role was, at best, a shabby oversight.

Still, the public really neither cared nor wondered about such details as who actually "invented" the movies or the projectors. The crowds outside Kinetoscope parlors cared only for the name of Thomas A. Edison. His movies, at 16 seconds each, were a flickering delight.



Fights, Tights, And Westerns



Gentlemen Jim Corbett, heavyweight champion of the world, "defended" his title on September 7, 1894, in West Orange, New Jersey, before a crowd of about ten persons and Thomas A. Edison's movie camera.

The studio where the fight took place revolved on wheels to catch the sun and was covered with black tarpaper. It had been dubbed "the Black Maria," the nickname for the black vans that police used to pick up prisoners in cities.

On September 7, 1894, that symbolic nickname had double meaning, for prizefighting was illegal in most of the United States. The illegality added spice; any film showing the forbidden sport was greeted by cheering crowds.

Corbett's opponent was ponderous Pete Courtney of nearby Newark. Unknown even to Courtney, a "fix" was on: Corbett was scheduled to knock out Pete in the sixth round — but not before, since the movie parlors demanded a six-round fight.

Each round supplied about one minute of film, followed by a one-hour wait while the film was being changed in the camera. Filming had begun at 9 A.M. The sixth round of the Corbett-Courtney "epic" was ready to start at 4 P.M. Corbett was told that he must kayo Courtney.

The champ now was ordered to stand on a chalk mark when he struck the winning blow, lest he be out of focus. Forty seconds into the sixth round, the signal came for the knockout punch. Corbett hammered Courtney into unconsciousness just as the film ran out.

Four days later, an outraged judge ordered that Grand Jury indictments be brought against all who were in the Black Maria for the fight, including Thomas A. Edison. Edison had the indictments squashed.

Later, the film ran in Kinetoscope machines at one round for 25 cents, or $1.50 for the total fight. Such huge crowds were on hand for the "illegal" movies that police had to be called to preserve order.

Edison by then had sold nearly 1,000 Kinetoscopes. The demand for new films was endless. Popular New York City performers rode trains and trolleys out to West Orange to show their acts on film.

All of the performers worked without pay, thankful for the exposure in this new medium. Big stars at the Black Maria included Buffalo Bill, Annie Oakley, the Gaiety Girls of New York, lion tamers, circus stars, and vaudeville performers.

The male public enjoyed the gore of the prizefights and the secret pleasure of watching the Gaiety Girls prance about in tights.

But something better was needed — plots.

William K.L. Dickson, who supervised most of Edison's ventures in the motion picture field, tried without success to convince Edison that plotted movies would find a ready audience.

Dickson left Edison in 1895. Soon after, Dickson filmed the "Empire State Express," a movie with a simple plot. When it was shown in October, 1896, at Hammerstein's Theater in New York, the sight of a great locomotive seemingly roaring into the theater caused viewers to dive under seats or to stampede into the aisles.

Edison was convinced, but he correctly believed that plotted movies needed some kind of dialogue to reinforce the action. He originally had hoped to combine his phonograph with the film (thus anticipating the "talkies" that finally appeared in the late 1920's).

Failing in his synchronized sound trials, Edison pioneered printed captions, testing them on audiences of all ages and occupations. He concluded that six to eight words was an average attention span for captions.

Edison's printed dialogue, plus better projectors and film spliced together for up to a 14-minute show, helped some. But the movie fad began to languish. The once-thrilling "short subjects" of the Kinetoscopes by 1900 were being used as "chasers" to get people out of vaudeville theaters between shows.

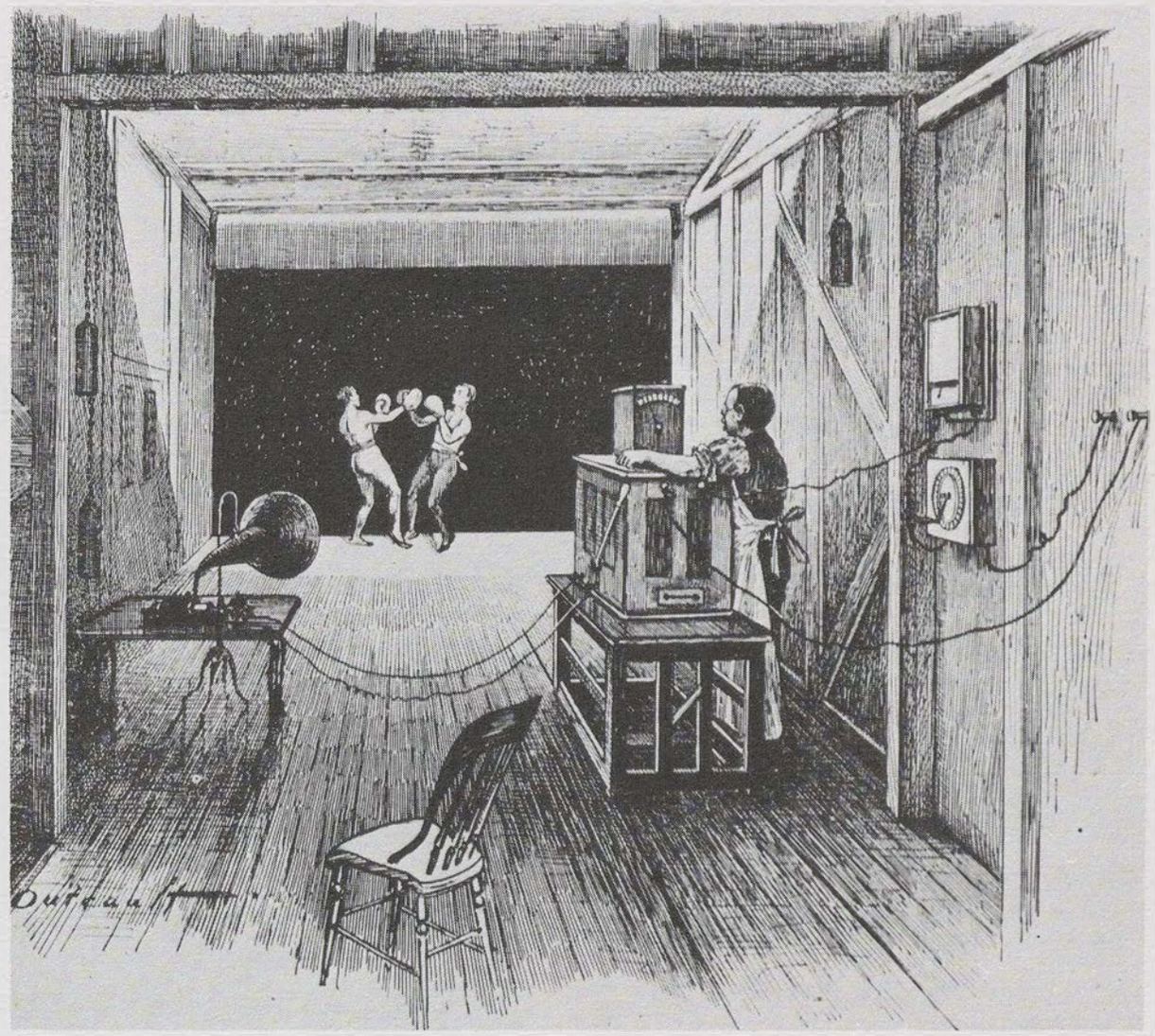
Along came Edwin S. Porter, a swashbuckling cameraman in Edison's studio. He collaborated with James White, another Edison employee, to produce in 1903 a 500-foot-film (about seven minutes) called "The Life of an American Fireman."

A year later Porter made the first story picture ever filmed, "The Great Train Robbery," still recognized as the classic among all old-time films. Porter used the New Jersey countryside for his "Western" scenes and packed adventure, sin, and violence into 1,000 feet. He had found the formula.

Soon after, Porter made "Rescued from an Eagle's Nest," filmed in the Palisades overlooking the Hudson River. It was notable because the lead was played by an unsuccessful actor named D.W. Griffith, who soon would become an esteemed movie director.

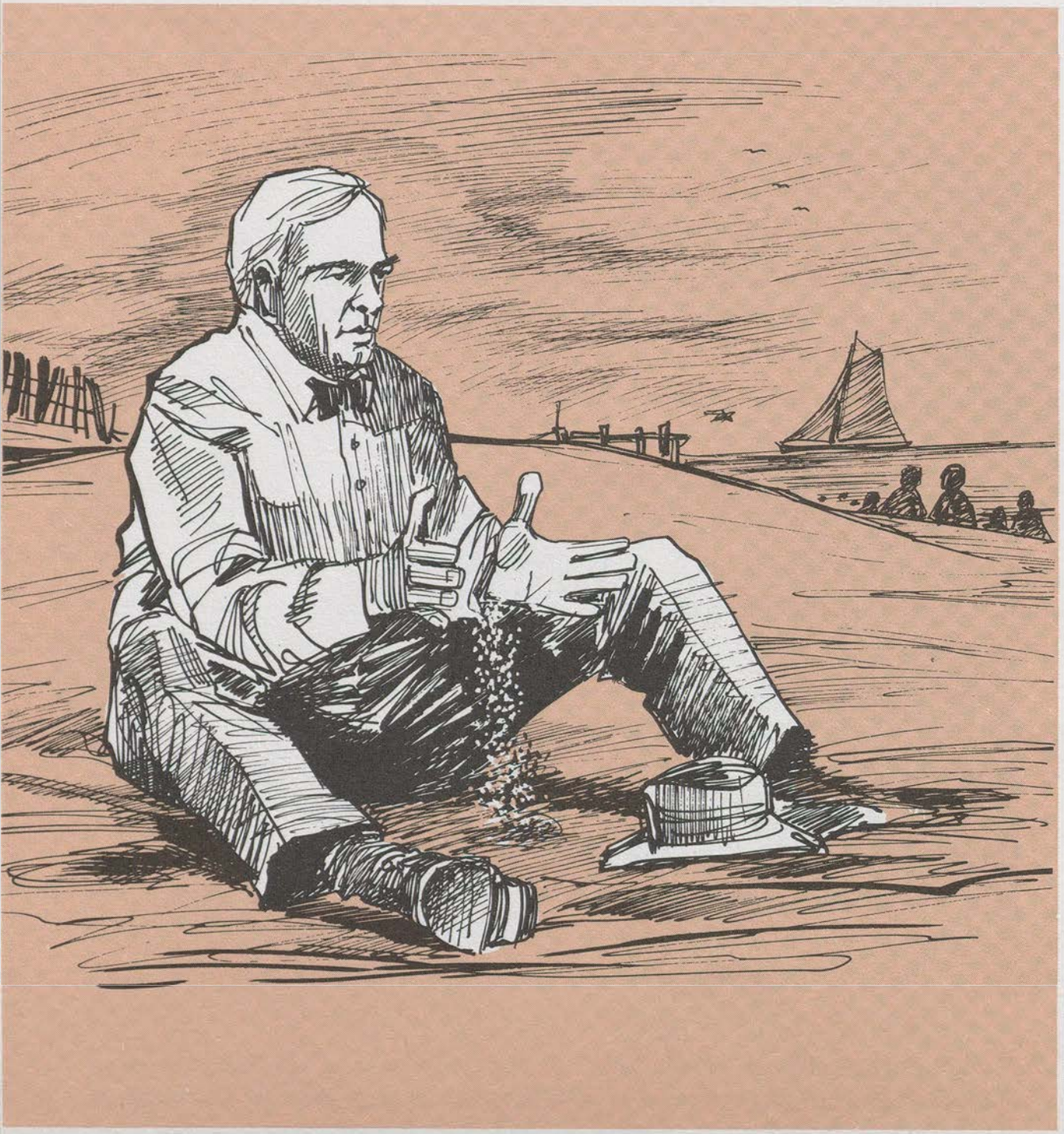
Edison's interest swerved away from the motion pictures just as swarms of new movie makers were entering the field. That inattention, plus his carelessness with his original patents, caused Edison's influence to wane in moviedom.

Across the land as the movies flourished, pianists played imaginative background music for the silent films. One popular favorite, "Hearts and Flowers," was rendered for sad scenes and lost loves. By World War I, that was Edison's song — as far as the movies were concerned.



Two boxers stage another "epic fight" for the cameraman in the Black Maria in West Orange, this time in January, 1894. Even at this early date Edison sought to synchronize sight and sound; horn at left picked up the sounds of punches.

"A Hell Of A Good Time"



Sitting on a sandy beach, relaxing, was not Thomas Edison's idea of a good time. His restless mind seethed with questions: Why couldn't the roaring power of ocean tides be harnessed? How many unknown secrets were in a handful of sand?

During the summer of 1880, as Edison sat on a Long Island, New York, beach, he noticed black grains in the white sand. Could the grains be a useful mineral? He took a pail of sand back to his laboratory for testing.

Just as he thought, a magnet pulled the black grains out of the sand. Edison had found iron on the beach.

His mind soared. He would apply magnetic separation on a big scale to separate iron ore from rock. It would cost a small fortune, but he told himself that this would not be speculation. Iron was scarce.

The idea of magnetic separation of iron was not new, but until 1880 the costs of experimenting on a large scale had frightened even wealthy steel companies away from the idea. Edison plunged ahead.

First he tried a pilot separation plant on a Long Island beach, only to have it destroyed during a wild storm. He rebuilt in Rhode Island and managed to extract a thousand tons of iron concentrate, only to find that the quality was too poor.

Money ran low; the iron experiments were set aside. Then, in 1889, formation of the giant General Electric Company (using Edison's electric patents) created the time and capital for Edison to return to his dream of magnetic separation of minerals.

Edison bought several thousand acres of land in the remote northern New Jersey mountains near Ogdensburg. Iron had been mined in those hills for nearly two centuries. It was estimated that a billion tons of iron ore still lay in the earth.

Edison poured hundreds of thousands of dollars, then millions of dollars into those iron mountains.

Up went a huge milling and separation plant, featuring 480 large electromagnets. Wide conveyor belts moved the iron from a massive crusher to the magnetic separator, the first major use of conveyor belts.

The plant was a model of mass production, so good that it served as a model a half century later when scientists struggled to separate uranium from unwanted elements during the early stages of atom bomb experiments.

After the separation, the iron was smashed again and compressed into

round "bricks" of concentrated iron about three inches in diameter for easy hauling to steel mills.

The plant worked exactly as Edison had envisioned. Steel mills were well satisfied with the experimental product coming from the Edison mill. The picture was bright.

Working at top physical and mental capacity in the hills stimulated Edison, who was now in his late 40's. He wrote of this time:

"I never felt better...my life was very pleasant. We learned a great deal. It will benefit someone sometime."

Crowds often rode out on weekend train excursions to see the "Wizard" at work. Usually Edison hid from them, but occasionally he would burst forth from his office, pace up and down in a clownish imitation of a "mad scientist," then run for cover.

The giant separation plant consumed most of Edison's time for nearly a decade and ate away most of his assets.

It would prove to be a great white elephant, for when the first major order came from Bethlehem Steel in 1898, a twist of fate made the purchase too late.

Ironically, just as the crushing and separating operation was producing on a large scale, high-grade, easily mined iron ore was discovered in the Mesabi Range in Minnesota. The New Jersey separating operation was doomed.

When Edison read of the Mesabi discovery, he reportedly burst out laughing and said:

"Well, we might as well blow the whistle and close up shop!"

He made his last trip to the mine site in 1899 to supervise closing of the mill and the dismantling of the machinery. He was not dispirited; his optimistic mind saw a new use for the machines — he would crush rock to make cement.

The machines were transported to New Village, New Jersey, where Edison would spend another $5 million before admitting that his schemes for pre-fabricated concrete houses and poured concrete roads were too far in advance of the nation's needs.

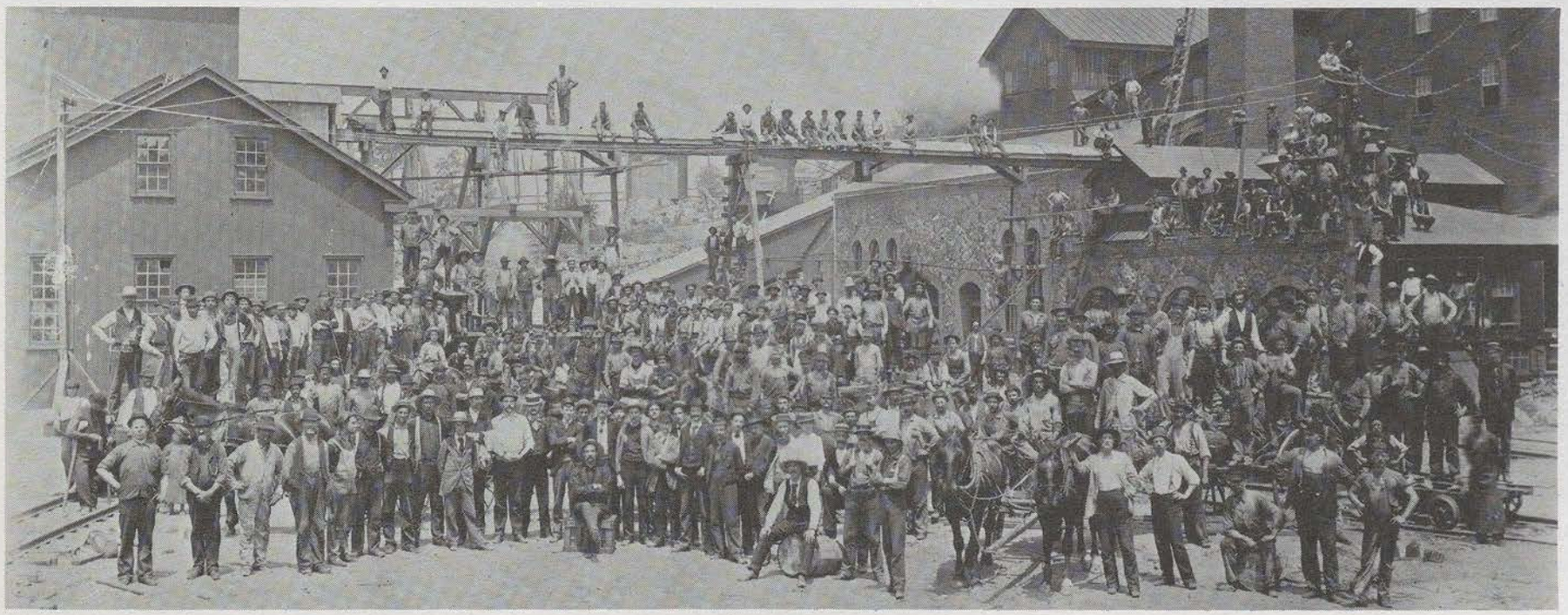
Back in West Orange after the iron fiasco, Edison realized that his financial situation was desperate. Among other things, he had sold his large block of shares in the General Electric Company to finance the venture in iron.

Noting that General Electric stock had soared to $330 a share, Edison asked an aide, Walter Mallory, what his G.E. shares would be worth if he had not sold them. Mallory replied:

"About four and a quarter million dollars."

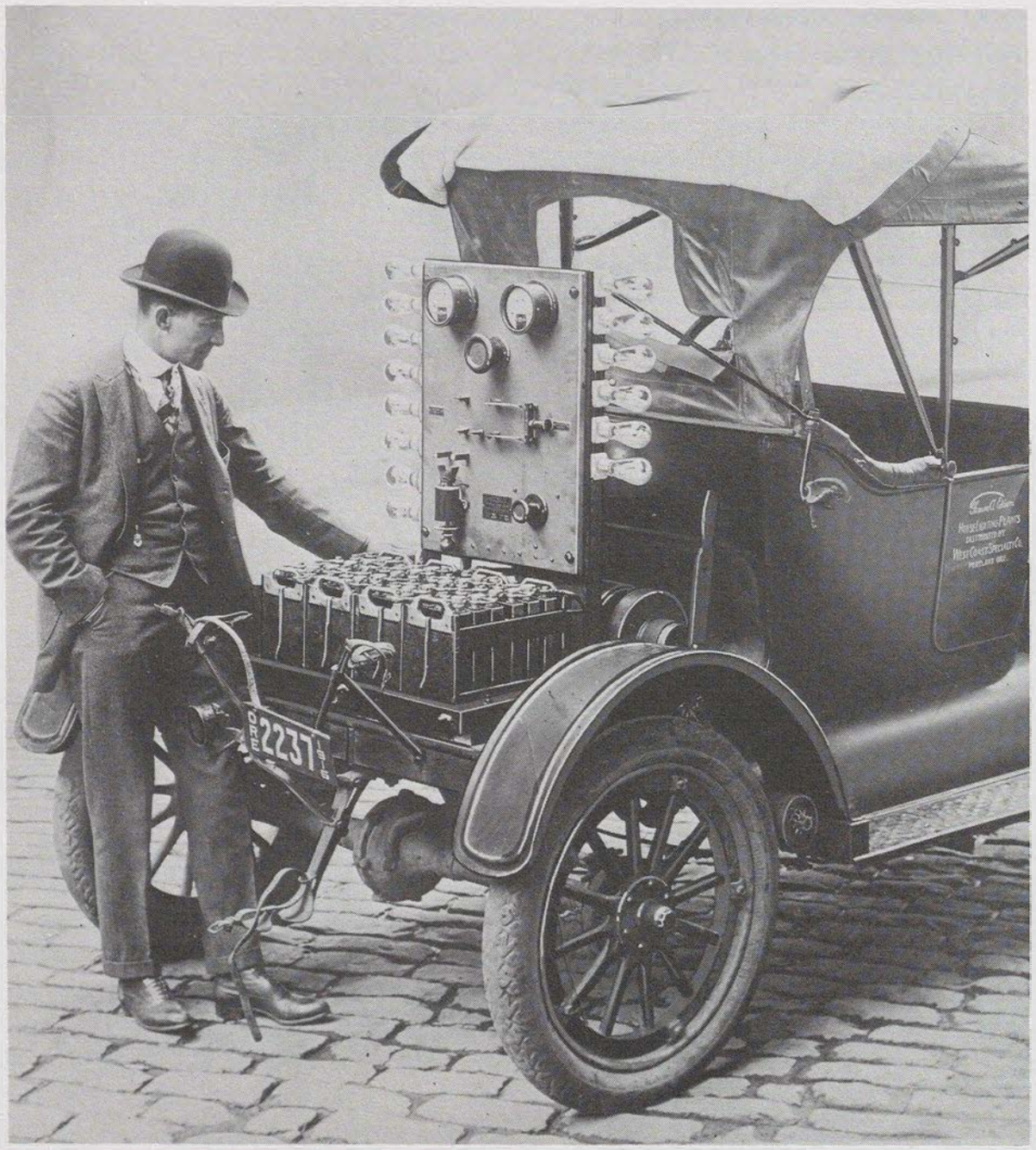
Mallory recalled that Edison was silent for a few seconds, then said with a laugh:

"It's all gone, but we had a hell of a good time spending it!"



High atop a New Jersey mountain in north-western Sussex County, Edison used electromagnetic equipment to separate iron ore from rock. Within two years he had built a massive converting factory and more than 650 workers flocked to the remote site near Ogdensburg. The venture failed, chiefly because it was far in advance of the needs of the iron industry, but Edison's theories later were proved right.

"A Box Of Electricity"



Edison was certain that his new alkaline batteries would revolutionize America's driving habits. That was not to be, for drivers preferred gasoline, but this 1916 car advertised both batteries and electric power in Portland, Oregon.

All horses should be banned from cities, Thomas Edison growled as the 19th century turned into the 20th. "The worst use of money," he argued, "is to make a fine thoroughfare, and then turn it over to horses."

Automobiles fascinated Edison. He predicted that millions of people would get to work and to play in automobiles, powered (Edison thought) by electric storage batteries.

Gasoline? Much too inefficient, much too scarce, much too expensive, much too odorous, Edison retorted.

Developments thus far proved Edison's contention. An 1899 survey in downtown New York City showed that 90 percent of all motorcabs were powered by quiet storage batteries. The remaining vehicles, propelled by gasoline or steam engines, were bulky, undependable, noisy, and smelly.

Electric storage batteries had been around for a long time; the first had been patented in France in 1859. Twenty years later, development of the first practical storage battery had prompted Lord Kelvin, the great English scientist, to exclaim that it was truly "a box of electricity!"

But storage batteries of the 1890's were the lead-acid types (somewhat like modern automobile batteries). The very heavy batteries had limited durability and dependability and could be dangerous.

"I guess I'll have to make a battery," Edison casually told an assistant late in 1899.

He wrote in his notebook soon after that he aimed to produce a light, durable, economical battery, proposing to use an alkaline solution, rather than acid.

Such a battery would be easy to develop, an ebullient Edison told the newspapers. Within the laboratory, however, his awareness that it would not be easy was reflected in an experimental staff of 90 persons that included trained scientists, technologists, and a wide variety of other skilled persons.

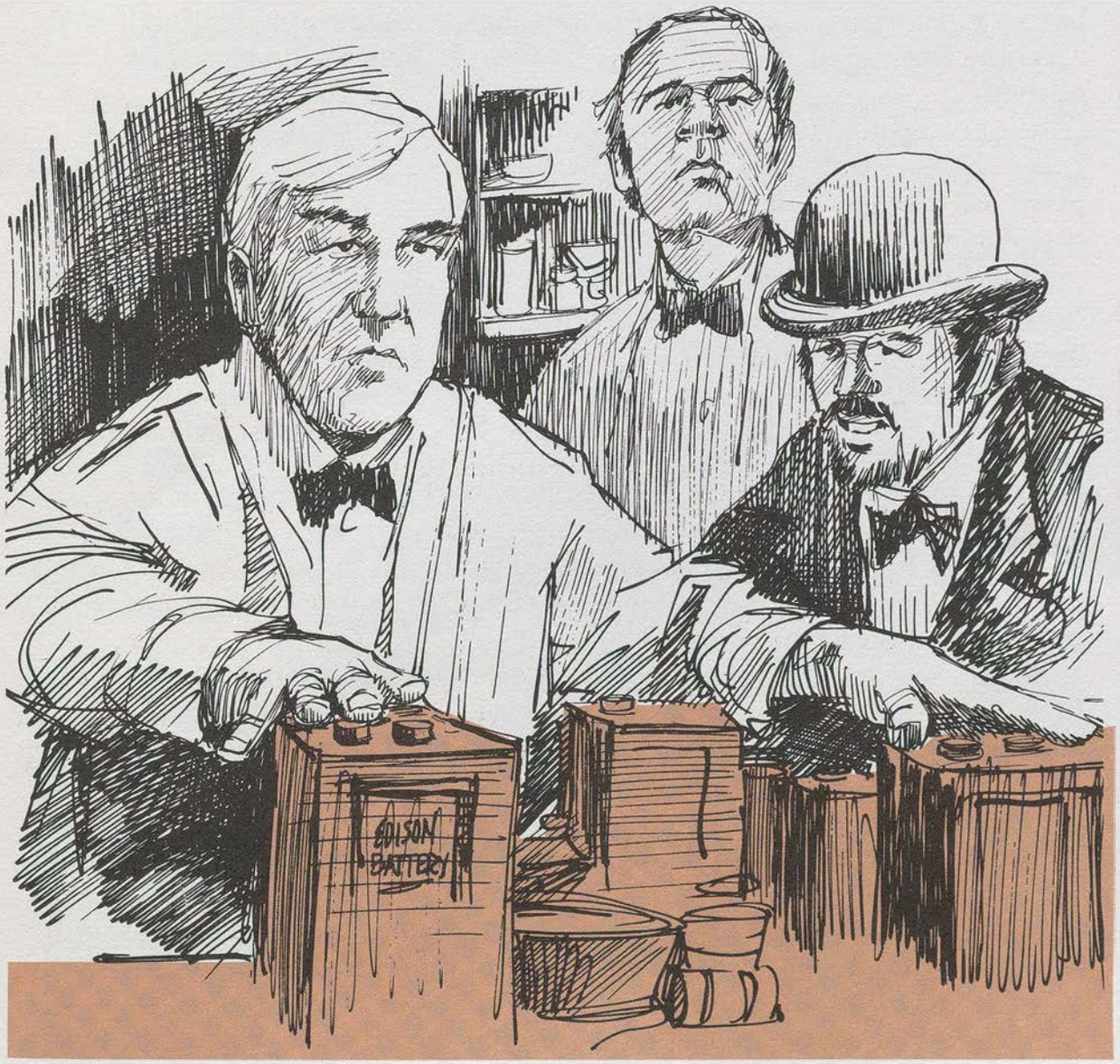
Edison mobilized the staff with an intensity that matched the grinding work that preceded discovery of the successful incandescent light bulb in October, 1879. He worked himself more than 14 hours a day, seven days a week. It was not a matter of desperation; he loved the challenge.

He enjoyed especially that this project was largely a matter of chemistry. "Grand science, chemistry," Edison wrote. "I like it best of all the sciences."

NOT TO BE TAKEN
FROM LIBRARY

The months sped on. When the number of unsuccessful experiments reached 10,000 after 18 months of work, Edison said, "We turned the register back to zero and started over again." Edison likened himself to a modern Don Quixote, tilting with scientific windmills to free a storage battery.

Walter Mallory, a co-worker and close personal friend, expressed sympathy that 10,000 experiments had produced no useful results. Edison gazed at Mallory, smiled, and replied:



"Why man, I've got a lot of results! I know several thousand things that won't work!"

Finally, after rigorous testing in the laboratory and on a variety of vehicles, Edison announced that his new alkaline battery, encased in stainless steel, was a complete success.

He set up a factory to produce the battery. Characteristically optimistic and publicity oriented, he trumpeted his success to newspapers and magazines. Orders poured in.

Unfortunately, Edison had crowed far too soon and far too much. The battery was unreliable. Containers leaked. Breakdowns were numerous. Performance dropped far below promises.

Edison promptly swallowed both his pride and his investment of more than $500,000. He closed the factory and recalled all batteries. He bluntly announced:

"The factory will not start up until I find out why the cells lose capacity."

Experiments continued behind closed doors — on a leak-proof case, on a better alkaline solution, on lighter materials. Edison and his staff managed to obtain nickel flakes as light as thistledown, about 1/25,000th of an inch thick.

A major breakthrough came in 1908, when lithium hydroxide was added to the battery's caustic potash solution. It worked; conductivity and ability to retain a charge were both improved dramatically.

Addition of the lithium hydroxide to the potash solution was a combination of shrewdness and luck, for it would have been impossible to arrive at the resulting compound by the theoretical chemistry formulas of the day. Edison reopened the factory in 1909 and announced:

"At last the battery is finished."

Within a year more than $1 million worth of batteries left the factory. Letters from customers proved that the new battery was both scientifically and commercially sound.

Edison in time would make a fortune from his alkaline storage battery, one of his finest inventions. Yet, his dream of replacing the horse with storage batteries did not come to pass.

Henry Ford and others by 1909 had so improved the "horse power" of their gasoline-burning motors that customers easily could get 20 miles to a gallon of gasoline. Oil companies boomed the capacity of their refineries.

The horse? It soon was pushed off city streets — and that had been one of Edison's goals when he had staked his power and his fortune on a storage battery.

"Fine As Silk!"



Fire roared through the giant Edison complex in West Orange, New Jersey, on December 9, 1914, feeding ravenously on the stores of chemicals and other inflammable materials needed for the varied products of the Thomas A. Edison Company.

Wild green and yellow flames soared into the leaden winter sky. Intense heat felled scores of firemen and plant workers. Only the laboratory and library were spared. Years of work and investment were disappearing before Edison's eyes, yet the inventor seemed invigorated by the disaster.

As the fire raged, Edison's son, Charles, lamented the loss. The father replied:

"It's all right. We've just got rid of a lot of old rubbish!"

Before the ruins had cooled, the 67-year-old Edison had formulated plans for a bigger and better factory. He worked with zest; he was always supreme when coping with disaster or major problems.

Tom Edison was young again in spirit. At his next birthday, after the fire, a reporter asked the inevitable and tedious "how do you feel" question. Edison responded:

"Fine as silk!"

He proved his point by wheeling about, excuting a high kick that cleared his laboratory table of all its equipment. He then brought his foot down to the floor in the exuberant manner of a mischievous boy.

Edison's most productive years unquestionably were behind him. Yet he labored on, although slackening off to about 16 hours of work a day with about eight hours reserved for sleeping, eating, and going to the movies (he loved happy endings).

Edison was nearly his old highly-motivated self during World War I. First he brought action and imagination to developing manufacturing facilities to replace acids and dyestuffs cut off by war with Germany. Then he served with distinction as president of a specially-formed Naval Consulting Board.

Birthday number 70 came on February 11, 1917, during the war. Mrs. Edison arranged a big party in the factory, inviting a wide variety of guests, including as many as possible of Edison's faithful, aging cronies who had worked with him through years of mingled despair and triumph.

Edison growled as usual at the fuss and teased the crowd of reporters who still asked simple question for which they expected profound answers

("What will the world be like 500 years from now?"). Edison never disappointed reporters. He answered any question, whether or not he knew anything about the subject.

The inventor made great newspaper copy. His keen mind, combined with his world-wide reputation and his crackling, waspish humor, made him highly quotable. If at times his answers caused him trouble (as when he was expressing his caustic doubts about religion), it never bothered Edison.

Every newspaper or magazine article enlarged the myth of a "wizard" who created miracles out of nothing. Edison's intense, serious work was not nearly as good a story as the fiction of a born-again Merlin; Edison's own deliberately wild exaggerations enlarged the legends.

Few people knew, for example, that Edison's incessant quest for knowledge led him through an incredible number and variety of books, ranging from those dealing with pure science to the science fiction of Jules Verne to the plays of Shakespeare.

Summarizing his love of Shakespeare, the inventor gave the Bard what Edison considered the ultimate in praise:

"Ah, there was a man with ideas! He would have made a great inventor!"

One of Edison's best friends was Henry Ford, who idolized the inventor. During the late years of World War I and the early 1920's, Edison indulged himself in a series of camping trips with Ford and two other close friends, John Burroughs, the renowned naturalist, and Harvey Firestone, the multi-millionaire tire manufacturer.

Burroughs apparently originated the idea to lure the tycoons on camping trips, "away from the busy world of material and business developments." Edison was enthusiastic, and insisted on choosing the itineraries himself.

The first trip, in the late summer of 1916, was as idyllic as Burroughs promised. It wound from West Orange through New York's Adirondack Mountains, often traversing unpaved mountain trails. The 79-year-old Burroughs wrote that 69-year-old Tom slept in his clothes, "dropped off to sleep like a baby," and enjoyed himself immensely.

Other trips followed — to the Great Smoky Mountains, to the rugged hills of West Virginia, to New England's White Mountains. The first trip was the best; too soon the press invited itself along, turning the trips sour with constant demands for quotes and photographs.

On one occasion, Ford was miffed when a mountain man said he had never heard of Ford or had never seen an automobile. "Good," said Edison, "We shall have a good time here."

Conversely, Edison clearly relished an encounter with a little girl who eyed him shyly in a mountain village. He asked her if she knew him.

"Yes," she replied, "You are Mr. Phonograph."

Mr. Phonograph. Mr. Electricity. Mr. Movies. Mr. Wizard. Thomas Alva Edison was moving through his birthdays from 70 to 80, inventing almost nothing except new versions of his boyhood.

But he was enjoying himself, aware at last that life was something to savor.



The caravan of famed campers stopped in August 21, 1918, to pose at a waterwheel in West Virginia. Left to right, were Thomas Edison, Harvey Firestone Jr., John Burroughs, Henry Ford, Harvey Firestone Sr. and (seated) R.J. DeLoach.

Bigger Than Life — Or Death



Chemistry, Edison thought, was "the most noble of sciences," and the inventor had especial delight that his last great work — the search for a substitute rubber source — relied on testing and evaluation in the chemistry laboratory.

As Thomas Edison approached his 80th birthday in 1927, he had become as much a part of American history as Washington or Lincoln. People who as children had read newspaper accounts of the first electric light now saw major attention given to Edison in their grandchildren's history texts.

Unfortunately for the grandchildren, the textbooks nearly always were illustrated with photographs of a tired, shaggy-haired old man rather than the vibrant young Edison of nearly 50 years before. Because of such textbook illustrations, Edison and old age had become — and would remain — linked in most minds.

Advancing age did not dim his charisma. On one occasion, for example, 50,000 people waited for hours in a San Francisco fog, hoping for even just a glimpse of the world's most amazing person. As many as 5,000 people each year would line the road outside tiny Fort Myers, Florida, when Edison arrived for winter vacation.

Such crowds almost were acclaiming Edison as a mystic, for the times had nearly passed him by, as proved by his stubborn refusal to accept radio.

Edison scoffed that "the radio craze" was a passing fancy. He predicted: "It will die out in time so far as music is concerned. But it may continue for business purposes."

Despite such evidence of his declining creativity, Edison had one major spark of genius left. Encouraged by Henry Ford, automobile maker, and Harvey Firestone, tire manufacturer, Edison started an incredible quest in 1927 to find a source of rubber within the United States. He was then 80 years old.

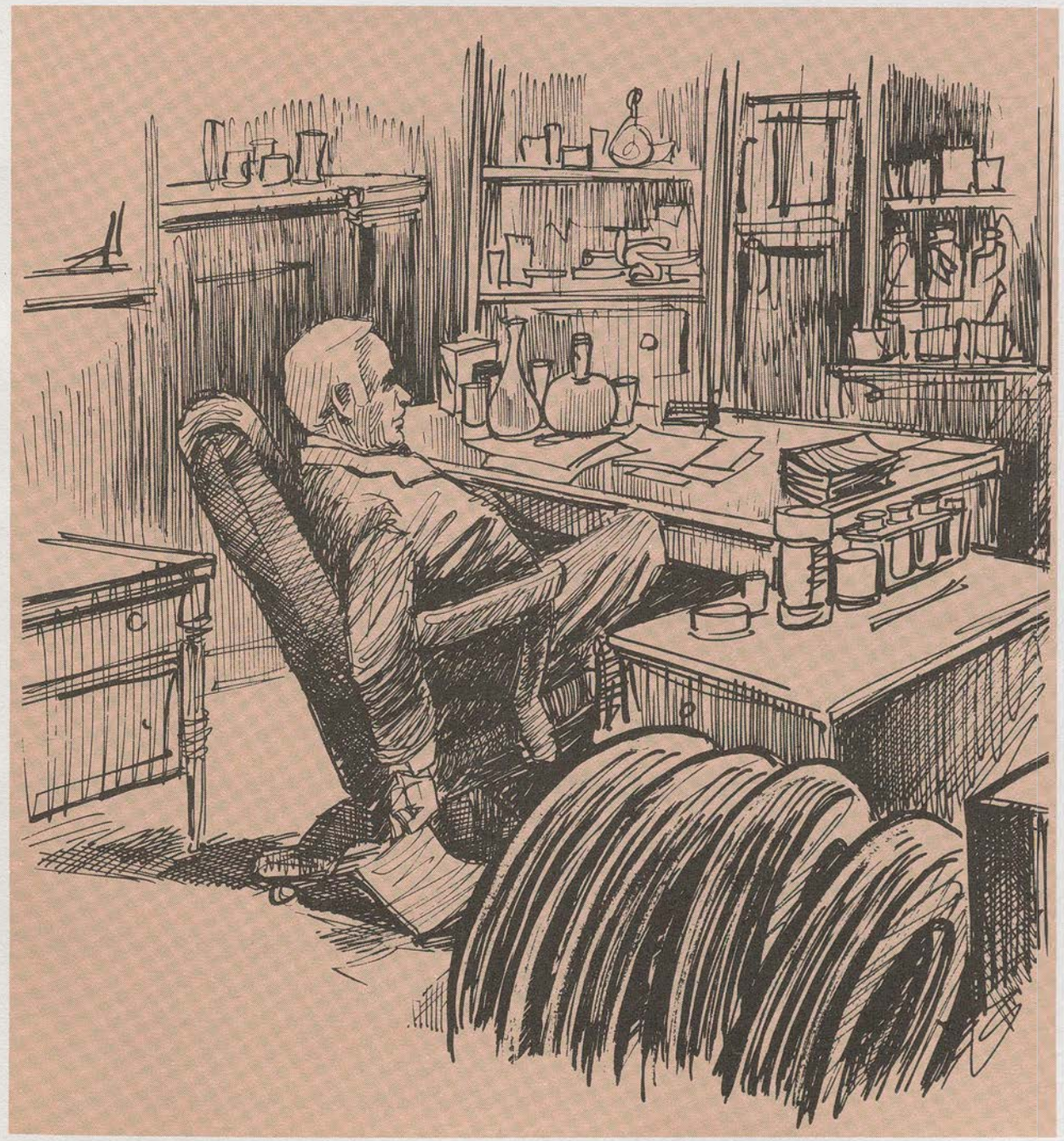
The rubber hunt was spurred by fears that another war would cut off rubber supplies. Edison wrote prophetically in 1927:

"We may run along for a good many years without war, but sooner or later the nations of Europe will combine against the United States. The first thing they will do will be to cut off our rubber supply."

By 1929, two years after the hunt for a substitute began, Edison's rubber hunters had gathered 14,000 plants from all over the world. Each was carefully tested for latex content.

Edison finally decided that a variety of goldenrod offered the best potential source of natural rubber. He believed that goldenrod would become a major crop for American farmers.

By cross-breeding plants, Edison grew goldenrod stalks 12 feet tall, and produced enough "goldenrod rubber" to make four automobile tires for Firestone. The experiments were filled with the same excitement and painstaking care of the Edison of 50 years before, but rubber would be the inventor's last show of resiliency.



Ford decided in 1928 to honor Edison by moving the old Menlo Park laboratory, where the phonograph and the electric light had been discovered, to a collection of historic buildings that Ford was assembling at Dearborn, Michigan.

Despite Mrs. Edison's objections, the laboratory buildings were taken from New Jersey. She felt the Menlo Park complex would have been "much more of a tribute to Dearie (as she called Edison)" if it had been left on the original site.

The reconstructed laboratory was opened on October 21, 1929, coinciding with the 50th anniversary of the perfection of the incandescent lamp. Although he was very ill, Edison made the long train trip to Dearborn to be applauded by dignitaries that included President Herbert Hoover.

Edison returned to West Orange to live for two more years, declining steadily. He died at 3:24 on the morning of Saturday, October 18, 1931.

Sometime that morning, someone who apparently felt that Edison's golden life needed gilding, slipped into the library at the Edison laboratory and stopped the hands of the clock at 3:24.

It was announced in wondrous tones that the clock had stopped at the exact minute when Edison died. Visitors to the laboratory were told that far-fetched story for 30 years, but the man-made "miracle" is now admitted.

Edison's greatness surely did not need a mythical tale of mysteriously-stopped time. The incredible changes that he had wrought between 1870 and 1930 in the world's social and economic conditions had made his life significant almost beyond summation, much less exaggeration.

Even in his own lifetime, Edison's discoveries directly accounted for billions of dollars in annual industrial products. Every year since his death, those billions of dollars have mounted steadily — in the utilities industry, the movies, the recording and electronics industries, and in hundreds of other industries.

More important than money, nearly every life today is touched somewhere in the world every second by the legacies left by Edison.

The inventor seems never to have died. His birthplace in Milan, Ohio, is preserved and open to the public. So are his homes and laboratories in Fort Myers and West Orange. His transported Menlo Park laboratory at Greenfield Village in Dearborn is a handsome memorial.

The influence of Edison on daily lives is most simply proved when electric lines are felled by storms or power fails during a blackout. Ironically, Edison is most missed when the lights go out. He would have appreciated that; no one appreciated a subtlety more than Thomas Alva Edison.

Brief Chronology Of Thomas A. Edison

1847 — (February 11) Born at Milan, Ohio

1859 — First job, on Grand Trunk Railway between Port Huron, Michigan, and Detroit. Sold candy and newspapers.

1862 — Began printing his own newspaper, *The Weekly Herald*, on train.

1863 — Started his first regular job as a telegrapher operator at Stratford Junction, Canada. This began five years as an intinerant telegrapher in the Midwest.

1868 — Became a telegraph dispatcher in Boston.

(October 13) First patented invention, an electric vote recorder.

1869 — Arrived in New York City; proved skill in fixing a gold stock indicator and was hired at $300 a month.

1870 — Paid $40,000 for his patented stock ticker; opened major shop in Newark, New Jersey.

1871 — (December 25) Married Mary Stilwell, a worker in his Newark factory.

Helped Christopher Sholes, inventor of the typewriter, to improve his model.

1872 — Began four years of manufacturing telegraph instruments for Western Union. During this period he invented several multiplex telegraph systems and made the first waxed paper.

1873 — Visited England to demonstrate his automatic telegraph.

1875 — Discovered what he called "etheric force," the forerunner of wireless telegraphy (which was perfected by others).

1876 — (Spring) Moved from Newark to his new research laboratory at Menlo Park — the world's first organized research laboratory.

1877 — (April 27) Patent application for his carbon telephone transmitter, the basis for practical telephone communication. It is also the basis for radio microphones.

(Summer) Invented the phonograph.

1878 — Visited Wyoming for his health and to test his microtasimeter, a device for measuring tiny heat variations by electrical meters.

(October 15) Incorporated Edison Electric Light Company.

1879 — Perfected the first practical incandescent lamp, proving the practicability in a 40-hour test from October 19 to 21.

(New Year's Eve) First public demonstration of Edison's incandescent lamps in streets and buildings at Menlo Park.

1880 — Started seven intensive years devoted to inventing or perfecting an electrical system — dynamos, conduits, meters, fuses, switches, sockets, motors, etc. Took out 300 patents on these developments.

(October 1) Began commercial manufacture of incandescent lamps.

1882 — (January 12) Opened first commercial incandescent lighting and power station in London, England.

(September 4) Opened famed Pearl Street Station in New York, first commercial electrical generating plant in the United States.

1883 — Discovered the "Edison Effect," a previously unknown phenomenon that eventually became the base on which rests all of the modern system of electronics.

1884 — (August 9) His wife, Mary Stilwell Edison, died of typhoid fever at Menlo Park, after 13 years of marriage and three children.

1885 — (March 27) Gets patent for system of communicating by wireless telegraphy from moving trains to railway stations.

(Winter) Met Mina Miller of Akron, Ohio, daughter of a wealthy maker of farm tools.

1886 — Preparing for marriage to Miss Miller, he bought a palatial residence called Glenmont in West Orange, New Jersey.

(February 24) Married Miss Miller in Akron; honeymooned in Florida.

1887 — (November 24) Opened new laboratory at West Orange. Started factory nearby to manufacture phonographs and records.

1889 — Began a concentrated program, utilizing developments of many others, to perfect an improved system of motion pictures. He placed most of the responsibility in the hands of a young assistant, William K.L. Dickson. Hoping to synchronize sound with the pictures, he actually did so in the first test on October 6, 1889.

1891 — Started huge iron ore mining operation near Ogdensburg, New Jersey, to prove his contention that ore could be separated by electro magnets. His contention was correct, but discovery of easily-mined ore near Lake Superior made the magnetic separator unnecessary for the time. The principle would be used much later, including during work on atomic development.

1894 — (April 14) Edison's first commercial Kinetoscope parlor opened at 1155 Broadway in New York City. Such large crowds assembled two days before the premiere that the parlor was opened 48 hours before the scheduled time.

1896 — Developed the fluoroscope after experimenting with the X-ray. Edison did not patent this, leaving it in the public domain to benefit humanity.

(May 16) Applied for a patent on the first fluorescent lamp, an outgrowth of his work on the fluoroscope.

1900 — Started ten-year quest for a non-acid storage battery. This culminated in the highly successful nickel-iron-alkaline storage battery.

1901 — Started work on a huge cement plant at New Village, New Jersey, using machinery and experience gained in the aborted mining separation project. Made the first poured concrete buildings and poured the first concrete roads.

1907 — Developed the universal electric motor for operation on either alternating or direct current.

1913 — Introduced the Kinetophone for talking motion pictures (but commercial talking pictures were not introduced until the late 1920's).

1914 — Developed a process for manufacturing carbolic acid, when the start of World War I severely restricted supplies imported from Germany.

(December 9) West Orange factory destroyed by fire. Laboratory and library not touched by the blaze.

1915 — Established plants to make coal-tar derivatives, vital to many industries formerly dependent on foreign supplies. His work in this field gave impetus to the modern important coal-tar chemical industry.

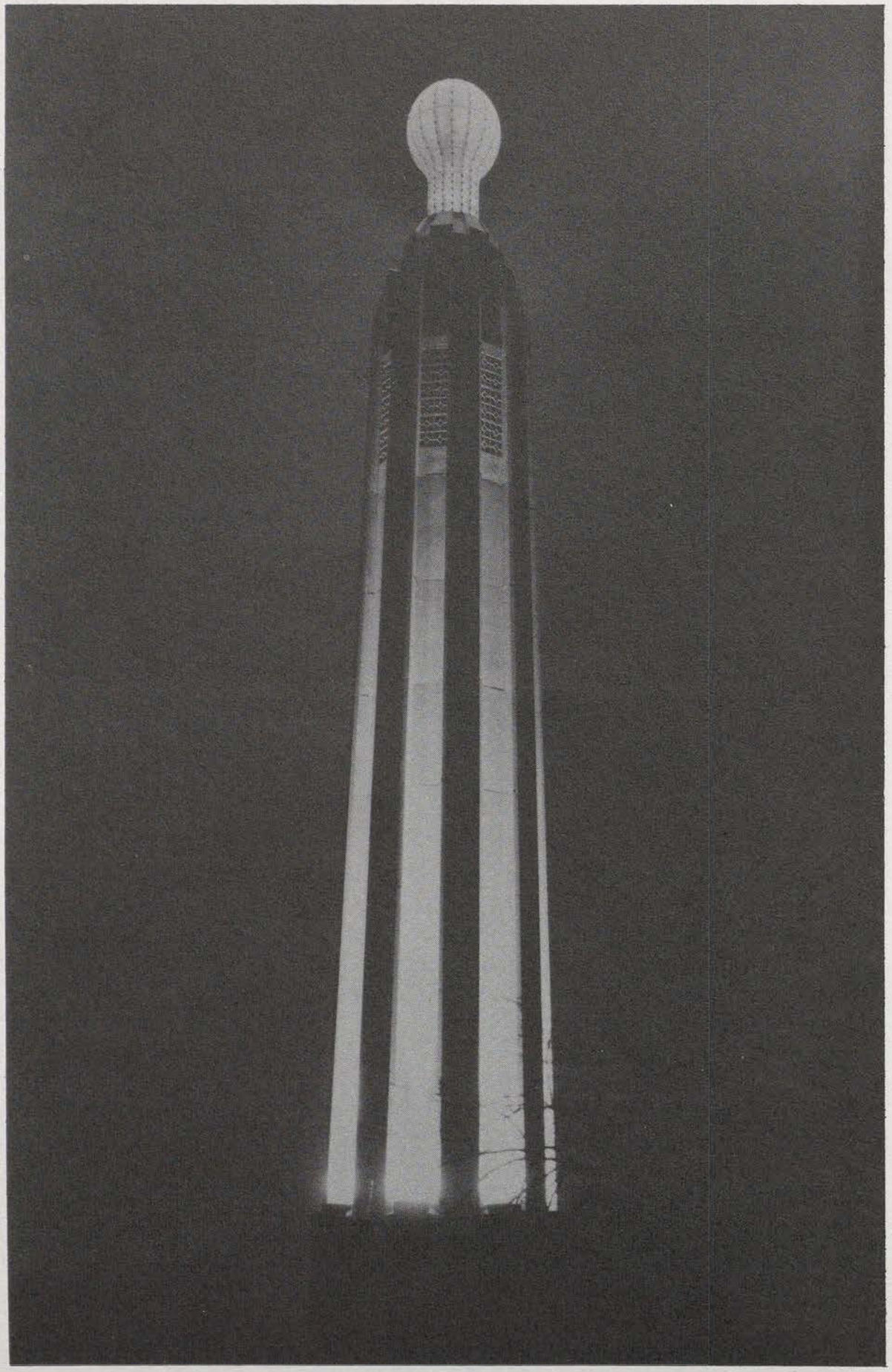
Appointed president of the Naval Consulting Board. Working with Franklin D. Roosevelt, Assistant Secretary of the Navy, Edison devoted major attention to naval problems for the duration.

1927 — Began his last great project, the development of rubber from plants that he hoped could easily be grown on American farms, thus freeing the nation from dependence on foreign supplies. Produced enough latex from specially-bred goldenrod plants to make four automobile tires for Firestone.

1928 — (October 20) Received the Congressional Medal of Honor.

1929 — (October 21) As the feature of the 50th anniversary of the first practical incandescent lamp, Edison reenacted the drama of the first lamp in the Menlo Park laboratory which Henry Ford had relocated in Greenfield Village at Dearborn, Michigan. Guests included President Herbert Hoover.

1931 — (October 18) Died at 3:24 A.M. at Glenmont.



The Tower of Light was erected at Menlo Park, New Jersey as part of light's Golden Jubilee. The center of the Tower is on the exact spot where Edison perfected the first successful incandescent lamp. A 16-foot replica of Edison's original lamp is on top of the 130 foot Tower which, in turn, is studded with 960 lamps. At the base of the Tower is a pedestal on which is mounted the eternal light designed in the shape of Edison's original incandescent lamp and so arranged that it shall always be lighted. PSE&G played a significant role in the design and construction of the Tower.

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The Energy People

PSE&G

Public Service
Electric and Gas
Company
Newark, New Jersey

Edison, Thomas A. (Edison History)

by Warren Sloat

THE FIRST CHRISTMAS LIGHTS

When Edison set thousands of light bulbs in a field, all the "important people" came to watch.

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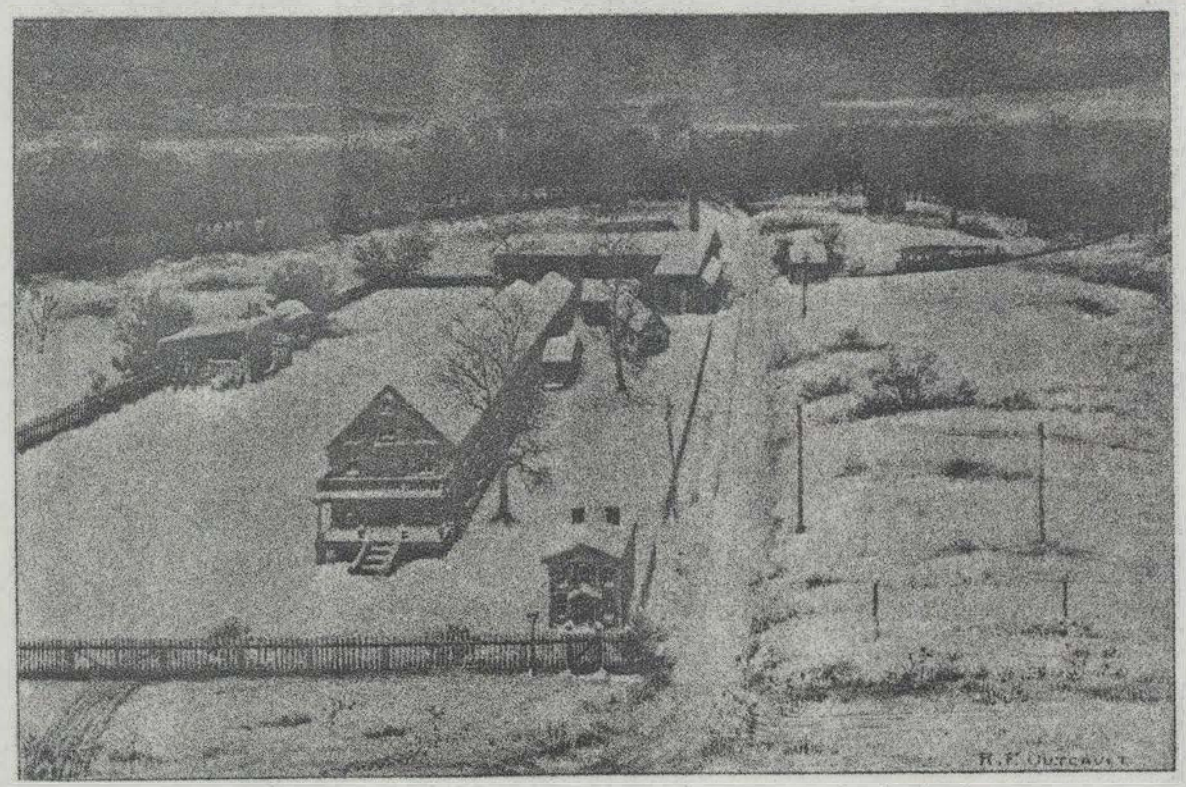

Edison's Menlo Park laboratory compound, site of his spectacular light show.

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It was the Christmas season of 1880. The population of the United States, according to the new census, stood at fifty million people. The big best-seller of the day was Lew Wallace's *Ben Hur*. Sarah Bernhardt was making her American debut on the New York stage. And travelers on the Pennsylvania Railroad that Christmas season were talking about a lighting display such as the world had never seen.

Thomas Edison had laid eight miles of underground wire on a square half-mile of his headquarters at Menlo Park, New Jersey. He had planted plain white posts in row upon row in his field and atop them had wired his newly invented incandescent lamps. Glass globes covered the bulbs. At night, when he set in operation his central power station, consisting of eleven dynamos of his own invention, the illumination gave the bare fields the look of an imaginary town.

The railroad passed close to Edison's rural laboratory outpost. As the trains from Philadelphia, heading east, approached Menlo Park, the passengers on the south side of the railroad cars were the first to get a glimpse of the spectacle.

The lighting display, one of Edison's numerous attempts at self-promotion, was a sensation of the year. The stunning invention of the phonograph in 1877 had conferred upon Edison global celebrity, and the title of The Wizard of Menlo Park. He capped this achievement, two years later, with the creation of the first practical incandescent lamp. Legends had begun to spring up about him, tales about his forthcoming inventions—some of them sheer fantasy—had people talking over backyard fences, and the press had worn a path to his door. The 33-year-old inventor boasted that he intended to light whole cities with his electrical system—he had already applied for a permit to build a central power station in Manhattan—and that he would make gas lighting obsolete.

Concerned about the possibility of a grand failure in public, Edison's Wall Street backers advised him to stage extensive tests before he did anything to attract public attention. Ignoring their advice, Edison had rushed to put an incandescent lamp display together for the Christmas season of 1879. It was a modest show, consisting of no more than sixty lights, most of them used to light his laboratories and surrounding homes, but sightseers came by the thousands, and the Pennsylvania railroad ran special excursion trains to Menlo Park. Old-fashioned wagons and carts brought farmers and their families. Private parties wheeled up in carriages. On New Year's Eve, 1879, more than three thousand gawkers trooped through the laboratories.

By the following Christmas season, Edison had made plans for a much larger and more impressive display. His glass-blowing plant had turned out thousands of bulbs. Trenches were dug for underground wiring, conducting mains were laid. The generating station was assembled in an annex of the library. In addition to his imposing outdoor display, hundreds of lamps were installed in the homes, boarding houses, and plant buildings of his research facility.

One of the early visitors was Sarah Bernhardt, the great French tragedienne. Arriving with a party from New York on December 5, the elegant actress was eager to meet the brilliant young inventor whose fame had spread to Europe. Edison led Bernhardt and her party to his laboratory balcony for a panoramic view of the outdoor display. On instructions from the inventor, his assistant dimmed the lights by turning a large wheel that controlled the flow of current. Then, while the party gazed from the balcony, Edison had his assistant turn the power up again, and the starry field was gradually illuminated to full brilliance. Sarah Bernhardt asked to try it herself. She turned the wheel slowly, as she had seen it done, and when she brought the lights up again she clapped her hands in enthusiasm.

Edison's display bedazzled hundreds of other visitors that Christmas season. A stream of "important people" came from Philadelphia and New York to see it. One reporter called Edison "The Enchanter," and described the evening view at Menlo Park as a "fairyland of lights."

Edison, the consummate showman, performed such "wizardry" as wiring a lightbulb to a small motor used to run a sewing machine, demonstrating that the current could be used for either power or light. Spectators came to see the lights and to get a close-up look at the wizard inventor, but their pilgrimage also expressed the prevalent belief in technological progress—a strongly held conviction that the future held all sorts of prodigies and wonders. In 1880 Thomas Edison seemed the embodiment of this spirit of progress.

Apparently Edison never offered any conceptual link between the Christmas season and his lighting display. Nevertheless electrical adornments soon became part of the Christmas tradition. Colored lights replaced candles on Christmas trees, and cities across the nation began to use outdoor displays during the holiday season. The lights of today range from the garish to the elegant. But it's safe to say that they have never again provoked the innocent wonder of Edison's holiday magic show in the days of the birth of the lightbulb. ■

Warren Sloat is the author of 1929 *(Macmillan, 1979). He is currently at work on a book on New Jersey media.*

4 pages

Edison, Thomas A.

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Ask at desk

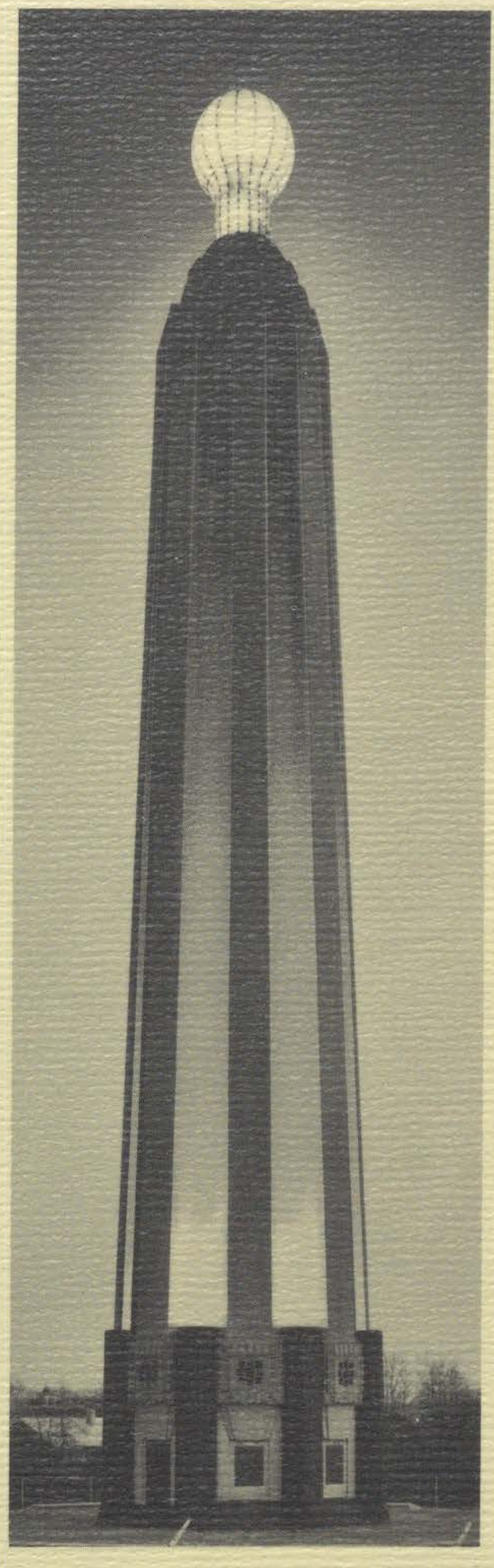
The Thomas A. Edison Story

The Wizard of Menlo Park



"He has led no armies into battle—he has conquered no countries—he has enslaved no peoples—yet, he wields a power the magnitude of which no warrior ever dreamed...

This democratic, kindly, modest man has bestowed upon the human race blessings instead of bondage, service instead of serfdom, construction instead of conquest...He is humanity's friend."



The Edison Tower, located on the site of the original laboratory at Menlo Park, New Jersey, to which Thomas Alva Edison moved in 1876, was erected in 1937 as a monument to the great inventor. The Tower was the gift of William Slocum Barstow to The Thomas Alva Edison Foundation of which he was President, in behalf of the Edison Pioneers. It was dedicated on February 11, 1938, the ninety-first anniversary of the inventor's birth.

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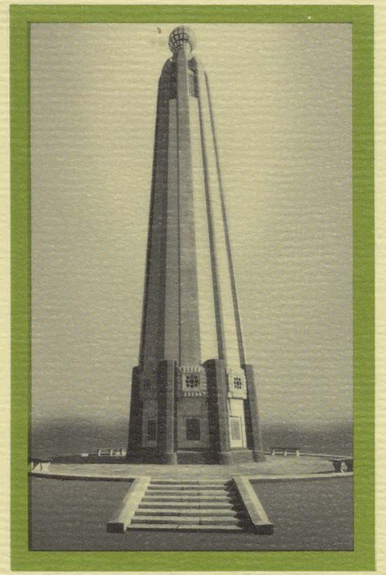
The Thomas A. Edison Story

The Wizard of Menlo Park



The Edison Tower, Menlo Park, off Route #27, was erected in 1937.

Much Began At Menlo Park

In the spring of 1876, the 29-year-old Edison moved into a 2-story frame building erected with his father's help at Menlo Park, N. J. There, on December 6, 1877, he invented the phonograph, and almost overnight became known as "the Wizard of Menlo Park."

Edison next tackled the job of finding a safe, odorless, and inexpensive electric replacement for the gas light then in general use. A new lamp was but part of what he must invent. An even greater challenge was producing and subdividing electric current in the same way that gas could be rationed to a jet. Working literally day and night for the next several years, Edison finally succeeded in perfecting the first practical incandescent lamp (October 21, 1879) and in developing a system of current distribution that not only made the lamp commercially useful but also provided electricity for heat and power. This involved designing and constructing the world's first really efficient motors and generators, and devising switches, sockets, safety fuses, meters, underground conductors, and new insulating materials — a whole complex of electrical apparatus.

The Electrical Age Dawns in New York City

At 3 p.m. on September 4, 1882, the Pearl Street Station in New York City began commercial distribution of electricity for light and power over a system completely designed by Edison and installed under his supervision. As darkness fell, hundreds of little incandescent lamps began to glow in the city's financial district. Thus ended in triumph what the inventor himself called "the greatest adventure" of his life. The electrical age had dawned.

Two years later occurred the tragic death of Edison's first wife, Mary Stilwell, whom he had married in 1871, and who had borne him a daughter and two sons: Marion (now Mrs. Marion Edison Oser), Thomas Alva, Jr., and William Leslie (who died in 1935 and 1937, respectively).

Edison's restless mind, coupled with the pace of his activities, would not allow him to brood overlong. In 1886 he married Miss Mina Miller, and shortly thereafter the family moved to Glenmont, a large house in Llewellyn Park, West Orange, N.J. Almost in the shadow of this pleasant residence, on November 24, 1887, Edison resumed his insatiable bent for scientific investigation in a newly built laboratory of his own plan and design.

The Inventor's Early Life

THOMAS ALVA EDISON was born at Milan, Ohio, February 11, 1847, of English, Scottish, and possibly Dutch ancestry. When he was 7 years old his family moved to Port Huron, Mich. His early education was ably supervised by his mother, Nancy Elliott Edison, who had been a teacher before her marriage.

At the age of 10, young Edison was already interested in chemistry, and had set up a small experimental laboratory in the cellar of his home. Two years later he entered "business" as an enterprising newsboy and candy "butcher" on the Grand Trunk Railway between Port Huron and Detroit.

Learning telegraphy in 1862, Edison spent the next few years as an operator, coming east in 1868 to work for the Western Union Telegraph Co. in Boston. While there he developed his first patented invention, an electrical vote recorder.

The summer of 1869 found Edison in New York, where his abilities attracted the attention of Marshall Lefferts, president of the Gold and Stock Telegraph Co., who in 1870 assigned him to improve the stock ticker. This resulted in the Edison Universal Printer, which, together with some other inventions in this field, brought Edison $40,000, a handsome sum for those days. He used this money to establish shops in Newark, N.J., where from 1870 to 1876 he manufactured stock tickers and improved telegraph instruments.



The second floor of the Menlo Park Laboratory in early 1880. Edison center (arrow) wears a cap. Francis Jehl (knees crossed) is seated reading a book. The bearded man at the far right is J. U. McKenzie, Edison's early teacher of telegraphy.

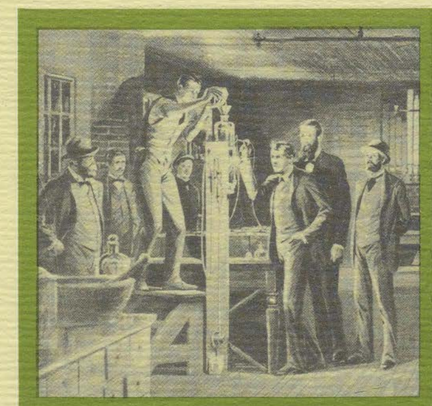
The West Orange Period

The laboratory at West Orange was destined to be the inventor's headquarters for the remaining 44 years of his life. During this period he was granted 520 patents covering, among other things, electric motors and generators, incandescent and fluorescent lamps, continuous nickel and copper plating, the depositing of metals in a vacuum, magnetic concentration and briquetting of iron ore, the motion picture camera, and scores of improvements in the recording and reproduction of sound. Eighty-eight of these patents applied to development of the Edison alkaline storage battery, which alone required 50,000 experiments.

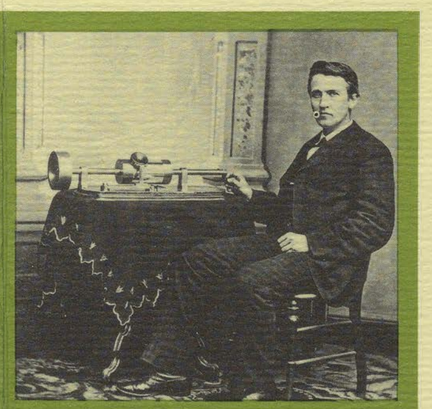
The Motion Picture Camera is born in New Jersey

Most important of all these developments were the motion-picture camera (the "movies" were really born at West Orange) and improvements to the phonograph. Always highly imaginative, Edison began work on machines that would do for the eye what his phonograph had already done for the ear. The first camera to take continuous pictures on a moving strip of film was produced in 1889.

Edison added sound to silent films in 1913 by inventing the Kinetophone. Many other achievements in acoustical sound reproduction culminated 12 years later in his development of that "modern" phenomenon, a long-playing record.



Preparing the first successful incandescent lamp for its life-test at the Menlo Park Laboratory. This lamp was lighted October 19, 1879, and burned for over forty hours. Edison is seen driving the last of the gases from the filament with current from a battery.



Thomas A. Edison demonstrated his tinfoil phonograph before the National Academy of Sciences meeting in Washington, D. C., and to President Rutherford B. Hayes at the White House. This portrait was taken by Mathew Brady, Civil War photographer, in April 1878.

Edison Contributes to the National Defense Effort

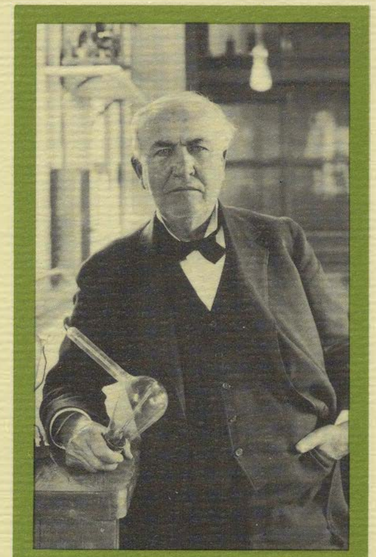
In 1915, after the outbreak of World War I, Edison became chairman of the Naval Consulting Board. In that capacity he labored hard to establish the Naval Research Laboratory for development of new weapons, conducted special experiments on more than 40 major war problems, and did a tremendous amount of other work connected with national defense. Edison's contributions to the Nation's welfare were recognized in 1928 by award of a special Congressional Gold Medal. He was also the first civilian to receive the Navy's Distinguished Service Medal.

Enters New Field of Research at ripe age of 80

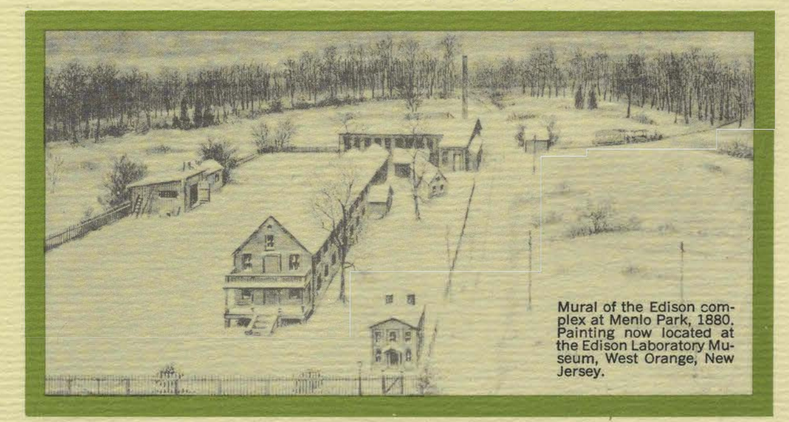
Perhaps nothing better demonstrates the continuing energy, mental alertness, and sense of public duty of this remarkable man than his intensive research, undertaken at the advanced age of 80 years, to find a practicable domestic source of natural rubber for use in time of war or other national emergency. Between 1927 and 1931 Edison and his associates tested some 17,000 plants, finding varying amounts of rubber in 1,200 specimens. The most promising of these was goldenrod, which not only gave a considerably quantity, but would grow almost anywhere in the United States during a single season. Many different strains of this plant were grown, and the yield was increased from 4 to 12 percent by the Burbank selective breeding method. These breeding tests were conducted in Edison's own experimental gardens at Fort Myers, Fla., where he maintained a winter home for about 44 years.

Those who knew Edison best remember not only the inventive genius, but a man with warm human qualities and a keen sense of humor. Caring little about formal social affairs, he spent many happy hours around the family fireside at Glenmont, enriched by the birth of three more children: Madeleine, Charles, and Theodore. There were enjoyable times, too, with fellow workers at the laboratory, and on camping trips with such close friends as John Burroughs, Henry Ford, and Harvey Firestone. The inventor's only diary, covering a few brief weeks in 1885, reveals a zest for life which continued unabated.

Almost 52 years to the day from his perfection of the incandescent lamp, Thomas Alva Edison died quietly at Glenmont, aged 84 years. His death was mourned by the great and near great of all lands, and by millions everywhere whose lives were touched and inspired by the magnitude of his work.



Thomas A. Edison in his West Orange Laboratory holding an "Edison Effect" lamp.



Mural of the Edison complex at Menlo Park, 1880. Painting now located at the Edison Laboratory Museum, West Orange, New Jersey.

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Thomas A. Edison — The Wizard of Menlo Park

Edison, New Jersey, Site of First Electric Railway in the United States . . .

Few people living in Edison Township, and even in Menlo Park, where it happened, realize that the giant electric locomotives flashing through on the main line of the Pennsylvania Railroad are directly descended from the electric railway's humble beginning in Menlo Park in 1880.

It was then that Thomas A. Edison built his first experimental railroad.

The 12-horsepower motor of his first engine pulled three cars—a flat car, an open awning car, and a box car, called "the Pullman."

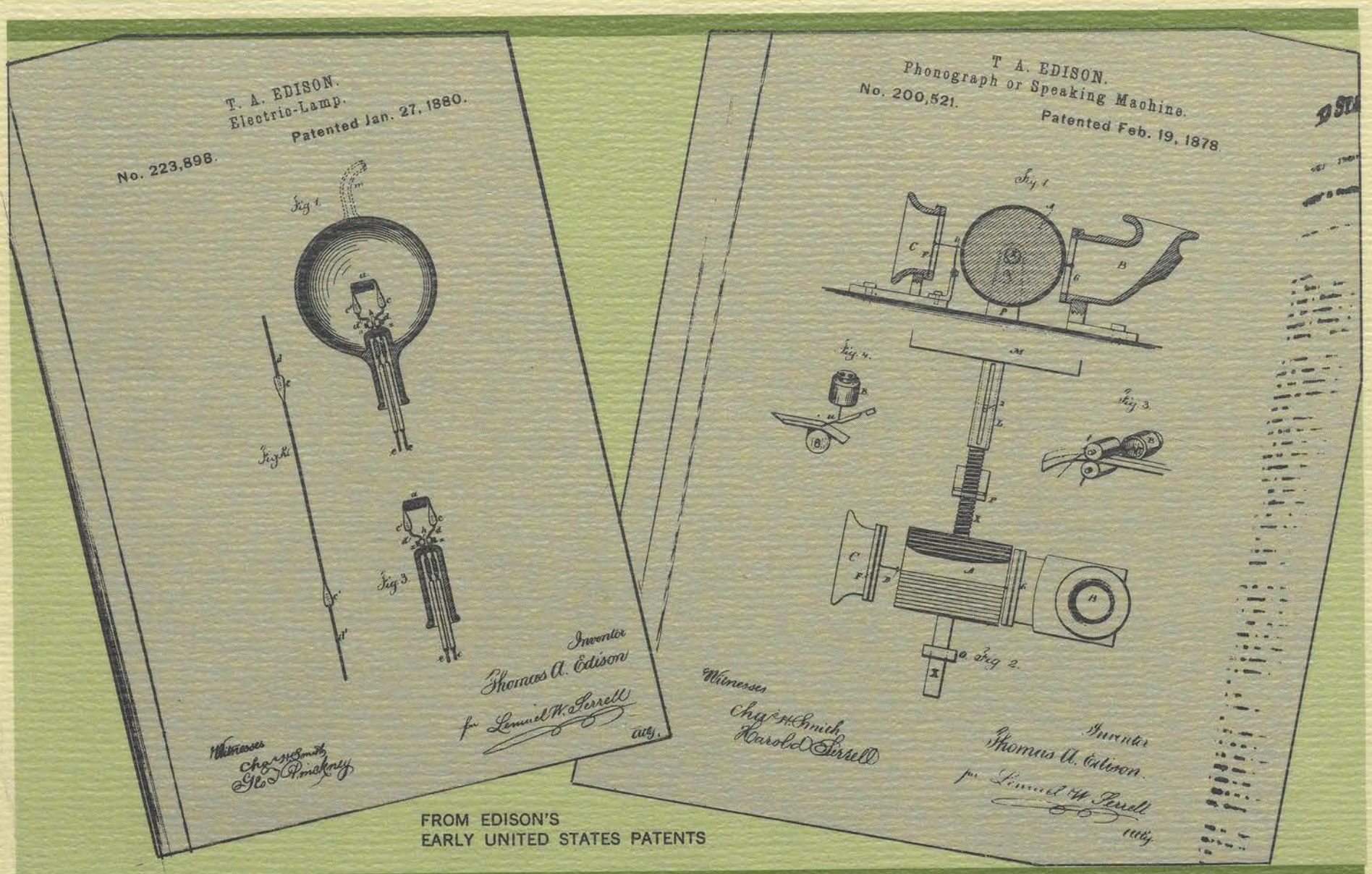
Later, this line was dismantled, and Edison constructed, in 1882, a 2½ mile narrow gauge road between Dark Lane (Grove Avenue), Metuchen, and his laboratory in Menlo Park.

A little later other developers laid tracks between Highland Park, Piscatawaytown, Bonhamtown, and Metuchen via Woodbridge Avenue. At Bonhamtown, the tracks turned northward and entered Metuchen via Main Street. The trolley era was to last for thirty-four years.

In 1898, the Perth Amboy Railroad Company began pushing a line toward the north to meet a line from Rahway, and west to meet the New Brunswick line. When opened, the two routes met at the corner of Amboy Avenue and Main Street, Metuchen.



The Edison Electric Railway at Menlo Park—1880.



FROM EDISON'S
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This brochure was designed and written by Earl L. Hadley of Edison Township. Sincere gratitude is expressed to the dedicated staff of the Edison National Historic Site, West Orange, N. J. who rendered valuable copy service and supplied historic photographs.

Edison, Thomas Alva

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'Neighbor' Thomas Edison: a quiet man of action

By David C. Sheehan

EDISON — Volume after volume has been written about the wondrous accomplishments and marvelous inventions of Edison Township's most famous and honored resident, Thomas Alva Edison — the Wizard of Menlo Park, The Electrician — and even "The Most Useful American," his eternal presence in our community is a source of both pride and identity to the town.

Edison Township's libraries have on their shelves a dozen or more biographies and histories about the inventor's feats. His life has been chronicled in many television documentaries and in Mickey Rooney's memorable motion picture performance as Edison in "Young Tom Edison." Monuments have been built and songs have been sung in celebration of his genius.

In the township, a street, one of the high schools, many businesses and even the entire town have been named after Thomas Edison. The Township Seal includes the town's motto: "Let There Be Light" and shows a likeness of the Edison Memorial Tower as a fitting tribute to Edison, his achievements and the years he spent in town. Much of this, however, concentrates on his technological discoveries.

What of his life in Menlo Park?

In the midst of all his fame and fortunes, his renowned friendships with the likes of Henry Ford and Harvey Firestone, his recognition by presidents and potentates (Edison was awarded both the Congressional Medal of Honor and the French Legion of Honor), he was after all, a resident of our town. Visits by and to Louis Pasteur, Alexander Eiffel, Alexander Graham Bell, J.P. Morgan, Sarah Bernhardt and several U.S. presidents attested to and added to Mr. Edison's fame. Yet he lived here and called it home; therefore, setting aside his fame and fortune, it can be asked, "What kind of neighbor might Thomas Edison have been?"

Edison, The Man and His Work, by George S. Bryan, states, "Five feet nine and one half inches in height, Edison as a telegraph operator was decidedly thin. As a young inventor in the Newark and earlier Menlo days, he was spare. (His) was a distinctive face — large, calm, candid, friendly, strong. From it looked uncommonly liquid and brilliant gray eyes. It was a face in which what is conventionally called the dreamer was blended with the man of action."

"Our neighbor," Tom Edison, was apparently not given to idle pursuits. Known to subsist on about four hours of sleep a day, it is reported that "Edison had no hobby save more work. He now and then played a game of billiards ... but the only indoor sport he showed much interest in was ... Parcheesi. Outdoor games he did not play. A vacation was a rare event."

"When in need of rest," it is said, "he would lie down on a work bench, sleep twenty or thirty minutes, and wake up fresh."

There are records, however, of Edison and his co-workers going on fishing trips from Perth Amboy.

"During the summer time," Edison is quoted as saying, "after we had made something that was successful, I used to engage a brick sloop at Perth Amboy and take the whole crowd down to the fishing banks on the Atlantic for two days."

According to reports, once at Sandy Hook, "he fished without a bite for two days and two nights and then quit only because the other members of the party compelled him to by raising anchor and sailing away."

Another insight into his personality is revealed in how his many workers perceived their boss. Francis Jehl, a close friend and associate of Edison at the Menlo Park Laboratories, declared that Edison's winning ways and manners made the laboratory workers at Menlo ever ready with a boundless devotion to execute any request or desire (and) that Edison was respected with a respect that only great men can obtain."

They often worked non-stop throughout the night in their "invention factory," and meals were brought in late at night so that the work could continue uninterrupted. On occasion, friends and acquaintances of Edison joined them in these "midnight snacks" and the "meal would be followed by music — noisy choruses, an organ selection, a vocal solo by (employee) Boehm (who played his own accompaniment on a zither) or somebody else."

Edison was a quiet man. He was totally involved with his work and was not prone to chit-chat with either his fellow workers or the public. Public speeches were rare and when given, brief.

His first radio speech was delivered in Atlantic City on May 19, 1926, at a convention of the National Electric Light Association. The speech consisted of the following 22 words: "Why, I don't know what to say. This is the first time I ever spoke into one of these things. Good-night."

Another telling insight is revealed in what Edison spoke into his first phonograph recording, made here in Edison Township. Other monumental inventions have been introduced by others with such ominous phrases as "What God Hath Wrought-!Telstar's first transmission was the U.S. national anthem. Edison, however, recited "Mary Had a Little Lamb" into his new invention, to the delight of his staff and the audience gathered round. Although he viewed the device as merely an entertainment and thought that it offered little practical use or hope for much commercial success, the phonograph is reported to have been his favorite invention.

Edison was once interviewed by a New York advertising man who, like Edison, had refused to let his deafness become an affliction. Ernest Calkins asked Edison why he, "of all men, had not tried some electrical device for making hearing easier." According to Calkins, Edison replied: "Too busy. A lot of time is wasted on listening. If I had one of those things, my wife would want to talk to me all the time."

Edison was one of Samuel and Nancy Edison's seven children and was born in Milan, Ohio, on February 11, 1847. His father was a stern and very strict disciplinarian and "thought I was stupid," according to the inventor. Thus he spent most of his time playing alone or at Mrs. Edison's side. He "bediviled her with interminable questions on every conceivable subject."

The Edisons moved about the country following the fortunes and misfortunes of Sam Edison's businesses. As a young telegrapher, Edison himself traveled thousands of miles throughout the country and "...was fired from literally scores of jobs."

While Edison was operating out of his Newark offices in 1871, he fell in love with one of his workers, 16-year-old Mary Stillwell. They were married on Christmas Day and the couple was to have two sons and a daughter. Edison nicknamed a son and a daughter "Dot" and "Dash." One of Edison's sons, Charles, was to become governor of New Jersey.

Edsion's home in Menlo Park was located amid "a knot of houses near a diminutive railway station. All about it stretched open country. ... At Menlo, Edison discovered the retirement and quiet that he wished; there he finally possessed a real laboratory, and there he remained until 1887."

The house was located on the acreage of his laboratories, machine shops and garages. Sketches show it to have been a large wood-framed clapboard structure complete with a pointed gable roof highlighting the second story. Double front doors were located at the center of the pillared, covered front porch. Edison was often seen scurrying along a wooden sidewalk to and from the house and labs.

It was at the laboratory that Edison elected to leash a pet bear, "Mr. Bruin." Edison is reported to have tethered this gift from an admirer to a tree on the grounds "for the entertainment of his workers and the discomforture of salesmen."

The Edisons' neighborhood included the home of one of Edison's closest associates, Charles Batchelor. It is shown to have been a two-story house with a large cupola highlighting the roof line. It was located to the left and slightly to the rear of the Edison household.

Also located in this complex of machine shops, outbuildings, laboratory and homes were a few garages. It was in one of these garages that our "neighbor" Tom Edison allowed the Menlo Park Fire Company to house its hook and ladder fire truck. It was for this reason and as another tribute to their neighbor and benefactor that Edison's Menlo Park Fire Company named Edison as an honorary member of their still all-volunteer department. Additionally, each year on the anniversary of Edison's birth, the fire company places a wreath at the Memorial Tower and hosts a reception following the ceremonies.

It was in the summer of 1884 that Mary Stillwell Edison died of typhoid. Her death was traumatic to the famed inventor. Edison's daughter, it is reported, became "his confidant and constant companion," according to Dr. Gerald Kurland, author of *Thomas Edison, Father of Electricity and Master Inventor of Our Modern Age*.

When he was 37, Edison "met and fell in love with 18-year-old Mina Miller, the daughter of a well-to-do Ohio industrialist. He married her in February of the following year. ... Their marriage was a happy one; Edison also had three children by his second wife," Kurland noted. Mina Miller is credited by many with "gentrifying" Mr. Edison in his later years, befitting his exalted position in the world.

This has been but a brief glimpse into the life of "neighbor" Tom Edison and the years he spent in the township that is now proud to bear his name.

David C. Sheehan is president and co-founder of the Edison Township Historical Society, and this article is one in a series by society members on the history of the area.

your opinion

An inarguably clear choice

the Editor:
t is very rare in today's world
en voters are presented with
inarguably clear choice on
ction Day. On Tuesday, No-
mber 6, the voters of Edison
vnship have the benefit of such
arity.
ompeting for the one-year un-
ired term of Councilwoman
othy Drwal are Republican
e Tousman and Democrat Sal
zi. The choice presented by
election represents light vs.
kness, democracy vs. dictator-
p, good vs. evil, and change vs.
iness as usual. Why?
While Jane Tousman was using
own considerable time and
ney to fight developers and city
l from wiping out open spaces,
Pizzi was a leader on the Zon-
Board approving the very vari-
ces that are ruining Edison.
hen people drive around Edison
d see a new development or of-
e building and say, "How could
ey let that happen?" ask Sal Pi-
— he voted for it.
While Jane Tousman was a
ader in Citizens Upset with the
x Situation helping citizens file
record 2,000-plus property tax
peals, Sal Pizzi was busy sup-
rting the Florio and Paterniti
x increases. Pizzi is a Florio/
aterniti clone — plain and sim-
e. We taxpayers cannot afford to
ve people like Sal Pizzi in office
ending our money anymore. We
ust draw the line here.
While Jane Tousman was effec-
ely opposing the federal gov-
nment's attempt to locate a
xic waste lab in Edison in 1990
d New Jersey's attempt to build
trash incinerator in Edison in
85, Sal Pizzi was nowhere to be
und.
While Jane Tousman was work-
g with senior citizens all over
dison detailing her plan to save
em from the terrible brunt of
e Paterniti 140-percent property tax increases by utilizing the equity on their homes, Sal Pizzi was supporting the new taxes. Sal Pizzi did not even appear before the senior citizens at the AARP-sponsored candidates' debate. Pizzi also did not appear at the Coalition for a Better Edison debate. A man afraid of the democratic process does not belong in public office.

While Jane Tousman has steadfastly refused to accept political contributions from developers, Sal Pizzi's huge war chest is filled to the brim with developer contributions.

While Jane Tousman was exposing the reckless corruption in city hall that led to an ongoing major federal investigation, resulting so far in indictment of an Edison developer and the jail term of an Edison administration official, Sal Pizzi was saying that corruption was no big deal. No big deal?

I have chosen just a few of the many possible examples of why Jane Tousman is the *only* choice for the much-needed change in Edison. Jane was chosen by Edison Republicans because of her amazing drive and dedication. Jane fights city hall — and wins! Jane was chosen because she is an anti-tax, anti-big-government, budget watchdog. Jane was chosen because she is an award-winning environmentalist. Dorothy Drwal's own children endorsed Jane, as did the Metuchen-Edison Review.

Sal Pizzi was chosen to be the Democratic candidate for council by Democratic Party boss Dunk Lankey because of one major criterion: Sal Pizzi will do what the boss wants him to do. We need a conscience on the Township Council, not another rubber stamp. You choose.

JEFFREY A. WARSH
Edison

Desperate need for change

To the Editor:

Edison voters have experienced insult after insult, compounded only by the arrogance of the current mayor and his allies on the Township Council over the past years. Favoritism, nepotism, government waste, mismanagement, unnecessary consultants and professionals being added to an already bloated payroll, and the resulting impossible tax increases may logically be laid at the door of the Democrats who have been in power too long.

Yet we see the robotlike Democratic faithful, reminiscent of those old zombie movies, with their elaborate campaign signs, cluttering the landscape, obviously unconcerned with the disgust we feel toward their party's elected officials. Without fail, we pick up the paper and read about unbelievable conflicts of interest and numerous suspicious dealings.

The latest worrisome event involves an internal investigation being conducted by the Edison Police Department. The most troubling aspect of it is the fact that the mayor, as public safety director, will rule on the fate of selected Edison Police employees. Also, the mayor has suddenly changed the policy of paying the township employees' legal fees, based upon one legal case which may not be "on point."

If ever we needed a council member who is clean and honest beyond reproach, it is now. Taxpayers are completely at the mercy of Edison's Democratic machine. However, candidate Jane Tousman is a shining hope as an elected official we can trust.

When judges are questioned as to their ethical behavior, a township attorney's statements and actions raise serious ethical questions in the minds of taxpayers, officials are under investigation or already in jail, tax rates become confiscatory, then we desperately need a change. Things are seriously wrong in Edison!

PHILIP G. LABASI
Edison

Where does Dem stand?

To the Editor:

As the campaign for the unexpired term on the Edison Township Council enters into its final days, I would like to share with you my perception on a number of issues regarding my Democratic opponent, Sal Pizzi.

Who is Sal Pizzi? I believe that he is the hand-picked choice of the Democratic Party bosses. His nomination appears to be a reward for representing the leaders of the party without question in his position on the Zoning Board of Adjustment.

What does he represent? Based on his voting record on the board, Mr. Pizzi has been an important factor in zoning decisions, some of which include the controversial high density development of Washington Plaza Associates, off James Street; Edison Woods, Route 1; and many other decisions which rezoned parcels of property for high density. All these projects required many variances which were approved.

In my opinion, his voting record clearly shows preference for the developer, without regard to the impact these decisions would have on the taxes, services which the town must provide or the environment. His record indicates that he represents the major power brokers in Edison and his party leadership, not what is best for Edison.

As council representative, who will he represent? Unfortunately, both his selection and voting record indicate that he will not represent an independent voice who would represent the voter on important issues such as budget, spending, taxes, services, environmental concerns, traffic congestion.

Can we determine the typ council representative Dem Sal Pizzi will be? Since Mr. has not had the interest to wa meet voters at a recent sched candidates forum or senior presence of his opponent, be in only ask, "Why is he afra meet the public?" It appears he only attends all Democ functions where he meets Democratic voters. Perhaps has forgotten that Republ and Independents also have right to vote. To date, "Silent has not responded.

In my opinion, there is no son to believe that Sal Pizzi as a council representative denly represent the hard-wor independent-thinking, taxp resident of Edison.

My decade of dedication to son and to the principles of government has positioned r represent the voter as a k edgeable, hard-working, ho persistent and independent for the taxpayers and citize Edison. I represent a grass concern for what is best for son and its residents.

I urge you to vote on Ele Day, Tuesday, November 6. and every vote will count. I p ise to bring to you the start o change so sorely needed in son as your representative.

The breakthrough is near. member, your vote will count!

JANE TOUS
Ed

The writer is a Republican c date for election to the E Township Council.

Endorsement disappoints

To the Editor:

I was disappointed in the Review's endorsement for Metuchen Borough Council. You named two, but really endorsed all six candidates. You implied there wasn't much to differentiate the candidates. That is simply not true.

There is no more important issue than integrity. Every newspaper column and TV commentary tells us that the American public is disillusioned with our government and angry with politicians who will say anything to get elected. They're angry at presi-

has never misled us. For the past 10 years, he has addressed the issues, told us what he would do and then done it. Mike Donnelly has made no empty promises. He has pointed out the facts and told us what can be done.

Compare that to the Republican candidates. Do you know how they would fulfill their promises on taxes? Do you really think they can deliver on their promise to realign Route 27? They can't, and they know they can't.

Voters deserve the truth, not

Top environmental record

To the Editor:

The preservation of our environment is one of the most critical issues we face. It is an issue that must be addressed at every level of government if we hope to have

much as any citizen can p do to preserve clean, open in Metuchen. He has worke gently on the mayor's Gre committee, and played a ke

'If it isn't broken, don't fix it'

the Editor:

will pay and the HUD scandal



REFERENCE
"ASK AT DESK"
EDISON CENTENNIAL

A CENTURY OF LIGHT

EDISON TWSP. FREE PUBLIC LIBRARY

A major exposition honoring Thomas Alva Edison with particular emphasis on this year's 100th anniversary of the invention of the first practical incandescent light will be held Friday and Saturday at Middlesex County College in Edison.

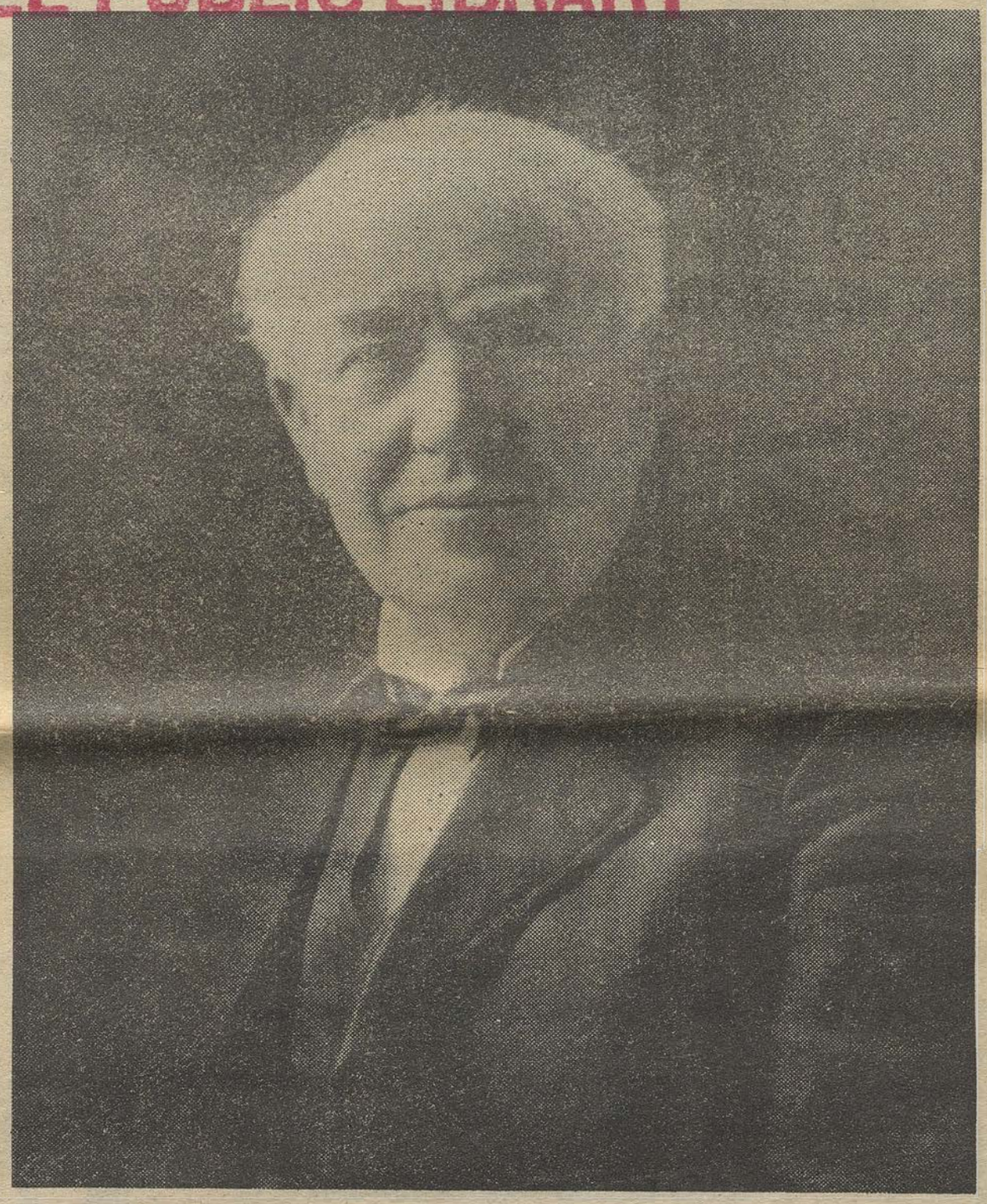
That invention and its later ramifications literally transformed the world, changing almost overnight whole patterns of social, business and industrial activity and giving birth to related applications that in turn created new patterns, new businesses and new industries.

The impact of that one single invention is still being felt today in additional applications and will continue to be felt in the future.

The exposition, to be held at Middlesex County College is being co-sponsored by the Edison Chamber of Commerce and the Edison Centennial Commission. It will feature nearly 100 exhibits including Thomas Edison memorabilia.

Much of Edison's contributions to the world originated in his Middlesex County laboratory at Menlo Park, located in a municipality that decades later took his name as its title in honor of his genius.

This special section focuses on the approaching exposition and describes some of the history and background of Edison as an individual and the accomplishments of Edison as one of the greatest inventors the world has ever known.



1979 EDISON CENTENNIAL EXPOSITION

MAY 4th AND 5th

MIDDLESEX COUNTY COLLEGE

SPONSORED BY

EDISON TOWNSHIP

EDISON
CHAMBER of COMMERCE

EDISON CENTENNIAL
COMMISSION

THE NEWS TRIBUNE
1 HOOVER WAY
WOODBRIDGE, N.J.
TUESDAY, MAY 1, 1979

The News Tribune, Woodbridge, N.J. — Tuesday, May 1, 1979

Edison papers to be compiled

NEW BRUNSWICK — Preparations are underway to launch a massive 20-year, $6-million project to compile and publish the papers of Thomas Alva Edison.

Dr. Reece V. Jenkins, a scholar in 19th and 20th century science and director of the project, said he hopes to have about six researchers on his staff by the end of the summer.

"We (himself and his secretary) are now in the process of preparing materials," he said about the first of a 15- to 20-volume book edition. Selected papers will be placed on up to 225 reels of microfilm.

Why 20 years? Jenkins, an associate professor of history of science and technology at Case Western Reserve Univerity, cited the enormity of the job as exemplified by the voluminous amount of materials.

There are, for example, two-and-a-half million pages of materials, 40,000 known artifacts and 20,000 papers scattered in locations around the world, he said.

At an underground vault in Edison's West Orange lab alone, there are 3,000 lab notebooks and 100,000 copies of letters by the inventor, among other items.

Moreover, there is a "substantial body of patents and applications," he said.

The project is being funded in part by the National Parks Service, the Smithsonian Institution in Washington, D.C., the N.J. Historical Commission and Rutgers.

In addition, a fund raising campaign is underway to raise money from private donors and foundations, he said.

Jenkins stressed that the project "represents a new direction" with the emphasis being focused on science and technology, instead of political figures, as in the past.

"People associated with technology and industry were badly neglected," he said.

The professor also underscored the leadership role played by Rutgers, singling out in particular James Kirby Martin, vice president for academic affairs. He also stressed that the main goal of the project is to publish the papers.

Although the project headquarters is at Rutgers, much of the work will be done at the Edison National Historical Site in West Orange, where most of Edison's voluminous papers are located.

Born in Muncie, Ind., in 1938, Jenkins received a Bachelor of Arts degree from the University of Rochester in 1960. He received a Master of Science degree in 1963 and his doctorate in 1966, both from the University of Wisconsin.

He taught at the University of Wisconsin and Northern Illinois University before joining the faculty of Case Western in 1967 as an assistant professor of history of science and technology. He was was promoted to associate professor in 1974.

He has written more than 20 articles and book reviews and collaborated in a book-length bibliography, "Chemical, Medical, Pharmaceutical Books Printed Before 1800."



Readying exposition

Edison Mayor Anthony Yelencsics stands in front of the Edison Tower, a memorial to Thomas Alva Edison, with Frank D. Hall and John J. Hogan, president of the Edison Chamber of Commerce. Hall is chairman of the Edison Centennial Exposition to be held Friday and Saturday at Middlesex County College in honor of the 100th anniversary of the electric light. The exposition in sponsored by the chamber. **Story, Page 3**

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Don't Miss The

1979 EDISON CENTENNIAL EXPOSITION

Celebrating Thomas A. Edison's CENTENNIAL OF LIGHT

FRIDAY MAY 4th - 5 P.M. to 9 P.M.
SATURDAY MAY 5th - 10 A.M. to 3 P.M.

TO BE HELD AT
MIDDLESEX COUNTY COLLEGE
FREE ADMISSION
Open to the Public

Featuring:

EXHIBITS: The Exposition will include all phases of activity in Edison. Civic, Business, Industrial, Educational, Governmental, Clubs, Hospitals, Police, Fire and Health Exhibitions will be displayed.

MOVIES: A film titled "Gathering of Minds" will be shown on a regularly scheduled time table. The film is a story of Thomas A. Edison and his Associates at work in their Menlo Park laboratory.

SPECIAL EXHIBITS: The U.S. Navy will exhibit a fighter plane at the exposition. Also on display will be a U.S. Army helicopter, closed circuit video plus blood pressure testing.

SPONSORED BY

EDISON TOWNSHIP
EDISON CHAMBER of COMMERCE
EDISON CENTENNIAL COMMISSION

Edison exposition to open Friday

EDISON — Booths containing artifacts and memorabilia of Thomas Alva Edison, continuous showings of film clips of silent movies he produced and displays of a jet fighter, helicopter and snorkel fire truck are some of the highlights of the 1979 Edison Centennial Exposition which will be held Friday and Saturday at Middlesex County College.

In all, there will be 100 booths on display, representing various segments of the township including business, industry, education, government, organizations and police and fire departments, according to Louis Grunninger, executive vice president of the Edison Chamber of Commerce.

List of exhibitors, Page 8

The Chamber is sponsoring the Exposition which will begin at 5 p.m. Friday, and continue to 9 p.m. The hours on Saturday are 10 a.m. to 3 p.m.

Among the artifacts and memorabilia will be an electric light, electric iron, electric waffle iron and motion pictures, Grunninger said.

They are being supplied by the Chamber, Public Service Electric & Gas Co. and the U.S. National Park Service from the Edison Historic Site in West Orange.

The film clips, said Grunninger, will be shown in a replica of the "Black Maria" the world's first motion picture studio erected in 1893 on the grounds of the inventor's West Orange laboratory. The replica has been constructed by Edison public school students as a project of the Industrial Arts Department.

In addition, a movie dealing with Edison's work at his Menlo Park laboratory will be shown.

This was the first research and development laboratory in the world.

Called "A Gathering of Minds," the film's running time is 15 minutes. It points out that Edison's invention of the electric light was the beginning of a new field in the practical use of electricity.

The Navy will exhibit a Navy jet fighter at the exposition.

Music also will play a role at the exposition, said Gruninger. The Middlesex County College band and a group of square dancers will give separate performances.

All of the events are free to the public.

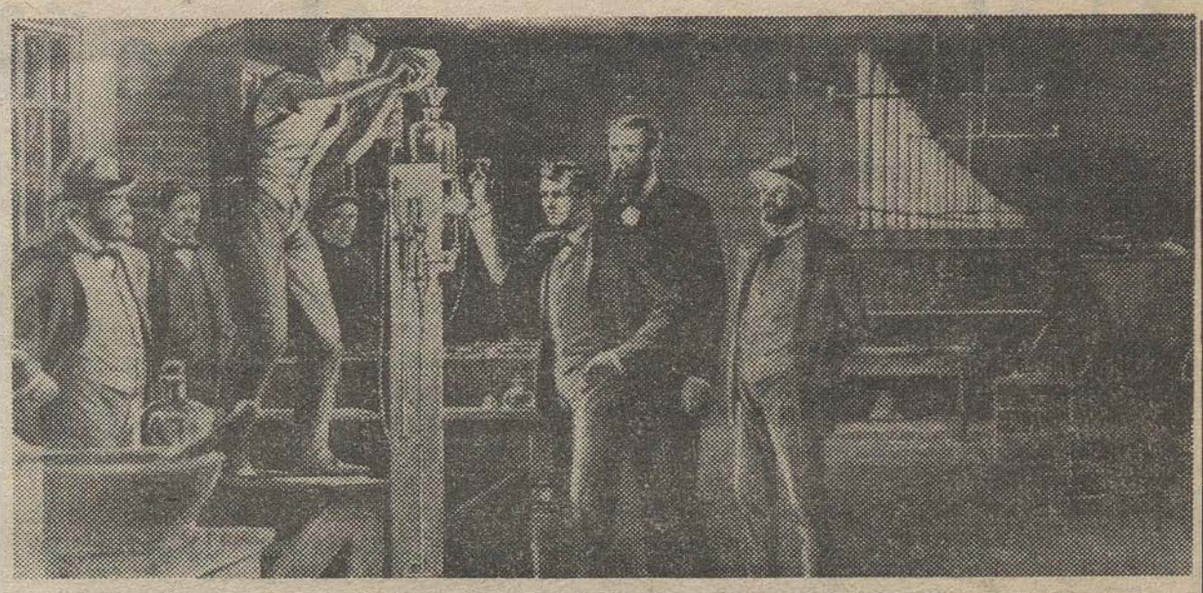
There are other events planned for the year-long celebration of the Centennial. The year long celebration was proclaimed by Gov. Brendan Bryne.

More than 1,000 persons are expected to attend the 100th anniversary of the electric light and the 25th anniversary of the naming of the township after Edison on Friday Oct. 19 at the Pines Manor.

In the meantime, the Chamber of Commerce is producing a souvenir map of Edison in celebration of the 100th anniversary of the invention of the electric light and 20,000 maps are expected to be available for distribution next month.

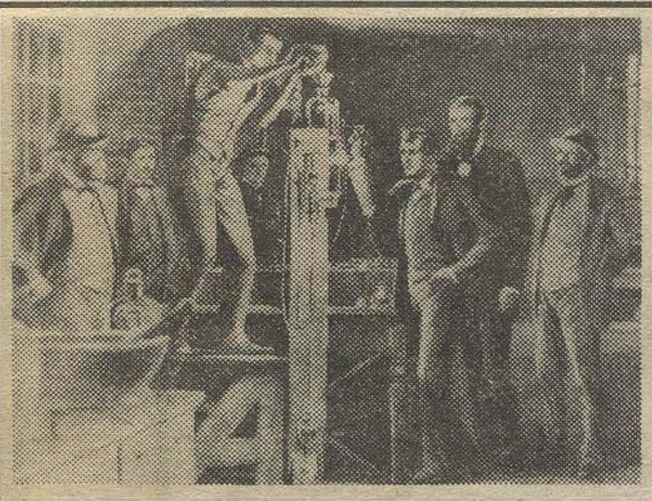
The Chamber also will present to the township a bronze bust of Edison and a bronze plaque listing his accomplishments while his laboratory was located at Menlo Park.

The bust and plaque will be displayed in the lobby of the new township hall which is scheduled for completion in October.



Testing the bulb

Artist's conception shows Thomas Alva Edison testing the first successful incandescent lamp at Menlo Park. The test was completed Oct. 21, 1879.



100 YEARS AGO

The Birth of a Great Invention

The following participants and supporters of the

1979 EDISON CENTENNIAL EXPOSITION

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Edison Municipal Bldg.
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EDISON CHAPTER of DEBORAH
85 Burnham Dr.
Fords 225-1368

GERRUS MAINTENANCE CO.
GERRUS SANITARY & MAINTENANCE SERVICE
GERRUS CONCRETE CLEANING & COATING
Bldg. 431, Raritan Center
Edison 225-0662

BRUCE KIRKPATRICK INSURANCE CO.
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EDISON/METUCHEN: *1197 Amboy Avenue, Edison*
SAYREVILLE: *Route 9 & Bordentown Avenue*
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The News Tribune, Woodbridge, N.J. — Tuesday, May 1, 1979

Edison penniless 'inventor' in 1869

Friendless and penniless, Thomas A. Edison arrived in New York City in the spring of 1869 naively believing he would be recognized as an inventor because he had so advertised himself.

True, he had secured one patent — for a mechanical vote counter that would immediately record votes as Congressmen pulled either a "yes" or "no" switch. He had however mistakenly thought politicians would welcome it.

Edison recalled the reception he received when he showed the vote recorder to a congressional committee.

"Young man," the committee chairman bristled, "that is exactly what we don't want." Anonymous, slow votes suited Congress just fine, the chairman explained.

Edison wanted to invent items that would be in "commercial demand."

On the second day of his visit, Edison called upon Franklin Pope, probably New York's best known electrical engineer at the time. Pope was employed by a major financial house that circulated prices of gold on a mechanical "Gold Indicator."

Since prices of gold fluctuated minute by minute, it was absolutely vital that the machines be precise and prompt. A few days later, Edison was in the company's headquarters observing the indicator flashing gold prices to dozens of offices around the city when the machine stopped.

Panic gripped the company. Pope began extensive and complicated tests on the machine.

Unperturbed by the tumult, Edison calmly pointed out the trouble — a broken spring. He replaced the spring, reset the machine and put Wall Street back on the gold standard within minutes. Edison shrugged it off as merely common sense and good luck.

His quick work led to a job with the firm. Soon he and Pope formed a small company to construct "various types of electrical devices."

Edison lived in Pope's home in Elizabeth and worked 16 to 18 hours daily in a tiny Jersey City laboratory.

The real target for any inventor was Western Union and vice versa, since Western Union was not about to let upstart inventors become competitors.

Western Union bought out Edison and Pope within six months. Marshall Lefferts, a top executive, asked Edison to devote his talents exclusively to Western Union.

No financial terms were set. Edison made dozens of minor improvements to Western Union equipment.

Finally, when he made major improvements on the company's stock ticker, sure to reap huge savings, Lefferts decided it was time to settle accounts before Edison recognized his real worth.

Lefferts summoned Edison to New York in 1871 and asked him how much the company owed him.

The inventor recalled in later years that he said he should get $5,000 and would not settle for less than $3,000. When Lefferts offered him $40,000 he quickly accepted.

He cashed the check and by his own account went back to New Jersey by ferryboat and train with his overcoat and suit pockets stuffed with small bills.

Within 30 days Edison had spent virtually the entire fortune for new experimental equipment. He explained:

"Mine was too sanguine a temperament to keep money in solitary confinement."

But something more important had been released from confinement: Edison's genius. T.A. Edison, inventor, had arrived.

Tower museum open to public

EDISON — A miniature light bulb that never goes out and other Thomas A. Edison inventions are among the items at the Edison Memorial Tower museum.

The museum is open Tuesdays through Thursdays from 10 a.m. to 3 p.m., on Fridays from 10 a.m. to 3:30 p.m. and on Saturdays and Sundays from 10 a.m. to noon and from 1 to 5 p.m.

It is closed on Mondays.

Reservations and tour information may be obtained by contacting Richard Walczak at the museum.

The tower itself, darkened from 1976 to early this year, is shining brighter than ever.

The state Department of Environmental Protection rewired the tower at a cost of $45,000 and the 13-foot lightbulb began to glow again in March.

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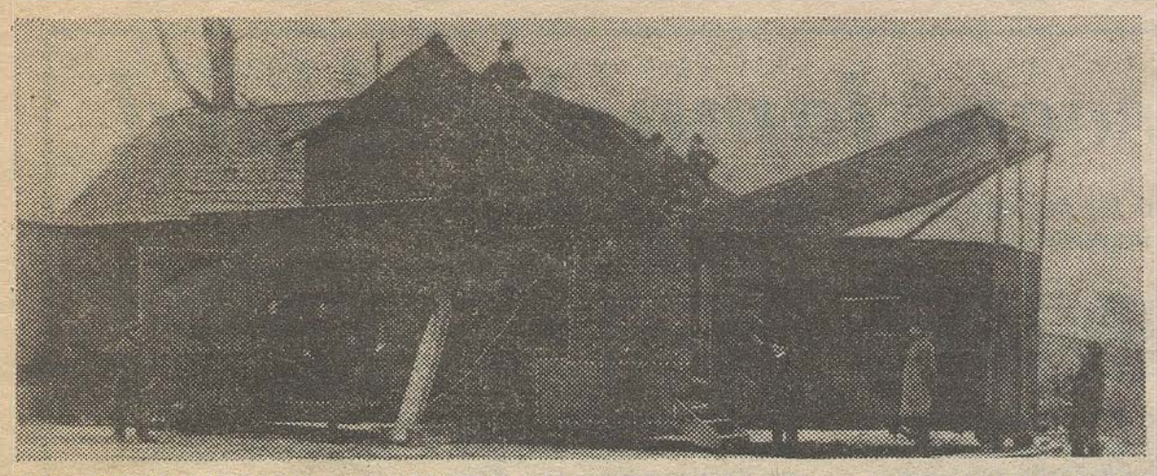

The Black Maria, the first film studio, was built by Thomas Edison in 1893.

Better battery made

Thomas A. Edison began working to make a better electrical battery at the turn of the century.

At the time, efficient electrical generators, called dynamos, were used to generate electricity. Batteries to store electrical current were in common use.

These lead-acid batteries were heavy and destroyed themselves. Edison's contribution to this field was the nickel-iron-alkaline battery, perfected after 10 years of research, some 50,000 experiments and with $1 million of Edison's own money.

The alkaline battery is still in use today.

The battery he created was lighter than the lead-acid batteries and slower to decompose. Also, upon recharging, the battery would reassume its former internal physical structure.

An electrical storage battery is a cell or a group of cells which are electrolytic units and produce electrical energy from a chemical action.

Film studio built

Thomas A. Edison did many experiments with motion pictures.

Though his role as a pioneer in the industry has been criticized by some scholars, it is known that, as early as 1887, he expressed an interest in a device to record motion to members of his staff.

Using a film developed by the Eastman Kodak Company, Edison and his assistants built Black Maria, the first specially-designed motion picture studio, in 1893.

The next year, a peephole device, the Kinetoscope, developed by Edison, presented the first paid public motion picture shows.

Edison favored the peep-show, individual projections, while other inventors — including Louis Lumiere, Thomas Armat, and others — went on to devise systems, using a screen on a wall, which were the forebears of the modern movie theater.

William K.L. Dickson, a key figure in Edison's laboratory development of motion picture cameras and projectors, said of the Black Maria: "With its flapping sail-like roof and ebony hue," The Black Maria "has a wierd and semi-nautical appearance, and the uncanny effect is not lessened when, on an imperceptable signal, the great building swings slowly around upon a graphited center, presenting any given angle to the rays of the sun, and rendering the operations independent of daily variations."

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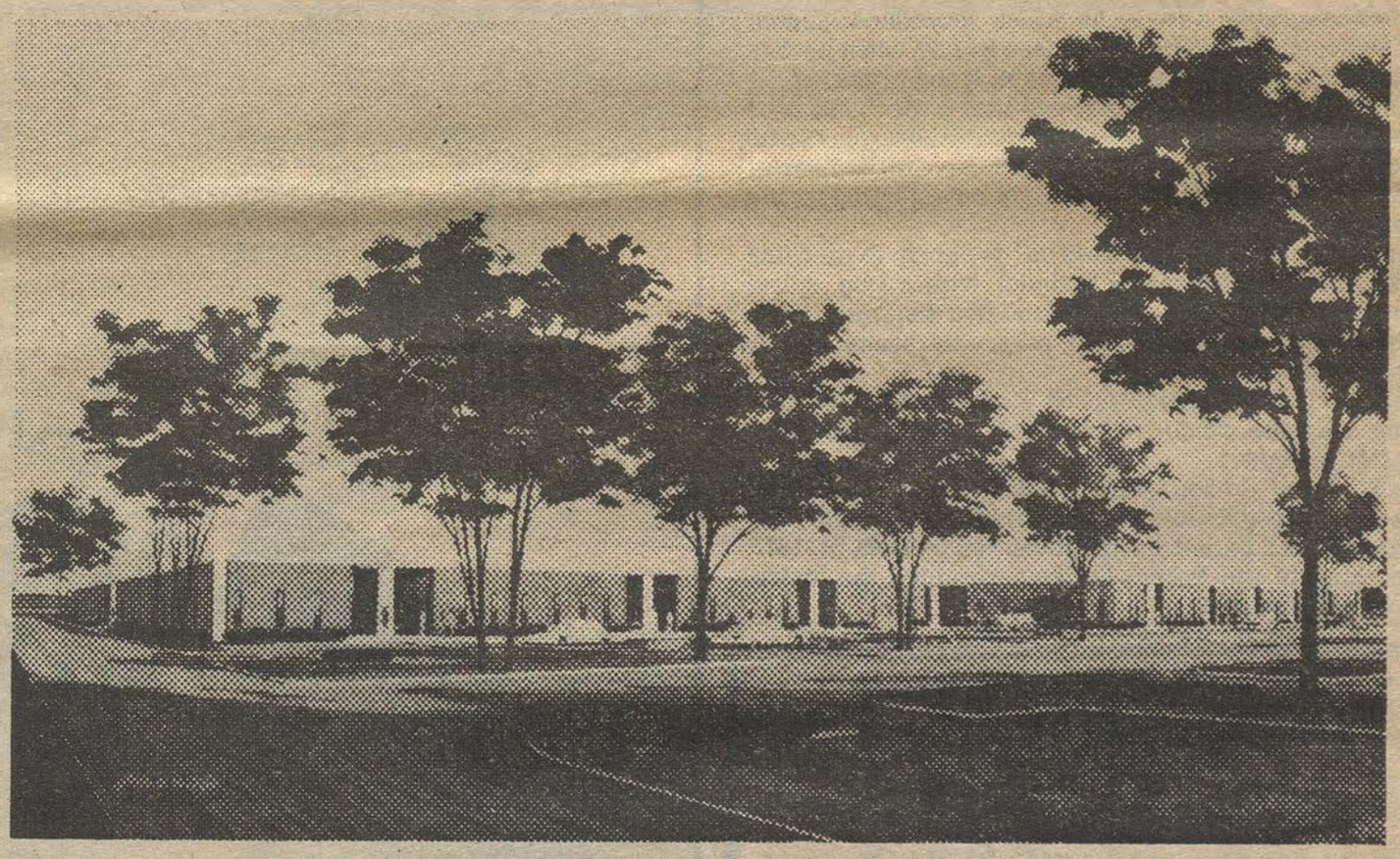

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Lamp replica

The first successful incandescent lamp invented by Thomas Alva Edison in Menlo Park used a filament of carbonized cotton seweing thread and burned for 40 hours.

Incandescent lamp developed

"The longer it burned, the more fascinated we were. None of us could go to bed, and there was no sleep for any of us for 40 hours.

"We sat and just watched. It was anxiety growing into elation. The lamp lasted about 45 hours, and I realized that the practical incandescent lamp had been born. TAE"

In these heartfelt words, the inimitable inventor Thomas Alva Edison remembered the events of October 19-21, 1879. Two years of laborious research had yielded this lamp prototype, the first to promise practical and inexpensive light to the world.

When Edison began his incandescent light experiments in the autumn of 1887, arc lights (large, brilliant electric lamps requiring a high current and emitting noxious gases) were already in use for lighting streets.

There was widespread interest among inventors to develop a system by which the electric light could be "subdivided;" that is, divide the intense light into many smaller, milder, individually-controlled lights for domestic use.

"The problem," said Mr. Edison, "appealed to my imagination also."

In early October 1878, the Edison Electric Light Company (later to become General Electric) was organized in New York City to attack the incandescent light problem.

Edison perceived that lamps employing high-resistance filaments and connected in parallel circuits were the key to practical "subdivision" of the electric light. Equally important, a higher vacuum had to be attained inside the bulb, in order to extend the life of the glowing filament.

After months of extensive experimentation on hundreds of different filament materials, Edison settled upon carbon as the most satisfactory.

Edison and his associates tried passing electricity through a carbonized piece of cotton sewing thread bent into a horseshoe shape. The best vacuum pump available, further improved by Edison, was employed, creating a substantial vacuum within the sealed glass globe.

The lamp burned for what was then a remarkably long time. Two years after beginning work, Thomas Edison was victorious.

News of Edison's invention astounded the world. Edison Electric stock rose to $3,500 a share while gas lighting stocks plummetted.

The first small, workable lighting system was frantically prepared for a demonstration at Edison's Menlo Park laboratory in December 1879; its lights displayed for the public on New Year's Eve.

Edison recalled the celebration: "The Pennsylvania Railroad ran special trains from New York, bringing a crowd of 3,000 people to see the new light!"

The "Wizard of Menlo Park" had established the basic principle of a successful light bulb.

Its practical use, however, would be dependent upon Edison developing a vast "system" of electrical generation and distribution.

Of the 1,093 U.S. patents Edison obtained during his 84 years, 356 dealt with electric lighting and the generation and distribution of electricity.

Phonograph invented

The phonograph, a machine which reproduces sound, was developed by Thomas A. Edison in 1877 when he was searching for a high-speed telegraph transmitter.

While experimenting, he noticed that a mechanism he had developed, a paper tape with indentations representing the dots and dashes of Morse code, gave off a musical sound when the tape struck the end of an adjusting spring in the mechanism.

Using this observation, Edison designed a machine which consisted of a metal cylinder with a fine, spiral groove impressed on its surface, and two diaphragm-and-needle units, one of which would record the sound, and the other reproduce it.

The cylinder was mounted on a mechanism, so that turning a handle would make it both revolve and move from left to right.

It is said that Edison was astounded when the machine produced a recognizable reproduction of his voice.

Edison filed a patent for the invention on Dec. 24, 1877, and nothing in the Patent Office resembled the instrument he had created.

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Edison's works listed

Most people can identify Edison as the inventor of the light bulb, the phonograph, and the motion picture camera. Beyond that, their knowledge of his works is limited.

Edison earned 1,093 U.S. patents in all, more than any other individual. Some of his more significant developments follow:

1868 — Invented electric vote recorder (Oct. 13).

1869 — Invented electric stock ticker.

1872 — Invented motograph and duplex, quadruplex, sextuplex and multiplex telegraph systems.

1874 — Invented "electric pen" and manual duplicating press.

1875 — Discovered "etheric force."

1877 — Invented telephone transmitter and the microphone (April 27). Invented the phonograph (Dec. 6).

1879 — Invented the incandescent electric light (Oct. 21). Gave first public demonstration of electric street and building lighting in Menlo Park (Dec. 31).

1880 — Discovered "Edison Effect," the fundamental principle of the science of electronics. Invented magnetic ore separator (April 3). Invented and installed first electric railway for freight and passenger use (May 13).

1883 — Patented the electric indicator using "Edison Effect" (Nov. 15).

1885 — Invented system of wireless telegraphy for use between moving trains and railway stations, as well as ship-to-shore (March 27).

1889 — First projected an experimental motion picture (Oct. 6).

1891 — Patented the motion picture camera (Aug. 24).

1894 — First commercial showing of motion pictures on Broadway in New York City (April 14).

1896 — Invented the fluoroscope, using principles of x-ray for medicine and surgery.

1899 — Invented the fluorescent light (May 16).

1902 — Invented the alkaline storage battery.

1905 — Established the first Portland Cement mill. Introduced new dictating machine which allowed the dictator to hear repetitions and note corrections.

1907 — Introduced the first universal electric motor which operated on all ligpting circuits.

1912 — Introduced the Kinetophone (talking motion picture).

1914 — Invented a method for producing synthetic carbolic acid. Invented the Telescribe, combining the telephone and the dictating phonograph. Patented electric safety lanterns for use by miners (Oct. 13).

1915 — Established plants for manufacture of coal-tar derivatives.

1927 — Commenced experiments to discover a domestic source of natural rubber.

John F. Kennedy Medical Center

—Growing to Meet Tomorrow's Health Needs



John F. Kennedy Medical Center undertakes its third major expansion program in 1979 in a development program keyed to providing both the facilities and programs needed to meet the present and future health needs of this region.

A $3,700,000 project will expand the capabilities of the Robert Wood Johnson Jr. Rehabilitation Institute, a major division of Kennedy Medical Center. The Johnson Institute now provides 48 beds for inpatients in addition to comprehensive outpatient treatment programs and varied clinic services. Sports medicine and cardiopulmonary rehabilitation are two programs included in the expansion.

The new program follows by just two years completion of a $3,000,000 project adding the Radiation Therapy Center for the treatment of cancer patients and the Family Practice Center for the training of young doctors as family physicians. In 1974, a $14,000,000 expansion doubled the size of the Medical Center to its present total of 415 beds and added the Johnson Institute.

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Exposition participants listed

EDISON — The following is a list of exhibitors at the 1979 Edison Centennial Exposition.

Floram Travel Inc. of 1333 St. George Ave., Colonia; Whitemarsh Corp. of Edison; Bamberger Polymers (NJ) Inc. of 8 Greek Lane, Edison; Ed-Chem Corp. of 16 Letson Place, Edison; New Brunswick Saw Service of 5 Greek Lane, Edison; Video Corporation of America of 1913 Route 27, Edison; Skil Corp. of 6 Kilmer Court, Edison and United Jersey Bank-Central of Elizabeth.

Also Lynn Distributors of 2058 Route 27, Edison; Ramada Inn of 3050 Woodbridge Ave., Edison; Akai America, Ltd. of 6 Kilmer Road, Edison; Cooperative Office Education Program, care of Edison High School; Middlesex County Department of Industry and Economic Development of 841 Georges Road, North Brunswick; Nametre Co. of 272 Loring Ave., Edison; Brunswick Office Systems, Inc. of 1605 Route 27, Edison; and Garden State Health Services of 61 Jamaica St., Edison.

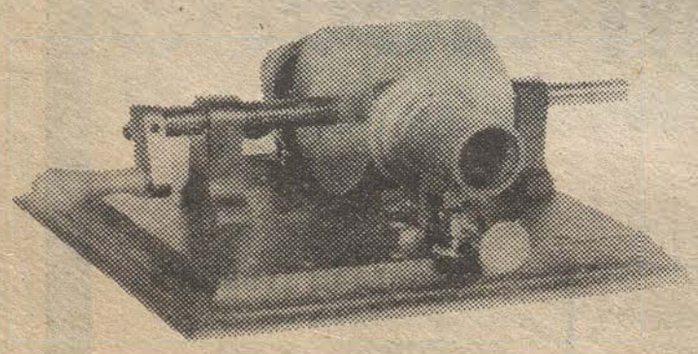
Also John F. Kennedy Medical Center of Edison; Clarke Employment Agency of 495 Main St., Metuchen; Edison Travel, Inc. of Route 27 and Parsonage Road, Edison; Automatic Catering, Inc. of 58 Brunswick Ave., Edison; Edison Divison of Health, 80 Idlewild Road; Allsafe Ladder & Scaffolding Co. of 33 Gross Ave., Edison; First National State Bank on Route 27 and Stoney Road, Edison; Burmah-Castrol, Inc. of 30 Executive Ave., Edison; Edison Police Department and Public Service Electric and Gas Co. of Springfield.

Also Edison Fire Department; Middlesex County College; Bridge Supply of New Brunswick; Raritan Supply of Meadow Road, Edison; New Jersey Bell Telephone of 445 Georges Road, North Brunswick; J.M. Huber of Thornall Street, Edison; Kiwanis Club of Edison; Edison Packaging of Route 1, Edison Industrial Park; and Metex Corp. of 970 New Durham Road, Edison.

Also YMCA Metuchen/Edison of 65 High St., Metuchen; Summit Associates of 20 Northfield Ave., Edison; The News Tribune; Edison CETA program; Suziki of Edison, 920 Route 1, Edison; First Savings and Loan of Perth Amboy, 339 State Street; Edison Young Democrats of 736 Amboy Ave.; and MacPherson Agency of 1918 Route 27, Edison.

Also Snelling & Snelling of 100 Menlo Park, Edison; Edison Chapter of Deborah, 85 Burnham Drive; Joe Marra Travels of 1199 Amboy Ave., Edison; Montgomery Ward of 1800 Route 27, Edison; Middlesex County Arts Council, 37 Route 27, Edison; Middlesex County Arts Council, 37 Oakwood Ave., Edison; Interstate Container Corp. of 2960 Woodbridge Ave., Edison; Edison Raritan Bay Area REACT; Edison Senior Citizens of 2965 Woodbridge Ave.; and Township Directory Corp. of Carteret.

Also B & M Lumber Co. of Woodbridge Avenue; Edison Garden Club; Fedders Air Conditioning Co. of Woodbridge Ave.; Sisser Brothers of 21 Progress St.; Edison Police Reserves; B & B Photo Graphics of 5 Lenox St.; Miller Knapp Inc. of Fulton Street at Route 1; U.S. Navy; U.S. Army and Federal Warehouses in Edison.



The original tin-foil phonograph invented by Thomas Edison in 1877

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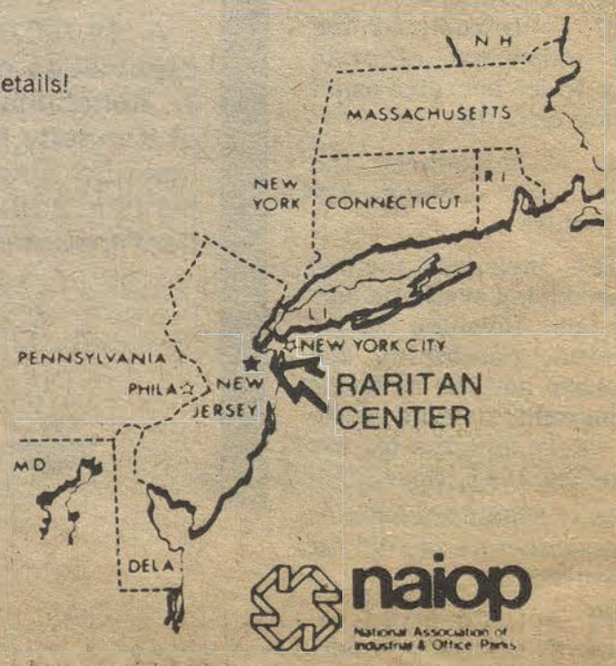

naiop National Association of Industrial & Office Parks

Edison Township took inventor's name in '54

By DEBRA RUBIN
Special to The News Tribune

EDISON — Edison Township has only been known by that name since 1954 when voters decided to change the name from Raritan Township.

The name change was made in honor of Thomas A. Edison, who worked in the Menlo Park section of the township from 1876 to 1887, perfecting his incandescent light bulb and laboring over a number of other inventions.

The name change also was aimed at clearing up some confusion, since the municipality was one of three Raritan Townships in the state. In addition, there was also a Raritan Borough.

First designated Raritan in 1870, the township was formed from portions of Woodbridge and Piscataway townships. An Indian word, "Raritan" means "forked river" and refers to the two streams which unite to form the area.

The earliest settlement in the township was the village of Piscatawaytown. Dating back to 1668, the Indian village once held the seat of justice for Middlesex and Somerset counties.

Another section of the township, Stelton, was also settled in 1668 and it was here that the first church in Edison was built 21 years later. It is the site of the present Stelton Baptist Church.

Piscatawaytown was the site of the first schoolhouse, built of logs in 1694. Old Post Road was the earliest road in Edison and was used by George Washington as he traveled to New York City for his inauguration as president.

Skirmishes took place in the nearby areas during the Revolution, but no major battles were fought here. However, the territory was an area of dispute as both armies advanced and retreated through the area.

The years following the revolution saw a rapid growth in the area. The ferry across the Raritan River was replaced by a bridge and rail lines were laid in the township. Small villages developed around the railroad stations which were built at Stelton and Menlo Park.

Throughout most of the 1800s and early 1900s, Edison was a prosperous farming community. The Stelton Railroad Station was built in 1895, combining the depot, post office, store and dwelling. This building served as the railroad station until the 1950s.

The first trolley line was laid in 1900 and the Lehigh Valley and Reading Railroads later laid tracks in the township to provide freight service.

Some of the principal industries in the township dealt with mining, shipping and manufacturing of fire-clay, fire-sand and kaolin.

But as the township developed, controversies arose concerning services and capital improvements in the area.

In 1905, residents of the Metuchen area petitioned the state for a separate charter, thus forming a three-mile township right in the center of Edison.

Highland Park-area residents followed this example in 1905 and that area was incorporated as a borough, reducing the township by two more miles.

Four and a half more square miles were lost to the township during World War I when the federal government bought land to build the Raritan Arsenal, a major munitions-producing center. Camp Kilmer was built after additional government purchases of land during World War II.

Most of the land used by these facilities has since been returned to public use. Part of the arsenal is now the home of Middlesex County College. A large portion of the land was also used for Raritan Center, a huge industrial complex which continues to expand and is currently building a major office building.

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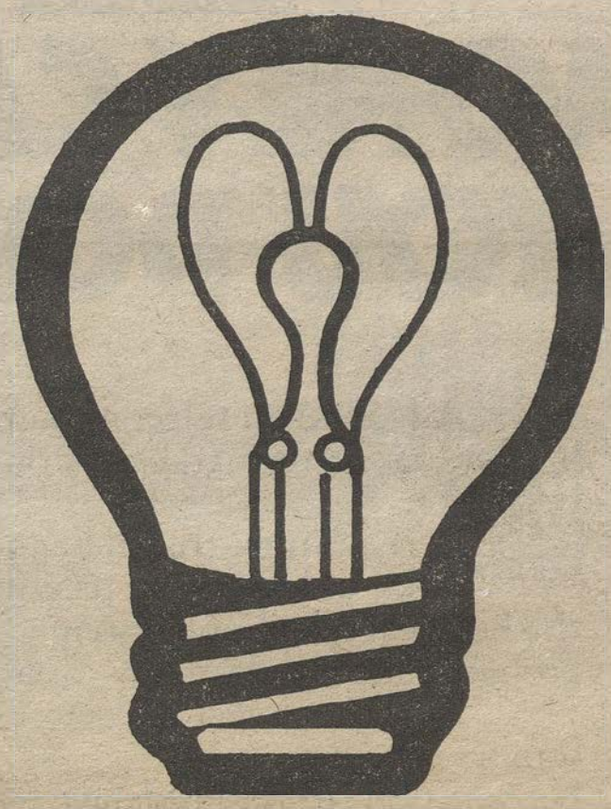

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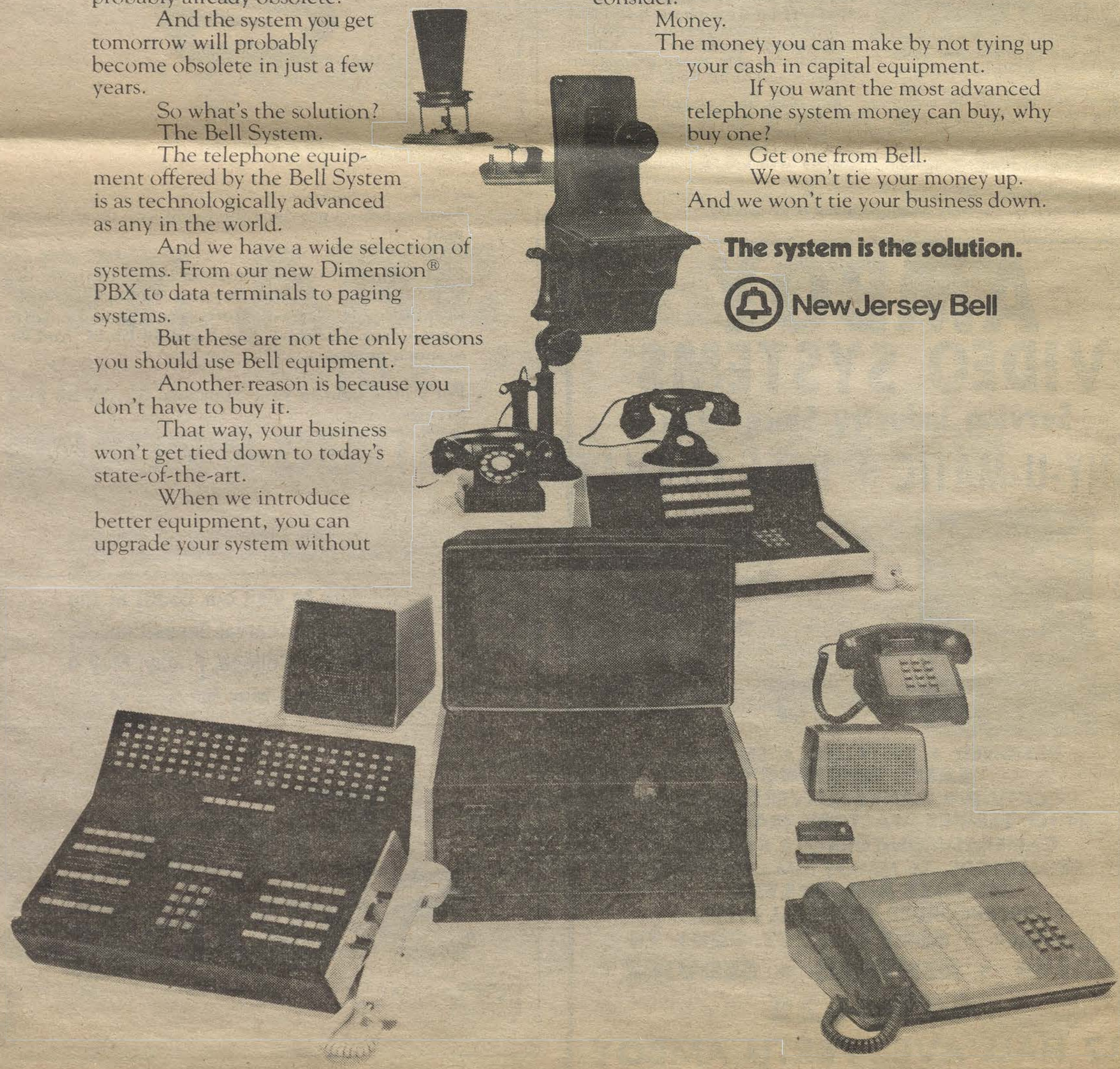


Edison's writings show his genius, resolve

Thomas Edison was a prolific writer, a keen diarist, and sophisticated philosopher.

These are some of his remarks, gleaned from his writings and from interviews. They indicate not only the man's mark of genius, but his firm resolve of purpose.

— "Genius is ninety-nine percent perspiration and one percent inspiration."

— "My purpose is to stimulate the interest of the youth of America in mental development, with particular emphasis on scientific matters; and, more generally, in the high ideals that make for the finest types of American manhood."

— "We sometimes learn a lot from our failures if we have put into the effort the best thought and work we are capable of."

— "When I want to discover something, I begin by reading up everything that has been done along that line in the past — that's what all these books in the library are for. I see what has been accomplished at great expense in the past. I gather the data of many thousands of experiments as a starting point, and then I make thousands more."

— "Before I have done with it I mean to succeed. I have the right principle and am on the right track, but time, hard work and some good luck are necessary too. It has been just so in all of my inventions.

"The first step is an intuition, and comes with a burst, then difficulties arise — this thing gives out and then that — 'Bugs,' as such little faults and difficulties are called — show themselves and months of intense watching, study and labor are requisite before commercial success, or failure, is determined."

— "Discovery is not invention, and I dislike to see the two words confounded. A discovery is more or less in the nature of an accident. A man walks along the road intending to catch the train. On the way his foot kicks against something and . . . he sees a gold bracelet imbedded in the dust. He has discovered that — certainly not invented it. He did not set out to find a bracelet, yet the value is just as great."

EDISON

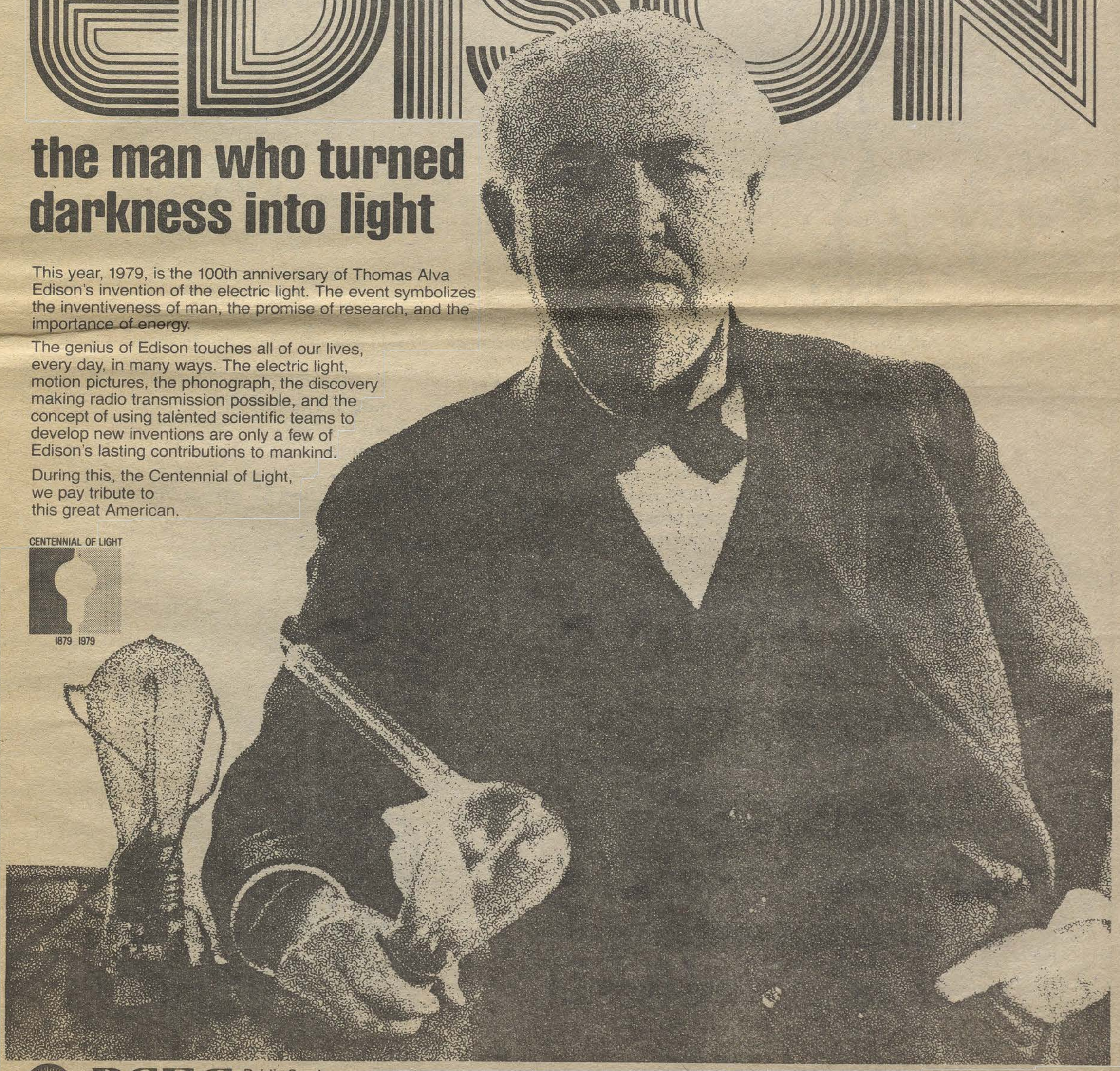
the man who turned darkness into light

This year, 1979, is the 100th anniversary of Thomas Alva Edison's invention of the electric light. The event symbolizes the inventiveness of man, the promise of research, and the importance of energy.

The genius of Edison touches all of our lives, every day, in many ways. The electric light, motion pictures, the phonograph, the discovery making radio transmission possible, and the concept of using talented scientific teams to develop new inventions are only a few of Edison's lasting contributions to mankind.

During this, the Centennial of Light, we pay tribute to this great American.

CENTENNIAL OF LIGHT
1879 1979



PSE&G Public Service Electric and Gas Company

Visit the dramatic tribute to Thomas Edison aboard the Second Sun, PSE&G's floating energy information center on the Delaware in historic Burlington, N. J. "Century of Light" is an exciting, entertaining, multi-media theater presentation to delight all ages. Open Wed.-Sun. every week. Phone (609) 387-3800



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EDISON TOWNSHIP

EDISON CHAMBER of COMMERCE

EDISON CENTENNIAL COMMISSION

WE ARE PROUD!

Yes, we are proud of our town and the progress that we have enjoyed since the discovery of the incandescent light by Thomas A. Edison in 1879. Our business firms and organizations are proud too of their accomplishments over the years that they have been located in Edison. They therefore invite you to view their progress at the:

EDISON CENTENNIAL EXPOSITION

to be held at

MIDDLESEX COUNTY COLLEGE

Friday, May 4th 5 P.M. to 9 P.M.
Saturday, May 5th 10 a.m. to 3 P.M.

The following events are scheduled for the remainder of 1979 in Edison Township to commemorate the "Centennial of Light" . . .

1. *Centennial Ball to be held at the Pines in October.*
2. *25th Anniversary celebration of the naming of the township after Thomas Alva Edison. Governor of New Jersey and the President of U.S. have been invited.*
3. *Sunday, October 28 will feature a parade with Thomas Edison theme.*
4. *Distribution of 20,000 souvenir maps of Edison Township.*
5. *Presentation of a bronze bust and plaque of Thomas Edison and listing his accomplishments while his laboratory was located in Menlo Park.*
6. *Dedication of the newly constructed Municipal building.*

EDISON TOWNSHIP

Anthony M. Yelencsics

MAYOR

DOROTHY K. DRWAL,
Council President

GEORGE J. ASPRACOLAS
LEWIS M. BLOOM
MARGERY S. GOLIN
JOHN J. HOGAN
JAMES MACK
ANGELO A. ORLANDO, JR.



ANTHONY M. YELENCSICS
Mayor

Edison, Thomas A. (Edison History)

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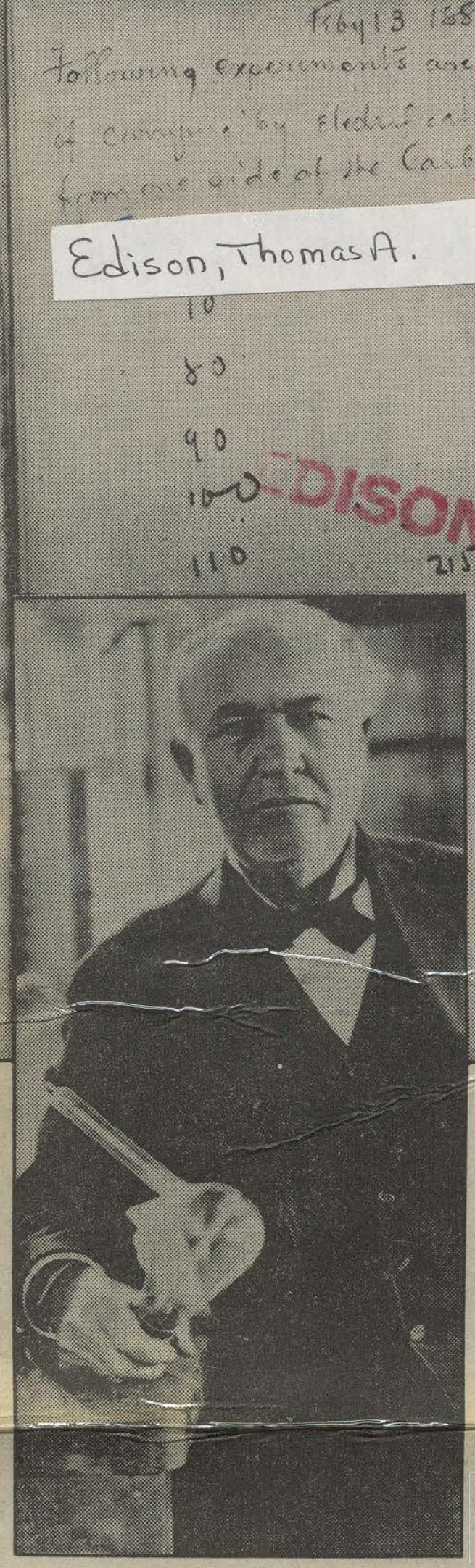
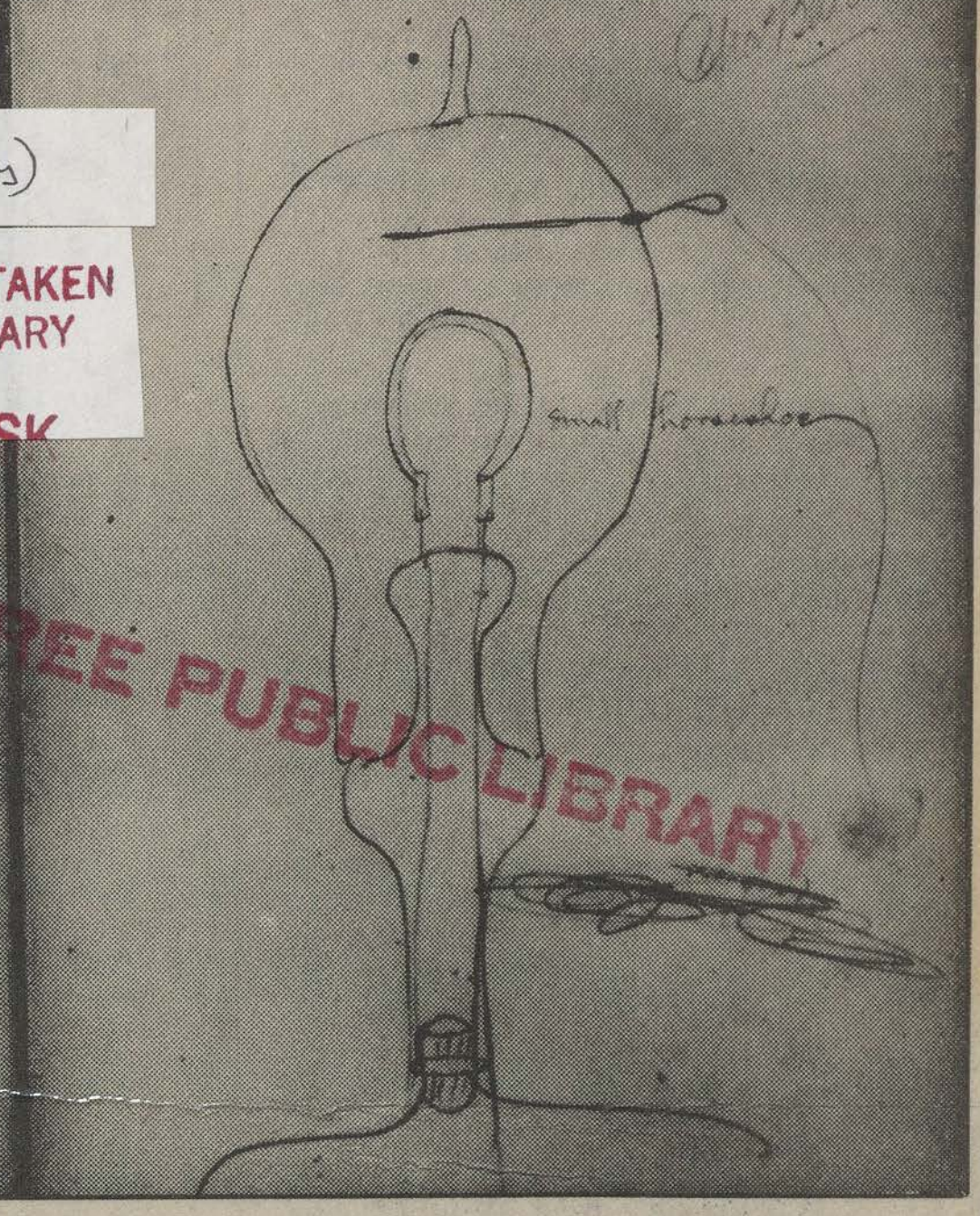




AP photo/TNT photo

'Wizard of Menlo Park'

Representatives of Rutgers University and Johns Hopkins University Press signed a contract yesterday leading to the publication of the Thomas Edison Papers, a compilation of the inventor's laboratory notebooks, documents and correspondence. Above, notes and drawing, dated 1880, written in one of Edison's logbooks. At left, the inventor in his Menlo Park lab with an early model of the electric light bulb.

NT 1/18/83

Edison Papers seen a 15-20 volume set

Rutgers, publisher sign

By RENAE KASPER
News Tribune staff writer

WEST ORANGE — Utilizing an authentic electric pen, invented by Thomas Alva Edison in 1875, representatives of Rutgers University and the Johns Hopkins Press yesterday signed a contract for the publication of the Thomas Edison Papers.

The contract calls for the publication of a highly selective, annotated and illustrated 15-20 volume book edition of Edison's documents plus a microfilm edition, the first stage of the project, of existing laboratory notebooks, patents, correspondence and legal papers. The third phase of the project will be illustrated books, slides and films intended for the non-specialist audience.

The contract was signed by Dr. Edward J. Bloustein, president of Rutgers University, and Jack G. Goellner, director of the Johns Hopkins Press.

The $6 million project, of which $2.7 million has been committed through private and federal funding, is expected to take 20 years.

"The project is significant to Americans concerned that this nation is losing its technical initiative, the key to greater productivity," said Dr. Reese V. Jenkins of Rutgers University, director and editor of the Edison Papers project.

"We hope the publishing of Edison's papers will provide an understanding of the forces that stimulated innovation in the past," he said.

Under the direction of Dr. Jenkins, who is also a professor of history at Rutgers, a professional staff of eight, including historical editors and researchers, have collected over 3.5 million pages of documentation.

These include 3,600 laboratory notebooks, correspondence and related papers as well as experiments and thousands of photographs and artifacts, most of which are stored in temperature-controlled vaults at the inventor's West Orange headquarters.

In his lifetime, the inventor set a record of 1,093 patents.

During one year, 1882, he successfully applied for 107 patents, Jenkins said. And although Edison died 50 years ago, no one has come close to his patent achievements.

Dr. Jenkins also said Edison was very meticulous in keeping records on his employees. "Not only did he document the hours each worked and their wages, but he also kept records showing what projects they were assigned to and how many hours were spent working on specific jobs in relation to those projects. He kept a cost accounting on every one of his inventions.

"We will selectively choose the material to be used," Jenkins said, "but only about 10 percent of the material collected will be reproduced in microfilm and less than half of one percent of the total material will comprise the 10 to 15 volumes of books to be published."

The project was started on Nov. 3, 1978 and is sponsored by Rutgers University, National Park Services, the Smithsonian Institution and the National Historical Society.

The Edison Papers will begin to be published in about two years and new volumes will continue to appear to the end of the century.

According to Jenkins, before Edison made his name as a telegrapher, he was a press wire operator and this is believed to explain his close working relationship with the press, to which he often divulged his inventions before conferring with other scientists.

He was fourteen years old when he published his own paper, "The Weekly Herald," which he printed and sold while working as a baggage boy for the railroad out of Port Huron, Mich., where he grew up.

Additional support for the project is being sought from private corporations, foundations and individuals.

It presently costs an estimated $300,000 per year to keep the project going, Jenkins said.

When asked why this project had never received attention before the Rutgers group became involved, Jenkins explained, "historians generally turn their attention to political and military figures. It is only recently that that these same historians have turned to people like Edison and Einstein.

"The important aspect of this project," he said, "is that this type of material will be available to a large group of historians beginning with Edison's childhood, through his early inventive years to about 1873."

Menlo lab was well equipped

Thomas Alva Edison, born 1847, moved to Menlo Park in the spring of 1876.

The inventions he is most remembered for and which were created in his hilltop laboratory were the electric light and much of the work with the phonograph, according to Dr. Thomas Jeffrey, associate editor of the Edison Papers project.

"One of the major works he is credited with, motion pictures, was not done here," said Jeffrey.

Born in Milan, Ohio and raised in Port Huron, Michigan, the inventor had very little formal education. "His mother is credited with most of his education, the rest he learned from books he read," said Jeffrey.

He was 29 when he lived in Menlo Park and, at the time, his basic work was with telegraphy.

He worked in this field almost exclusively and was considered the best operator when, in 1869, he placed an advertisement in a trade journal stating he would now donate his time to bringing out his inventions, which he did throughout the rest of his life.

Prior to moving to Menlo Park, he lived in Boston and then in New York, where he concentrated his efforts on establishing central electrical power stations.

The laboratory at Menlo Park, which has since been moved to Greenfield Village in Dearborn, Michigan, "was probably the best equipped laboratory of its day," according to Paul Israel, research associate on the Edison Papers project.

"It began as a two-story, clapboard structure with some out buildings, including a carbon shed. There was a large machine shop, boiler room, an office building and library used exclusively for work being done on the light bulb.

"He started with a staff of about six and in 1881 when he left the area, he had 50 to 75 employees," Israel said.

Edison was one of the first to utilize team research and development techniques at his Menlo Park and West Orange laboratories.

—RENAE KASPER

the senate.

The bills' sponsors said the revised statutes are necessary because existing laws on the subject of causing death by auto are unsatisfactory in that they make it too difficult for prosecutors to obtain convictions in these cases.

One aspect of that problem, the sponsors said, is that as the law now stands prosecutors must prove the driver involved acted in a willful and reckless fashion.

That determination, largely a psychological finding, is virtually impossible to pinpoint.

The same factor also makes an ordinary reckless driving charge most difficult to press successfully.

In any given crash, lack of control over a vehicle usually translates into "careless" driving.

For "reckless" driving to apply in the identical crash, the prosecution must prove that the driver willfully and purposefully caused the crash before a reckless driving accusation can be pursued.

The new bills create a new category of driving offense which would carry less jail penalties, but at the same time would make death by auto cases much easier to prosecute.

The new "death by auto" offense category could be heard in municipal courts, for instance, and would not require an indictment, as is the case at the present time.

The proposed penalties would fall into two categories: fines and sentences in cases where the violation of a traffic law caused a death by auto and, separately, fines and penalties in cases where the violation itself included a criminal offense, such as drunken driving or leaving the scene of an accident.

These bills are related to the real experiences of people in the law enforcement field. They would provide a prudent means of allowing for a greater quality of justice.

Mr. Blackwell: Who asked him?

If you're keeping a list of things we can live without, why not add to it Mr. Blackwell and his annual list of the "worst dressed" women in the world.

Every January, the California fashion designer, who has appointed himself the arbiter of taste — not only for California, mind you, but for the whole world — makes public his gallery of women of whose attire he does not approve.

As though it weren't presumptuous enough of him to pass such judgment, he colors his findings with insulting and degrading remarks about these women.

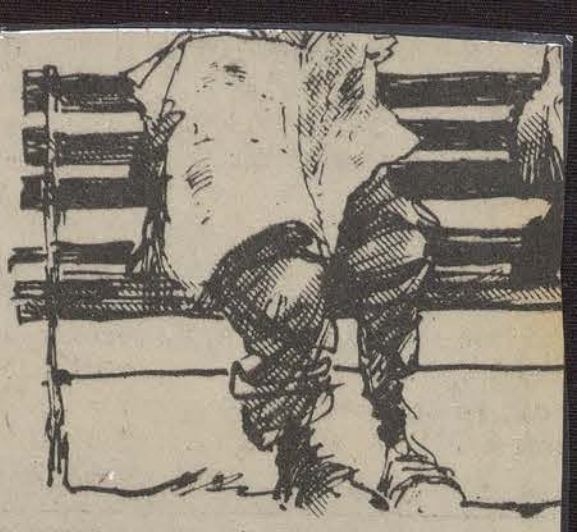
The irony of it is that no one would care or even know what Mr. Blackwell thinks of how certain people dress if the media didn't play into his hands every year and give his pronouncements national attention.

When the Blackwell list was issued last week, every television network devoted time to it during their nightly newscasts, thereby giving it position within the context of daily events which it does not legitimately occupy.

There is no defense against this sort of thing. It is in a category shared by a variety of such phenomena, like the recently-issued list of the "dullest men in America," in which people who are not called to account for their own demeanor or accomplishments or taste take cheap shots at public figures who have no way to reply without demeaning themselves.

To dote on this sort of drivel is to dismiss as though they did not exist the feelings and the self-respect of the people affected by it.





Buchwald



Getting the bull market lov

It seems every time there is bad economic news on evening television, the stock market goes up another 10 points.

The only thing I've been able to figure out is that either Wall Streeters don't watch television, or they're living in a world of their own.

I have a cousin who works for one of the large brokerage firms and I called him the other day to find out what was going on.

"I can't talk to you now," he said. "The new unemployment figures came out and I have to start buying stock."

"Why? Is unemployment going down?"

"No, but it only went up slightly compared with last month, so the bulls have gone into action again."

"Why are the bulls acting so bullish when all the indicators are bearish?"

"Because the bulls are betting the Fed is going to loosen up on tight money, and interest rates are going to come down."

"The bulls aren't watching Washington?" I asked.

"They're watching each other. When one of the big bulls starts buying, the others have to follow suit, or they'll be left back in the stampede. The word out on the street now is if you see a red flag, bid on it."

"Don't the bulls read the papers? They're closing manufacturing plants all over the country."

"That's why Wall Street feels it's the time to buy. If the plants stayed open, stocks would not be a bargain."

"But if the plants are closed, earnings will be down and there will be no dividends for the stockholders."

"The bulls are not looking for dividends. They're looking to make a profit on their stocks. The big boys can get in and out in a few days and make millions on their investments."

"It sounds like a crap game to me."

"It is a crap game. But as long as there are enough guys rolling dice, nobody is going to close down the table."

"I thought Wall Street was supposed to reflect the economy of the country."

"It used to. But now it's a game all unto itself. We're on a roll now, and as long as everyone is making money, we're going to keep betting no matter what the rest of the country is doing. The only ones who have lost their shirts in the last year are the bears because they believed what they read in the newspapers."

"Does this mean the bulls on Wall Street don't care if the recession is on or over?"

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When the Democratic House leadership recently imposed new rules to curb the practice of attaching irrelevant amendments to appropriations bills, the change was aimed at stopping ultra-conservatives from holding those crucial measures hostage to such causes as ending busing or abortion.

But some liberals as well as conservatives are now complaining about the restriction.

They haven't used the tactic much lately, but they have in the past and suspect they may want to again some day.

Liberals attached various amendments to military appropriations bills, for instance, which added to the pressure to stop the Vietnam war. And a legislative rider submitted by liberals added rape and incest as exceptions to a measure prohibiting the use of federal funds for abortion which originally provided an exception only to save the life of the mother.

But it has been the conservatives who have abused the legislative process most lately, raising on the House floor the

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Road work New Jersey-style

On Dec. 7, at 1 p.m., I was traveling on Route 18 just outside of downtown New Brunswick. While waiting for a red light, I saw productivity personified.

State Highway Department employees were painting some white lines on the street. They needed six persons and three trucks: two men painting, one man holding a flag, one man straightening out traffic cones, one foreman-type just standing with hands in pockets just looking, and the sixth man just sitting in the truck doing God knows what.

And what about the fuel cost to get three trucks to the scene? This is not the first example of waste by state employees I have seen.

With the budget deficit Governor Kean says we have, the new taxes he says we need, and the continuing requests for us to do more with less, I think he should look at his own operation to trim fat and obtain more productivity from government and government employees.

Any business that carries on in the manner I saw demonstrated on the highway won't be in business very long. This is our tax money being spent, and I suggest that any citizen who sees waste of manpower and equipment, send a letter to Governor Kean.

Perhaps if he gets enough letters, he will wake up and start managing his

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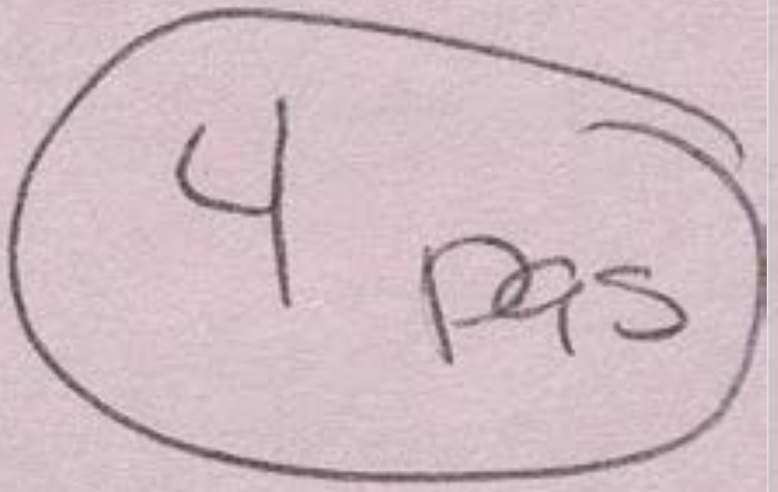

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Edison, Thomas A.

An Anniversary Overlooked

By WARREN SLOAT
Home News Staff Writer

New Jersey is overlooking an opportunity this month to mark the 90th anniversary of one of the world's most important inventions — and the 40th anniversary of what may have been the most successful publicity stunt in history.

The invention — the incandescent lamp, that changed the living habits of mankind — sprang from the fertile mind of Thomas A. Edison in Menlo Park.

The publicity stunt — "Light's Golden Jubilee" — owed its success to Edward L. Bernays, the creator of modern public relations. It rewarded him handsomely, establishing his reputation as a master of the craft.

In a burst of publicity that to all effects ended the hectic 1920s — the stock market crashed a week later — Light's Golden Jubilee was staged at Dearborn, Mich. It was from there that the aged inventor, who died within two years of the event, pushed the button that lit the Edison Tower in Menlo Park, half a continent away.

In a special dispatch, Congressman Charles A. Eaton wrote in The Home News of Oct. 22, 1929.

"This country has probably never staged a more unique gathering than the celebration of light's golden jubilee at Dearborn yesterday. Certainly no more diversified group of notables were ever assembled at one place at one time. . . The list of guests constitutes an honor roll in the realm of public and private service."

Henry Ford

In addition to Edison, in whose honor the event was conceived, and Henry Ford, a leading force in its planning and execution, the list included John D. Rockefeller Jr., Will Hays, Pat Crowley, Charles Schwab, and President Herbert Hoover.

Another figure who kept out of the way of the cameras and microphones was the catalyst of its success: Bernays, the brooding, dark-eyed nephew of Sigmund Freud who is generally credited with establishing the "public relations consultant" as an American institution.

The most complete account is told in Bernay's autobiography, entitled "Biography of an Idea," in which he reveals that the General Electric Co. first undertook the event and underwrote a large portion of its expenses.

In 1929 Bernays, then 38 years old, was on his way to making a name for himself, after a modest beginning as Broadway press agent after World War I.

New Methods

At that time publicity men haunted newspaper offices trying to wheedle a little free space for their clients. Bernays began to adopt different methods and became convinced that there were more subtle ways of influencing public opinion.

Public relations influences mood, creates events. Bernays, something of a philosopher, stopped selling bacon and began influencing physicians to say that people ought to eat heartier breakfasts, which in the end amounts to the same thing.

Organizing news events, which became feasible only with the burgeoning of communications early in the century, was Bernays' alternative to space-wheedling. Now a standard and over-used device, it was a novel approach in the 1920s.

At the time Bernays was developing these methods, American big business, largely because of journalistic muck-raking revelations about business practices, was in disfavor. At the end of an age of laissez faire, the big companies were seeking a positive image, and Bernays was in at the beginning.

As Bernays tells it in his autobiography, Napoleon Boynton, GE's general coordinator for "Light's Golden Jubilee," approached him in February of 1929 with a proposal that Bernays take over the public relations effort.

Honor Their Leader

Edison's associates in Menlo Park and Orange, where his movie studio had been located, had formed the Edison Pioneers, which met annually to honor their employer-leader.

Without funds to do justice to the 50th anniversary of the electric light, they had asked GE to underwrite it. The company, under attack for monopolistic practices, thought it would be a sound investment in image-building and took it on.

GE was planning to hold the celebration at its national headquarters in Schenectady and, according to Bernays, had not even consulted with Edison about it.

Henry Ford, an old friend of the inventor, became angry at hearing of the plans because he believed that both GE and Westinghouse had exploited Edison in the past. He directly contacted Edison, suggesting that the event be held on Ford's home grounds in Dearborn.

The initiative was snatched from GE, which continued to go along with it. Bernays implies in his autobiography that GE continued to pay his fees, but does not specifically state this.

Getting together with Ford every week in a step-up of activities, Bernays suggested that a committee, including President Hoover, be set up to sponsor the jubilee, and began to map out elaborate activity leading up to the date.

Dedicated by President

As a culmination, on Oct. 21, Hoover would dedicate the Edison Institute of Technology at Dearborn as well as other facilities and a museum of Edison memorabilia. Ford's own collection of Americana would also be inaugurated the same day.

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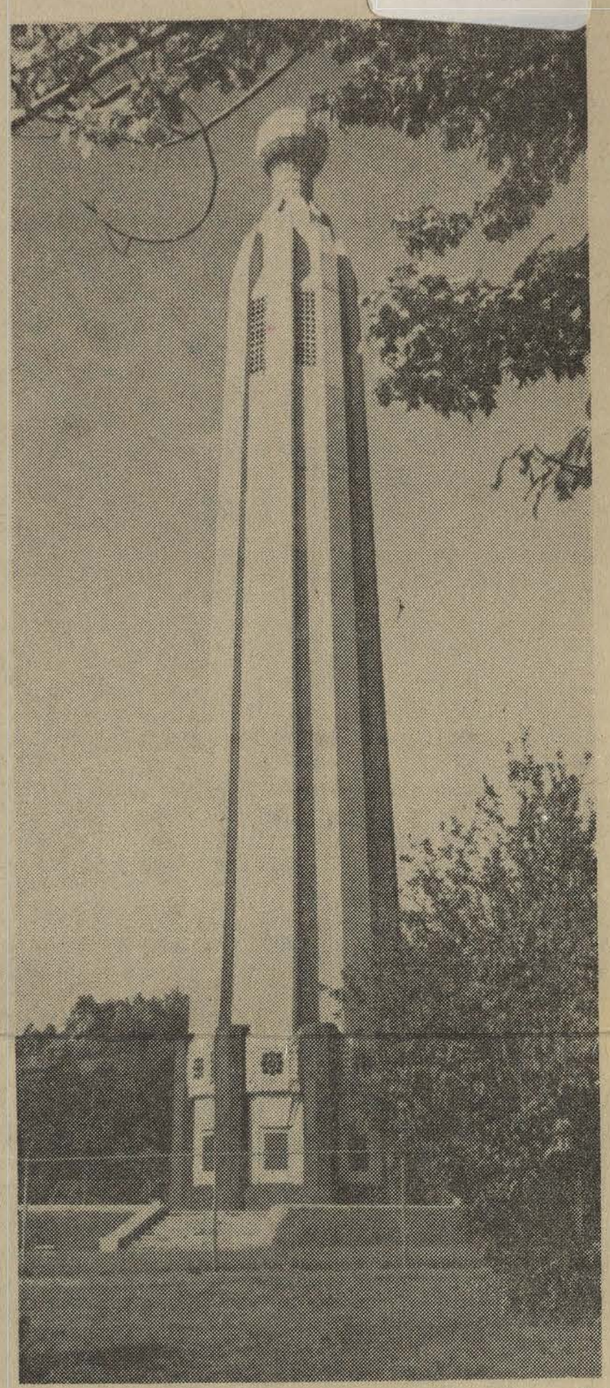


Edison Tower . . . Forty years later, light still shines.

Ford decided to buy Independence Hall from the City of Philadelphia and re-erect it in Dearborn, only to discover that it was not for sale. Instead, Ford ordered a perfect replica (three times the size), and outfitted it with an industrial museum of objects that the motorcar had helped to make obsolete.

It was constructed in Greenfield Village, a group of 19th century farm cottages, churches, taverns, and streets that Ford was then in the process of reconstructing. Many of them came from Menlo Park here, and one section was named Menlo Park. Ford even transferred shrubbery, trees, and Edison's boyhood outhouse (which Ford called "Tom's straight-shot privy") from New Jersey.

Meanwhile the Bernays press release mill was grinding out a far-fetched barrage of copy from May to October, tying stories to any conceivable relationship to Edison.

One release, whic hcited the heliotrope, dahlia, and goldenrod as Edison's favorite flowers, led the garden editor of the Philadelphia Record to arrange to have the Dahliadel Nurseries of Vineland name its new dahlia after the great inventor.

A 23-page section in the Saturday Evening Post tied to the jubilee cost the electrical industry $250,000 and made advertising history.

Commemorative Stamp

But, as Bernays' methods were specifically engineered to do, events began to work themselves. It is true that he wrote a letter to the Postmaster-General suggesting a commemorative stamp (a rarity in those days) and promptly discovered that it would be issued.

This, however, does not show that Bernays had great influence in the government, but that he had created a bandwagon effect, a more talented accomplishment.

"Light's Golden Jubilee no longer depended on a press bureau," he wrote in his autobiography. "Everyone was joining the procession.

"From the grass roots to Broadway, the spirit of ballyhoo took over. Mayors and governors issued proclamations. . . universities offered lectures on Edison and the implications of his discovery. Educational groups conducted essay contests. Librarians displayed books about Edison. Museum heads arranged exhibits that would illustrate the history of light. Women's clubs throughout the country held exhibits honoring the jubilee.

"Dining-car menus on leading trains mentioned the event. And to be sure that laggards acted, we sent copies of every dining-car menu that carried the announcement to superintendents of dining-car service who had not yet acted. Edison was the hero of the day."

The event was becoming worldwide. It was marked in Austria, Hungary, France, Germany, Switzerland, Great Britain, Argentina, China, Brazil, Canada, Italy and Holland. Mexico arranged a rebroduct of the Dearborn ceremony, and elaborate celebrations were held in Japan.

With the onset of fall, large exhibits and publicity were set up in Cincinnati, where Edison had worked for Western Union as a telegrapher, Buffalo and Louisville.

Theme Song

George M. Cohan wrote a song called "Edison—Miracle Man," which was widely played and used as the festival's theme song.

On Oct. 21, according to an Associated Press dispatch in The Home News, President and Mrs. Hoover arrived at the River Rouge transfer station of the railroad to be greeted by Mr. and Mrs. Ford and Mr. and Mrs. Edison.

They rode a half-mile spur on a wood-burning locomotive and train, a reproduction of an old train of the Grand Trunk Railroad. At Smith's Creek Junction they were met by a retinue that included Owen D. Young, Thomas W. Lamont, J. P. Morgan the younger, Otto H. Kahn, Adolph Ochs, Madame Curie and Orville Wright.

Guests coming to the jubilee were met at the Greenfield Village entrance with horses and carriages. This Bernays touch to "dramatize the revolution in transportation (Ford's) car had created," had been assembled — buggies, gigs, horses, and a huge stable — in two weeks.

Guides showed guests around the grounds. Some of the fortunate ones watched Edison dig into the ground with his toe, spit a stream of tobacco juice, and say, "Why, Henry's even got that damned New Jersey clay out here."

5,000 At Menlo Park

On the East Coast, 5,000 people from all over the state gathered at Menlo Park for the ceremony. A Home News reporter wrote of it:

"When the ceremonies at Dearborn were broadcast at 7:30 o'clock a silence fell over the large crowd, that previously needed state troopers and the Raritan Township police dpeartment to direct and keep behind the ropes that divided the platforms for the speakers, the band, and the press from the audience.

"Then at exactly 8 o'clock, with the announcement from Dearborn that Edison was about to press the button that would illuminate the replica of the first incandescent lamp that surmounts the 100-foot tower built specially at Menlo Park, the crowd seemed to realize quite suddenly that one of the most important moments of all had arrived.

"The people turned toward the tower in a single uniform movement just in time to see the 960 bulbs that the lamp contains brighten the sky at 8 o'clock. The crowd gazed in awe for several seconds. Not a sound broke. The silence was eloquent. The absence of applause made the moment sacred, lifted it above the commonplace, and gave it a spiritual expression.

"In another second the radio announcer had resumed talking and the sacred moment was but a memory, one, however, that will live for years in the minds of the men and women who were part of it."

Re-enacted

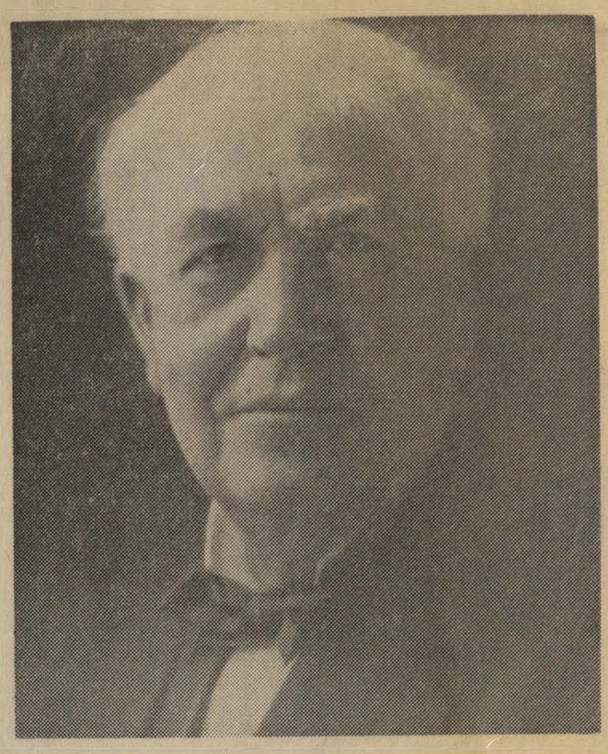
After the dinner Edison re-enacted the invention of the incandescent lamp, demonstrating, at the transplanted Menlo Park laboratory, how he had made a carbonized thread and vacuum globe. When finished, overcome with emotion, he sat down and wept. He recovered to hear the President's speech and to answer it, then collapsed immediately afterward, slumping in his chair, and retired to bed for several days.

Bernays' triumph seemed complete, with an adulatory press. Lawrence Doob, a Yale social psychologist, later called it "one of the most astonishing pieces of propaganda ever engineered in this country during peace time."

One of the few exceptions was The New Yorker, which called it a deserved tribute to a great man, but added that it was "a commentary of some sort or other on fame" that "it took a public relations counsellor to put it over."

Later reaction was more negative. John T. Flynn, in The Atlantic Monthly of May, 1932, called it "a grandiose glorified publicity stunt.".

"Surely you will not have to be reminded," he wrote, "of that amazing jamboree which took place when the story of Edison's invention of the incandescent lamp was re-enacted in Dearborn, with Edison himself, Henry Ford,



Thomas Edison, "The Wizard of Menlo Park."

and the President of the United States playing the leading roles, while droves of great industrialists and financiers played the parts of villagers and supers in the cast, and radios and newspapers fought for the privilege of broadcasting it.

'Pulled the Strings'

"Henry Ford was supposed to be the manager of the show, but the man who set the stage and pulled the strings attached to all the dignified marionettes was Edward L. Bernays. He worked, not for Edison or for Henry Ford, but for very important organized commercial interests which saw in this historic aninversary an opportunity to exploit and publicize the uses of electric light."

Henry Pringle, in The American Mercury of February, 1930, wrote:

"Amid the hurly-burly it was forgotten that most of this publicity sounded the praises of the electric light. Wherever Mazda lamps were on sale appeared posters advertising Light's Golden Jubilee.

"Who paid the bills at Dearborn? Maybe Henry Ford paid most of them. But who paid for the publicity? Was it the National Electric Light Association? Had the President of the United States jumped through a hoop in the hands of a press agent? Had the Miracle Man come out to speak so that more Mazda lamps would be sold?"

A few days after the jubilee, an advertising executive of General Electric asked Bernays to count the inches of editorial space Thomas Edison had received in the past year. "It is impossible to estimate," Bernays wrote tersely, "the amount of space Mr. Edison received or the amount of attention the event attracted."

"...one of the most astonishing pieces of propaganda ever engineered in this country during peace time."

In summing up the story, Bernays displays some doubts about his role in the jubilee:

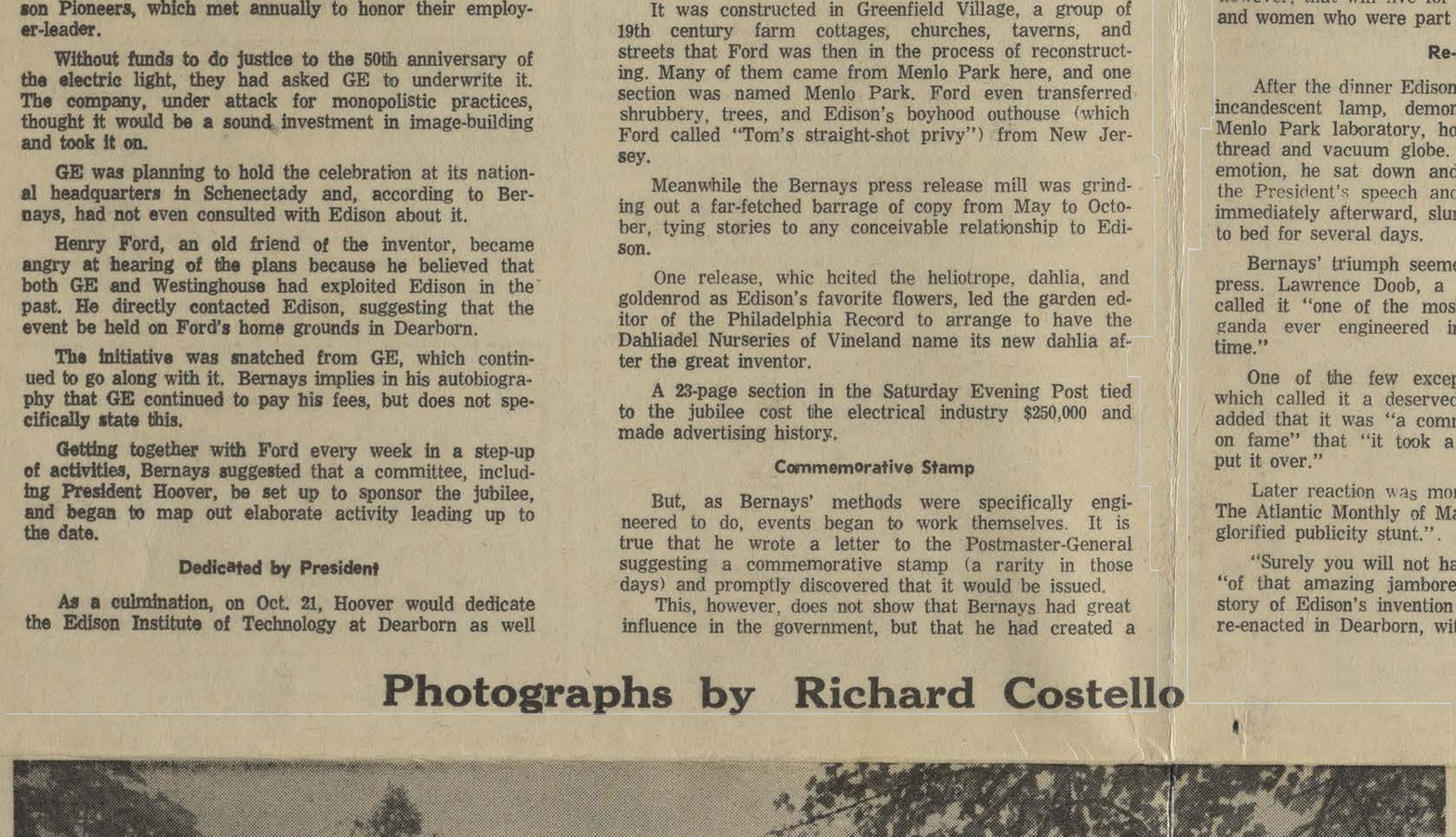
Served? Or Injured?

"Going back to New York on the train that night, I wondered whether the jubilee had really honored Edison or merely exploited him. Everything had worked as planned, which gratified me. But I asked myself whether I had served him or injured him by my contributions to the ceremony.

"An old man, recently very sick, had been subjected to great physical and emotional strain. It was not surprising that he collapsed. On the other hand, I could not forget the look of happiness in his eyes as he examined Ford's reconstruction of Menlo Park and lovingly fingered the old bulbs, telegraph instruments, stock tickers and other paraphernalia with which he had worked so hopefully and successfully in his prime.

"Despite his weakness, the aged inventor had felt a deep and happy satisfaction at being the center of world attention and the recipient of tributes from a distinguished gathering. Such recognition usually comes after a man's death; Edison had enjoyed it while he was still able to savor it."

Photographs by Richard Costello



Undeveloped portion of Edison State Park which Department of Conservation and Economic Development hopes to expand.

State Takes Its Time...

EDISON — Plans for development of the site of Thomas A. Edison's Menlo Park laboratory as a State park are being worked upon, but without any particular haste.

The area is presently designated as a state park but, according to Alfed Guido, special assistant to the State Commissioner of Conservation and Economic Development, "it's far short of what we ought to be providing as a proper memorial for the great inventor — it's just there."

This month marks the 90th anniversary of the incandescent lamp here, but Guido said the state would take no particular note of it. No township group, as far as can be determined, is marking any observance of the event either.

Alternatives

Guido said the state department "is far from finished as far as the preliminary plan goes" and that a consultant is currently working on a number of alternate proposals.

A public meeting, he said, will be set up when plans are finally set, which may be a couple of years away.

Park expansion became an impassioned issue in the township two and a half years ago, with several hundred objectors to plans that would have taken more than a score of homes. The objectors called for the park to remain at 33 acres, but the State department contends it needs more space for a first-rate park.

Guido said changes are being made to satisfy township officials who have objected to plans that would have made cul-de-sacs out of three streets.

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Chekhov's 'Three Sisters' Is Modern, Engrossing

THE THREE SISTERS — by Anton Chekhov, presented in repertory by the American Conservatory Theater of San Francisco at the ANTA Theater West 52nd St., New York City.

By ERNEST ALBRECHT
Home News Drama Critic

Life has no meaning to most of the characters in Anton Chekhov's "The Three Sisters." But there is life, after all, and life means activity Director William Ball of the American Conservatory Theater has understood this very well. His production of the play is alive and active, almost, at times, to the point of frenzy.

Individual speeches not only dovetail and overlap, very often they are delivered simultaneously. The characters are continually on the move, roving the rooms, making contact, missing, over-reacting. There is music and a world of sound underscoring much of all the activity.

And the glorious part of it all is that it all serves to point up the emptiness of the lives of these people, the shallowness of their existence. The hectic pace underlines the desperation to make something happen of interest, of importance, And if it cannot be meaningful, something is better than nothing.

It's Forced

It is forced, of course. The people are trying to force their lives to give them some satisfaction, some happiness. And if at times the staging is even strident, that, too, serves to give the play a contemporary feeling, for we believe sound and movement must mean we are alive.

Thus the production has a powerful accumulative effect. The final scene creeps up on us; we have been successfully diverted from seeing the truth. Like the chraacters we have been deluded away from seeing the tragedy.

It is true that the characters often and early seem to have dark forebodings, but they seem only to be dramatizing themselves. We would not take them seriously. The activity seemed to be real. But in the truly moving final scenes desolation is the truth and the activity is shown up as mere sham.

As a director Ball always seems also to be able to bring his actors to new interpretations or at least novel quirks of character. Tusenbach, for instance, is played by Paul Shenar as a clumsy officer, who continuously tries to deny his Teutonic heritage, and perhaps he is most successful in doing that with his physical bumbling. Shenar is also quite more lovesick than other Tusenbachs have been.

Vulnerable Lover

Vershinin, played by Ken Ruta, is a torrent of words and philosophy. He is constantly chattering, almost compulsively. Once he even has to stop up his mouth to keep from babbling the same inanities over again. But wonderfully enough, despite the comic element in his character, Ruta is realistically and likably romantic, a vulnerable lover for Masha.

The three sisters are beautifully developed by Angela Paton (Olga), Michael Learned (Masha) and Kitty Winn (Irina). At last we can see a change come over them during the course of the performance. At first they chirp girlishly about Moscow. The mere mention of it sends them into ecstatic choruses of giggling anticipation.

As the play progresses the three literally drift apart. Their chorus is broken into solitary, lonely voices of despair. Innocence is lost; vitality is drained; hope is abandoned. And when they reach that final point, they are ironically united.

Stops Singing

Miss Winn as Irina is a lovely, gay bird that soon stops singing. Miss Learned as Masha is less melancholy than one might expect, but that is because she is desperate to find something and she works at it. Miss Paton as Olga is pathetically plain, helplessly strong because that is the role thrust upon her.

Ball uses a very large company in this production with many extras providing further movement. The level of performance from each member of the cast is uniformly excellent. The production really belongs to no one single character or characters; it is an ensemble effort.

This production of "The Three Sisters" is wonderfully modern and deceptively engrossing. We wish the American Conservatory Theater could remain beyond their presently limited engagement to show us more of their repertory.

Push-Button Cinema for Commuter Plots

By ARTHUR ISBIT
Home News Staff Writer

If you have 20,000 bucks and can push a button, you become a theater owner. If becoming one has been your burning ambition, being one is now within your grasp.

The newest gimmick in the movie industry is push-button operation, and promoters of the idea predict a quiet revolution in the industry. Two well-known names identify the parent groups preparing to compete for sites and for the venture capital of people interested in this latest example of business franchises.

Jerry Lewis, the comedian often described as "zany" or "madcap", has lent his name to one ambitious venture whose first theater is headed for a projected shopping center in Old Bridge. The Lewis organization also plans one at Colonia. Because of delays in completing site acquisition, Lewis and his associates have declined to disclose the exact locations. They promised to tell more to The Home News when telling can't hurt them.

The other venture group is famous for its Carrol's Hamburgers drive-ins, but which has no plans for any theaters in the Raritan Valley.

Just Two People

Jerry Lewis and Carrol's both offer the venturesome exhibitor what they confidently describe as "two-person operation." One sells the tickets; the other pushes THE BUTTON.

Button-pushing as a management prerogative is important in this newest approach to the world of illusion. Touch the button, and the house lights dim, the curtains open, background music stops and the picture comes on. The end of the film triggers a reversal of this sequence: the background music comes on as the curtains close and the house lights up.

The promoters' material may talk up the idea of two-people operation, but we suspect they underestimated. They forget about the nasal-voiced fellow in a Balkan hussar's uniform. This guy is normally responsible for repeating, in a cultivated monotone, unintelligible instructions to theater customers.

How About Mess?

Did they also forget about the mess left behind by the audience? Both the owner or cashier come in early the next day to scrape gum from the bottom of the seats, sweep the spilled popcorn and candy wrappers, and collect personal possessions lost by patrons in the dark of the performance?

Did they emember the reformed cat burglar who clambers about the marquee creating misspelled references to the current and coming attractions? Will owners or cashiers willingly play mountain goat while indulging in marquee literary creativity?

The trend to automated theaters was probably inevitable. It's only logical that films based on plots that might have come from a computer, played by actors performing automatically, should be featured in automated theaters.

The entrance of Carrol's hamburger drive-ins on the theater scene may foretell the doom of theater popcorn, to be supplanted by the newest movie snack food — hamburgers, naturally.

Low-Priced

The Jerry Lewis organization — it's actually called "Network Cinema Corp." — offers low admission prices as an advantage of its system. In fact, it states flatly that "The average admisison in a Jerry Lewis Cinema will be $1.50."

The potential owner of a Lewis installation can choose from among a microcinema (100 seats), a minicinema (350 seats) or a multicinema (combinations of two or more micro or mini setups).

Network Cinema claims it expects to build 750 automated theaters in the United States and Canada.

The parent company may encounter an image problem related to the emblem on each theater, a caricature of Jerry Lewis. It shows him resembling a demented simian, which may be fine for light comedy or farce.

But, what about drama? We have mixed feelings about going to a Jerry Lewis Theater, complete with his nutty cartoon face, to see a Tennessee Williams story, or Edward Albee's "Who's Afraid of Virginia Woolf?"

The theater image ought to complement, or at least not clash with, the featured film.



AUTOMATED MOVIES — The artist's conception of the Jerry Lewis Cinema (above) loooks conventional enough, but it's what's inside that makes the difference. Push-button operations are the gimmick for the new movie venture which has plans for theaters in Old Bridge and Colonia.

Movie Timetable

SUNDAY

AMBOYS DRIVE-IN—"Bullitt," 7:06, 11:26; "Bonnie and Clyde," 9:30.

BROOK (Bound Brook)—"The Patsy," 2:00; "Castle Keep," 4:20 6:40 9:00.

BRUNSWICK DRIVE-IN—"That Cold Day in the Park," 7:00, 10:30; "99 Women," 8:45.

CORT (Somerville)—"That Cold Day in the Park," 5:20, 7:25, 9:30.

DUNELLEN—"The Chairman," 2:00, 5:50, 9:15; "Hombre", 3:45, 7:30.

FOX (Woodbridge)—"Paranoia," 3:40, 6:55 10:10; "The Oblong Box," 2:00, 5:15, 8:30.

GARDEN (Princeton)—"Medium Cool," 2:30; 7:00, 9:00.

INTERNATIONAL 70—"That Cold Day in the Park," 12:00, 2:00, 4:00, 6:00, 8:00, 10:00.

MADISON—"Sweet Charity," 2:15, 4:40, 7:05, 9:30.

MAJESTIC—"The Skull' 2:00; "The Deadly Bees", 3:23; "Fountain of Love", 6:36, 9:20; "The Babysitter," 5:15, 7:59, 10:43.

MENLO—"Last Summer," 2:00, 4:00, 6:00, 8:00, 10:00.

NEW PLAZA (Linden)—"Hellow Down There," 1:30; "Land of the Seas", 3:05; "3 Into 2 Won't Go" 5:55 7:55, 9:55.

PLAINFIELD-EDISON—Outdoor, "Last Summer," 7:00, 10:30; "I Love You Alice B. Toklas," 8:30; Indoor, "Last Summer," 3:40, 7:15, 10:55; "I Love You Alice B. Toklas," 2:00, 5:30, 9:00.

PRINCETON PLAYHOUSE—"The Chairman," 2:30 7:00, 9:00.

STATE—"Sweet Charity," 12:00, 2:20, 4:45, 7:10, 9:35.

SOMERVILLE DRIVE-IN—"Last Summer," 7:30, 11:00; "I Love You Alice B. Toklas," 9:15.

TURNPIKE DRIVE-IN—Outdoor, "Bullitt," 7:00, 11:00; "Bonnie and Clyde" 9:05; Indoor: "Captain Kidd," 1:30; "Fluffy", 2:00; "Bullitt," 3:35, 7:30, 11:30; "Bonnie and Clyde," 5:35, 9:35.

WOODBRIDGE—"Sweet Charity," 2:00, 4:30, 7:00, 9:30.

Intermission Talk

Making Theater Happen



By ERNEST ALBRECHT

We have become accustomed to thinking of community theater as a phenomenon of the 20th Century. And, characteristic of the 20th Century as the age of specialization, community theater has taken second place to Broadway's professional theater in our admiration.

But historically theater has always been a community effort. By nature of its collaborative art, theater is a community of artists working and often living together. They are perhaps more truly a community than other diverse, sprawling groups of population, for they work toward a common goal, under common conditions and necessities. Even the units put together for a one-shot New York production represents a community effort.

The acting companies of Greece were put together from the general populous; the medieval theater, sponsored by the craft guilds was wholly produced and acted by the community, often in competition with other communities. In Europe the production of passion plays remains the concern of an entire village. It has the tradition of total involvement.

Involvement is the most meaningful aspect of theater. Except for our local community theaters, we have come to settle for being involved merely as spectators. We have made the playwright and actors reach out in order to grip us, to wrap us up in their worlds, to take us out of ourselves. And there's no denigrating that, for it is truly wonderful; but there is another aspect of involvement that gives theatergoing greater meaning.

In America it has seemed for a long time, that unless one wanted to get involved with acting, painting scenery, collecting props or selling tickets we would forever be outsiders in the community known as theater.

But another movement has been abroad which for the past several years has been steadily gaining prominence. Repertory theater is probably the truest form of community theater. It offers the general public that other and an important way to become involved in theater. Repertory theater is community theater for it again requires —demands—a community effort to keep it going.

In this area we are fortunate in having three theaters—Princeton's McCarter Theater, Brecht West in New Brunswick and Theater Six in Metuchen—all of which have looked to the community for the kind of involvement that makes theater exciting, personal, communal. The reach is now working both ways.

Of the three, McCarter Theater is the only true repertory theater. It opens its season this Friday night with Harold Pinter's "The Birthday Party," and through the season will offer seven other diversified productions. Most of its actors and personnel actually live in the community.

But subscribers do not really need to have any of the acting company living next door to them in order to become familiar with them as artists. They will get to see each one work in several varied roles. They will come to know the actor's strengths and weaknesses; they will take part in his failures and successes and be able to see how they react to each. They will come to know the actors as surely as if they were neighbors.

This is one of the real joys of repertory for the audience is not just participating in an individual work of art. It is directly involved in the growth of not one but many artists, their work in progress, their interaction. This can be truly stimulating.

It is like going to the theater to see our friends. We know our neighbor in one role, as engineer, clerk, salesman. In the theater we get to see a new aspect of him. We see him in another "role." So it is with the actors in a repertory company. We get to see them move in and out of many roles.

Familiarity in the theater does not necessarily breed contempt. It can make the experience more intimate, more meaningful. We are involved with the very act of creation.

McCarter does much to encourage its audiences to get to know its people and problems more closely. There are discussions, receptions, lectures, tours, and a series of supportive organizations which work to make the theater continually possible.

The latter kind of involvement is possible with our nearby Brecht West and Theater Six. I would offer such involvement as a way of making the theater a completely new experience. Instead of being an anonymous member of an aloof audience, participation in making theater possible means being part of the community of effort. The actors are artists we get to know as people. The production is an achievement we have helped make possible. The satisfaction is rarely attained in isolated, lonely theatergoing.

The simplest way to begin is by becoming a subscriber or a patron. Buy a share in the theater. We are a possessive society. Why not own a part of the theater? It will make going quite a new experience. Beyond that a telephone call to any of these theaters will find a receptive ear ready to listen and then tell you what needs to be done and how you can help. And, of course start going to the theater. Talk to the people involved. You will find, I think, it is easy to become a part of the theater, and once you have, theatergoing will never be the same for you. It will not be simply "going" but making—theatermaking.

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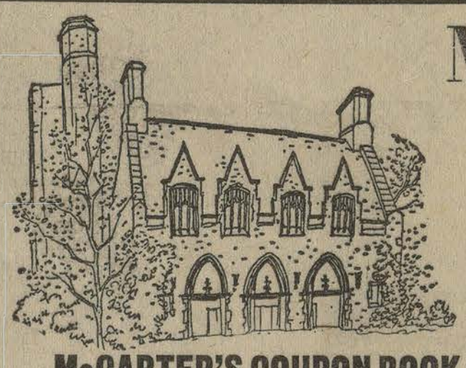

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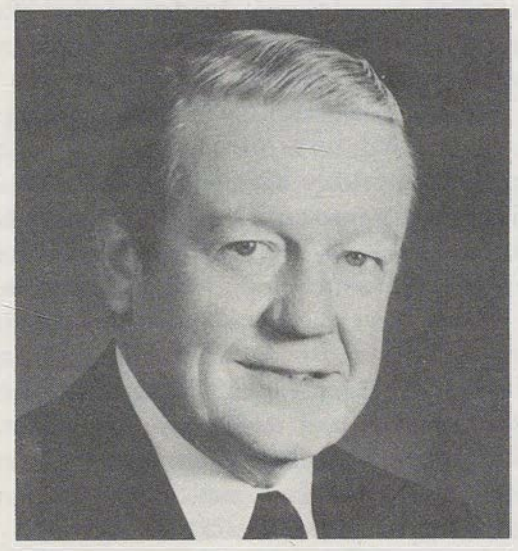
International Committee formed



Robert I. Smith

ICCL Chairman emphasizes need for technology

The 100th anniversary of Thomas Alva Edison's successful attempt to create an incandescent electric light bulb literally and figuratively illuminated the world and I am delighted to chair an international committee planning to commemorate the event.

Through the history of mankind there have been, from time to time, distinguished scientists — men and women — whose genius changed for the better the way the world works and lives. Edison typifies this group for most Americans and, indeed, for many people in other countries of the world. The Congress of the United States awarded him the Congressional Medal of Honor in 1928 "for development and application of inventions that have revolutionized civilization in the last century." Accom-

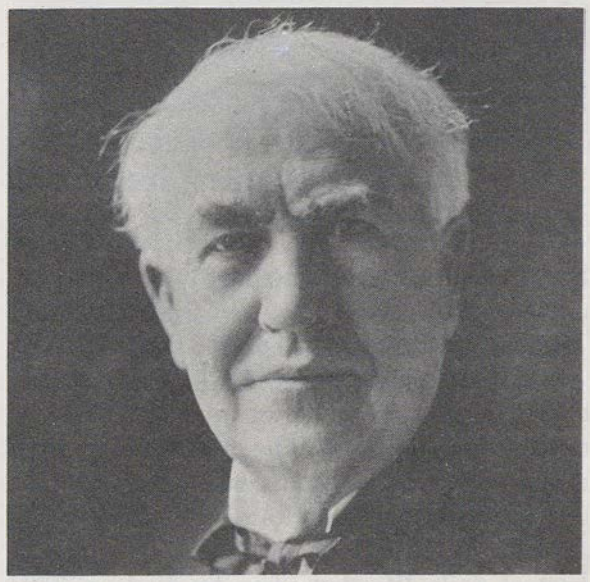
Please turn to page 3

A year-long "Centennial of Light," an international celebration to commemorate the 100th anniversary of Thomas Edison's invention of the incandescent electric light bulb on October 21, 1879, was announced by Walker L. Cisler, chairman and chief executive officer of the Thomas Alva Edison Foundation, headquartered in Detroit, Mich. The celebration will get underway next month.

At the same time, Cisler announced that Robert I. Smith, chairman of Public Service Electric and Gas Company, would head the International Committee for the Centennial of Light. The committee, made up of industrial leaders, will direct and coordinate the numerous activities planned for the Centennial under the sponsorship of the Thomas Alva Edison Foundation, a non-profit organization. The northern New Jersey area, served by Public Service Electric and Gas Company, is where Edison devised many of his more important inventions, and where his home and some of his laboratories are located.

"The main objective of the Centennial of Light," according to Committee Chairman Smith, "is to regenerate enthusiasm for invention and innovation. Clearly, Edison typified this enthusiasm for scientific and technological advancement as a service to mankind's quality of life. During the next year," Smith continued, "we will endeavor to instill in today's generation and future generations a recognition that there are solutions to today's problems. They only need to be sought and found."

In addition to Smith and Cisler, others serving on the committee include: Albert B. Dick, chairman, A.B. Dick Company; David C. Scott, chairman and president, Allis-Chalmers Corporation; William M. Ellinghaus, vice chairman, American Telephone and Telegraph Company; S.D. Bechtel Jr., chairman, Bechtel Group; Thomas G. Ayers, chairman and president, Commonwealth Edison Company; and Charles F. Luce, chairman and chief executive officer, Consolidated Edison Company of New York.



Thomas Alva Edison

Also, Reginald H. Jones, chairman and chief executive officer, General Electric Company; Merle W. Kremer, president, GTE Sylvania Inc.; William T. Ylvisaker, chairman and chief executive officer, Gould Inc.; and Edward J. Williams, chairman, president and chief executive officer, McGraw-Edison Company Inc.

Also, Edgar H. Griffiths, president and chief executive officer, RCA Corporation; Jack K. Horton, chairman, Southern California Edison Company Inc.; Robert E. Kirby, chairman and chief executive officer, Westinghouse Electric Corporation; Goro Inouye, acting chairman, Japan Atomic Energy Commission; F. Mahmoudian, managing director, City Services of Tehran, Iran; and Heinrich Mandel, chairman of the executive committee, World Energy Conference, Essen, Germany.

"These leaders," Cisler said, "represent the breadth of activities with which Edison was involved. Each of their organizations grew, one way or another, from the work of this man, his patents, his improvements, his method of scientific inquiry, and his formulation of modern day research."

Smith said that Edison is the preeminent example of the highly-principled inventor-

Please turn to page 4

Edison . . . the giant . . . the hero . . . the man



Young Edison with his most profitable invention, the phonograph.

Few individuals touch so many lives that an entire nation would mourn their passing. Thomas Alva Edison was such a person.

Edison altered the lifestyle of the entire civilized world when he introduced the incandescent lamp in 1879. The generating station and other vital parts of a central delivery system for electricity soon followed.

His invention became such an integral part of daily life that when he died, in 1931, Edison was already a legend.

Edison's genius for invention flourished under the tutelage of his mother, an educated, cultured woman who sensed something special in her young son's penchant for experimentation.

Although his formal education ended after only three months in a Milan, Ohio, grammar school, Edison's mother instilled in him a respect for learning which lasted a lifetime.

This desire for learning cost young Edison an early job with a railroad: he set up a laboratory-on-rails to combine work with more work, but both his lab and his job went up in smoke when one of his experiments started a fire.

This association with the railroad, however, had enabled Edison to start the first traveling print shop. He sold his newspapers at each train stop, updating stories between towns. (Some biographers claim Edison's best "news source" was his own fertile imagination).

From 1863 to 1868, Edison took advantage of the demand for telegraphers created by the Civil War and the Reconstruction period. That job took him to Boston where he perfected his first invention, the electronic vote recorder. But the city's ward heelers saw the device as a threat to their political power plays and rejected it.

Edison then made his way to New York and another invention — an improved ticker tape which allowed stockbrokers to stay ahead of market sales.

The invention was lucrative, and the $40,000 he received from it bought a factory in Newark, N.J., which became his Menlo Park laboratory. There he assembled the associates who helped him develop the incandescent lamp.

Edison was not the first to try developing an electric light bulb. In fact, such bulbs already existed, but they burned out quickly. Also, dozens of firms supplied electric arc lighting to cities.

Dismissing arc lighting for indoor use, Edison saw incandescent lighting as the substitute for gas lamps.

Before he created his improved light bulb, however, Edison produced other inventions, including a telegraph line which carried several messages simultaneously. He also continued to improve his phonograph, which became his financial mainstay.

His first successful light bulb experiment began on October 19, 1879, when Edison and an assistant, Francis Jehl, turned on a bulb which burned until October 21. When later experiments produced a bulb that lasted for 102 hours, Edison secured the necessary financial backing and patents.

On New Year's Eve, 1879, Edison introduced his invention to the world and for several years thereafter, the Pennsylvania Railroad had to add cars to accommodate the huge crowds which thronged to see his bulbs light up the Menlo Park compound.

This was just the first of many inventions, such as the generator and the central power station, which evolved into the power systems we know today. Without these other components, the incandescent lamp would have been just an unusual toy.

The man behind these inventions was a warm and sensitive human being with a wry wit and a strong concern for others. He also had his share of eccentricities.

Edison smoked cigars incessantly. He suffered from a severe dandruff problem, frequently forgot to wash and abhorred silly questions or suggestions.

When one of his associates said to him one day, "We should give up. We have tried several thousand things that have failed." Edison replied, "Failed, no. We have learned several thousand things that do not work."

Edison was also deaf and some biographers feel his determination in turning his dreams into reality also enabled him to turn this handicap into an asset. He actually made deafness work for him when he needed long periods of concentration to solve a problem.

America's growth was always a major concern to Edison. Just before his death at age 84 he wrote, "I have lived a long time. I have seen history repeat itself again and again. I have seen many depressions in business. Always, America has come out stronger and more prosperous."

It was Edison with his light bulb who made much of this strength and prosperity possible.



Edison and his pioneers at Menlo Park laboratory.

ICCL Chairman emphasizes need for technology

Continued from page 1

panying the award was a statement that said his inventions had been worth "$15,599,000,000 to humanity." Even for a group used to talking in numbers with many zeros, that is a respectable sum.

There is no question about what Edison's work has meant to our society. His pioneering work in light, and the consequent advances in electric power generation and transmission, are only the beginning of a long list of his contributions to a better life for all of us.

The anniversary of his best-known invention, the incandescent lamp, is an opportunity rare in these days – an opportunity to point out the significance of the technological advances Edison and others have made possible.

We'll be pointing out those advances for a society that has been hearing the siren song of those luring us to the wood stove and simple plow, a society in which those singing the song seem to be willing to forego the challenge of the future because they have no faith in the present.

James Wei, head of the Department of Chemical Engineering at MIT, in an article in the June 1978 issue of Chemtech, wrote about the attacks on technological advance, and noted that they have created a crisis in our society. The Chinese word for crisis, he notes, consists of two characters, the first means "threat" and the second "opportunity."

"A crisis," Wei noted, "is always both a threat and an opportunity."

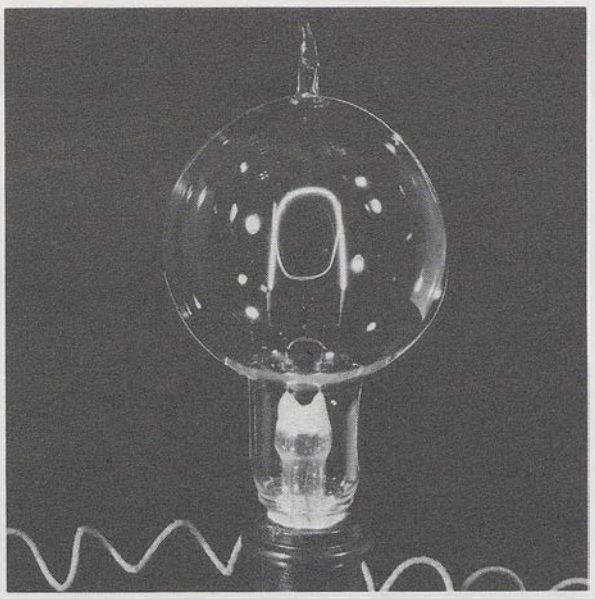
The centennial year offers all of us an opportunity to proclaim the benefits of technology and to emphasize the fact that the world's problems will continue to require technological solutions.

Where's the original lightbulb?

The original incandescent lightbulb is no more. Heedless of future generations who might wish to examine it or simply stand be fore it in awe, Thomas Edison broke the bulb after the lamp burned out so that he could study its filament.

This was entirely consistent with his methodology: it was only after endless experiments that Edison reduced the incandescent lightbulb to its basic elements: a glass chamber enclosing a high vacuum with platinum wires to carry the current to a filament.

This was the last element on which he



Replica of Edison's first lamp.

concentrated in the summer and fall of 1879. To be practical for domestic use, the filament had to be stable, long-lived and highly resistant to electric current. Edison fashioned filaments from every conceivable material. Each was tested and, after failing to perform satisfactorily, carefully scrutinized.

Finally, on October 19, a carbonized filament made from No. 9 cotton sewing thread was put to the test. This time the lamp burned steadily, giving out after 40 hours only when Edison turned up the voltage to see what it could withstand. He then broke the bulb – thereby robbing posterity of what would become a cherished artifact.

Smithsonian creating four Edison exhibits

A major feature of the Centennial Celebration will be four Edison Exhibits developed by the Smithsonian Institution.

The primary exhibit will be housed in the Smithsonian's Washington, D.C. facility while the three remaining exhibits will tour the entire country.

Work has already begun, and although the Smithsonian has an excellent collection of certain Edison artifacts, it is searching for more to include in the exhibits. If any companies or organizations have items like small Edison motors, they should contact Dr. Bernard Finn, curator of electricity and modern physics, Smithsonian Institution, Museum of History and Technology, Washington, D.C. 20560 (202) 381-4067.

The Washington exhibit, which will occupy approximately 1,500 square feet on the first floor of the Institute's Museum of History and Technology, will focus on the invention of the lightbulb and the importance of our present-day electrical distribution system. It will also include a selection of 19th century household devices and their power sources, early technological artifacts such as primitive voltaic batteries and arc-lighting systems, and a collection of antique motors and generators.

The Centennial Symbol

Developing a single graphic element to represent the Centennial message simply yet effectively presented a significant challenge.

The designer began by studying the "trinity" of Edison: the man, the inventor, the patriot. At the same time, he refined the design requirements – the need for simplicity and universality.

The melding of the two elements – the who and what of Edison and the conditions surrounding the design itself – led to a series of widely diverse sketches. Then came the sifting, reworking and refining of the designs until, finally, one shone brighter than the rest. The final selection, the committee believes, blends the tangible with the intangible as well as the obvious with the subtle – and says it glowingly, as shown on the masthead of this newsletter.

Companies, organizations and associations desiring copies of the symbol for use on their stationery or for other appropriate applications should write to Thomas Alva Edison Foundation, Box 1310, Greenwich, Conn. 06830. The letter should clearly state how the symbol will be utilized.

Join the Celebration

The ICCL intends to make the International Centennial of Light the most successful celebration ever held.

This, the first issue of Edison Centennial News, outlines only a small number of the many and diverse events the committee is planning to honor not only Edison, but science and technology.

To accomplish its objectives, the committee needs the active participation of those companies whose origin and economic success resulted from one or more of Edison's inventions. It needs their funding support as well.

The publishers of Edison Centennial News also would like to learn what various companies and organizations are planning in their own areas to celebrate the 100th anniversary of the man who gave the world light, so that the program can become a part of the official calendar of events, and receive publicity in this newsletter.

The Centennial: to renew public interest in technological advancement

Centennial of Light underway

Continued from page 1

businessman, whose developments served to benefit civilization and freedom. Paraphrasing an Edison biographer he said, "Although Edison led no armies, conquered no countries, enslaved no people, his life and his inventions have influenced the course of history more than any other person in recorded civilization."

Besides the incandescent bulb, Edison invented the entire system of electric generation and distribution which carried his "magic" first to cities, then to rural areas and, finally, throughout the world. He also invented the phonograph, the motion picture camera, and equipment that made telephone and telegraph systems commercially practicable. His scientific genius had a direct bearing, according to industry leaders, on the growth of today's electronics world, including radio, modern motion pictures, and television.

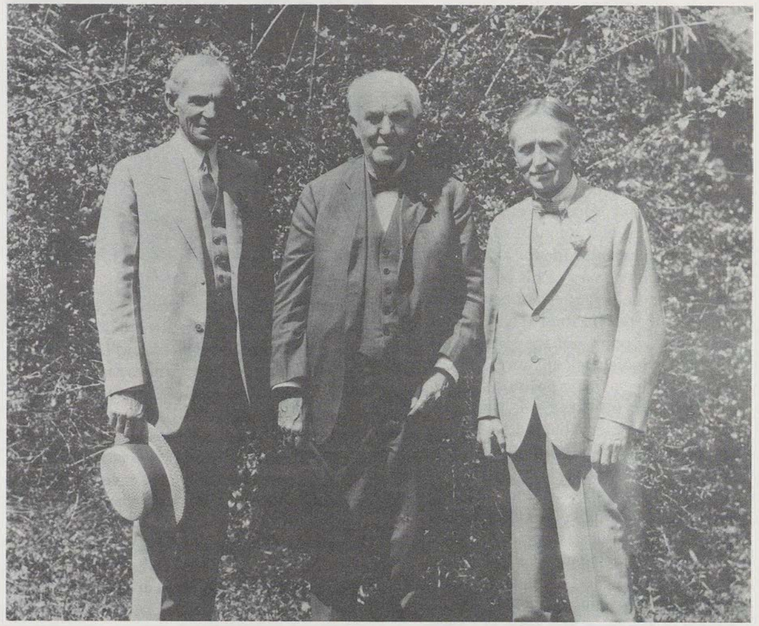
Since the light bulb is only one of more than 1,000 inventions patented by Edison, numerous and diverse organizations plan to participate in the Centennial celebration. Among those already planning special programs, events and activities for the Centennial of Light are the American Association for the Advancement of Science; the Smithsonian Institution of History and Technology; the United States National Park Service; the Edison National Historic Site in West Orange, N.J., the site of Edison's research laboratory; and Menlo Park, N.J., the city in which Edison conducted his successful experiments with the incandescent lamp.

Also, the New Jersey Historical Commission; Fort Myers, Fla., site of Edison's winter home and former site of his "Fort Myers Lab"; the Electric Power Research Institute; the Edison Electric Institute; and Rutgers University, which is initiating a 20-year project to organize and publish all of Edison's scientific papers.

In addition, numerous corporations in the electronics industry, both here and abroad, will celebrate the Centennial of Light to honor the man whose genius was the source of their corporate technologies.

One major focus of Centennial activities will be Dearborn, Mich., where 50 years ago Henry Ford dedicated Greenfield Village and the Ford Museum to American values and ingenuity, and to the man he considered the greatest genius the world has ever known.

To create the full effect, Ford removed the 82-year-old inventor's first laboratory board-by-board and nail-by-nail from its original site in Menlo Park. Ford was so particular about details that he even transplanted the actual earth from the building's front yard.



Henry Ford, Thomas Edison, and Harvey Firestone.

Upon first seeing the reconstructed laboratory, Edison wryly remarked, "Wonderful, only our floor was never as clean as this."

On October 21, 1929, at the Greenfield Village site, Edison reenacted the entire process of what is called the "miracle of the millennium," the invention of a long-lasting electric light that was safe, practical and efficient. He was assisted by Francis Jehl, as he had been 50 years before. In addition to Ford, other dignitaries present were: President Herbert Hoover, Madame Curie, George Eastman, Harvey Firestone, and Cyrus Eaton.

The culmination of the many activities that will take place at Menlo Park, visited annually by more than one and a half million people, will be two reenactments.

The first will take place on Centennial day, October 21, 1979. Robert G. Koolakian, keeper of Edisoniana at the museum, will "reinvent" the incandescent light bulb using Edison's original equipment. Among the many dignitaries invited to view the event is President Carter.

Then, on New Year's Eve, 1979, the first public display of public lighting will be recreated when all the original buildings of Menlo Park will be lighted at the stroke of midnight, just as they were 100 years ago when the complex was located in New Jersey. A number of industrial, scientific and political leaders will be invited to attend.

Another center of activity will be West Orange, N.J., where Edison lived and worked for many years. The National Park Service now maintains the site and conducts tours of the laboratory buildings and Glenmont, Edison's home. Plans call for the inviting of a number of dignitaries, and special celebrations.

Smith also announced that major elements of the Centennial of Light are designed for students and educators. Symposiums will bring selected high school students and teachers to Florida's Disneyworld in February, and university students and professors to San Francisco in April.

In addition, science fairs will be encouraged in elementary and high schools throughout the country. Educational materials and scholarship programs will emphasize the need to encourage young people to pursue scientific knowledge. Other plans include special films, television and radio programs, traveling exhibits, displays, lectures and parades.

The International Committee has appointed Reddy Communications Inc. as public relations counsel and to assist it in the planning, development and implementation of the celebration. RCI is an international communication counseling firm headquartered in Greenwich, Conn.

Quotes from some ICCL members on Centennial



David C. Scott
Chairman of the Board, Chief Executive Officer, and President
Allis-Chalmers Corporation

The Company is delighted, through the Centennial of Light Committee, to have the opportunity to help tell the story of the history of electricity and what it has done to improve living standards throughout the world.

More important, however, is that Allis-Chalmers views the work of this committee as an excellent opportunity to tell people everywhere the vital role that electricity should and can play to enhance their living conditions in the future; and steps that must be taken to reach these further achievements.



Merle W. Kremer
President
GTE Sylvania Inc.

The Centennial of Light will commemorate one of mankind's most historic milestones. After centuries of striving, the development of the electric light permitted us to eliminate darkness where we chose, increasing our comfort and well-being and vastly improving the productivity of our work efforts. Not only will the observance recognize the great achievement of Thomas A. Edison, but it will have the dual purpose of focusing attention on today's social and economic problems, hopefully inspiring new Edisons to produce solutions of the magnitude which occurred 100 years ago in Menlo Park, N.J.



Edgar H. Griffiths
President and Chief Executive Officer
RCA Corporation

The Centennial of Light celebration is an opportunity for American business to pay tribute to Thomas Alva Edison and his many accomplishments that have benefited the human race as a result of his genius.



Robert E. Kirby
Chairman and Chief Executive Officer
Westinghouse Electric Corporation

Electricity has been synonymous with the name Westinghouse since 1886 when George Westinghouse founded what was to become the Westinghouse Electric Corporation. He developed the alternating current electrical system which was to bring the benefits of electricity to the entire world. In 1893, with his "stopper lamp," he illuminated the Columbian Exposition in Chicago to dramatically illustrate with lighting, as well as with motors, generators and transformers, the practical use of a-c power. The industrial revolution gained new impetus. The freedom to experiment in science and the talent to develop man's resources were the ingredients for progress then, as they are now. "Celebrating A Century of Light" is really a celebration of technology and the advancements that we have achieved through dedicated research since those early days of George Westinghouse, Nikola Tesla, and Thomas Edison.



Reginald Jones
Chairman and Chief Executive Officer
General Electric Company

We at General Electric want to help advance the objectives of the Centennial of Light Committee. After all, the company that Thomas Edison founded to finance his development of the incandescent lamp was the predecessor of the current General Electric Company, and we celebrate the Company's 100th Anniversary at the same time we celebrate the Centennial of Light.



Edward J. Williams
Chairman, President and Chief Executive Officer
McGraw-Edison Company

Because Thomas Edison was one of our company's founders, the Centennial of Light has particular meaning for McGraw-Edison. The legacy of Edison's brilliant mind supports the very foundation of the world's economy, and the Edison name epitomizes technology and its benefits to mankind. We at McGraw-Edison believe that the Centennial of Light will provide a fitting tribute to the accomplishments of this great man.

AAAS meeting to highlight Edison methods

A special symposium on the career and methods of Thomas Edison will be featured at the annual meeting of the American Association for the Advancement of Science (AAAS) to be held in Houston, Texas, January 3-8.

Every year the AAAS convention brings together more than 5,000 scientists, scholars and industry leaders for some 100 symposia over a five-day period.

Dr. David Hounshell, assistant professor of electrical history at Harvey Mudd College, will conduct the symposium on Edison January 5. The theme will be "Thomas Alva Edison: A Critical Examination On the Occasion of the Centennial of Electrical Lighting." This session will be a critical examination of Edison, his work, his methods, and his legacy. It will focus primarily on his development of an electric light and power system in the years immediately before and after 1879.

Speakers will include: author Robert Conot on "Edison: A Reassessment of the Light Bulb"; W. Bernard Carleson and Christopher Derganc, graduate students at the University of Pennsylvania, on "Edison's Method"; Reese Jenkins, Rutgers University, discussing the Edison Papers Project; and James Britten, Georgia Institute of Technology, who first proposed the Rutgers Edison study.

The program will be detailed in the September 29th issue of Science Magazine, published by the AAAS, and the magazine's November 24th issue will contain both the complete program and registration forms.

Edison Birthday Celebration to be held in February and March

The Thomas Alva Edison Foundation, in conjunction with the Edison Electric Institute (EEI) and the Siemens Corp. of Germany, will sponsor a major two-part Edison symposium in February and March.

The first part of the 23rd International Edison Birthday Celebration will take place February 9-12, at Disneyworld, Fla., in association with EEI. Part 2 will occur in Munich, Germany, February 28 to March 2, in conjunction with Siemens.

The purpose of both these events will be to underscore the Centennial's objectives and to promote exciting careers in science and technology among youth here and abroad. The International Edison Birthday Celebration is the highlight event for the more than 200 Edison Science and Engineering Youth Day Programs held each year throughout the U.S., and 23 other nations.

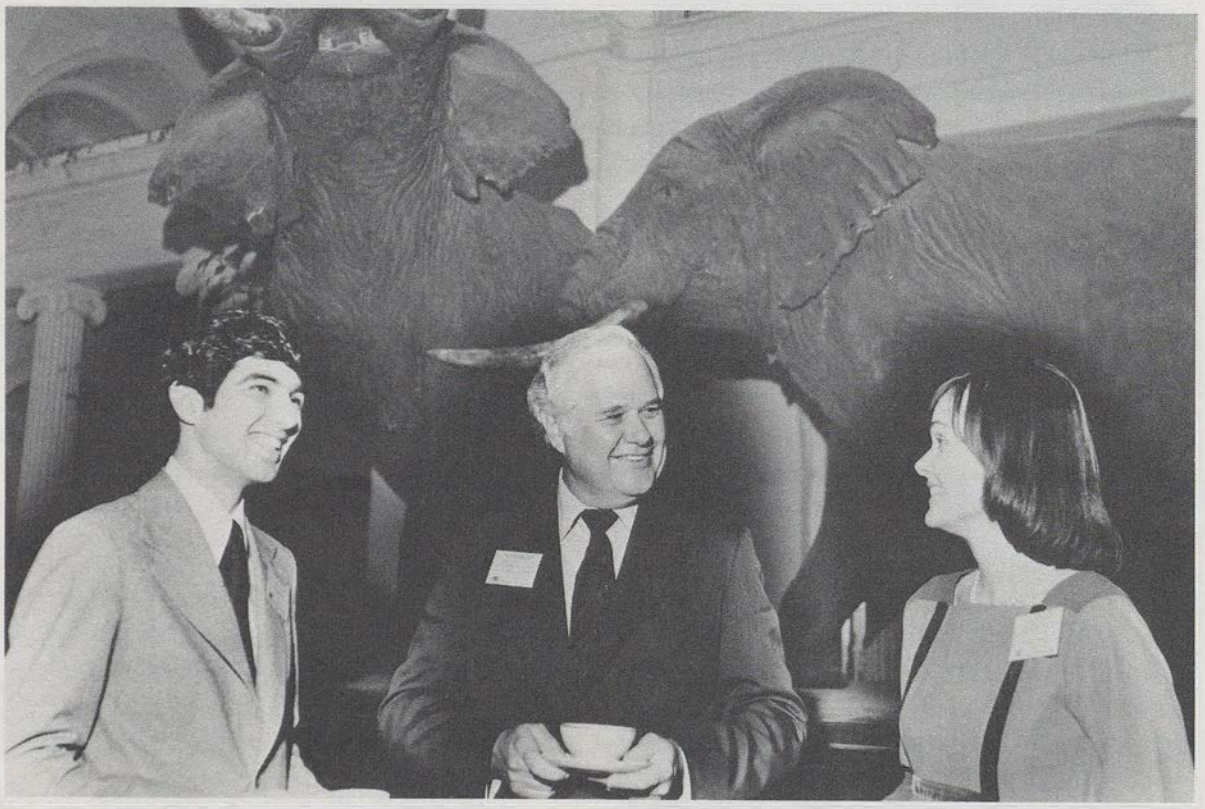
The three-day Disneyworld program will host representatives from every state. It will include morning lectures by eminent industry leaders and scientists and afternoon "behind-the-scenes" tours of Disneyworld, which technology has helped make it one of America's greatest family attractions. Participants will view the workings of the major exhibits, the complex food system, which keeps visitors, young and old, properly nourished, and the supervisory system of this intricate complex that has won worldwide acclaim.

Munich will be attended by students, teachers or delegates from six nations. Representatives of the German government and Siemens Corp., as well as other international dignitaries, will address the opening dinner February 28.

Over the following two days some 200 students from Munich Technical University and the University of Munich, will join the participants in a program of lectures and visits to various German companies involved in sophisticated technology. The seminars will be held at the Deutsches Museum and Munich Technical University.

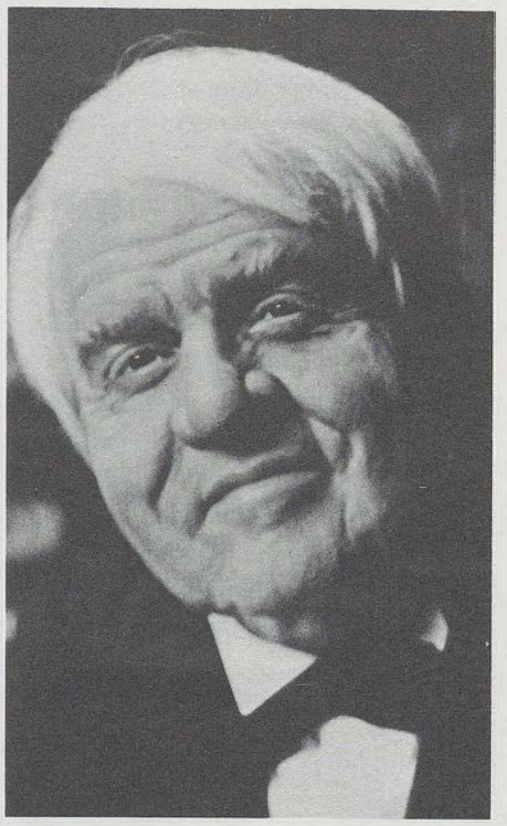
Speakers currently scheduled and their topics are: Dr. Klaus Keil, professor of geology and director of the Institute of Meteoritics, University of New Mexico, "Geological Aspects of Nuclear Waste Disposal"; Dr. Hubert N. Alyea, professor of chemistry, Princeton University, "Lucky Accidents, Great Discoveries and the Prepared Mind"; Dr. Tung H. Jeong, professor and acting chairman, department of physics, Lake Forest College, "Recent Advances in Laser Holography – A Demonstrated Lecture"; and Dr. David Saltman, vice chancellor, academic affairs, University of California, La Jolla, "Science and Society."

Any company interested in sponsoring students, teachers and corporate representatives to the Disneyworld or Munich events should contact the Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075. Telephone: 313-559-1780.



Edward J. Williams, chairman, McGraw-Edison Co., sponsor of the 20th International Edison Birthday Celebration, with Vladimir Mikoyan and Madeline Edison Sloane, great granddaughter of Thomas Edison, shown here while touring Chicago's Field Museum of Natural History. Mr. Williams is also a member of the ICCL.

Greenfield dedication to be reenacted



Pat Hingle in Edison dress.

The dedication of the Edison Institute will be reenacted before more than 600 teachers and educators on September 30, 1978, 50 years after its original dedication by Thomas Edison.

Veteran actor Pat Hingle will play the part of Edison at the reenactment. In this role he will restart the original steam engine which provided electric power for the museum's buildings and give excerpts of Edison's life that he has developed through TV commercial portrayals for General Electric.

At the original dedication Edison, accompanied by Henry Ford, dug his shovel into the wet concrete and drew his initials in its hardening surface. To this day that shovel and the Edison initials have been preserved by the Henry Ford Museum, as the Edison Institute is more familiarly called.

The reenactment will be the finale of a three day seminar for teachers and educators devoted to technology of the late 19th century.

Since the event will combine two elements in the Centennial – the emphasis of scientific and technological progress and the celebration of Edison's genius – the reenactment promises to be a model for other Centennial events.

Edison Institute dedicated 50 years ago

It is largely because Henry Ford indulged himself in an expensive hobby in the 1920s that millions of people are able to visit the laboratory where Thomas Edison created his greatest invention. The October 21, 1929, dedication of the Menlo Park Compound at the Edison Institute – better known as the Henry Ford Museum and Greenfield Village in Dearborn, Michigan – coincided with the 50th anniversary of Edison's invention of the electric light bulb. It is a monument to what Henry Ford drank in of American tradition – what he thought people should see and remember.

The auto king embarked on creating his collection of Americana shortly after the first World War. Dedicated to his family, he had restored to exact condition the farmhouse west of Detroit in which his mother had raised him and he filled it with everything as he remembered it, from the wood burning stove to having carpet woven in the original pattern.

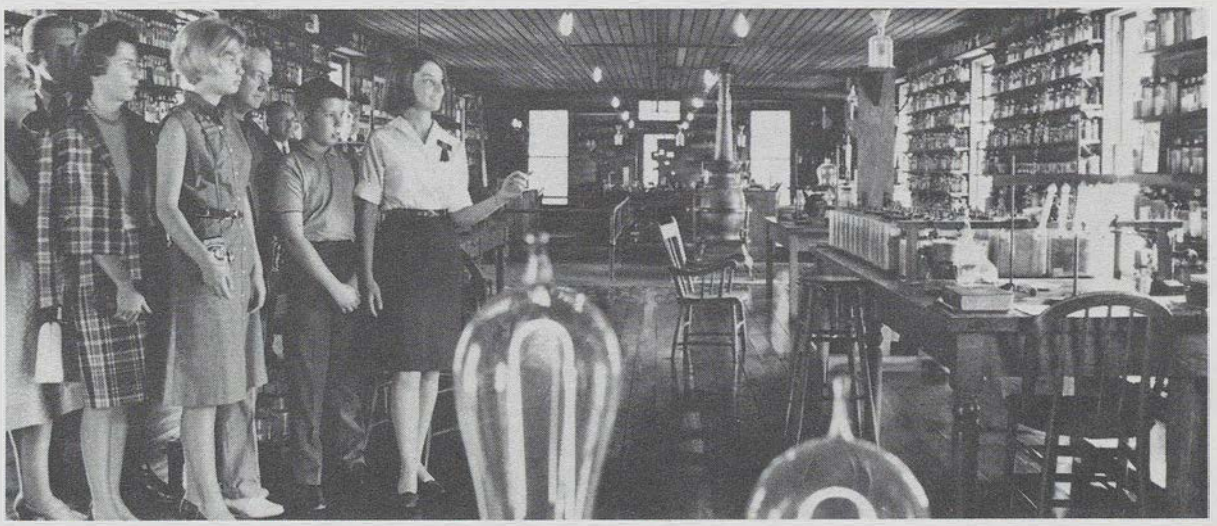
Ford then set out to restore what he considered were America's proven national traditions. One of his first was to rehabilitate McGuffey's Reader, reprinting in the thousands and distributing them to schoolhouses throughout the nation. While traveling through the Berkshires in Massachusetts, he came upon the dilapidated Wayside Inn, made famous by Longfellow and Robert Louis Stevenson. He not only had that restored but a nearby little red schoolhouse.

Ford became addicted to collecting antiques. He purchased old tractors, clocks, and telegraphs. He even hired people to teach his employees Victorian dances of a century earlier.

The culmination of all this was creation of a museum and village to house all these possessions. To house many of them, he built a huge building, the facade of which is an exact replica of Independence Hall, including the original architectural flaws.

To the village he added the schoolhouse he attended as a boy; a chapel built of brick from his mother's birthplace; the bicycle shop where the Wright Brothers built the airplane; an antique covered bridge; a Cape Cod windmill; an old stone cottage from Britain's Cotswolds; the railroad depot where Edison worked; a cotton gin; an 18th Century jewelers shop from London; and buildings associated with Luther Burbank, Stephen Foster, and Noah Webster. There wasn't any apparent theme for his insatiable appetite for collecting and restoring until he began to work on the Menlo Park Compound.





Greenfield Village scenes: top, the Menlo Park compound; bottom, the laboratory where incandescent light was perfected.

Besides the laboratory, there is a substantial collection of Edison's inventions, papers, and equipment, and other buildings associated with Edison's life. Among them are: Sarah Jordon's boardinghouse, the first house lit by electricity; a phonograph; an experiment building from West Orange; the first Edison Illuminating Co. plant in Detroit; the original Fort Myers Laboratory; and the Ontario, Canada, farmhouse in which Edison's grandfather lived.

Many have compared Ford's Greenfield Village with such reconstructions as Williamsburg and Sturbridge Village in Massachusetts. The difference, however, is the absence of a thematic flavor. Ford reconstructed and collected based on his patriotic image of his country – an image that a great many Americans, then and now, also perceive.

Rutgers University begins 20 year Edison papers project

Rutgers University has begun a $5 million, 20-year project to compile, analyze and assess more than two million documents and artifacts connected with the life of Thomas Edison.

Under the supervision of Rutgers history professor, Dr. Reese Jenkins, the project is expected to produce 15-to-20 volumes of annotated Edisonia.

According to Jenkins, the project's goal is to make "Edison, who is the symbol of technology, come alive for the historian and scientist of today, and to examine the pervading influence the man has had on almost every aspect of modern civilization."

In addition, Rutgers plans to microfilm all the Edison materials it collects for future reference by historians and scientists.

Jenkins said that a 1977 feasibility study performed by James R. Britten of the Georgia Institute of Technology, convinced Rutgers of the necessity of undertaking such a project. "During the next three or four months," Jenkins said, "We will determine the method and system we will follow in conducting the study."

The project is sponsored by the Smithsonian Institution, the National Park Service, the New Jersey Historical Commission and Rutgers, which is supplying the project director, editor and staff support.

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The Edison Foundation: continuing to inspire youth

Untold numbers of young men and women owe their successful careers in science, engineering and technology to the Thomas Alva Edison Foundation, the prime mover in the Centennial of Light. Founded and incorporated in 1946, the foundation is devoted to inspiring succeeding generations of students to investigate the world of science. It also insures that all students have the opportunity for a science education adequate to allow them to function in our increasingly technological society.

Founding president Dr. Charles F. "Boss" Kettering, a former vice-president of General Motors who invented the automobile self starter and the electric cash register, suggested that the foundation's initial endowment last for only three years. "If support cannot be found on an annual basis," he said, "perhaps its demise would be right." Since then, the foundation's success in making science accessible to students has generated contributions and continuing support from industry.

Dr. Kettering served the foundation as president until his death in 1958 when he was succeeded by Walker L. Cisler. Mr. Cisler, former chairman of Detroit Edison, has since assumed the foundation's chairmanship. The third and current president is James G. Cook.

The foundation sponsors the annual Edison Science and Engineering Youth Days and Edison Birthday Celebrations as well as educational conferences, science institutes and engineering programs in the U.S. and abroad.

The late Charles Edison, son of Thomas Alva Edison and a former governor of New Jersey, served as chairman of the foundation's Board of Trustees until his death in 1969. In discussing the role and importance of the foundation he once said, "My father left us with 1,093 patents. It would have given him great pleasure to know that we continue to use most of his inventions, but it would give him far greater joy to know that we use his name as an inspiration to youth."



TAEF Founding President Charles F. "Boss" Kettering with present chairman Walker L. Cisler.

ICCL to offer communication kit

A basic communication kit is being developed to assist companies in participating in the International Centennial of Light Celebration on a local or regional level. The Communication Kit will include such items as news releases, "backgrounders" on Edison and his inventions, story ideas, fact sheets, photographs, official Centennial logos, an international calendar and more.

Other communications tools, still in the planning stages, will include: pretaped radio and TV public service announcements, science fair planning guides for schools, prepared speeches, slide presentations, display posters and other items — all catalogued for easy ordering.

As special events — at both the international and national level — occur throughout the year the kit will offer numerous opportunities for local Centennial coverage, as well as a continual source of news material and promotion possibilities.

Further information about the kits will be published in future editions of this newsletter.

CENTENNIAL OF LIGHT 1879 1979

Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

George E. Shea, Editor
Janet L. Wright, Associate Editor
Kathleen D'Aloise, Editorial Assistant
Swea Nightingale, Staff Assistant

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561

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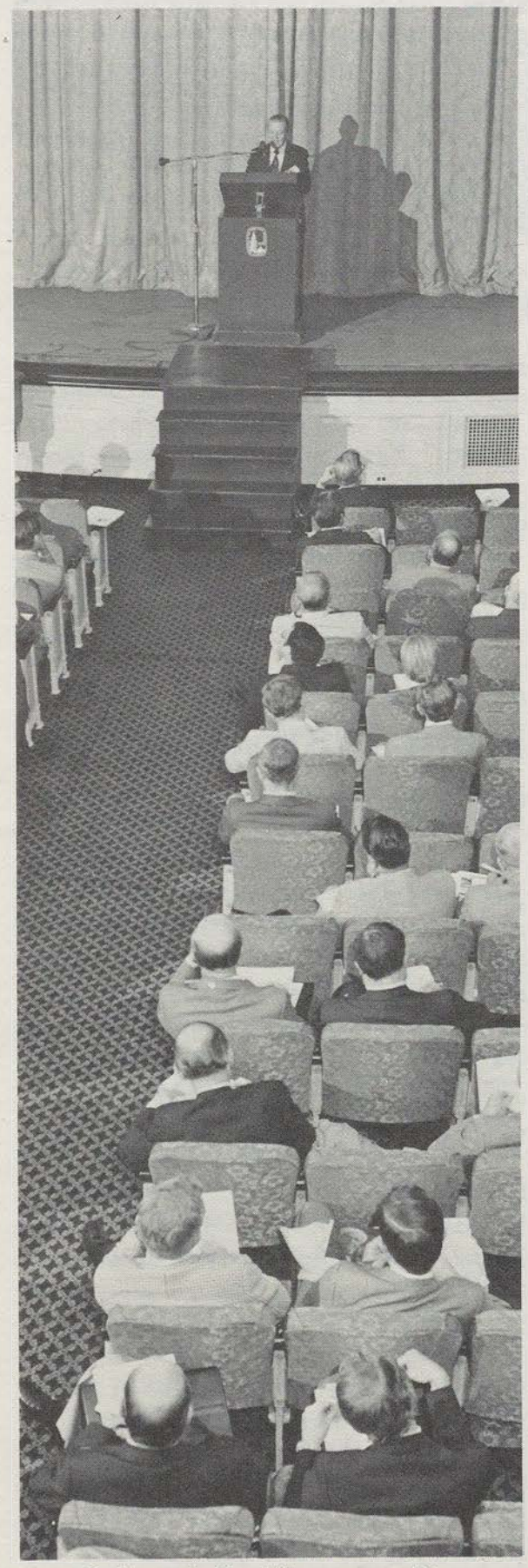


Robert I. Smith, committee chairman, opens session.

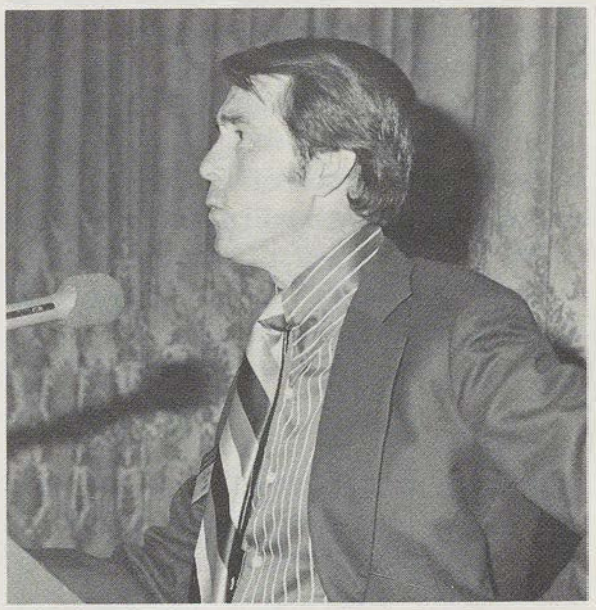
Industry Communicators participating in Centennial briefed at Edison Institute and tour exhibits

More than 100 communication executives, representing many of the companies that will participate in the Centennial, met Sept. 27, at the Edison Institute in Dearborn, Mich., to share in the plans for the year-long celebration and to tour the Institute's Henry Ford Museum and Greenfield Village, where the world's greatest collection of Edisonia is located.

Industries represented by those in attendance included broadcasting, construction, electrical and electronic equipment, petroleum, photographic equipment, publishing, rubber, sound recording, metals and communications.

Centennial Chairman Robert I. Smith, said, "It's going to be an exciting year, a year during which we help the public recognize the genius of Edison and the benefits of technology. Last June," Smith continued, "when representatives of the Committee held an organizing meeting, we reviewed proposed programs at various cost levels. We came to the conclusion that we should do everything possible to communicate the Centennial's theme to as broad a section of people both here and abroad as is possible. Therefore it is our goal to execute a program that will generate some $10 million in positive international exposure of one form or another."

Trent C. Root Jr., vice president of Texas Utilities Inc. and chairman, Edison Electric Institute Public Information Committee, who presided over the meeting, said, "This may be the first time in history that communication



TAEF President James G. Cook.

leaders representing so many different business organizations affected by electricity have gathered to work together on a single program. It's a great opportunity to reach every man, woman and child with important messages at the local level."

Also addressing the group was James G. Cook, president of the Thomas Alva Edison Foundation, Centennial sponsors. "Edison worked for the benefit of all men," said Cook. "To be true to his spirit, the success of the Centennial will depend heavily on effective activities at the local level."

"More specifically," Cook continued, "the Centennial's two primary objectives, both centered on local communication, are: first, to stimulate scientific and technological career education for the young; and second,

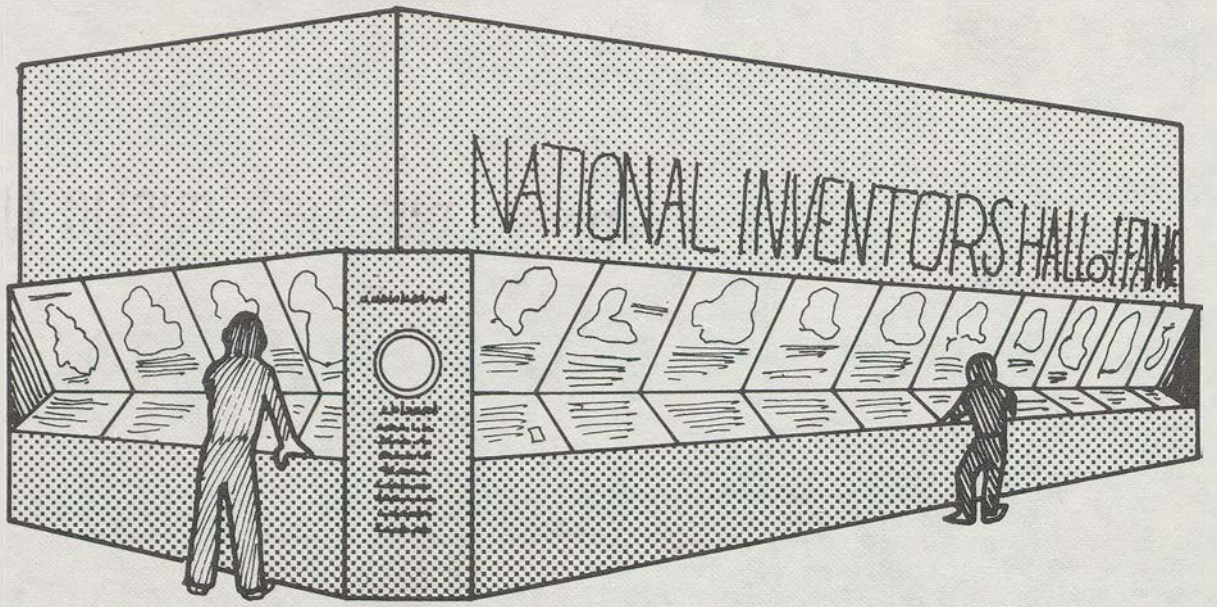
please turn to page 4

New Inventors Hall of Fame opens in February

The National Inventors Hall of Fame is designing a new permanent exhibit which will open to the public on Edison's birthday, February 11, 1979. It will be housed in the United States Patent & Trademark Office in Crystal City, Arlington, Virginia.

The National Inventors Hall of Fame was founded in 1973 by a group of patent lawyers. The first inventor to be inducted was Thomas Edison, who still holds the record for U.S. patents. Twenty-six others have been inducted since, including Alexander Graham Bell, George Eastman, Edwin Land, Louis Pasteur, Nikola Tesla, the Wright brothers and Eli Whitney.

Previously, the Inventors Hall of Fame contained only wall plaques in the lobby of the Patent Office to honor the scientists. The new exhibit, which is a voluntary effort on the part of private business, will consist of specially designed modules, which will reflect the type of work each scientist performed. Thus far, 10 modules, including Thomas Edison's, have been completed.



Artist's rendering of new Hall of Fame exhibit.

Every year, the induction of inventors into the Hall is conducted as close as possible to Edison's birthday, which is also National Inventors Day.

According to J. Ralph King of Arlington, Va. president of the National Inventors Hall of Fame Foundation Inc., and a patent attorney, a reception will be held for honored guests on the opening day. "We hope," King said, "to have as many media representatives as possible at the opening because we want the exhibits to become regular stops for tourists and especially students who visit the nation's capital every year."

EPRI Plans Symposium

More than 1,300 government leaders, scientists, university professors and students from throughout the world will be invited to a major Centennial event—the largest international symposium ever sponsored by the Electric Power Research Institute (EPRI) and the Thomas Alva Edison Foundation. The theme of the Edison Centennial Symposium, to be held at San Francisco's Hilton Hotel April 1-4, is "Science and Technology and the Human Prospect."

According to Robert Sandberg, director of communications for EPRI, "The symposium will examine technological and scientific progress over the past 100 years and the tremendous impact electricity has had on our world. During these days," he continued, "we will consider that impact not only in retrospect, but in its meaning for our future." A number of exhibits by the Smithsonian and Pacific Gas and Electric will demonstrate past accomplishments and new directions.

Famed Longshoreman-Philosopher Eric Hoffer will speak on "Science, Technology and the Common Man" at the symposium's final banquet. In this talk, Hoffer, a dynamic, outspoken individualist, promises to provide a cohesive analysis of the symposium's diverse elements.

Dr. Chauncy Starr, vice chairman of EPRI, will preside over 10 plenary sessions and 10 workshops during the four days. Speakers already scheduled are: Alisdair MacIntyre, professor of philosophy and political science, Boston University; Thomas P. Hughes, professor, department of history and sociology, University of Pennsylvania; and Simon Ramo, vice chairman of TRW, Inc.

Anyone interested in participating in this symposium should contact Robert Sandberg, EPRI, 1412 Hillview Ave., Palo Alto, Calif. 94303. Telephone No.: 415-855-2000.

Film festival to honor Edison

A special Centennial of Light presentation will be a major part of the 7th Annual Birmingham International Educational Film Festival to be held on March 11-14 in Birmingham, Alabama.

Tentative plans, according to Craig Battles, community service director for Alabama Power Company, include the observance of Edison's invention of the electric light bulb during the festival and the gala which follows. Special film screenings will also be held for the public, educators and the media.

As a special attraction the Festival Committee has invited actor Mickey Rooney, who portrayed Edison in the 1944 film, "Young Tom Edison," to take part in the event.

The Festival will be co-sponsored by Alabama Power Company, the Alabama Education Association, the University of Alabama in Birmingham and Interlock Film Studios.

Greenfield Village to publish Edison catalogs

The Greenfield Village and Henry Ford Museum has just announced it will have available by mid-1979 a finding guide of all Edison materials at its Menlo Compound.

Primarily for historians, the guide will index the Edison collection which includes original manuscripts of his experiments, patent material on a vast number of inventions, and primary source material about the original Edison recording stars.

In the early days, to popularize his invention of the phonograph, Edison also created his own "talent agency," auditioning singers, actors and actresses. Not much is known about these early recording "stars" because they played a part subservient to the machine. Now, for the first time, a detailed catalog containing this information will unfold more about the early days of sound recording.

In other activities, to highlight the Centennial of Light year the Henry Ford Museum will open The Interpretive Center and Hall of Technology next June. The new center will be a central guide for visitors to the museum, according to Caddy, where people will go to find out what there is to see and what they would like to see.

"For many years," Caddy said, "visitors to the museum have been delighted by our collection of Americana. However, there never has been a great deal of descriptive material to tell the visitor why a particular artifact existed, what it was used for, and what it represents historically. Now, we will have this ability."

In June, visitors will first stop at The Interpretive Center, view a map of the museum and village, learn where everything is, and go to what interests them most. "Further," Caddy said, "the visitor will know why an item was collected by Mr. Ford."

Some of the first persons to view the new center will be members of the Society of American Travel Writers, which will hold its annual conference at the Museum June 7-10, 1979, to honor Thomas Edison and to report on the exhibit to the traveling public.



GE's Jones speaks up for progress

Reginald Jones, chairman of the General Electric Corporation and a member of the International Committee for the Centennial of Light, was described in the June 12 issue of Time magazine as one of the "three or four most influential spokesmen of American business."

Describing the sad state of litigation in this country, and the ability of "contrary" types to stall progress, he said, "Business could expand employment if the U.S. were not the most litigious society in history, if small groups of intervenors could not so easily block plant construction and expansion."

Asked to comment on today's antagonism towards technological progress, Jones described an earlier era: "When GE founder Thomas Edison was trying to introduce electricity in New York City, a band of protestors gathered in Central Park and every day they electrocuted a dog. They were trying to show that electricity is dangerous." What if," Jones asked, "that special interest group had slowed the growth of electricity? We wouldn't be burning candles today, but we certainly would not be as advanced as we are—and we would have a lot fewer jobs."

SCE announces regional plans

A regional Centennial of Light celebration was announced last month by the Southern California Edison Company. Plans call for a mobile exhibit consisting of artifacts from the company's collection and other contributors to tour schools, fairs and other public events. Exhibits will feature the inventions of Thomas Alva Edison and the subsequent development of the industry he founded.

Jack K. Horton, board chairman and chief executive officer of Southern California Edison Company, said, "With this exhibit, we plan to show to our customers how the men and women here at Southern California Edison have, over the past 90 years, built upon the pioneering work of Thomas A. Edison, making historically significant contributions to the development of the modern electric industry." As one example of the company's technological contributions, Horton pointed to SCE's Mill Creek No. 1 hydroelectric plant, which was the nation's first 3-phase AC facility and is the oldest active plant in the nation today.

Horton said, "Our exhibit is designed to help people become aware of the history of electricity and to have them recognize the importance of its development to modern living. Too often," he continued, "we talk about this only among members of our own profession. Our regional Centennial celebration will involve the public and encourage people to become more aware of our industry's and our company's innumerable contributions to the service of mankind."

For background in linking your organization's local interests and programs to pertinent aspects of the Edison legacy, Edison Centennial News is presenting a three-part series of quick primers on Edison historic sites. The first article, on Menlo Park, appeared in the September issue. This month we profile West Orange, N.J. Next month's article will describe Edison's Fort Myers, Fla., laboratory and summer home.

Communicators' briefings

continued from page 1

to better equip the individual citizen to appreciate the contributions of science and technology to society."

Edison Institute President Frank Caddy, observed that the Centennial, like the Henry Ford Museum and Greenfield Village, could be dedicated in Mr. Ford's own words: "...to give us a sense of unity with our people through the generations, and to convey the inspiration of American genius to our young.

"At the 1929 dedication of the Edison Institute," Caddy said, "it was described as 'the affectionate tribute of one master workman to another.' Some 41 million persons from all over the world have visited our exhibits since then. We are continually proud to share our wealth of U.S. history with them, as we are with you today."

Another speaker, Dr. Bernard S. Finn, curator of Electricity and Modern Physics at the Smithsonian Institution's Museum of History and Technology, describing the Edison exhibits planned for the Centennial year, explained that they would center on Edison's system for distributing electricity to grass roots community users, both in private homes and local businesses.

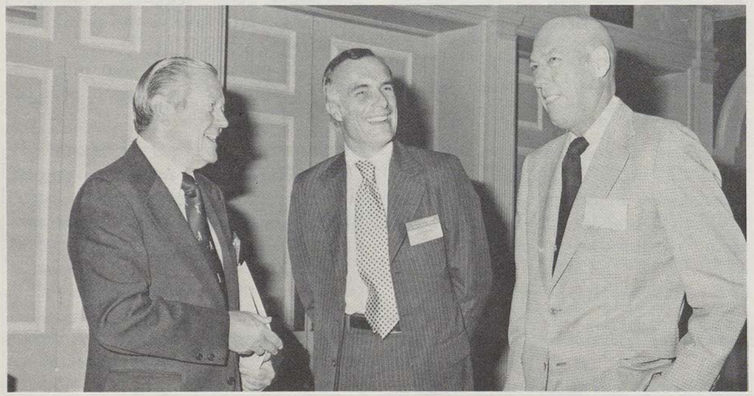
"We are proceeding with construction," Finn said. "The first traveling exhibit will be ready to go on tour January 1. The other two should be ready shortly thereafter. The 1,500 square foot exhibit in the museum we hope to have in place sometime in the late spring or early summer."

Also, Finn is looking for any appropriate items, such as small early dynamos, transformers, or switchgear, for the exhibits. Finn said, "It's amazing how many such historic items survive in somebody's back storeroom."

Raymond Schuster, assistant director for public affairs, Electric Power Research Institute, said, "We believe the public will judge science and technology fairly, if we can take the pros and cons out of the hands of the few and place it in the hands of the many."

He reported that more than a thousand government leaders, scientists, university professors and students are being invited to attend the EPRI/TAEF Edison Centennial Symposium in San Francisco (see story page 2).

"It's going to be an exciting year, a year . . . we help the public recognize the genius of Edison and the benefits of technology."



ICCL Chairman Robert I. Smith discussing Centennial plan with Ashton B. Collins Jr., president Reddy Communications, Inc., Centennial public relations counsel, and Trent C. Root Jr., program chairman

Museum and Village Town

The afternoon portion of the meeting was taken up with personal insights into Edison's legacy of devices, tools and workshops. The visiting communicators toured selected parts of the Edison Institute's two major Decorative Arts Galleries, and the 246-acre Greenfield Village complex, which contains nearly 100 historic buildings moved from other sites in the U.S. and Europe.

Highlight of the tour was Edison's Menlo Park laboratory, where the incandescent light bulb was born, along with many other important inventions. Robert Koolakian, curator of Edisonia, guided small groups through the two-story wood-frame structure. Beginning with Edison's 10 x 12-foot office, Koolakian proceeded to the open upstairs room where Edison assembled the world's first research laboratory.



Discussing Centennial plans prior to opening session are, left to right, James Boaz, Electric Power Board of Chattanooga; Francis Adams, U.S. National Committee, World Energy Conference; Harold Slagter, Sargent and Lundy Associates; and Jacqueline Lassiter, Jacqueline Lassiter Associates.

"The reason we have 110-volt power in our homes today is that Edison chose that value to produce the light level he wanted," Koolakian explained. "That was sixteen candle-power, to match the common gas-jet light with which he was competing. His first successful bulb gave less than one candle's light. But Edison had the level up to 16 within a few months," Koolakian added.

The group also toured the Sarah Jordan Boarding House, where some of Edison's Pioneers stayed and one of the first homes in the world to have incandescent lighting. The house features conspicuous exposed wiring hardware on walls and ceilings.

Nearby, they inspected the Fort Myer's laboratory, transferred from its Florida site near the Edison winter home. Here Edison spent many of his "working vacations" from 1885 to 1926, often with teams of laboratory assistants he would bring in.

Another stop was the Edison Illuminating Company, a scaled-down version of the first Detroit Edison power plant. Henry Ford was an employee in the original plant from 1891 to 1899. During this period he first met Edison, to whom he described his quadricycle and won important encouragement from him to go ahead with the manufacturing of the now famed Ford Model T.

Summing up both the stimulus and the planning challenges of the day's events, one participant said, "The Centennial is going to do a lot of good for a lot of people. But I think as we set out to communicate to our publics, we should recall one of Edison's remarks: 'Nothing that's good works by itself, just to please you,' he said. 'You've got to make the damn thing work.' "



Communicators tour exhibits

Ford, Firestone join ICCL

Henry Ford II, chairman and chief executive officer, Ford Motor Co., and Raymond C. Firestone, chairman of the board, retired, Firestone Corp., have joined the International Committee for the Centennial of Light, according to Robert I. Smith, committee chairman.

This brings the committee to a membership of 20 leading executives representing organizations dependent on the innovations and inventions of Edison.

"These two men," Smith said, "are outstanding additions to the committee. Their integrity, leadership and deep commitment to progress will enhance immensely the direction of the Centennial of Light."

In addition to Smith, Ford and Firestone, other members of the committee are: Walker L. Cisler, chairman and chief executive officer, Thomas Alva Edison Foundation; Albert B. Dick, chairman, A. B. Dick Company; David C. Scott, chairman and president, Allis-Chalmers Corporation; William M. Ellinghaus, vice chairman, American Telephone and Telegraph Company; S. D. Bechtel Jr., chairman, Bechtel Group; Thomas G. Ayers, chairman and president, Commonwealth Edison Company; and Charles F. Luce, chairman and chief executive officer, Consolidated Edison Company of New York.

Also, Reginald H. Jones, chairman and chief executive officer, General Electric Company; Merle W. Kremer, president, GTE Sylvania Inc,; William T. Ylvisaker, chairman and chief executive officer, Gould Inc.; and Edward J. Williams, chairman, president and chief executive officer, McGraw-Edison Company Inc. Also, Edgar H. Griffiths, president and chief executive officer, RCA Corporation; Jack K. Horton, chairman, Southern California Edison Company Inc.; Robert E. Kirby, chairman and chief executive officer, Westinghouse Electric Corporation; Goro Inouye, acting chairman, Japan Atomic Energy Commission; F. Mahmoudian, managing director, City Services of Tehran, Iran; and Heinrich Mandel, chairman of the executive committee, World Energy Conference, Essen, Germany.

California teenager builds mechanical Edison

"Immortality," said Edison, "is the genius to move others along after you yourself have stopped moving." And it's his particular type of genius that has moved Daryn Coleman, an 18-year-old Riverside, Calif., teenager to undertake a $15,000 project to build a mechanical replica of his turn-of-the-century hero.

Coleman, who postponed entering college to earn money for the project, has already invested $3,000 and three years in planning and designing the mechanical Edison which he hopes to complete by 1979.

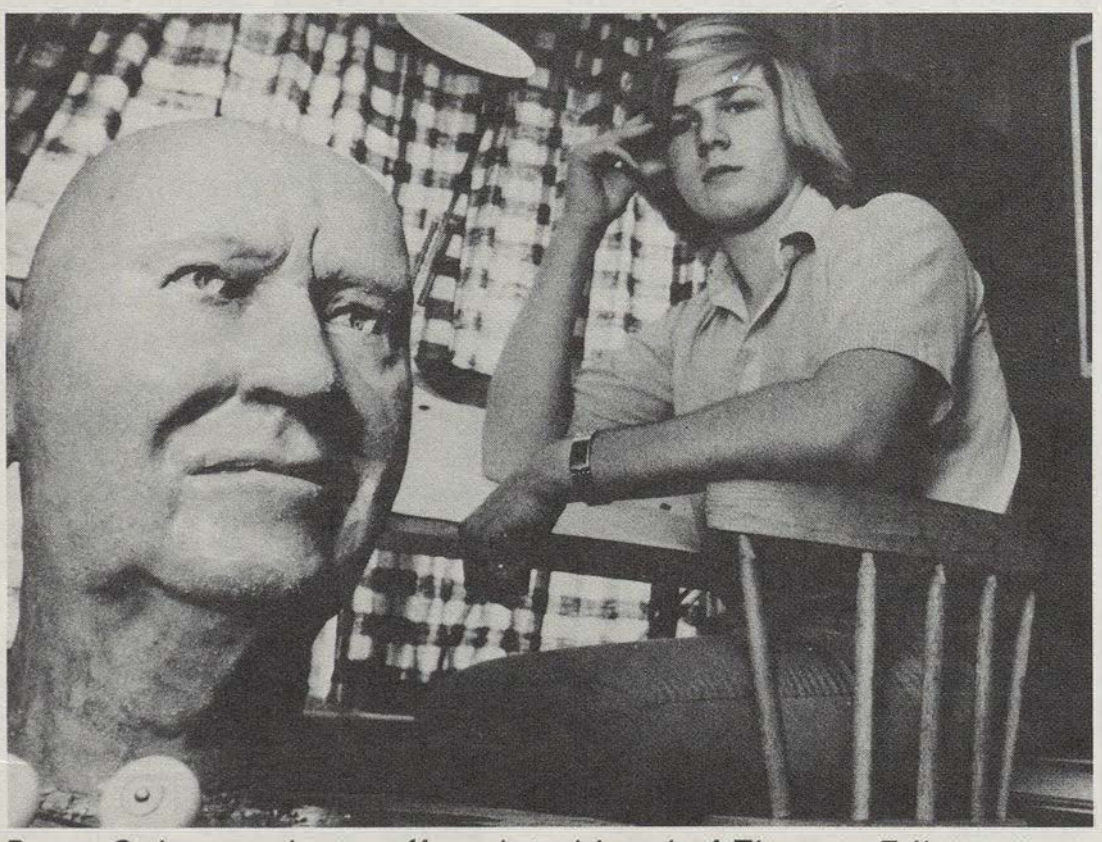
When completed, the mechanical figure will bear an uncanny resemblance to the late inventor. The head, the most noticeable part of the figure has been sculpted in clay to lifesize proportions. Then, it will be cast in aluminum and covered in latex—a substance that approximates the human skin in both texture and elasticity. The lips, eyes, cheeks, and eyebrows will move, as will the hands and the rest of the body. Coleman even plans to duplicate Edison's fingerprints, and fashion the exact amount of cavities in the statue's teeth that Edison was reported to have.

Utilizing electronic controls and equipment, Coleman's finished product will be a staged production entitled: "Thomas Alva Edison's Salute to the Immortals of Engineering." In the production the mechanical "Edison" will be seated in a rocker, behind a desk in a re-creation of the inventor's laboratory. Then, in a manner similar to Walt Disney's Lincoln re-creation, it will stand and deliver a talk to the audience describing Edison's accomplishments and philosophy.

Coleman hopes to debut the figure at the Edison National Historic Site in New Jersey in 1979.

Said Coleman, who also hopes to make money by displaying his creation across the country, "If I had the money, I could finish the figure in two months."

Gannet News Service photo



Daryn Coleman shows off sculpted head of Thomas Edison.

Booklet published

A new booklet of Edison experiments students can conduct on alternative energy sources has been published by the Thomas Alva Edison Foundation. TAEF President, James G. Cook, said it is likely to become one of the most popular, low-cost publications in the Foundation's 32-year history.

"Alternative Energy Sources, Experiments You can Do... From Edison" is the tenth in the series. Written by Ronald M. Benrey and Robert F. Schultz, the booklet was made possible by a grant from the Charles Edison Fund, named after the distinguished son of the inventor, a former governor of New Jersey.

The booklet shows how experiments can be conducted in the areas of solar water heating, wind energy, ocean thermal energy conversion, tidal energy, generating energy from trash, coal gasification and liquefaction, geothermal energy, and building a basic fuel cell.

According to Cook, the fuel cell experiment was developed especially for the booklet. "It was one of the most difficult to create," Cook said. "Every fuel cell experiment we looked at was either too expensive, dangerous, or unreliable."

The one finally found was devised by McGraw-Edison research scientist Hiry West of the Power Systems Division at Bloomfield, N.J. It uses a non-metallic mesh tube (such as a woman's plastic hair roller), three small rubber bands or some string, zinc gauze, graphite, flour and salt. After putting all these materials together according to the instructions, the student then stands the fuel cell in a saucer of salt water. As the salt water soaks into the gauze, electrochemical action will start. And, having attached the fuel cell to a deflecting galvanometer needle, the student will see that electricity is being generated.

"Alternative Energy Sources" is available from the Foundation at a cost of $23.00 per hundred, plus shipping charges for orders exceeding 250 copies. Orders less than 250 cost $25.00 per hundred.

Orders should be sent to Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Michigan 48075.

More ICCL members comment



Jack K. Horton
Chairman
Southern California Edison Company Inc.

Not only am I pleased to be a part of the ICCL, but my company will make every effort to promote the goal of the conference, that is, a new faith and trust in technological endeavors. Our regional Centennial of Light promises to be a model for others. We hope the International Committee can be of service to companies planning their own programs.



William T. Ylvisaker
Chairman and Chief Executive Officer
Gould Inc.

It's ironic, but true, that 100 years after the development and subsequent concerns which were expressed over a new technology known as the electric light bulb, that it is the lack of electrical power that worries us today.

In retrospect, it seems unlikely that anyone would have ever questioned the importance of the electric light.

Gould is very proud of the role we have played in the electrical industry. One of our predecessor companies was the Brush Electric Company, which was founded by Charles Francis Brush, a prominent inventor and industrialist. It was Brush who devised an electric arc lamp and a generator that produced a viable and constant current. He first installed his lamps in Wanamaker's Department Store in Philadelphia, in 1878.

In 1879, Brush installed the first streetlighting system in the world, in Cleveland, with 12 electric arc lamps; and in 1880, lit New York City's Broadway, turning it into "the Great White Way." Brush's company eventually became a cornerstone of General Electric Company; and a later company he founded, Linde Air Products, is now a division of Union Carbide Company. The technological expertise he demonstrated in his early developments with electric light, is one Gould is proud to be associated with in this 100th anniversary year of the electric light bulb.



Heinrich Mandel
Chairman
World Energy Conference

The whole world owes an immeasurable debt to Thomas Alva Edison. With his many inventions in the electro-technical field he created the basis for the steady improvement in our living standards. By honoring him, and celebrating the Centennial of Light, we shall also be underlining the contributions of science and technology to human well being in developed and developing countries alike.

Montana Power to sponsor Edison Centennial Science Institute

The 28th Thomas Alva Edison Science Institute, to be held March 19-20, 1979, will be cosponsored by the Montana Power Company, at the Montana State University campus in Bozeman, Mont., and will honor the inventor for which the Institute is named.

According to James G. Cook, president of the Thomas Alva Edison Foundation, the Institute will consist of 16 to 18 lectures by some of this nation's outstanding scientists, engineers and science educators. Cook said, "It is a concept of advancing science education in a metropolitan community or on a state-wide basis that has proved most effective." Other companies may find the idea of sponsoring a similar teacher conference or institute a useful and well-received activity.

This year more than 350 junior and senior high school teachers, counselors, and administrators will attend the two-day conference.

Edison Science Institutes have been held on university campuses throughout the United States for more than 20 years. The Edison Foundation has organized as many as seven major science conferences and institutes annually. Participants unanimously have found each to be successful and well-received by everyone involved. Always cosponsored by a local corporation and planned by a group of prominent educators, business and civic leaders, these institutes have become forums for a number of important scientific announcements.

A Centennial March

To commemorate Detroit Edison Company's 75th anniversary, the conductor of the Detroit Concert Band has composed a new march, "The Light Fantastic."

The conductor, Leonard B. Smith, who is also the orchestra's music director, is an internationally known composer who has written more than 200 works in a 32-year career.

According to Detroit Edison's Director of Creative Services, Frank Firnschild, "The march is a music form that will reach millions of Americans regularly in an atmosphere of celebration on the athletic field. Hopefully, through Dr. Smith's contribution, large numbers of people will pause to reflect on the significance of electricity in their lives."

His new march made its public debut last June to lunchtime crowds of appreciative office workers at Detroit Edison Plaza. Soon after that, on August 8, it made its New York City debut, with a performance by the Goldman Concert Band at Lincoln Center.

In addition, sheet music of the march, with concert arrangements for 62 musical instruments has been distributed to over 150 high schools and colleges for use during football halftime ceremonies. Sheet music, in limited quantities, is available from The Detroit Edison Co.

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Understanding Edison

Glenmont: Edison's middle years

Of the three main Edison historic sites in this country—Dearborn, Fort Myers and West Orange—the latter, where he lived and worked for 44 years, contains most of the information on Edison and his works.

Out of West Orange came the motion picture camera, vastly improved phonographs, and silent and sound movies. Other patents covered electric motors and generators, incandescent and fluorescent lamps, continuous nickel and copper plaiting, a method for depositing metals in a vacuum, magnetic separation and briquetting of iron ore, processes for making carbolic acid from coal tar, and a nickel-iron alkaline electric storage battery, which alone required 40,000 experiments.

At the West Orange laboratory, into which he moved on Thanksgiving Day, 1887, he and his carefully chosen associates would for the next four decades pursue their goal of inventing and "developing things that every man, woman, and child in the world wanted," and could buy at prices they could afford.

Historic buildings preserved

Still preserved at the site are the main laboratory building and five smaller red-brick structures that comprised the physics laboratory, chemical laboratory, chemical storage room and pattern shop, metallurgical laboratory and powerhouse boilerroom.

Other buildings were added later. The main archives building and museum storage vault were erected after Edison's death, as was the full-sized replica of his original tarpapered "Black Maria," the first motion picture studio.

The interiors of many of these structures are little changed from their original appearance. Some contain exhibits like his original tinfoil phonograph of 1877, his 1889 "Strip Kinetograph" and other motion picture apparatus, and early electric light and power equipment.

Edison's machine shops and stockroom are still intact, as well as the double-tiered library containing the desk and cot on which he used to take



Edison relaxing at Glenmont

catnaps when working round the clock. The chemical laboratory is little changed from its 1927 appearance, when he was conducting his rubber experiments.

A home for relaxation

Glenmont, his 23-room home, reveals the domestic side of the inventor's life. Here he found relaxation and time to generate new ideas for testing at the laboratory. The house, built for a New York executive in 1880, today looks much the same as when Edison, with his second wife Mina, occupied it.

Almost all the original furnishings remain in place, including family portraits and other fine paintings and prints, books by the hundreds, heirlooms and period pieces of furniture, and gifts from the great and near-great of many lands.

Glenmont sits on a beautifully landscaped 13-acre estate. It encompasses a barn, garage, greenhouse, gardener's cottage, potting shed, and other outbuildings. On the grounds, in a quiet, green bower are the graves of Thomas and Mina Edison.

Even before one enters the home, a visitor is aware of the detailed elegance. Cut stone steps lead to a porch of ornamental tile flooring and walls of molded brick. Beyond the massive front door of solid oak lies the foyer, paneled with matching wood. From it rises the red mahogany grand stairway.

On the right of the entrance hall is a small library, which, like the other rooms, is preserved today just as the Edisons left it. Of particular note are the original portieres of luxurious, rich brown, cut velvet on gold satin. These museum piece curtain hangings date back to 1880.

As spectacular as the room is, Edison preferred to work in the parlor on the second floor where he and Mina shared shelves of personal books. There, behind a huge table, sitting in the room's comfortable chairs, he worked or met with the movers and shakers of his time. This was their favorite room. She too had her work table, but not nearly as large or commanding as his.

CENTENNIAL OF LIGHT 1879 1979 T.M.

Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

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Janet L. Wright, Associate Editor
Gordon Nugent, Contributing Editor
Kathleen D'Aloise, Editorial Assistant
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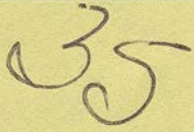
Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

Inquiries or requests for additonal information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561.



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NOVEMBER 1978 VOLUME 1 NUMBER 3

Centennial education program announced

Program underway next spring for grade, high schools

Plans are underway to offer next spring, to more than 100,000 U.S. grade and high schools in the United States, educator-tested kits of Edison-based teaching materials for science and social studies classes, according to James G. Cook, president of the Thomas Alva Edison Foundation, sponsors of the International Centennial of Light, and coordinators of its educational program.

The Mazer Corporation of Dayton, Ohio, an industry leader in developing teaching aids, has been retained to develop individual Centennial school programs for three grade levels. Each will consist of: lesson plans and teacher's guide, bibliography of additional reference materials, preprinted spirit-duplicating activity masters, and teaching wall charts or posters. All the programs will be designed for teacher convenience and flexibility and call for students at every level to become involved with projects that add an expanded dimension to learning.

Program Components

The kindergarten through grade three program will be adaptable for both readers and non-readers. It will focus on Edison as a boy and the innate curiosity and energy he possessed, which led him to become the inventor he was. Students will be asked to perform simple experiments which will challenge their imaginations to develop humorous or serious inventions of their own. The primary goal is to introduce the young student to sense the excitement of discovery.

Intermediates — grades four through six — will be introduced to the timeline of technology and required to

please turn to page 4



James G. Cook, president, Thomas Alva Edison Foundation, answering questions on Centennial education program, after addressing a group of teachers on the subject.

Florida Pageant of Light salutes Edison as friend

The 35th Annual Edison Pageant of Light in Fort Myers, Fla., an official Centennial of Light event, is scheduled for Feb. 7-17, 1979, it was announced by Thomas Barret, president of the Pageant of Light Committee.

The annual event will not be the typical salute held each year. Planned is a complete community event with parades, coronations, fireworks, formal balls, and numerous receptions for out-of-town guests.

Fort Myers adopted son

Edison, according to Barrett, put Fort Myers "on the map" through his elaborate praise of this modest town on the brackish waters of the Caloosahatchie River. Still a small town, it thrives on its attractive climate and boasts of its adopted son who chose to spend many months here every winter for some 45 years.

Barrett, who moved to Fort Myers more than 20 years ago from Chicago, is aware of all that Edison did for the town. "You know," he said, "we are still a farming and fishing community to a good extent, but we also have a lot invested in tourism, vacation housing and small service industries. Without Edison, who brought in the original palm trees and much of the exotic vegetation, and even an example of what

please turn to page 2

Pageant of Light

continued from page 1

modern housing should be, Fort Myers would be just another Florida town. So, that's why every year we celebrate him," Barrett continued. "Sure he was a great inventor, but for many of us, he is the source of our livelihood."

Largest in 35 years

According to Margie Willis, executive secretary of the Pageant of Light, "This year's Pageant is expected to be the largest in its 35 year history. There are more than 134 units already signed for the evening parade finale, which will include commercial, school and organizational floats, as well as high school marching bands from across the country. We expect to have more floats than the Orange Bowl," Willis continued. "If it grows any larger we may have to close off entries for the first time in our history."

In addition, the week long events attract more than 100,000 visitors every year to view and be a part of the celebration. The opening event, the King and Queen Ball, a white-tie affair, is staged by the "Lamplighters," a civic organization. The Coronation Ball, to crown the young man and young woman selected from among the candidates, comes one week later. They are high school students who are selected for their outstanding leadership and scholastic abilities. The week includes concerts, a children's parade, luncheons, square dances, plays, an arts and crafts show, flower shows, a tennis tournament, a sailing regatta, a doll show, gymnastic and dance events, and a high school band competition. There also will be a science fair, special lectures at the Edison Museum in Fort Myers, and a fund raising program for the upkeep of the Edison home, scholarships and other student activities.



One of more than 100 Pageant of Light floats seen in the Fort Myers parade every year.

The Pageant of Light is a well-established tradition in Fort Myers. "This year, with its being an official Centennial Event, the participation of business and educators will be even greater than in the past, as will the number of visitors," Barrett said.

To learn more about the Edison Pageant of Light write to: Ms. Margie Willis, Edison Pageant of Light P.O. Box 1311, Fort Myers, Fla. 33902.

Philadelphia Electric sponsors youth energy debates

The Philadelphia Electric Co. and the Energy Education Advisory Council, is sponsoring a series of "Youth Debates on Energy," during the coming academic year, in commemoration of the Centennial.

The Council consists of teachers, administrators, and researchers from school districts, universities and energy research institutions from the Philadelphia area. Its purpose is to get the educational community to focus more fully on the problems of energy policy, utilization and production.

All high school students in grades 9-12, enrolled in a public, private or parochial school in the area have been invited to participate. The topic of this year's debates will center on "whether the economic progress and environmental improvement of the United States depends on its ability to produce increased supplies of energy from a number of alternative sources."

According to Clifford Brenner, vice president, corporate communications for Philadelphia Electric, "The goal of the debate is two fold: first, is to teach students more about the problems of energy through in-depth analyses required for an effective solution. This will result in scholarly research and improvements in critical thinking, research and communications skills for those who participate in debate."

Other events to be held include introductory workshops, field trips, and holding preliminary rounds to prepare students for the final debates.

Youth debates are taking place between September 1978 and April 1979, with final rounds being held at Philadelphia City Hall. Host for the final competition will be Drexel University.

Preparations for the program began last summer. Introductory County Workshops were held in October and field trips are being held through the first week of December. Discussion Tournaments will be held Jan. 6 - Feb. 3; Preliminary Rounds in Counties, Feb. 10 - March 24; and Final Conference Rounds, March 31 and April 1.

For more information on the programs, contact: Mrs Marguerite C. Devlin, Coordinator, Youth Debates on Energy, Philadelphia Electric Co., 2301 Market St., P.O. Box 8699, Philadelphia, Penn. 19101, or telephone: (215) 841-4108.

Howard Latimer: An Edison Pioneer and one of America's early black inventors

Lewis Howard Latimer, a black inventor best known for patenting a process for making carbon filaments, was one of the original Edison Pioneers, that select group of 28 of Edison's friends and fellow inventors formed in 1918. To be a member one had to have been a close associate of Edison before 1885.

Latimer came from humble beginnings and had little formal education, yet he became a respected inventor, draftsman, and engineer. Also, he was an author, poet and musician. William H. Meadowcroft, historian for the Edison Pioneers, and secretary to Edison, wrote upon Latimer's death on Dec. 11, 1928, at the age of 80, "We hardly mourn his inevitable going so much as we rejoice in pleasant memory at having been associated with him in a great work for all peoples under a great man."

Self taught draftsman

Latimer, the son of an escaped slave, was born on Sept. 4, 1848, in Chelsea, Mass. He read voraciously as a lad, wrote short stories, and taught himself how to draw. Later, as an office boy in the Boston patent office of Crosby and Gould, he taught himself the principles of drafting, and was rewarded by being made a draftsman for the company.

Soon he was chief draftsman, preparing drawings of inventions which were submitted to the U.S. Patent Office in Washington. One of his most famous submissions at that time in his career were drawings for Alexander Graham Bell's telephone.

First patent

It was not long before Latimer began drawing diagrams for his own inventions. On Feb. 10, 1873, he received his first patent for an improved washroom for railroad passenger cars, which won him recognition and a position with Hiram S. Maxim, the inventor of the machine gun, at the United States Electric Lighting Co., in Bridgeport, Conn. That was in 1878. During this time Maxim was claiming he invented the incandescent lamp, but eventually he lost in court.

While there, he invented and patented an improved process for making carbon filaments in light bulbs, which was used to make all the Maxim lighting systems. He also assisted in installing the systems in New York, Philadelphia and Canada, and helped establish the first Maxim-Weston electric light bulb factory in London, England.

Joins Edison

In 1882, Latimer returned to the U.S. to work for the Olmstead Electric Lighting Co. in Brooklyn, for a brief period and then for the Acme Electric Light Co. in Manhattan. Finally, in 1884, he joined the Edison Electric Light Co. as a draftsman and engineer.

By this time, Latimer had become an expert electrical engineer. And, in 1890, he published the first technical electrical engineering book, "Incandescent Electric Lighting—A Practical Description of the Edison System."

Later, he transferred to the legal department of the Edison General Electric Co., where he served as an expert witness on Edison patents in various patent lawsuits brought by and against Edison. When Edison General merged with Houston Electric Co. to create the General Electric Co., and the later developed with Westinghouse a Board of Patent Control, Latimer was appointed a full-time consultant.



Howard Latimer, Edison Pioneer

He continued to act as a consultant to various firms until his retirement in 1924.

Latimer, like most of the Edison Pioneers, was hired because of a particular expertise. Edison recognized in each of the Pioneers not only a special talent, but an indefatigable ability to get things done and make things work. Lewis Howard Latimer fit that mold perfectly.

Upcoming Centennial Events

Tournament of Roses Parade, January 1, 1979: This annual New Year's Day tradition will feature an Edison International Centennial Year Float.

Smithsonian Edison Exhibits, January 1979: The first of the traveling Edison exhibits will begin touring the country. Later, two similar exhibits will be ready for tour. The permanent 1,500-square-foot exhibit at the Museum of History and Technology is scheduled for the public by mid-year.

AAAS Edison Lectures, January 3-8: American Association for the Advancement of Science will conduct an Edison lecture series at the annual meeting in Houston, Texas. November issue of Science magazine details time and speakers.

Southern California Edison Centennial Exhibits, January 1979: Drawing from its 10,000 item collection, a Southern California Edison exihibit will begin touring schools, shopping malls, and fairs within its service area.

Centennial education program focuses on Edison

continued from page 1

put it to historical perspective. Edison's research methods will be discussed to show that he was not only an inventor, but also a director of inventions and a businessman who devised practical applications for his inventions.

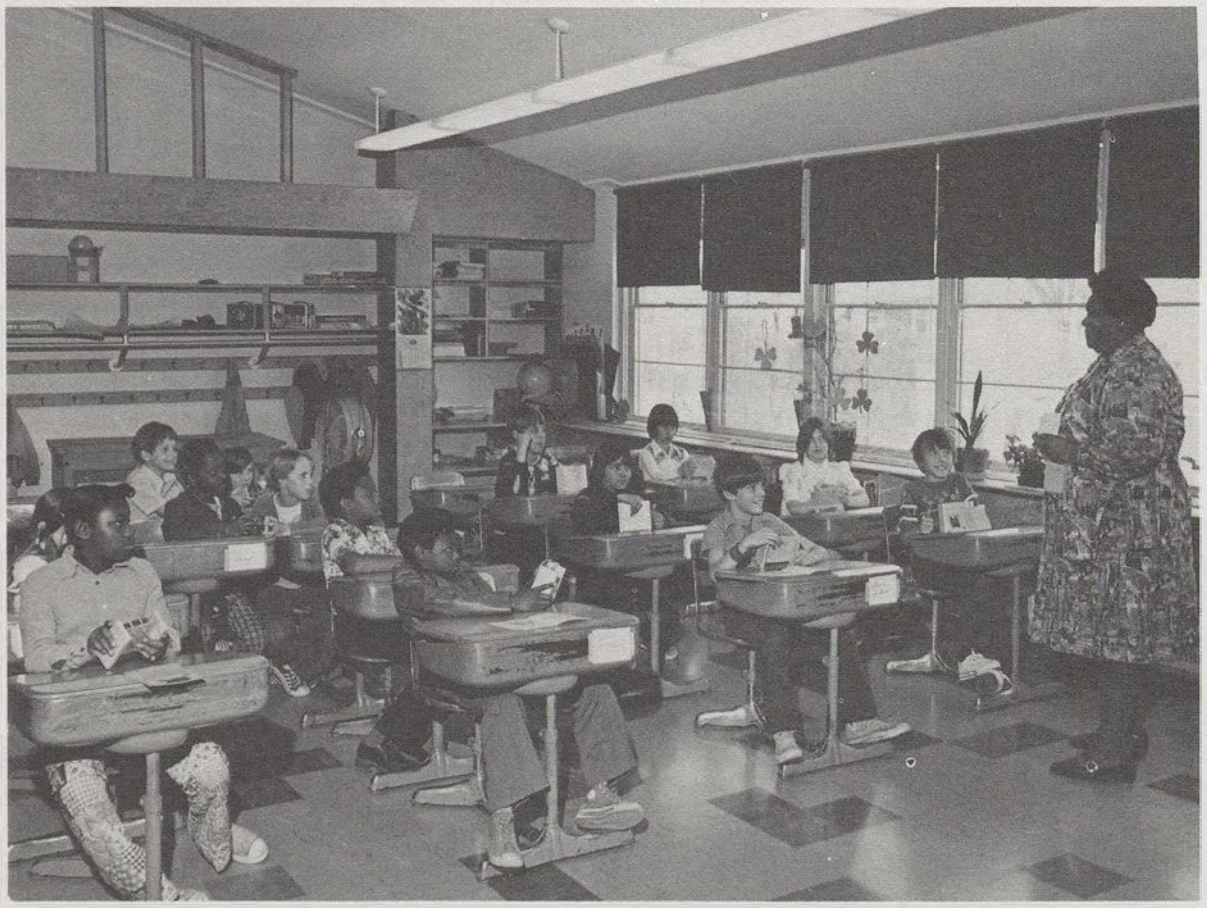
The third program for grades seven through twelve will relate to the challenges, the obstacles, the methods and the solutions of Thomas Edison's scientific inquiry to some of the current and future problems our civilization faces: the environment, declining productivity, rising living costs, urban problems and the quality of today's lives. Students will examine their own and community values, roleplay alternative solutions to structured problem situations, measure and evaluate a range of scientific and technical changes in their lifetime.

Teacher tested

The three-tiered educational program will be completely teacher-tested for balance, credibility and pedogogical validity. As a prime Centennial of Light event it offers opportunities for individual broad-based corporate participation through companies by making the program available free on a local level and providing grass roots follow-up through essay and invention contests, science fairs, and tie-ins with area Boy and Girl Scout groups, 4-H, and Junior Achievement organizations.

"As we begin the second century of light," Cook said, "we will literally need thousands of well trained young men and women with the kind of wisdom, imagination, and courage that led Edison on his lifelong quest of the unknown.

It was people of his ilk that made today's unparalleled standard of living in the industrial world possible. It lies to the young to insure a continuation and expansion of improving the world's quality of life. This nationwide educational effort will hopefully start some students on their way. One Thomas Edison a generation is no longer enough to sustain our kind of progress."



Classrooms like this one in Wichita, Kansas, will be the beneficiaries of the Centennial education program during next year.

Communicators kit available in mid-December

A multi-media kit offering various public relations materials to support local Centennial communication activities is being readied by the Centennial's communications and coordinating agency. Present plans call for it to include:

- Articles on various aspects of Edison which can be used for internal or external publication;
- Suggestions for a variety of local Centennial events;
- Camera-ready artwork for use of the Centennial logo in both black and white and color;
- Calendar of presently scheduled international Centennial events;
- Two speeches: one on U.S. research and development, and a second on Centennial goals, philosophy and practices;
- A number of available photographs, both modern and historic;
- A list of additional materials for sale through the Committee, including a 1000 color slide and script presentation, posters, TV public service announcements, broadcast discs containing public service Centennial radio announcements, logo decals, and an Edison playlet available for local scheduling, complete with traveling actors.

A number of additional materials are still under discussion, and suggestions as to what local communicators would like to see as part of the kit are welcome by The International Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830.

More comments from ICCL members



F. Mahmoudian, Managing Director City Services of Tehran

"The Centennial of Light recognizes the importance of science and technology today. Unless we are more tolerant of advancing the application of modern technology, and unless we convince the world of that, we will be taking many steps backward in progress we have made in the developing countries."



Donn B. Tatum, Chairman Walt Disney Productions

"The Centennial of Light provides an opportunity to reaffirm the crucial importance of inventiveness and innovation in meeting the challenges and solving the problems which lie ahead. The continued application of the divine gifts of talent and ingenuity, applied with a spirit of confidence and optimism, will provide the answers to the questions of tomorrow."



Thomas G. Ayers, Chairman Commonwealth Edison Company

"The invention of the incandescent lamp by Thomas Edison was perhaps the most powerful single factor in changing the way people live around the world. Recognizing the importance of this man's work, as well as the importance of continuing technological advancement, is both appropriate and timely."



Charles H. Pillard, President International Brotherhood of Electrical Workers

"The International Brotherhood of Electrical Workers can directly attribute its existence to Thomas Edison's invention of the first commercially feasible light bulb in 1879. In 1890 an exposition was held in St. Louis, Missouri, which featured 'a glorious display of electrical wonders.' In 1891 ten electricians and linemen who worked on this display joined together to form the IBEW, which today numbers more than one million members working in industries which grew out of Edison's inventions.

During this Centennial of Light year, I hope all our citizens will take a minute to reflect on what Thomas Edison's work and inventions have meant in their own personal lives.

It is my sincere belief the Centennial of Light will encourage the young people of the world to recognize the accomplishments of Thomas A. Edison and the advancement that can be made in the years to come.

I am sure the Centennial will make our young people realize the many careers available in the scientific fields that were started by Thomas A. Edison's inventions, and also the many work opportunities that will be generated by the inventors of the future."

New Edison book to be hallmark Centennial of Light publication

A fully illustrated 64-page biography, "Thomas Alva Edison: The Man Who Turned Darkness into Light" has been published by the Thomas Alva Edison Foundation.

"I wrote this biography," said Foundation President James G. Cook, "to commemorate the 100th anniversary of the invention of the incandescent electric light—an event symbolic of the imagination of man, the promise of research, and the importance of energy. We see this Edison biography as a unique part of our ongoing educational efforts to increase the awareness of science and technology among students and teachers."

The booklet tells of the technological growth in the United States. It traces life in America 100 years ago to the present, putting in perspective the explosion of technical knowledge and the genius of men like Edison, Bell, Einstein and Salk. It contains a number of humorous anecdotes, comments from Edison's peers, and citations from contemporary writers.

To purchase the booklet in quantities, write to: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075.

Price will be approximately $60 per hundred copies plus shipping charges from Southfield, Mich. Exact price will be determined by publication costs.

Sixth Annual Energy Technology Conference set for February 26-28, 1979

The Sixth Annual Energy Technology Conference and Exposition, the largest energy conference of its kind ever produced, will be held February 26-28, at the Sheraton Park Hotel in Washington, D.C.

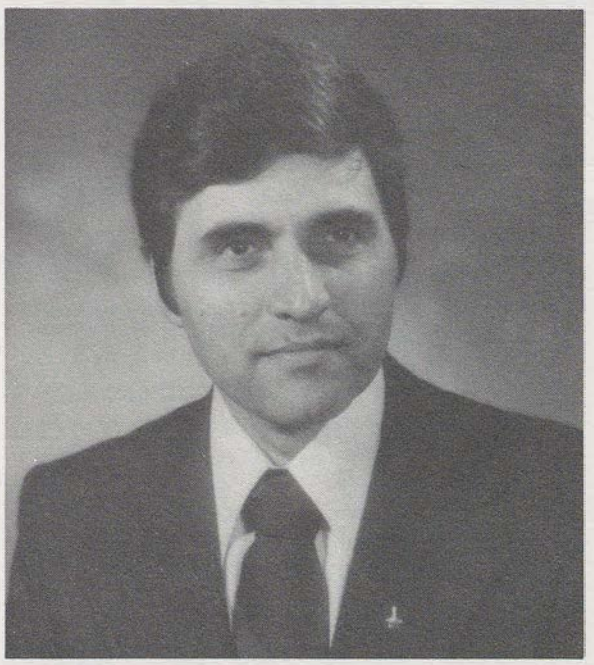
Jointly sponsored by the Thomas Alva Edison Foundation, the Electric Power Research Institute, the American Gas Association, and the Gas Research Institute, it will hold some 50 sessions over a three-day period, covering all aspects of energy. More than 6,000 persons are expected to attend.

There will be sessions on coal and oil, gas, nuclear, solar, thermal and other resource alternatives, as well as industrial energy management and industrial conservation.

According to Thomas F. P. Sullivan, president of the Energy Technology Conference, there will be an exposition as well, with more than 300 exhibits by suppliers of energy hardware and services. Featured among the displays will be one of the Centennial traveling exhibits, created by the Smithsonian Institution.

Prominent speakers

Highlights include a special public session on Monday evening, Feb. 26, devoted to Edison. Speaking on Edison the man will be James G. Cook, president of the Thomas Alva Edison Foundation. Also addressing the public session will be Robert I. Smith, chairman of the Centennial of Light, who is also chairman of Public Service Electric and Gas Co. of New Jersey; and Bernard S. Finn, curator, division of electricity and modern physics, Smithsonian Institution of History and Technology. Also, the annual State of Energy address will be given that evening by Charles Anderson, president of SRI International, a research firm in California, on the annual State of Energy will also be given that evening.



Sen. Harrison Schmitt, former Apollo astronaut, is one of three featured speakers at this year's Energy and Technology Conference.

The luncheon speaker on Feb. 27, will be Dr. John D. Sawhill, president of New York University, former administrator of the Federal Energy Administration under president Gerald Ford, and an energy advisor to the Rockefeller Foundation Trilateral Commission. Dr. Sawhill, who was the Conference's first luncheon speaker in 1974, will discuss how far we have come in the last five years.

The last day of the conference a panel discussion will be held on the World Energy Prospectus, featuring a representative from Congress, the executive branch, and industry. New Mexico Senator Harrison Schmitt, a former Apollo astronaut, will be among the three. The other two will be announced shortly.

Those interested in participating, or wanting more information, should contact: Martin Heavner, Coordinator, Energy Technology Conference Inc., 4733 Bethesda Ave., N.W., Washington, D.C. 20014, telephone (301) 650-1090.

It started with goose eggs



Goose Eggs

Even at an early age Thomas Alva Edison showed an unmistakable mark of an inventor — consummate curiosity.

He was only six years old when his father found him in a neighbor's barn patiently sitting on a nest he has assembled and filled with goose and chicken eggs. When questioned, he told his puzzled father that he wanted to see if he could "hatch eggs like birds do."

Shortly thereafter, just to see what would happen, he built a small fire in his father's barn. He soon found out: a good thrashing from his father for destroying the barn and endangering the neighboring houses. His youthful curiosity also threatened his own life. Investigating the workings of a grain elevator young Edison fell into a huge wheat bin and almost smothered to death.

Some of his first "experiments" were more mischievous than scientific. Ben Franklin's discovery of static electricity inspired him to tie a wire to the tails of two tomcats and rub them together, getting badly clawed in the attempt. He also reportedly gave a playmate a large dose of Seidlitz powder, in the hopes that the gases generated would enable his young friend to fly. The result was a severe stomach ache for his human guinea pig and another session with his father and his switch.

Editors are welcome to use any story published in this newsletter in whole or in part. The publishers ask only that proper credit be given to Edison Centennial News.

New Jersey distributes Edison kit

The first edition of a new Edison teacher's kit, offered to New Jersey elementary and high school teachers for use in supplementing courses was presented to top state officials on Oct. 19, in the governor's officer in Trenton. It was given to Acting Governor Joseph P. Merlino by the representatives from the organizations that sponsored the creation of the kit, the New Jersey Historical Commission, the Edison National Historic Society, and the Eastern National Park and Monument Association.

The contents include reading lists, materials that can be adapted for lesson plans, a study guide on Edison's career, a set of 17 photographs and captions suitable for bulletin boards, a 30-page Edison biography, a study and scientific experiment guide, a poster depicting the ligh bulb's invention, and a 70-page National Park Service book on Edison. In addition, it also contains detailed instructions for students on how they can make their own light bulbs using ordinary glass jars and simple tools.

Historical Commission Executive Director Bernard Bush said, "Our team enjoyed developing the kit particularly in view of its end use. Edison was a fascinating man."

State Sen. Laurance V. Weiss, a member of the Commission's Edison Committee, said, "Edison spent the majority of his career living and working in New Jersey. So, we take special pride in his achievements, and in encouraging wider understanding, particularly among today's youth, of the scientific approach he stood for." He added, "That's why our legislature has designated 1979 as the Thomas Edison Centennial Year in New Jersey. This kit of teaching materials is one way we hope to influence a great many of our young people in the state about the need for technology."

Union, Film executives join ICCL

Charles H. Pillard, international president, International Brotherhood of Electrical Workers, and Donn B. Tatum, chairman of the board, Walt Disney Productions, have joined the International Committee for the Centennial of Light.

This brings the committee to a full membership of 22 leading international executives, representing organizations dependent on the innovations and inventions of Thomas Edison.

Robert I. Smith, Centennial chairman, said, "These two men will add even greater dimension to our highly diversified committee. Both are leading members of industries which were brought about through Edison's genius."

NEES begins Disneyworld selection

Outstanding area teachers and students to attend 23rd International Edison Birthday Celebration

New England Electric System is using a unique three-level selection process to send outstanding high school science seniors and teachers on all-expense-paid trips to the 23rd International Edison Birthday Celebration, sponsored by the Edison Electric Institute and the Thomas Alva Edison Foundation, Feb. 9-12 in Disneyworld, Fla. Runners-up, like winners, will receive awards (such as U.S. Savings Bonds or NEES stock) during a one-day visit to company headquarters in December.

After selection by school principals, candidates will be screened at district and state levels by 23 judging panels representing NEES's service area in Massachusetts, New Hampshire and Rhode Island. Judges will represent the education, media, and business fields. Plans call for state panels to include energy commissioners.

"Community cross-sections on those panels will make balanced choices," said Arthur G. Fox, NEES manager of educational services, "and minimize program participation by our company people."

Many students, many schools

Public and parochial high students in the 220 towns and cities of NEES' territory are now naming 4 to 8 candidates per school, depending on school size.

Next, applications to 20 district panels from students and teachers will include 300-word papers on why they want to attend the Symposium, their science achievements, special-project participation, student grades, and in the case of teachers, published articles. Based on the application, district panels will then select candidates to interview. District finalists—one student and teacher, not necessarily from the same school—will be invited to NEES's Westboro, Mass., headquarters in December for a Mini Science and Engineering Day.

The 40 finalists will visit the company's energy control/dispatching center, hear science and engineering lectures by NEES executives, see topical films, and dine with company officials and state judges. Each panel, after interviewing its home-state candidates, will announce its award-winning student and teacher.

"This approach will have kids, parents, teachers and other community leaders all doing a good deal of thinking about Edison's inventive life and the contributions he made to the quality of our lives," Fox added. "It fits perfectly with the goals of the Centennial and should yield a lot of good publicity for the celebration. We hope it will act as a model for other companies planning to send teachers and students to Disneyworld."

Companies interested in sponsoring students or teachers to attend the birthday celebration, please write to TAEF, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075. All expenses, except for transportation, are paid for by the sponsors, EEI and TAEF. Openings, however, are limited.

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Understanding Edison

Fort Myers: Edison's winter retreat

Edison spent many winter "working vacations" in Fort Myers, Fla., where, over a span of 41 years, he built two chemical labs, a honeymoon cottage, an office and guest house, 7 guest cottages and cultivated a 13-acre tropical garden. Today, the complex and the Edison Museum, completed in 1970, are now city-owned and maintained.

First visit in 1885

Edison first visited Florida to escape the winter of 1885, and recover from a severe cold. He developed an instant romance with the land of the sun and began looking for land on which to build. His exploration led him from railroad's end at Cedar Key, 250 miles north of Fort Myers, to Tampa by paddle-wheel steamer, then further south to the lonely promontory of Punta Rassa. There he met a fellow telegrapher who told him of a location some 18 miles up the Caloosahatchee River where wild bamboo 60 feet tall grew. Forever interested in sources for the imports he was using to make his commercial lamp filaments, he set sail.

Obviously delighted with what he found, he bought 13 acres at river's edge and built a small cottage, where he and his new wife spent a two-month honeymoon while he had 2½-story, 15-room white frame home and adjoining guest house prefabricated in Maine - the first two to be built in this country. He also installed the first modern swimming pool, in a state where such a luxury then, is now considered by most inhabitants to be a convenience.

His researchers collected and cultivated plants in pursuit of various studies and experiments, eventually accumulating over 6,000 species. Still lit through his buried cable-system (he considered poles unsightly), Edison Gardens remains the oldest and most diversified tropical botanical collection in North America. It also contains a number of beehives which provided the wax he needed for his phonograph experiments.

Rubber research

When a U.S. shortage of imported rubber occured in 1927, he and his friends, Henry Ford and Harvey Firestone, formed Edison Botanic Research Company to seek a domestic source. Latex, Edison felt, held the answer. Although he was successful in breeding a strain of goldenrod, the growth of which yielded 12 per cent of the milky white substance, Firestone, using it in a few auto tires, found it could never be a competitively-priced product.

A unique, small museum

The Fort Myers Museum exhibits include the oldest, newest, smallest and largest electric light bulbs, the latter made for Light's Diamond Jubilee in 1954. It's 42 inches high, with a 2.7-pound tungsten filament, and uses 50,000 watts to produce 2.4 million lumens (2,874 times the light produced by today's 60-watt household bulb).

A record of 64,000 visitors to the home and museum in March saw such Edisonia as: the talking doll Edison made in the 1890s when his wife asked "something special" for a neighbor's small, ill daughter.



Edison's winter home, shipped to Fort Myers from Maine via four schooners, was the world's first prefabricated house.

CENTENNIAL OF LIGHT 1879 1979
Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

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Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additonal information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561.

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EDISON, CENTENNIAL 1979

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DECEMBER 1978 VOLUME I NUMBER 4

Edison Birthday Symposium still has openings

A growing number of companies, both electric utilities and others, have already confirmed sponsorship of students and teachers to attend the 23rd International Edison Birthday Celebration at Disneyworld in Orlando, Fla., set for Feb. 9-12. According to James G. Cook, president of the Thomas Alva Edison Foundation, co-sponsor of the celebration, a record number of companies participating in the annual event is anticipated.

Latin America represented

Cook said General Electric plans to send a number of students and teachers from the U.S. and Latin American countries in which its plants are located, while McGraw-Edison Company will sponsor student-teacher combinations from nine states. Firestone Tire and Rubber Co. will send students and teachers from 11 different plant city locations across the nation.

Other participating companies include Gibbs & Hill, A.B. Dick, IBM, and Motorola. Companies in New Zealand, Australia and Taiwan and a number of other countries also will send delegates to Orlando.

The Thomas Alva Edison Foundation is sponsoring the three-day conference in conjunction with the Edison

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Major media briefed

Three separate briefings were held during the latter part of November to inform national communicators about all aspects of the Centennial celebration programs.

The first was for some 50 consumer publication editors and writers on Nov. 16. Publications represented included Life, Readers Digest, House Beautiful, Dun's Review, the New York Times News Service and Seventeen. An industry trade press meeting on Nov. 28 attracted such journals as Public Utilities Fortnightly, Lighting Design and Application, ASHRAE Journal, IEEE Spectrum, Electrical World and Engineering News Record.

The last briefing was held on Nov. 29 for more than 90 representatives of major public relations agencies and communications departments of leading corporations located in the New York metropolitan area.

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Rose Parade float opens 1979 phase of Centennial year

The 1979 phase of the International Centennial of Light will be "kicked off" in Pasadena, Calif., on New Year's Day with a Tournament of Roses parade float. The parade will be telecast live over NBC and CBS stations, as well as Canadian and Mexican television, at 11:30 a.m. EST.

A life-size floral statue of Thomas Alva Edison holding a replica of the first incandescent lamp will be flanked by real-life students in a simulated college quadrangle setting carrying the theme of "Achievement Through Endeavor". The float will also pay tribute to the Universities of Southern California and Michigan. Their football teams will clash in the Rose Bowl that afternoon.

Like all Rose Parade entries, the Centennial float will be made completely of flowers, including the statue, the pedestal on which the statue will stand, the Centennial logo, and the crests of 20 colleges the 1979 Tournament is honoring.

TV audience of 50 million

The five-and-a-half mile parade is expected to be viewed by more than one-and-a-half million people lining the Pasadena parade route and by another 50 million people on national television. In addition, the Tournament of Roses Association will produce a film of the parade for distribution to civic groups, schools, business, social and sports groups, as well as to movie theaters throughout the world.

As the second phase of the Centennial year begins we wish to express our hope that it will bring about a renewed faith in ingenuity and technological progress . . . And the prosperity that goes with it. To All Our Readers: A Happy Centennial Year.

The International Committee.

Media *continued from page 1*

Centennial goal described

Each briefing featured a fast-moving, multi-media program on the Centennial of Light, its significance, and the events planned to "regenerate man's enthusiasm for invention and innovation." In follow-up remarks, James G. Cook, president of the Thomas Alva Edison Foundation, sponsor of the Centennial, said the Centennial of Light was not going to be "a succession of memorial services to perpetuate Edison's name and works, but an opportunity to show the value of technology in today's world. Its goal is to bring about an understanding and acceptance for the need for scientific and technological advancement to better the quality of life by calling attention to the 100th anniversary of one of the world's most important inventions."

Cook emphasized that the United States' "most valuable asset is its technology and we must face the fact that we must increase its growth to successfully barter in the world market. Instead," he noted, "we seem to be going the other way. No longer are we offering leadership in research and development or reinvesting money in developing new technologies. If this decline is not halted, then we are in trouble, not only in our balance of payments but in presenting a negative image with respect to finding solutions to the world's problems."

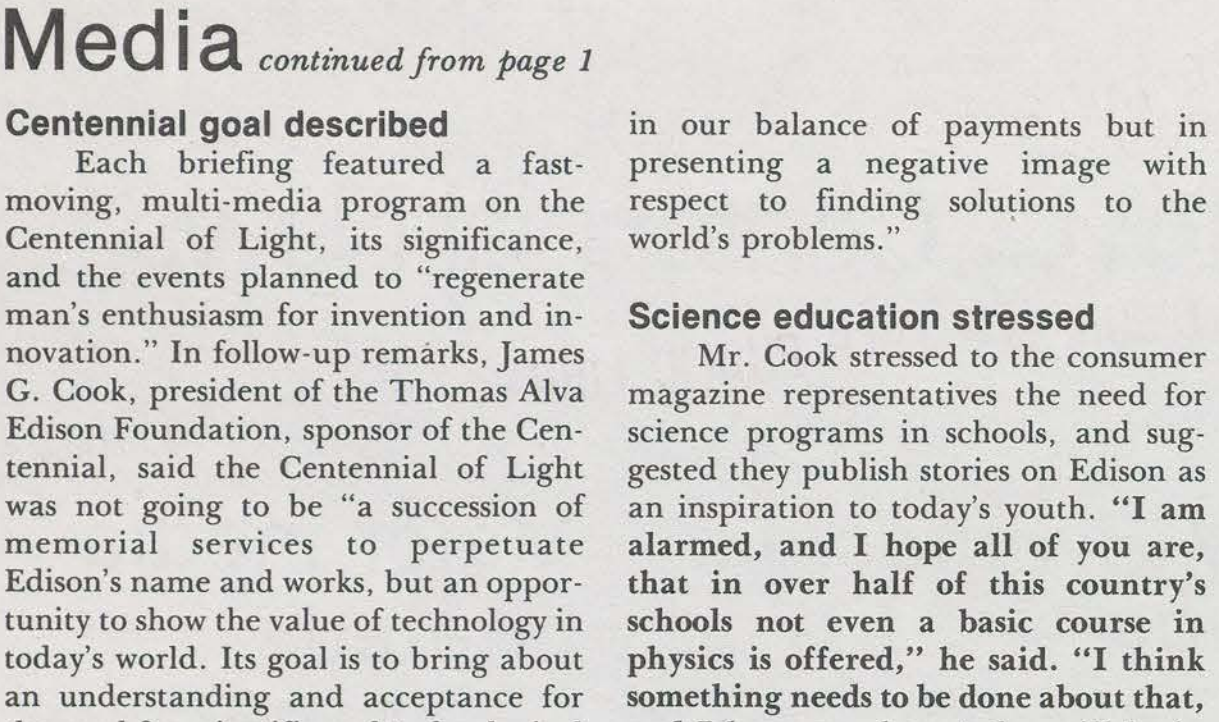
Science education stressed

Mr. Cook stressed to the consumer magazine representatives the need for science programs in schools, and suggested they publish stories on Edison as an inspiration to today's youth. **"I am alarmed, and I hope all of you are, that in over half of this country's schools not even a basic course in physics is offered," he said. "I think something needs to be done about that, and I hope you here today will be in the forefront of renewing again the dire need for scientific careers."**

Mr. Cook urged public relations agencies and corporate communications executives to interest the companies they represent to support scholarship programs for youths and to participate in the numerous Edison science conferences throughout the country by sponsoring students to attend. He also suggested that they seek ways in which their companies can effectively tie in to the Centennial by holding Centennial-related conferences of their own, and through use of the Centennial logo on their stationery and in their publications and other communications output.

Trade press role

Trade press industry representatives, Mr. Cook said, can effectively spread the word of the Centennial and its meaning to the industries they serve. "There isn't an industry in existence today that cannot in some way show its dependence on the work of Thomas Edison," Cook pointed out. "But today, I don't see enough 'Edisons' coming out of our nation's schools. Nor, could any one 'Edison' have the same impact on economic growth a century from now as did Edison 100 years ago. Even the number of U.S. patent applications has suffered a precipitous decline in the past 10 years, in comparison to many other countries."



One of the five "Edison Activity Sheets" in this quarter's issue of Energy Bulletin, published by Reddy Communications Inc., depicts a "time-line" drawing of Edison's life and inventions. The other four list his inventions, his pioneering work with electricity, his "creation" of industrial research and development, and many of the technological and scientific advancements he made to improve the quality of human life.

Alabama Power sponsors art poster contest

The Alabama Power Co. is sponsoring a Centennial poster contest for students in kindergarten through grade 12 in all Alabama schools.

The overall winner of the four-category competition will receive shares of common stock in Alabama Power, according to Craig Battles, the utility's director of educational programs.

First, second and third place winners in the four categories will receive a special Centennial of Light medallion commemorating the 100th anniversary of Thomas Edison's most illustrious invention, the incandescent lamp.

Contest categories include kindergarten through third grades; fourth through sixth grades; seventh through ninth grades; and 10th through 12th grades.

A contestant's entry may be up to 28 by 36 inches in size, in oil paint, acrylic, water color, pastels, pen or pencil, silk screen, and wood or linoleum block. Each entry must have as its theme the Centennial of Light and the importance of science and technology to today's world. Poster entries must be submitted by Feb. 12.

Birthday

continued from page 1.

Programs held each year throughout the U.S. and 23 other nations.

The symposium will underscore the Centennial's international objectives and emphasize the importance of careers in science and technology for today's youth, both here and abroad.

Behind-the-scenes tours

The three-day program will include morning lectures by eminent industry leaders and scientists, plus afternoon behind-the-scenes looks at the technology which has helped make Disneyworld one of America's most popular family attractions. Participants will examine the workings of the major exhibits that have won worldwide acclaim for this intricate recreational complex.

There are still a few openings left for students and teachers to participate. There are still some states that are not yet represented. Companies wishing to sponsor students, teachers and corporate representatives should contact Mr. James G. Cook at the Thomas Alva Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich., 48075. Telephone: (313) 559-1780.

Bronze Medallion available

The official International Centennial of Light bronze medallions, two and three quarter inches in diameter, are being produced by the Village Mint of Southfield, Mich., for worldwide distribution and sale to all companies, institutes and foundations who wish to join in the commemoration of the Centennial.

Eminent sculptor

According to V. Reo Campion, president of the Village Mint, "The medallion, designed by eminent sculptor Mico Kaufman, will be of exceptionally high quality. Kaufman designed the official vice-presidential and presidential medals for Gerald Ford, and was named 'Sculptor-of-the-Year' in 1978 by the American Numismatic Association."

The front of the medallion features a portrait of Edison, with the words, "Centennial of Light" inscribed above, and the Centennial symbol inscribed below. On the reverse, the lighting of the first incandescent lamp is depicted, and "Thomas Alva Edison, The Wizard of Menlo Park" is inscribed on the perimeter.

Choice of design

Participating organizations have the option of selecting just one side of the medallion and personalizing the reverse with their own design and company message.

The medallions go on sale Feb. 11, Edison's birthday, priced at $17.95 each. (Quantity discounts are available.) Deep-well presentation stands with metal easels are offered at an additional 75 cents each.

For more information contact: The Village Mint, Room 200, 26011 Evergreen, Southfield, Mich. 48075 or the Thomas Alva Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075. Telephone: (313) 559-1780.

Upcoming Centennial Events

Edison Pageant of Light, February 1-14, 1979: Celebration will include parades, school band competition and exhibits, in Fort Myers, Florida, Edison's winter home and laboratory.

Greenfield Village Special Exhibits, February 11, 1979: Greenfield Village, of the Edison Institute, will open special exhibits in the Menlo Park Compound. They also reactivate the Menlo Park Machine Shop.

Edison Science Youth Days, February 11, 1979: Sponsored by the Thomas Alva Edison Foundation, Science Youth Days will be held in cities around the world for students and teachers. They focus on all aspects of Edison's creative and scientifc life.

"Famous Americans" Lecture Series, February 11, 1979: Greenfield Village will begin a series of "Famous Americans" lectures, starting with Edison.

Induction Ceremony, Inventors Hall of Fame, February 11, 1979: The new Inventors Hall of Fame at the U.S. Patent Office, Arlington, Va. will be dedicated, with an induction ceremony for Edison. Souvenir booklet will be given to all visitors.

Japan planning Centennial events

The Japan Electric Association is planning numerous events to celebrate the International Centennial of Light Year, including a 1979 tour of Edison historic sites by Japanese executives and government officials.

According to Goro Inouye, retired acting chairman of the Japan Atomic Energy Commission, the Association is also considering an Illumination Culture Exhibition in October and an Oct. 21 commemorative lecture entitled "Edison and the Invention of the Electric Light Bulb."

Other organizations participating in Japanese commemorative planning include the National Science Museum, the Illuminating Engineering Institute of Japan, the Japan Luminaire Association, the Japan Electric Lamp Manufacturers Association, and the Federation of Electric Power Companies.

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Edison papers project agreement signed

Rutgers, Smithsonian, N.J. Historical Commission and National Park Service agree to support 20-year study

A $5 million, 20-year project under which Rutgers University will compile and publish the papers of Thomas Edison was launched with the signing of formal documents at the Museum of History and Technology of the Smithsonian Institution, Washington, D.C., on Nov. 3.

Taking part in the ceremony were Dr. Otto Mayr, acting director of the Museum; Dr. Paul Pearson, acting president of Rutgers; Ira J. Hutchinson, deputy director of the National Park Service; Bernard Bush, director of the New Jersey Historical Commission; and Dr. Reese Jenkins, director and editor of the project, which will be centered at Rutgers' New Brunswick campus.

15-20 volumes to be published

Much of the work will be done at the nearby Edison National Historic Site in West Orange, N.J., where the greatest collection of "Edisonia" is located. The site is maintained by the National Park Service.

When the project is completed, 15 to 20 volumes of Edison's papers and notebooks will have been published. In addition, all of the material collected will be microfilmed for future reference by historians and scientists. Special popular and pictorial volumes covering Edison's inventions and their impact on mankind are also planned.

2,800 laboratory notebooks

Edison left some 2,800 laboratory notebooks—estimated at two million pages—as well as about 10 thousand artifacts and an equal number of glass plate photographic negatives.

Although much of the material is housed in the West Orange historic site, additional "Edisonia" are available at Dearborn, Mich., where his friend Henry Ford established the Edison Institute, and at the inventor's winter home in Fort Myers, Fla. Private collections are scattered throughout the world.

Dr. Jenkins pointed out at the signing ceremonies that the materials he and his team are assembling will comprise a treasure trove of late 19th and 20th century technology. Because Edison reduced almost all his thoughts to paper, he said, these writings provide a unique "foundation of historical understanding" of the man and his times.

The Rutgers project was initiated after a feasibility study, funded by the Edison Electric Institute, determined that it would be a highly effective means of perpetuating the pioneering spirit of Edison.



Examining artifacts after signing agreement to cooperate and fund the 20-year Edison Papers Project are, left to right, Dr. Paul Pearson, acting president, Rutgers University; Bernard Bush, director, New Jersey Historical Commission; Ira J. Hutchinson, deputy director, National Park Service; and Dr. Otto Mayr, acting director, Museum of History and Technology, Smithsonian Institution.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Pat Hamilton, Jan Wright Livvy Floren
Editorial Assistant, Kathleen D'Aloise
Staff Assistant, Swea Nightingale

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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"Ask At Desk" EDISON CENTENNIAL 1979

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CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

JANUARY 1979 VOLUME 2 NUMBER 1

Netherlands gets celebration underway

Criss-crossing laser-light beams lit up the skies over Eindhoven, Holland, for 10 nights in late December as Dutch leaders launched "Light '79," a year-long salute to Edison. The beams interconnected business, government and educational buildings in the area.

A city of 200,000, Eindhoven is the home of the national University of Technology, principal sponsor of the 20-event commemoration. It is also headquarters for Philips, N.V, a major international electrical and electronics equipment manufacturer.

The "Light '79" concept was developed by University officials Leopold Manche and Alexander van der Eijnde, with help from about 300 educators, businessmen and government officials. A German artist, Horst

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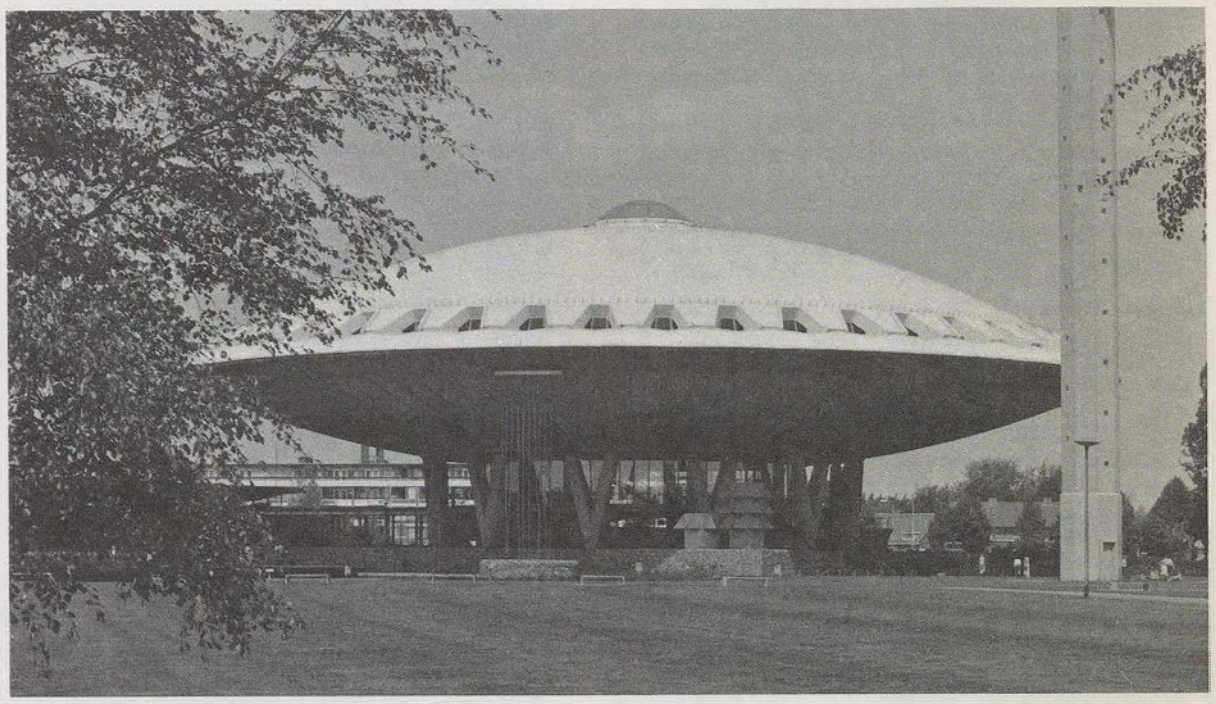


"The Evoluon"—the Philips Science Exhibition Center in Eindhoven—will house light exhibit through June 1980.

EPRI announces final program for Edison Centennial Symposium

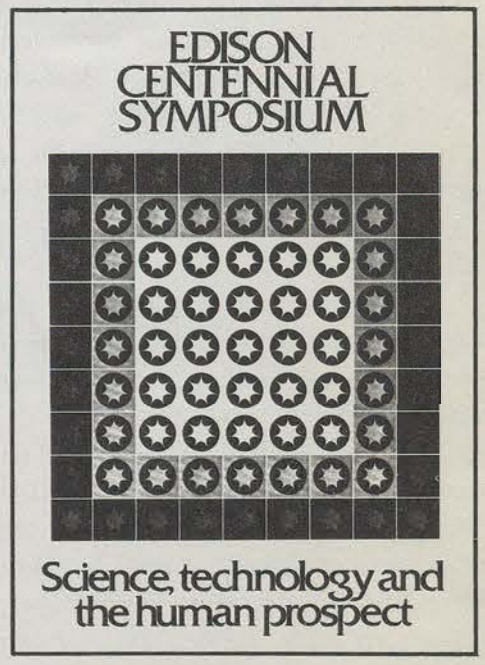
The Edison Centennial Symposium on "Science, Technology and the Human Prospect," scheduled for San Francisco April 1-4, will include an opening-day audiovisual spectacular, providing an impressionistic review of technology and society during the last century. In addition, there will be exhibits from the Smithsonian Institution and Pacific Gas and Electric Company displaying Edison memorabilia and other electricity artifacts.

Another highlight of the symposium at the San Francisco Hilton will be the April 3rd banquet, when the 1979 inductees to the National Inventors Hall of Fame will be honored: Jay W. Forrester, Concord, Mass.; Charles J. Plank and Edward J. Rosinski, Mobil Oil Corp.; and Robert H. Goddard (deceased), pioneer space scientist.

1,000 to attend

Co-sponsored by the Electric Power Research Institute (EPRI) and the Thomas Alva Edison Foundation (TAEF), the symposium will bring together 1,000 science, industry, government, academic, and media leaders to examine current issues and future directions for science and technology.

"We hope to provide a focus during the Centennial year for reassessing the past, present, and future role of science and technology in society," said Chauncey Starr, symposium chairman and vice chairman of EPRI, the research arm of the nation's electric utilities. "The meeting will address both the positive and negative effects of scientific discovery and technological innovation on lifestyles and human welfare."



Symposium planners say this reexamination is timely, coming when science and technology are being

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More statements from ICCL members



Raymond C. Firestone, Chairman retired, Firestone Tire and Rubber Corporation

Thomas Edison was not only a great inventor, but a great man. His contributions to society and civilization's progress were immense. My family's association with Thomas Edison was close, and it is my hope that the ideals and *concern* he had for the world will be emphasized *and appreciated* by all of us during the celebration of the International Centennial of Light.

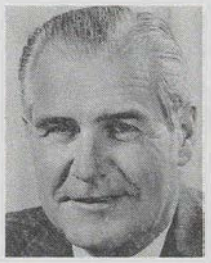


A.B. Dick III Chairman, A.B. Dick & Co.

Since Thomas Alva Edison was one of the most prolific inventors in the history of our country, A.B. Dick Company is honored to join with others in the celebration of the "Centennial of Light." In doing so we wish to underscore the enthusiasm he showed for invention, as we firmly believe that the degree of future comfort, safety, and welfare of the world will be in direct relation to the novel ideas that can be focused on its problems.

Through his inspiration and untiring efforts in the fields of electronics, electromechanical, and chemical engineering, Mr. Edison not only spawned new industries, but also made contributions to mankind which raised our standard of living to new heights. One example is A.B. Dick Company, an early beneficiary of one of his inventions, whose first product, the Edison Mimeograph, was manufactured and sold in 1887 under the Thomas Edison Autographic Printing patent of 1880. This invention by itself not only was the beginning of our company, but also continues to this day to provide benefits which help religious organizations, education, commerce and industry to be more effective.

Today the need for invention, innovation, and discovery is more pressing than ever before to provide answers to the many needs of mankind. The Centennial of Light celebration can serve as a focus for our dedication in providing these answers.



William M. Ellinghaus, Vice Chairman of the Board, American Telephone and Telegraph Co.

Thomas Edison's contributions to the telephone industry extend beyond such scientific achievements as the improvement of the telephone transmitter through the use of granules of carbonized hard coal. Were it not for him, telephone callers might still be greeting each other with terms like "Ahoy!," as they did before Edison discovered that a shouted "Hello!" could be heard more distinctly from a receiving telephone. He's generally credited, therefore, with popularizing the greeting that to this day initiates millions of phone calls here and abroad.

Perhaps more important, Edison is also recognized as the father of industrial research — a lesser known but equally important achievement for which all of America should be eternally grateful. By convincing business that organized research could keep our country in the forefront of technological achievement, Edison laid the groundwork for more than a half century of American technological leadership throughout the world. Certainly the Bell System owes a large share of its success to the research and development record of Bell Telephone Laboratories, which only recently added two more Nobel Prize winners to its growing list of laureates.

We at AT&T are genuinely honored to be able to participate in the year-long celebration of the life of one of America's great men of science.



Goro Inouye, Acting Chairman Japan Atomic Energy Commission

Of all the overseas technology introduced to Japan since the Meiji restoration and the opening up of Japan to the rest of the world, the people of Japan owe most to the inventions of Thomas Edison.

The introduction of the incandescent light is of especial interest to us. Only six years after Edison invented the electric light, a private electric light company commenced operations in Tokyo, introducing the invention with surprising rapidity for the time. The long-life carbon filament, which Edison went to the greatest pains to develop, used Japanese bamboo as its raw material and at the Yawata Shrine near where it was grown a stone monument to Edison has been set up. Each year, on Edison's birthday, people associated with the electricity industry gather at the monument for a memorial service.

It is to be hoped that this memorable Centennial will be celebrated not only by the United States, but the whole world, holding Edison's achievements up as a stimulus to the young people of today.

Netherlands

continued from page 1

Baumann, arranged the laser beam project.

Exhibit opened Dec. 20

Opening ceremonies took place in the "Evoluon," the Philips Science Exhibition Center, which will house the company's "100 Years of Electric Light" exhibit through June 1980. Board Chairman N. Rodenburg and several colleagues officially open the exhibit to the media and public on Dec. 20.

A "Lighting Effects in Art" exhibition will be on view at the University throughout the month of February. It will move on to Limburg, a nearby university town, for most of April.

The University at Eindhoven will also house a "Sculptures in Light" exhibit between Feb. 15 and March 18, and holography workshops in March and April. A local shopping mall will hold an exhibit of holograms between April 10 and May 20.



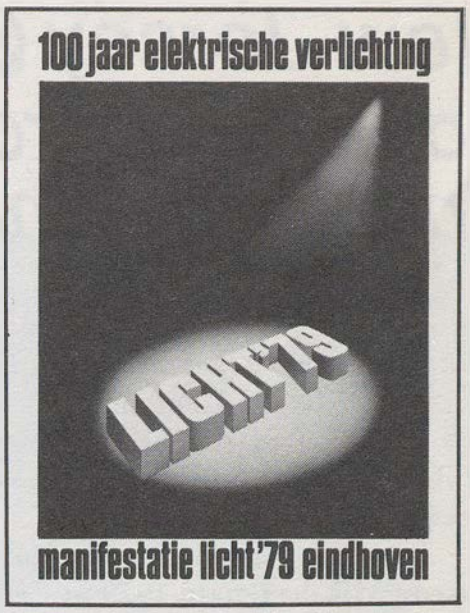
Laser-light beams interconnected in a half-dozen major buildings in Eindhoven, Holland, in December 1978 to inaugurate civic celebration.

Several "Light 79" activities are planned for April when the Dutch Association of Education in Natural Sciences and the Dutch Physics Association convene congresses in Eindhoven. The Dutch Foundation for Lighting Sciences meets there early in May.

Art and photography

Student art projects on light themes will be exhibited in mid-April, along with the University's own "Lighting in Science and Technology" exhibit. Light use symposia are set for early May. Besides an exhibition on theater photography also scheduled in May, Eindhoven's Municipal Theater will feature "shadow plays" throughout the summer and a Czech "light show" troupe in October. During November and December there will be exhibitions of audiovisual projects submitted by senior citizens for judging by the Eindhoven Foundation for Artistic Education.

Light-oriented themes will also be featured in the city's plans for a major civic event in 1982, when Eindhoven celebrates its own 1,720th birthday. ◻



Logo of "Light '79," year-long Dutch commemoration of the Centennial of Light.

50 years ago

Light's Golden Jubilee

On Oct. 21, 1929, millions worldwide listened to their radios as a narrator described, in exacting detail, Edison recreating his invention of the incandescent light 50 years earlier.

Standing in the Menlo Park laboratory, which his friend Henry Ford had transplanted from New Jersey to Dearborn, Mich., Edison threw a switch lighting up a replica of his bulb.

The event climaxed a year-long celebration—"Light's Golden Jubilee"—and was followed by a party which Ford had arranged for 500 dignitaries, headed by President and Mrs. Herbert Hoover. Other guests included Walter P. Chrysler, Marie Curie, George Eastman, Harvey S. Firestone, Charles and William Mayo, Henry Morgenthau, John D. Rockefeller Jr., Will Rogers and Orville Wright.

In Menlo Park, N.J., three of Edison's children gathered with a handful of the original "Edison Pioneers" (his early co-workers) and 3,000 guests. They watched as Edison, by remote control from Dearborn, lit a crystal bulb atop a 112-foot tower to burn perpetually in his honor. The bulb is still lit.

Plans for the celebration originated at the "Pioneers" annual meeting on Feb. 11, 1929. The idea spread rapidly,

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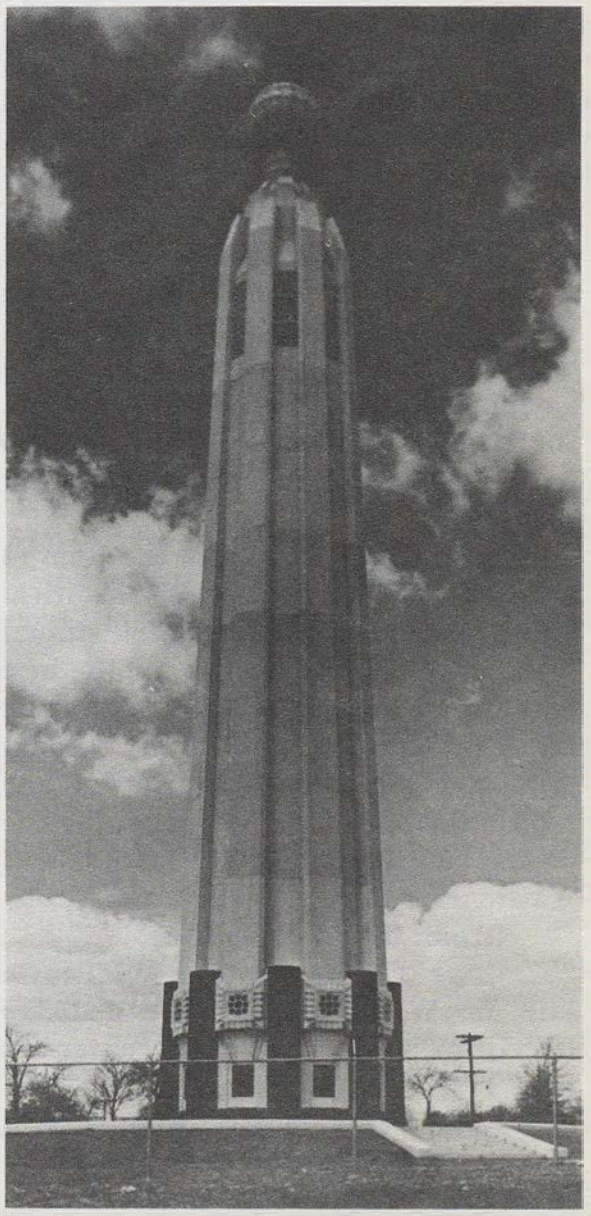


Edison Monument at West Orange, N.J., dedicated in 1929, the Golden Jubilee of Edison's invention.

New Jersey Centennial functions to include education programs, exhibitions, publications and ceremonial activities

Throughout 1979, organizations and groups in New Jersey are planning to commemorate the Centennial of Light with an array of education programs, exhibitions, publications, ceremonial observances and other activities.

A pending legislative resolution if passed, will designate 1979 as "Edison Centennial Year" in New Jersey. Senator Laurence S. Weiss of Middlesex County, a member of the New Jersey Historical Commission, is its chief sponsor.

In addition to the Edison Papers Project described in the December issue and the "100 Years of Light" packet of materials on Edison's career and inventions for schools and community groups reported in November, the New Jersey Historical Commission and the Edison National Historic Site of the National Park Service will conduct a symposium in Newark on Oct. 19-20 to consider Edison's impact on modern society.

An Edison Centennial Exhibition also is being prepared jointly by the Newark Museum and the State Museum, with financial assistance from the Commission. It will open in October at the Newark Museum and then move to the State Museum in Trenton at a later date.

Through a grant from the Charles Edison Fund, the New Jersey Historical Society has established a $2,000 annual Thomas Alva Edison Prize for the best manuscript on New Jersey economic history. Also, schools and student groups with qualifying projects on the Edison theme will be designated by the Society as "Centennial Schools" and "Centennial Clubs."

Other activities include:

•The Edison National Historic Site in West Orange will dedicate its visitor and exhibition center on Feb. 11.

•The Historical Commission's Annual Teachers' Workshop on March 21 will focus on the Edison Centennial.

•Edison Township, which has leased the Edison State Park and Memorial Tower from the State Department of Environmental Protection, plans to reenact the lighting of Christie Street, where Edison's Menlo Park Laboratory was located.

•The town of West Orange plans a commemorative weekend on Oct. 20-21, which among other events, will feature a parade.

•A special stamp cancellation—"Union County Thomas Alva Edison Centennial"—will be used during January 1979 at the Elizabeth Post Office.

The Historical Commission's Edison Centennial Committee is chaired by John T. Cunningham, the historian.

The Commission acts as a clearinghouse of information on Edison Centennial projects in New Jersey and additional activities and plans in the state concerning the celebration should be reported to the Commission at 113 W. State St., Trenton, N.J. 08625.



Sen. Laurence S. Weiss (far left), of New Jersey, a member of the New Jersey Historical Commission and sponsor of legislation to designate 1979 as the Thomas A. Edison Centennial year, participated in recent ceremonies to inaugurate New Jersey's celebration of the 100th anniversary of the invention of the light bulb in Menlo Park, N.J. Commissioner of Education Fred G. Burke and Acting Gov. Joseph P. Merlino received the first copies of the Thomas A. Edison Centennial Information Kits, which were produced by the New Jersey Historical Commission, the New Jersey Historical Society and the National Park Service with the aid of a $5,000 grant from the Charles Edison Fund of East Orange, N.J. Looking on (far right) is John D. Venable of the Edison Fund.

Charles Edison Fund contributes valued support to Centennial

The Charles Edison Fund of East Orange, N.J., founded March 3, 1948, by Thomas Alva Edison's elder son, is an endowed philanthropic institution dedicated to supporting worthwhile endeavors within the areas of medical research, science education and historic preservation. It allocates funds to many organizations, mostly in the northeastern U.S., by evaluating their written applications and selecting those considered most promising. It also operates two long-term programs of its own: museum display and science education.

In addition to involving itself with special projects such as the New Jersey teacher's information kit, the Fund supports the Centennial through its recent grant to the New Jersey Historical Society, which now offers a $2,000 annual prize and guaranteed publication for the best book-length manuscript on the state's economic history.

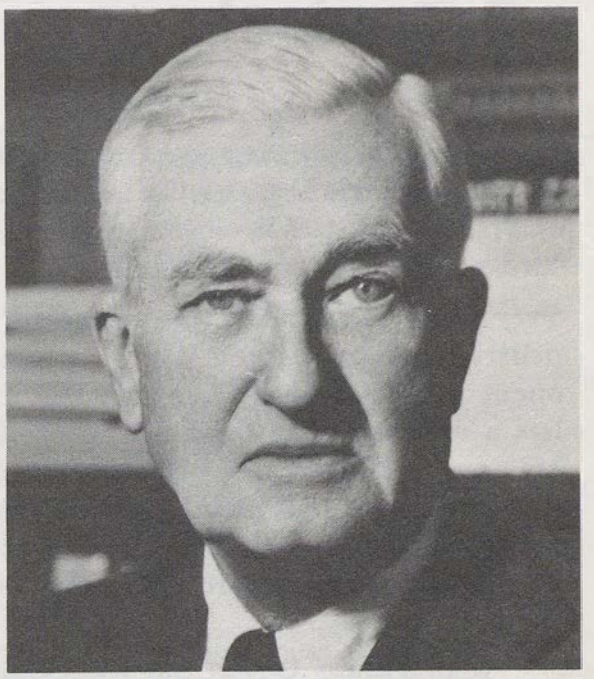
The Fund's large collection of Edisonia, including early electric lamps, vintage phonographs and motion picture projectors, is on display in 80 U.S. museums. From time to time the items are moved from one museum to another to give them greater public exposure.

Another continuing project is to supply the Fund's own teaching kits to junior and senior high schools. Over the past decade, more than 10,000 teachers have used the materials. The goal of this program is to interest students in science by helping them to duplicate experiments done long ago by inventors and scientists.

Former governor of New Jersey

Charles Edison, its founder, died July 31, 1969, three days before his 80th birthday. He was secretary of the navy from 1937 to 1940, and governor of New Jersey from 1940 to 1944. He was also chairman of Thomas A. Edison Inc. for many years.

The Fund's officers are Paul J. Christiansen, president; Roger M. Dolan, vice president, and David O. Schantz, secretary-treasurer. In addition to Christiansen and Dolan, trustees include Mrs. Nancy Miller Arnn, James E. Howe, Edward G. Orbann, Miss Alice F. Stevenson, John D. Venable and Melvin J. Weig.



Governor Charles Edison

Inventors Hall of Fame to hold Edison Day Oct. 21

The National Council of Patent Law Associations will commemorate Edison's invention of the light bulb at the U.S. Patent and Trademark Office in Arlington, Va., on Centennial Day, Oct. 21, 1979, with special ceremonies at the Inventors Hall of Fame, according to H. Hume Matthews, chairman of the Edison Centennial Committee of the Council.

At the National Council meeting on Oct. 18, Mr. Matthews said, the Council voted three resolutions to actively participate in the Centennial of Light. First, it will urge local patent lawyers associations to participate in community Centennial events. Second, it voted to actively participate in the Edison Centennial Symposium in San Francisco April 1-4, which is cosponsored by the Electric Power Research Institute and the Thomas Alva Edison Foundation.

The third resolution calls for a special ceremony at the Hall of Fame, which will include an induction ceremony, a special exhibit, a number of speakers and the showing of related films. According to Matthews, "We want this to be a unique event to honor Edison, something that will go beyond our normal celebration of his birthday on Feb. 11."

Established 1973

The National Inventors Hall of Fame was established in 1973 by the National Council of Patent Law Associations, in cooperation with the U.S. Patent and Trademark Office, to honor the role of new technology and the dependence for that technology on the genius of inventors.

Edison was the first inductee in 1973. In 1974, Alexander Graham Bell was honored for the invention of the telephone and Eli Whitney for the cotton gin. Also singled out at that time were Drs. John Bardeen, Walter H. Brattain and William Shockley, inventors of the transistor. In 1975, Wilbur and Orville Wright were inducted for the airplane; Guglielmo Marconi for radio telegraphy; Nikola Tesla for induction motors; Samuel F.B. Morse for the telegraph; and Dr. William D. Coolidge for the tungsten lamp filament and the x-ray tube.

In 1976, honorees were Cyrus H. McCormick, inventor of the reaper; Charles M. Hall, who invented the first practical process for manufacturing aluminum; Charles Goodyear, inventor of vulcanized rubber; Enrico Fermi, for his invention of the neutronic reactor; Rudolf Diesel, who devised the first successful internal combustion engine; and Charles H. Townes, whose numerous works gave the world the maser, which is the basis for microwave radiation.

Edwin Land inducted

In 1977, George Eastman was honored for developing a method and the apparatus for coating plates for use in photography; Dr. Lee DeForest, for

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Disney World Engineering: first you build a power plant

Millions of tourists are served each year by Reedy Creek Utilities Co., but you won't find it listed in any of the standard power company directories.

That's because it's the "in-house" utility for Walt Disney World, which opened in 1975 near Orlando, Fla. It has a maximum power demand of 40 MW and a 26 MW daily load. Most of its 100 miles of 12KV and 69KV cables are installed in underground duct banks. The rest are directly buried or strung overhead.

Walt Disney World was conceived by the late, highly gifted cartoonist in the early 1960s. Detailed planning got underway in the mid-Sixties, and final design in 1968. Total cost of the complex to date is more than $700 million. About 1200 people work directly in technical design, construction, operation and maintenance of the complex.

Electrical engineers at WED Enterprises, Glendale, Calif., handled the basic electrical design work. (The "WED" stands for Walter Elias Disney.) To begin with, they faced high esthetic and reliability standards imposed by the Disney organization. Complicating their work was the fact that the complex property is in the most lightning-prone section in the U.S. and sits on a high-water-table. Swamplike conditions prevailed at the start of construction. Faced with a relatively short construction schedule for such a huge facility, the design team was often only a step ahead of the construction crews.

The designers were also deeply involved in planning for the WEDWay transportation system which has since carried 15 million passengers throughout the park. Powered by a linear induction motor, it is the prototype of an urban mass transit system certified by the U.S. Department of Transportation.

PROGRAM

23rd INTERNATIONAL EDISON BIRTHDAY CELEBRATION

Walt Disney World - Contemporary Hotel
Orlando, Florida

Friday, February 9,, 1979		
3:00-4:00 p.m.		Arrival of Guests REGISTRATION
6:00-6:45 p.m.	Hemisphere Lounge	Welcome Reception
6:45-7:45 p.m.	Columbia Room	Meeting
7:45-9:45 p.m.	Continental Room	Dinner WELCOME Mr. Donn B. Tatum Chairman Walt Disney Productions
8:45-9:45 p.m.	Columbia Room	Social Hour for Students and Teachers
Saturday, February 10, 1979		
7:15-8:15 a.m.	Continental Room	Breakfast
8:00-8:30 a.m.		REGISTRATION-Orlando area students and teachers
8:30-9:00 a.m.		Special Edison Slide Presentation and Welcome Remarks Dr. Trevor Colbourn President University of Central Florida Mr. W. Donham Crawford Vice Chairman Thomas Alva Edison Foundation Mr. William McCollam, Jr. President Edison Electric Institute
9:15 a.m.	Columbia Room	OPENING ADDRESS "Lucky Accidents, Great Discoveries and the Prepared Mind" Dr. Hubert N. Alyea Professor of Chemistry Princeton University Princeton, New Jersey
10:00 a.m.		QUESTION & ANSWER SESSION
10:30 a.m.		BREAK
10:45 a.m.		SIMULTANEOUS SESSIONS
	Atlantic Room	"Advances in Heart Disease" Dr. Michael E. DeBakey President & Chief Executive Officer Baylor College of Medicine Houston, Texas
	Pacific Room	"Geological Aspects of Nuclear Waste Disposal" Dr. Klaus Keil Institute of Meteoritics University of New Mexico
	Columbia Room	"Recent Advances in Laser Holography-A Demonstrated Lecture" Dr. Tung H. Jeong, Professor and Acting Chairman Department of Physics Lake Forest College Lake Forest, Illinois
11:30 a.m.		QUESTION & ANSWER SESSION
12:15 p.m.	Continental Room	Luncheon
1:15 p.m.	Assemble at Contemporary Flagpole	A Look at Disney Technology One half of the students and teachers will be taken on a behind-the-scenes tour of Disney World for a first-hand look at advanced technology used by the Disney Corporation. Special tours will include solar facilities, water purification technology and sewage treatment plant.
8:00 p.m.	Atlantic Room/ Pacific Room	Dinner and a Special Disney Show, "Lady America"
Sunday, February 11, 1979		
6:45-7:45 a.m.	Continental Room	Breakfast
9:15 a.m.		SIMULTANEOUS SESSIONS
	Atlantic Room	"Science & Ethics" Dr. Paul David Saltman Vice Chancellor-Academic Affairs University of California La Jolla, California
	Pacific Room	Dr. Melvin Calvin Associate Director Lawrence Radiation Laboratory University of California Berkeley, California
10:00 a.m.		QUESTION & ANSWER SESSION
10:30 a.m.		BREAK
10:45 a.m.		SIMULTANEOUS SESSIONS
	Columbia Room	"Plate Tectonics - Seafloor Spreading, A Revolutionary New Concept of the Earth's Behavior" Dr. Tuzo Wilson Director General Ontario Science Center Donn Mills, Ontario
	Atlantic Room	"Expotential Growth & The Energy Crisis - Magneto-hydrodynamics, One Alternative" Dr. Mac Rugheimer Assistant Dean of the College of Letters & Science Montana State University Bozeman, Montana
	Pacific Room	"Fiber Optics Communications" Dr. Ronald L. Phillips Associate Professor of Engineering University of Central Florida Orlando, Florida
11:30 a.m.		QUESTION & ANSWER SESSION
12:15 p.m.	Continental Room	Luncheon
1:15 p.m.	Assemble at Contemporary Flagpole	A Look at Disney Technology
8:00 p.m.	Atlantic Room/ Pacific Room	International Edison Birthday Celebration Dinner
9:00 p.m.		Evening Chairman Mr. Walker L. Cisler Chairman Thomas Alva Edison Foundation
9:15 p.m.		After Dinner Address Dr. Philip Handler President U.S. National Academy of Sciences Washington, D.C.
10:15 p.m.		ADJOURN
Monday, February 12, 1979		
7:00-8:00 a.m.	Continental Room	Breakfast
7:45 a.m.		Departure for Kennedy Space Center
8:15 a.m.		Departure for Industrial Visitations
1:00 p.m.	University of Central Florida	Luncheon
2:00 p.m.	University of Central Florida	SIMULTANEOUS SESSIONS
		"Industrial Science" Dr. Ivar Giaever Biophysicist Corporate Research & Development General Electric Company Schenectady, New York
		"Global Energy Prospectives" Dr. E. Linn Draper, Jr. Assistant to the Chairman of the Board Gulf States Utilities Company Beaumont, Texas
2:45 p.m.		QUESTION & ANSWER SESSIONS
3:15 p.m.	University of Central Florida	CLOSING REMARKS James G. Cook President Thomas Alva Edison Foundation
3:30 p.m.		ADJOURN

EDISON CENTENNIAL
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CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

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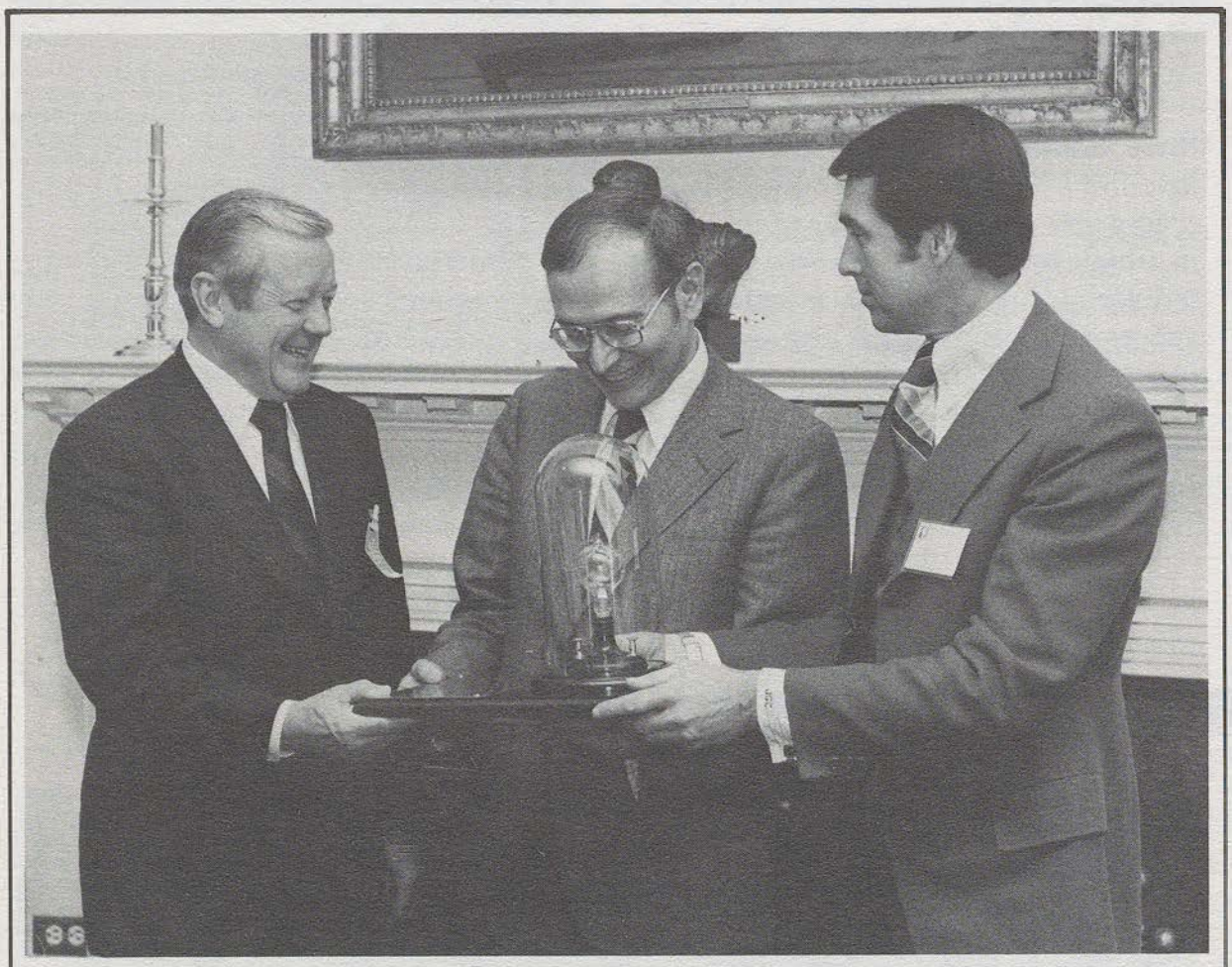
FEBRUARY 1979 VOLUME 2 NUMBER 2

White House welcome for Centennial Committee



On President Carter's behalf, White House science adviser Dr. Frank Press accepts from the International Committee for the Centennial of Light an incandescent lamp replica personally made by Thomas Alva Edison. Presentation was made by ICCL Chairman Robert I. Smith (left) and ICCL Executive Secretary James G. Cook. An accompanying plaque reads:

Thomas Alva Edison personally constructed this bulb in his Menlo Park Laboratory two days prior to the dedication of the Edison Institute, Dearborn, Michigan, on October 21, 1929, where the Laboratory was relocated on the 50th anniversary of his historic invention of the incandescent light.

It is presented by the International Committee for the Centennial of Light to PRESIDENT JIMMY CARTER as a gift provided by the Edison Institute in grateful recognition of his support for the Centennial of Light and its efforts to spur young Americans to discover — as Edison did — new ways to improve mankind's quality of life.

Only two other bulbs made personally by Edison exist. One is on display at the Edison Institute at Greenfield Village and Henry Ford Museum in Dearborn, Mich. The other is owned by the Ford family.

Officials see anniversary as rallying point for scientific initiatives

Key Administration officials representing the President, NASA and the departments of State, Commerce and Energy met with members of the International Committee for the Centennial of Light (ICCL) at the White House on Feb. 14.

They exchanged views on how the government can cooperate with industry, labor and academia to keep the United States in the forefront of scientific and technological progress.

Both groups agreed that the Centennial of Light can be a rallying point for the fight on inflation and lagging U.S. productivity.

Although President Carter had been expected to attend, he was unable to do so because of his intervening trip to Mexico.

Dr. Frank Press, the President's science adviser, reaffirmed the chief executive's strong support for the goals of the year-long commemoration of Edison's invention of the incandescent lamp in 1879. He cited the President's statement issued some days earlier (see accompanying text).

Dr. Press said the President has commissioned an industrial innovation policy study. Its findings and recommendations are due by April 2.

Some 20 Federal agencies and more than 500 senior management executives, union leaders and key academicians are contributing to the study. It is being coordinated by Jordan J. Baruch, assistant secretary of commerce for science and technology, who was also present.

Robert I. Smith, chairman of Public Service Electric and Gas Company of Newark, N.J., urged both indus-

please turn to page 4

Mother of Invention, Is This the End?

In a moment of understandable frustration, a former Canadian prime minister once said: "Here we are in Canada, with access to American technology, English tradition and French cooking. Instead, we get English cooking, American tradition and French technology." The joke was telling, if severe. France is properly celebrated for its souffle; there has always been an England; and we, God bless us, are the preeminent nation of levers and pulleys.

Or, we were until recently. According to the impeccable dual sources of the White House and The Post, the United States, as a technological country, is rapidly falling behind not only such predictable go-getters as Japan, Taiwan and West Germany, but France and Canada as well. "There are trends that are worrisome," said White House science adviser Frank Press, who said the least. Without our leadership in Yankee know-how, what are we?

The trouble, evidently, has been due to an "innovation recession," an ailment from which we haven't suffered since Ben Franklin stood out in the rain. To show how serious our recession is, not one of the home video tape recorders sold in the U.S.A. is made in the U.S.A. And fewer patents were awarded by the U.S. Patent Office last year than in each of the previous 15. Not to worry, says the National Science Foundation, which draws our attention to the fact that, although Japan has taken the lead in radio and television, we're still way out in front in pocket calculators and digital watches. Small comforts, if you ask us.

It's all due to the thaw in the Cold War, explains MIT president Jerome Wiesner—less drive to beat the Russians, less incentive for inventiveness. Others blame the innovation recession on everything from the end of the war in Vietnam to the antinuclear movement to public antipathy toward technology in general. All are plausible explanations. But what's ahead? This used to be the country of Bell and Edison, of the safety pin and the atom bomb, of interchangeable parts and built-in obsolescence. If that's all behind us now, we must either learn to cook, or grow old.

Washington Post Editorial
November 25, 1978

Centennial Symposium

continued from page 1

criticized by some for playing too dominant a role in modern society.

Speakers include Eric Hoffer, longshoreman-philosopher; Philip Handler, president, National Academy of Sciences; and Simon Ramo, vice chairman of the Board, TRW Inc. A special session on "Resolution of Science and Technology Controversies" will be conducted by Arthur Kantrowitz, retired board chairman, Avco Everett Research Laboratory Inc. Smaller workshops will focus on specific disciplines such as medicine, urban development and food.

Students Invited

In addition, EPRI and TAEF have chosen the Forum for the Advancement of Students in Science and Technology (FASST) to arrange for the selection of up to 100 college students to attend the symposium. FASST is a national organization working for active student involvement in all aspects of science and technology.

"Today's students will inherit the task of guiding science and technology in the future," said James G. Cook, TAEF president. "They should be represented in this symposium."

FASST will work with its established network of universities and colleges in selecting the student delegates on the basis of such qualities as leadership, academic standing, and communication skills. Deans of local institutions will identify appropriate students. In the event of multiple nominees from an area, FASST judges will make the final selection.

To assist students with symposium expenses, FASST is seeking sponsors from within the electric utility industry. Individual utilities interested in sponsoring a student from their service area may contact: FASST, 2030 M Street, N.W., Suite 402, Washington, D.C. 20036, or telephone (202) 466-3860.

Golden Jubilee

continued from pg. 3

attracting a committee of the country's most prominent and influential citizens.

American cities participate

Festivities began in June 1929 in Atlantic City, where hundreds of thousands of multi-colored bulbs lit the boardwalk, hotels, signs and the ocean's edge. Similar events were repeated in Niagara Falls, St. Louis, Pittsburgh, Hollywood, Chicago and elsewhere. Replicas of Edison's first lamp were manufactured and sold by the thousands. Reprints of the New York Herald account of Edison's invention 50 years earlier were distributed in huge quantities. Public response to a special Edison postage stamp was so great that a second printing was necessary.

A special commemorative day was set aside at the National Air Races in Cleveland and songs and booklets were published. An Edison theatrical review toured the country and lamp and fixture manufacturers joined forces with electric utilities in pioneering a four-color, 10-page advertising supplement, in the Saturday Evening Post.

In thousands of cities and towns across the nation, speeches were made, symbolic fireworks displayed, and lights turned on, as the nation paid an unprecedented tribute to its greatest living inventor.

Cashel To Receive Edison Citizen's Award

William S. Cashel, vice chairman of the board and chief financial officer, American Telephone and Telegraph Co., will receive the 1979 Thomas Alva Edison Distinguished Citizen's Award from the Electric Association of Philadelphia at a banquet on Feb. 16 at Franklin Hall in Philadelphia.

A Centennial of Light event, this year's presentation is "symbolic of the inventive genius of man, the progressive achievements of the electrical industry, and the importance of electrical energy to the quality of our modern way of life," according to the program chairman Gene M. Krupa. Proceeds of the dinner will go to the Academy of Applied Electric Science, through which industry groups participate in the city's education process.

In announcing the Edison award, Mr. Richard T. Conly, Association president and president of W.V. Pangborne & Company Inc., said, "Bill Cashel has actively participated in the charitable, civic and educational activities of the communities in which he has lived. He has given freely of his time and talent to ensure the economic growth and development of Greater Philadelphia."

An alumnus of Dartmouth College, Mr. Cashel is a trustee of the Committee for Economic Development and a member of the Council of Financial Executives. He has served as director of the Chamber of Commerce of Greater Philadelphia, the Southwestern Pennsylvania Economic Development Corporation, the Pennsylvania Economy League, and the Greater Philadelphia Partnership.

Banquet details are available from Gene M. Krupa, The Electrical Association of Philadelphia, Architects Building, 17th St. at Sansom, Philadelphia, Pa. 19103; telephone (215) 563-7770.

ICCL seeks additions to mailing list

Any company or organization interested in adding names to the mailing list at Edison Centennial News, please send them to: ECN Mailing List, P.O. Box 1310, Greenwich, Conn. 06830.

The International Committee hopes to obtain as wide a circulation as possible as the Centennial year proceeds.

GE offers Centennial Edison Energy Fair

General Electric is making an adapted version of its "Edison Energy Fair" exhibit available to the International Committee for the Centennial of Light to accommodate major exhibition opportunities around the country.

GE's Power Systems Sector originally produced the energy education exhibit for showings to company employees, their families and plant community neighbors during the corporation's own centenary in 1978.

The modified "hands-on" fair, which will prominently display the Centennial of Light trademark, features scientific experiments and lessons on how energy is obtained and used, as well as film presentations on modern technology.

Companies, or sponsoring organizations, interested in having the exhibit, would be responsible for round-trip transportation via commercial household van from GE's Brooklyn exhibit house plus the costs of setup labor, adequate electrical outlets and security are required as well as a suitable display area of about 40 feet by 80 feet. GE will maintain the fair and provide an exhibit specialist to accompany and direct its setup and operation for up to five days at each location. Costs will be determined by distance, type of travel and frequency of bookings for the exhibit.



A view of the Centennial Edison Energy Fair, being made available to companies and organizations by General Electric.

For more information on the Centennial Edison Energy Fair, contact: Steve Barber, Power Systems Sector, General Electric Co., 175 Curtner Avenue, San Jose, Calif. 95215. Telephone (408) 925-1151.

Southern Co. publication highlights employee inventors for the Centennial

Southern Company Services' employees magazine credits the Centennial of Light as a source of inspiration for its lead story, "Employee Ingenuity - the Call to Invent," in its October issue. Southern-owned electric utilities include Alabama Power Co., Georgia Power Co., Gulf Power Co., Mississippi Power Co., and Southern Electric Generating Co.

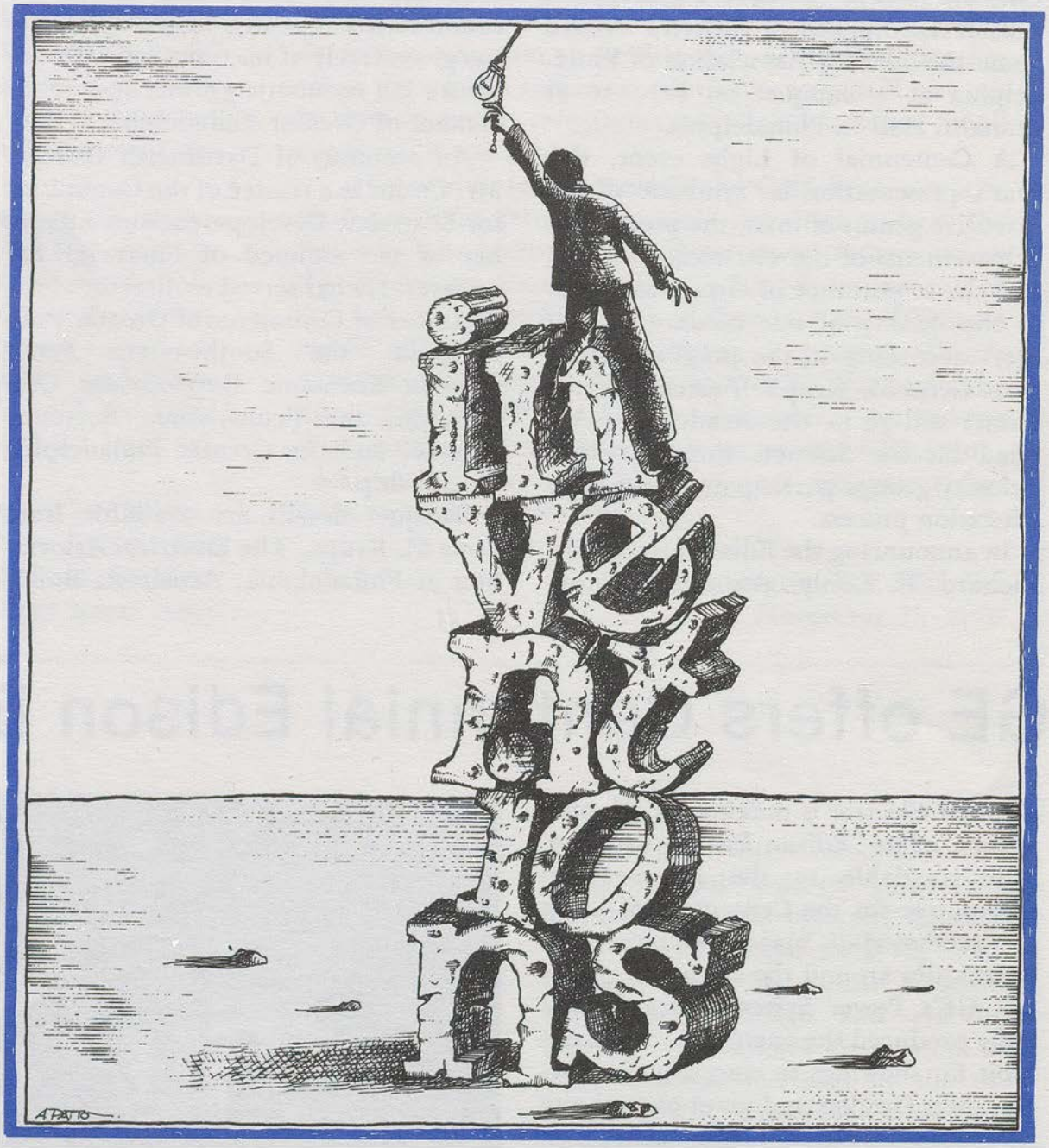
Noting that the celebration's main objective is a regeneration of enthusiasm for invention and innovation, the editors of Southern Highlights found that Edison's spirit is alive and well in the Southern system through interviews with employees who have originated some 20 creative devices and designs.

Olin Williams, a computer control supervisor for Georgia Power, for instance, has combined five inexpensive microcomputers (the kind used in calculators and games) to do the job of one costly minicomputer in supervisory control programs. "The whole idea started from a hobby-oriented approach," Williams explained. "The project has helped show what we can and cannot do with microcomputers in the future."

Clifford Sloop, formerly a meter superintendent with Georgia Power, can take credit for several inventions, among them a locking device that prevents utility customers from turning their electric meters upside down and causing them to run backwards. Though now retired, Sloop says, "I'm always busy with a new idea. I stay in regular contact with company people. I find out what they need and try and design it."

Jim McDowell, a generating plant manager, and Bill Bunch, superintendent of controls, are co-inventors of a battery fault detector that is used extensively throughout the Southern system. Since batteries supply most of the power for control systems in electric generating plants, their malfunctioning can have critical consequences.

Bill Winston, systems operations specialist at Alabama Power, has designed a monitoring device, called a sauturometer, to protect fish and other aquatic life from a harmful gas-bubble disease that can be caused by the injection of oxygen, nitrogen and other gases into the water generating the company's hydroelectric plants.



The illustration appeared on the cover of Southern Highlights Magazine, employee publication of the Southern electric systems, David Jowers editor; Steve Wagner, art director. The artist is Allan Patton.

At Alabama Power, scheduling engineer William Tate has devised a 4 feet by 8 feet portable scheduling board to analyze and schedule job coordination. "A quick glance can indicate what jobs need to be done, the materials needed to do them, the work currently underway, what jobs are behind schedule, as well as foreseen problems in meeting completion dates," Tate explained.

On seeing the survey article, Robert I. Smith, chairman of the Centennial said, "Such a feature is certainly in keeping with the objectives of the Centennial. I'd like to see a number of other companies make a similar survey. They just might discover a budding Edison, Bell or Marconi in their midst." ◻

Con Ed sponsoring antique lighting exhibit

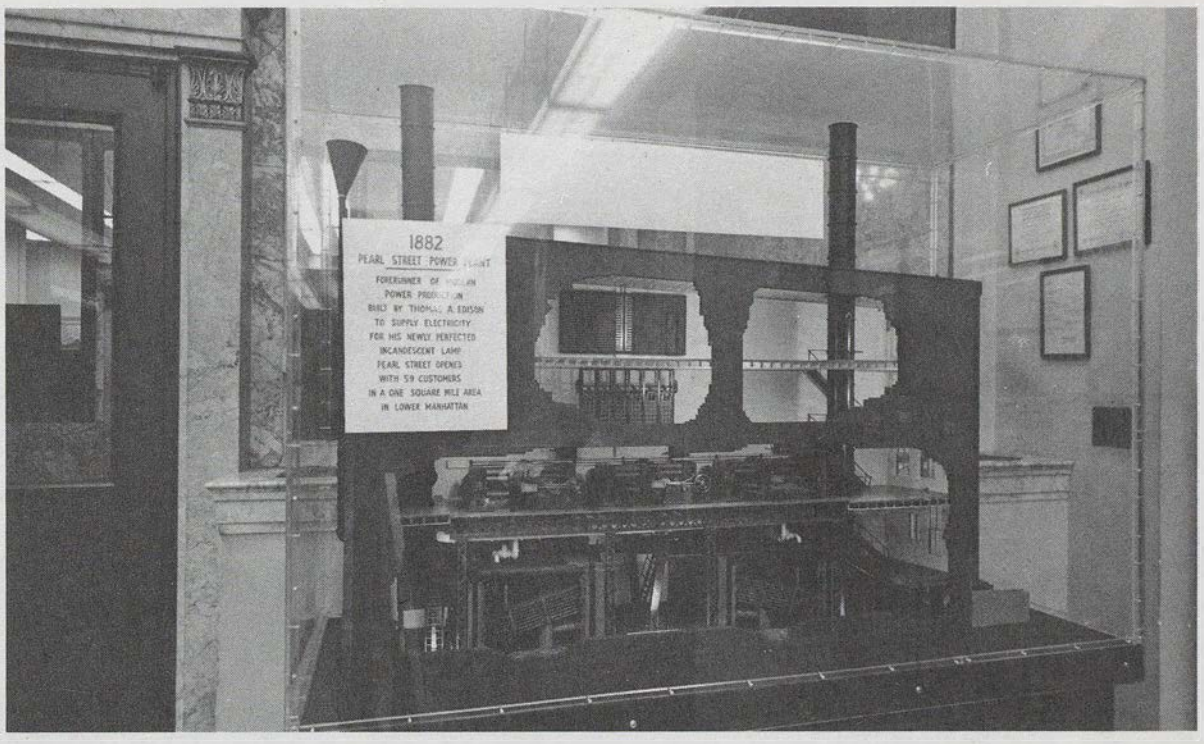
Consolidated Edison Company of New York will sponsor a "Centennial of Light" exhibit of rare historical lighting memorabilia at the 35th Annual National Antiques Show at Madison Square Garden, New York City, Feb. 17-25. The centerpiece will be a table-top cutaway model of the Pearl Street Station, the first commercial electric generating plant in the United States, designed and fabricated by Edison to light 1,200 16-candlepower lamps.

The exhibit also will include a replica of Edison's first successful incandescent lamp; his chemically activated electric meter, invented in 1879; an 1890 lamp base with screw clamps; an 1895 Edison Manufacturing Company DC electric drill with a 120-volt bi-polar motor; a 1908 toaster; and an Edison Voicewriter Ediphone. Other artifacts range from early Christmas tree lights to a one-eighth horsepower DC electric fan.

More than 350 exhibitors will be represented at the National Antiques Show. They will display such items as 19th century lamps from China's Hsing Yao period, satsuma lanterns from Japan, and 19th century pierced brass, pewter and pressed glass lighting devices from the Middle East, Europe and the United States. There also will be fixtures featuring continental lithopane designs, Bauhaus art-deco geometrics, French romantic art nouveau, and painted shades of the early 20th century by Tiffany, Handel and Pairpoint.

Another highlight of the show will be a wide variety of novel lamp bases ranging from African deity figures, stoneware jugs, and duck decoys, to coffee grinders, seltzer bottles and bedposts.

The show will be open from 1-10 p.m. daily and from 1-7 p.m. on Sunday and closing day. Admission is $4.00.



Edison: Hero to Many Koreans

More than 8,000 Korean science students are keeping Thomas Alva Edison's inventive spirit alive in their native country as members of local Edison Science Clubs. Some 6,000 are enrolled in 14 technical high schools. The remaining 2,000 represent 35 colleges.

Each club has 60 students who are recommended for membership by school principals and science departmental chairmen on the basis of their excellence in classroom work. Members are assigned to research teams and train in R&D techniques which help them obtain technician jobs and pursue personal inventions.

The Korean clubs were established in 1973 by Jae-Jung Moon, a former military officer with long experience in product development in the Korean public and private sectors. His Seoul-based organization also publishes a monthly newspaper for club members, faculty advisors, and sponsors.

National Korean Edison Club headquarters plans to select a representative to send to the U.S. to take part in many of the events and programs which are being scheduled on and around Oct. 21, 1979, the 100th anniversary of the invention of the electric light. The national organization is also formulating a detailed program to celebrate the Centennial year in many parts of the country.

Centennial slide show available to companies and organizations

A special multi-media International Centennial of Light slide presentation is now available for purchase by companies and organizations.

Available in two formats, this lively presentation explains the objectives and theme of the International Centennial of Light and details the various events that have been planned to communicate the need to better mankind's quality of life through new advancements in science and technology.

An 11-minute version (cost: $250.00) consists of 125 slides with a pulsed audio tape. Presentation requires two carousel projectors, a fast dissolve unit and a slide-tape player.

An 8-minute presentation (cost: $175.00) contains 80 slides and a pulsed audio tape. It can be operated either automatically with the tape, or manually when used with an accompanying script.

Both versions are available by sending a purchase order to: The International Committee for the Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830.

Upcoming Centennial Events

EDISON PAGEANT OF LIGHT, February 1-14, 1979: Celebration will include parades, school band competition and exhibits, in Fort Myers, Florida, Edison's winter home and laboratory. Florida Power and Light Company will sponsor a science fair in conjunction with the pageant.

23RD INTERNATIONAL EDISON BIRTHDAY CELEBRATION (WALT DISNEY WORLD), February 9-12, 1979: Part I of the Edison Birthday Celebration, jointly sponsored by the Thomas Alva Edison Foundation and Edison Electric Institute, will be held for selected science students and educators. They will take part in a series of lectures by leading scientists and engineers (see program this issue).

GREENFIELD VILLAGE SPECIAL EXHIBITS, February 11, 1979: Greenfield Village, of the Edison Institute, will open special exhibits in the Menlo Park Compound. They will also reactivate the Menlo Park Machine Shop.

EDISON SCIENCE YOUTH DAYS, February 11, 1979: Sponsored by the Thomas Alva Edison Foundation, Science Youth Days will be held in cities around the world for students and teachers, focusing on all aspects of Edison's creative and scientific life.

"FAMOUS AMERICANS" LECTURE SERIES, February 11, 1979: Greenfield Village will begin a series of "Famous Americans" lectures, starting with Edison and his impact on society.

INDUCTION CEREMONY, INVENTORS HALL OF FAME, February 11, 1979: The new Inventors Hall of Fame at the U.S. Patent Office, Arlington, Va. will be dedicated, with an induction ceremony for Edison. Souvenir booklet will be given to all visitors.

6TH ANNUAL ENERGY TECHNOLOGY CONFERENCE (ETC-6), February 26-28, 1979: This is the largest conference of its kind ever produced with 6,000 registrants expected. There will be sessions on present energy resource alternatives, as well as on industrial energy management and conservation. The conference, to be held at the Sheraton Park Hotel in Washington, D.C., is sponsored by the American Gas Association/Gas Research Institute, The Electric Power Research Institute and the Thomas Alva Edison Foundation.

EDISON BIRTHDAY SYMPOSIUM (GERMANY), February 28—March 2, 1979: Part II of the Edison Birthday Celebration will be jointly sponsored by the Thomas Alva Edison Foundation and Siemens Corp. of Munich, Germany. More than 200 students from the Munich Technical University, the University of Munich, and from similar institutions in other countries, will take part in a three-day program of technical lectures and industrial visits.

FILM FESTIVAL, March 11-14, 1979: The 7th Annual Birmingham International Educational Film Festival in Birmingham, Ala. will feature the Centennial and showings of Edisonian films. Mickey Rooney, who portrayed Edison in the movie "Young Tom Edison," has been invited to attend. Also, winning posters designed by students in the art contest sponsored by the Alabama Power Company will be exhibited.

Hall of Fame

continued from page 5

his device for amplifying feeble electric currents; Dr. Edwin Land, for his invention of a photographic product that was comprised of a rupturable container carrying a photographic processing liquid; Dr. Charles P. Steinmetz for his system of distribution by alternating currents; and Dr. Vladimir K. Zworykin, for the cathode ray tube.

The 1978 inductees were: Louis Walter Alvarez, for his invention of basic radar systems; Lew Hendrik Baekeland, for his development of synthetic resins; Carl Djerassi, for oral contraceptives; and Louis Pasteur, for his beer fermentation process.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Pat Hamilton, Jan Wright, Livvy Floren
Editorial Assistant: Kathleen D'Aloise
Staff Assistant: Swea Nightingale

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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Screen News Digest producing Edison Centennial film

Screen News Digest (SND), a major producer and distributor of documentary films, is preparing a special 16-mm film entitled "A Centennial of Light." It will be available this summer to companies and organizations wishing to pay tribute to Edison and to explore the enduring technological legacy of the man.

According to producer Cloyd Aarseth, "SND will employ creative production concepts, imaginative, classic and original photography, skillful editing and an original musical score to graphically portray the way in which a century of electricity and technology have helped enrich and energize the world in which we live."

The 26-and-a-half minute film will be released as Volume 22, Issues 1 and 2 in the Screen News Digest series. It will be completed on or about June 1.

Prints will be available initially to the more than 150 film series sponsors. They also can be purchased by interested non-client companies for school, community television and local distribution. Purchasers may also arrange to have their companies identified at the beginning and end of their film prints for an additional charge..

The film's specific focus will be on Edison as a symbol of the creative genius that has helped make America the light of the world in industry and technology," Aarseth said.

Running through the film will be three dominant pictorial threads—the inventor's personal life; the people, places and events that shaped the world in which he lived and worked; and the industrial progress and scientific advances flowing from his research, during and after his lifetime.

Aarseth has been producer of Screen News Digest since its founding in 1958. His professional credits in-

please turn to page 8

"Famous American Lectures" set for Greenfield Village and Henry Ford Museum

Greenfield Village and Henry Ford Museum in Dearborn, Mich., has scheduled the first of its 1979 series of "Famous American Lectures" on Feb. 22. Melvin Weig, trustee of the Charles Edison Fund, will speak on Thomas Edison and his accomplishments.

This year's series—an official Centennial of Light event—will concentrate on Edison, his contemporaries, and admirers.

On March 22, the career of George Washington Carver will be discussed by Dr. James H.M. Henderson, director of the Carver Research Foundation at Tuskegee Institute in Alabama. An April 19th lecture on Charles F. Kettering will be presented by Robert G. Chollar,

please turn to page 8

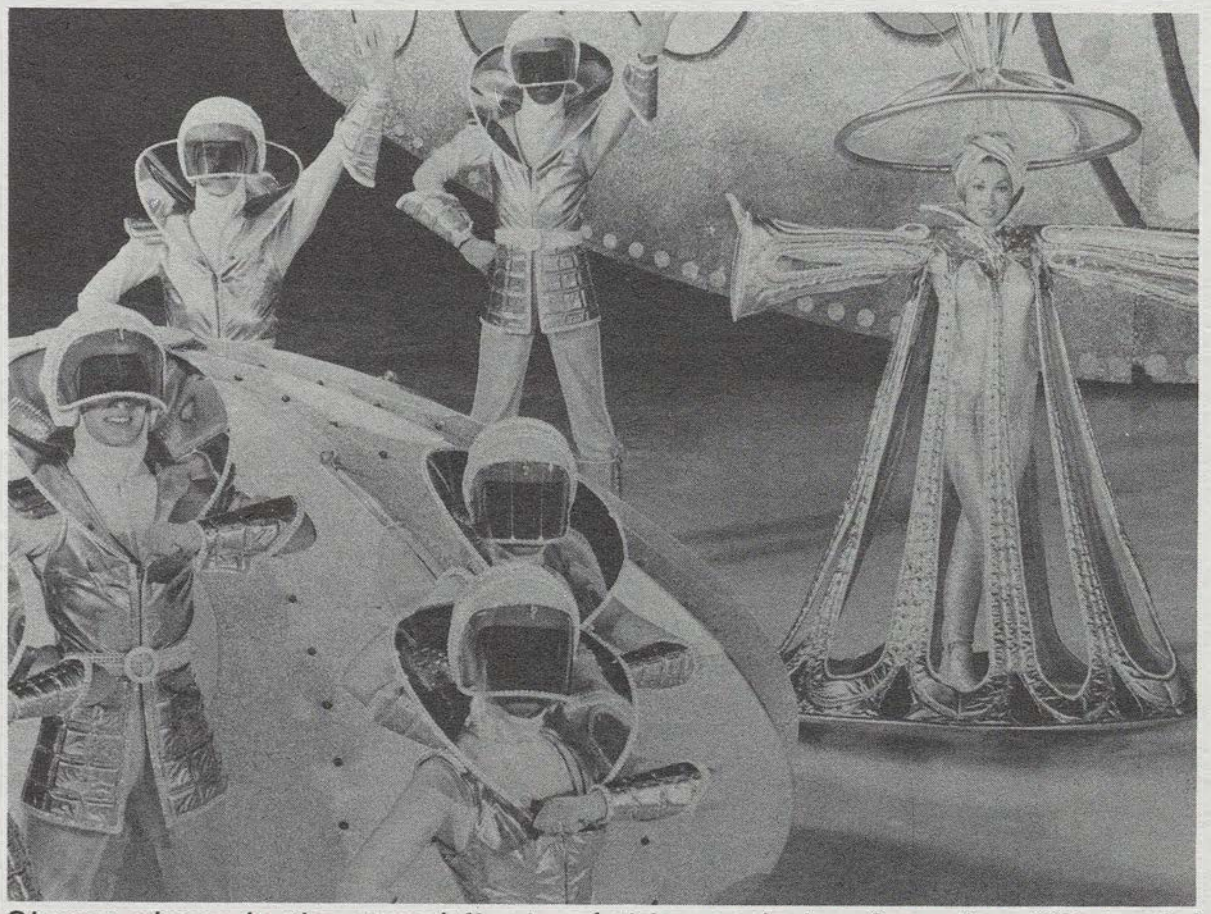
Ice Capades plans Centennial salute

The 40th Annual Ice Capades will present a spectacular 'Salute to the Centennial of Light," starting July 27, in Atlantic City, N.J. The segment will be featured in its three road shows touring the country through 1982. The cost of the production number is estimated at more than $150,000.

"This 20-minute finale to the Ice Capades is still being designed," according to Richard H. Palmer, executive vice president of the show. "It promises to be a brilliant display of light and ice dancing, featuring the entire 60-member Ice Capades cast."

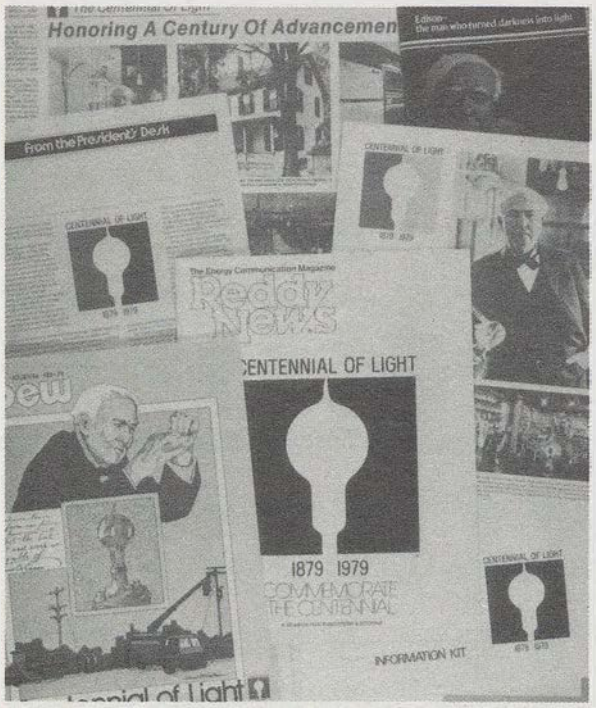
For 40 years Ice Capades has been entertaining audiences throughout the United States and abroad with its special brand of music, dancing, "Las Vegas style" spectacles and comedy. Each year a premiere figure skater is featured as the troupe's top performer. This year's star is Olympic Gold Medal winner Dorothy Hamill.

Last year Ice Capades was seen by more than 4 million people in over 150 American and foreign cities.



Shown above is the grand finale of this year's Ice Capades, "Celestial Voyage." Beginning in July the finale will be a "Salute to the Centennial of Light," featuring the complete 60-member cast.

The Centennial symbol: a registered trademark



When you use the Centennial symbol in your publications, newsletters, stationery, or whatever, a few ground rules should be kept in mind, according to Tom Sedlar, vice president of Reddy Communications Inc., public relations counsel to the International Committee for the Centennial of Light (ICCL).

Sedlar says that while the symbol is in the process of being trademarked, the initials "TM" must be affixed to the lower right corner of the symbol. When it is fully registered, the official ® must be affixed to the lower right corner.

"We don't intend to be a stickler on how the symbol is used," Sedlar said. "We want it to be recognized all over the world as a symbol of the Centennial and of our rededication to inventiveness and ingenuity.

Approval by telephone

"However," Sedlar continued, "to ensure its consistent and dignified use, we require that anyone planning to use the symbol on envelopes, stationery, posters, etc., request permission to do so. A phone call to our offices is usually sufficient. We also ask that any company or organization using the symbol forward a sample copy of each type of usage for ICCL files."

The symbol may not be used commercially without the specific permission of the ICCL in writing, Sedlar said. "We won't stand for the symbol being abused by manufacturers of tasteless novelty items. Written permission ensures quality control."

Union Electric's president writes to customers on Centennial goals

Charles J. Dougherty, president of Union Electric Co. of St. Louis, Mo., has written a series of letters to 300 thousand customers and 20 thousand employees regarding the important goals of the Centennial of Light and the company's participation in the year-long celebration. He also named a committee of active and retired employees to work on the company's Centennial involvement.

Patricia Barrett, UE's public affairs director, says that customers' bills will carry the Centennial symbol beginning in March, and in May the first of three Edison-related messages will appear on the reverse of the bills. Company stationery already has been imprinted with the Centennial symbol and UE's own slogan: "Solving problems through innovation and invention."

Union Electric also arranged for a special Centennial message for an Electrical Week luncheon on Feb 14. On March 3, speaking at a veterans banquet in St. Louis, Dougherty will emphasize economic growth and job creation through invention and innovation.

One of the largest events planned is an Edison Youth Science Day. The full-day symposium will be videotaped. More than 400 students from Union's service area will attend. Each will receive a copy of "The Man Who Turned Darkness Into Light."

Hawaiian Electric motor building race is Centennial event this year

Ever try to build an operating electric motor? How long did it take?

A Hawaii youngster has done it in as little as 6 minutes and 26 seconds, according to Van H. Beazlie, director of public information for Hawaiian Electric Company.

For the last ten years Hawaiian students have competed in an annual Motor Building Contest sponsored by the utility. The 19th competition in Honolulu on Feb. 10 was designated a Centennial of Light event. It involved some 200 students from 26 public schools.

The site of the four-hour event was a three-deck shopping center at one of the world's largest open air malls. For



A young Hawaiian attempts to complete construction of her electric motor in the annual contest sponsored by Hawaiian Electric Co.

many of the youngsters from rural schools and the outer Hawaiian islands, the Honolulu visit was their first taste of "big city life."

White House

continued from page 1

try and government to lift restrictions on funds for long-range research projects and to stop their concentration on short-range, quick-return programs of limited effect.

Committee member Stephen Bechtel Jr., chairman of the Bechtel group of companies, blamed inflation on "high government spending, layer upon layer of excessive governmental regulation, and the sudden and unexpected increase in energy costs. However, fundamental to all these is the decline in the rate of productivity," he said.

Bechtel continued: "The encouragement and promise of reasonable return on new ideas isn't high enough. We have deprived inventiveness of incentive and, too often, legislated it into subservience."

General Electric Vice President and Group Executive James A. Baker suggested that "labor and business leadership must throw aside old ideas, old strategies and old antagonisms" for the sake of national growth and prosperity. Representing GE Chairman Reginald Jones, an ICCL member, Baker called for long-range definition of, and priorities for, industrial investment needs, as well as willingness by U.S. industry to replace obsolete plants and equipment.

Baker also urged bankers to be "aggressive in risk-taking to help their customers grow," and to follow the lead of German and Japanese bankers in promoting greater personal saving to finance industrial growth.

"A change in 'double dividend' taxation would free a considerable amount of investment capital," Baker said.

Labor's viewpoint was expressed by Vincent O'Reilly, vice president of the International Brotherhood of Electrical Workers, sitting in for IBEW President Charles H. Pillard.

"The lessening of our world leadership in technological development," O'Reilly said, is partly the fault of "some in our society who believe that no-growth is best for everyone and that nuclear power and other technologies are harmful. I would hope that this attitude can be turned around and that our nation would again adopt the spirit of Edison . . . (whose) legacy to the workers was a developing and continuing higher standard of living."

Spokesman for the Thomas Alva Edison Foundation, sponsor of the Centennial of Light, was Vice Chairman W. Donham Crawford, who is also chief executive of Gulf States Utilities.

THE WHITE HOUSE

WASHINGTON

Thomas Edison and the Centennial of Light

This year marks the one hundredth anniversary of Thomas Alva Edison's invention of the incandescent lamp. More than any other invention, the light bulb ushered in the Age of Electricity. When Edison had perfected it, he knew he was ready to bring electric lighting into the streets, homes, factories and offices of America. And he did.

In recognition of this historic feat, a series of events throughout 1979 will be held across the country to honor Edison's inventive genius. These events will offer our people many chances to review and reflect on the numerous important inventions that came from the mind and hands of this unique American.

But Thomas Edison was more than an inventor. He was a true innovator. He pioneered the first industrial research laboratory. He created the industries and institutions to bring his inventions to the people. He brought about change, opportunity and progress for all mankind.

As we commemorate the invention of the incandescent lamp and celebrate the accomplishments of this remarkable man, we should all draw new inspiration from him. I hope that the memory of Thomas Alva Edison will help us all to realize, as he did, that with perseverance, hard work, knowledge and imagination we can overcome adversity and achieve new advances from which all can benefit.

Jimmy Carter

Crawford said he hopes President Carter, a trained engineer, will continue to speak out on behalf of science and technology in even stronger terms than he used in his statement supporting the Centennial of Light.

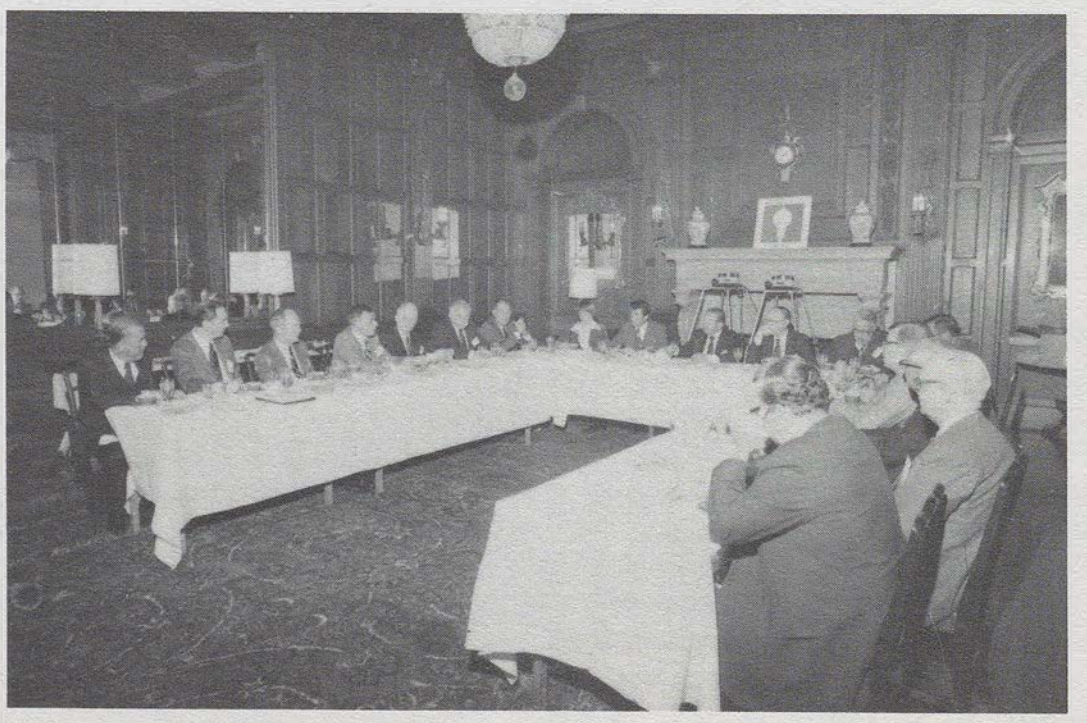
"We need to take full advantage of nuclear power, but with safeguards for non-proliferation," said Thomas R. Pickering, assistant secretary of state for oceans and international environmental and scientific affairs. He reported plans to establish a U.S. center for evaluating and sharing scientific and technological contributions of other countries.

NASA Administrator Robert Frosch said his agency is "doing things business won't invest in until we've taken the risk out." He added that some NASA research requires up to 15 years for payout.

On the President's behalf, Dr. Press accepted from the Committee a historic incandescent light bulb personally fabricated by Edison in 1929.

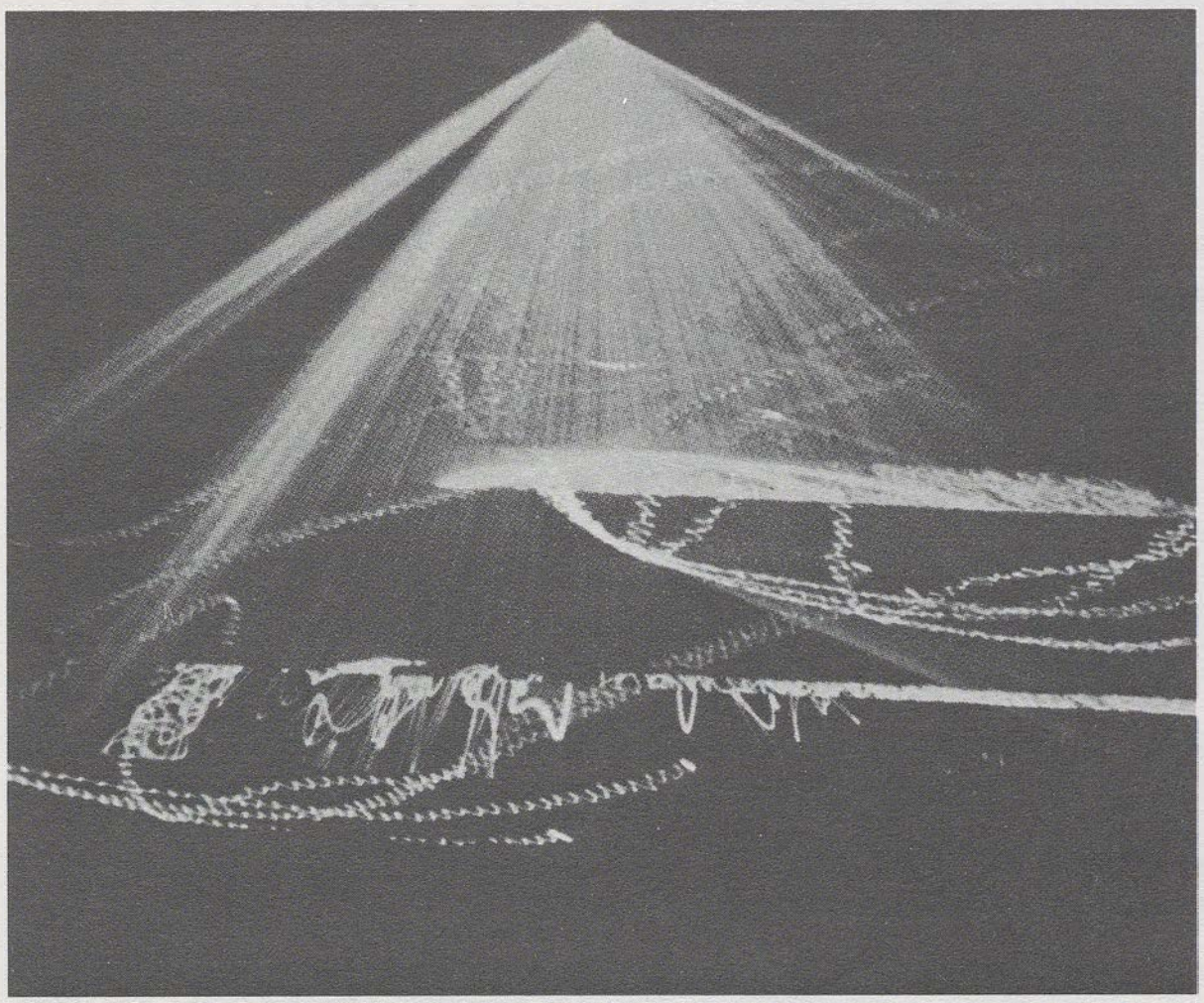
Joining in the general discussion were other members of the Committee: Jack K. Horton, chairman and chief executive officer, Southern California Edison Co.; Merle W. Kremer, president, GTE Sylvania Inc.; Goro Inouye, president, Japan Power Association, N.B.; Arthur Hauspurg, president, Consolidated Edison Co. of New York, Inc., representing Charles F. Luce, chairman and chief executive officer; Chester Diercks Jr., president and chief executive officer, Siemens-Allis Inc., representing David C. Scott, chairman and president, Allis-Chalmers Corp.

Also, William Hittinger, executive vice president, RCA Corp., representing Edgar H. Griffiths, president and chief executive officer, Gordon Corey, vice chairman, Commonwealth Edison Co., representing Thomas G. Ayers, chairman and president; Raymond Durante, vice president, Westinghouse Electric Corp., representing Robert E. Kirby, chairman and chief executive officer; James G. Cook, ICCL executive secretary and president, Thomas Alva Edison Foundation.



International Committee members and representatives discussing Centennial of Light programs at luncheon prior to White House meeting.

Lighting with lasers:



Laser beams and original electronic music are often combined to create a "space-age fantasy" at symphonic concerts (see photo) and other public attractions.

A New Jersey firm has announced it is now working on special Edison Centennial segments, from 15 to 60 minutes long, for inclusion in its laser-show offerings to local concert and festival sponsors.

For more details, contact Bruce Rogers, Soleil Company, 89 Rocky Brook, Cranbury, N.J. 08512.

Edison, myth and method, discussed at AAAS

The Edison symposium featured at the annual meeting of the American Association for the Advancement of Science in Houston, Texas, on Jan. 5, proved to be a challenging review of Edison's career and achievements, according to Janet Raloff, reporter for Science News.

Speakers on Edison included Robert Conot, who iconoclastically described Edison as a man who collected various elements from other scientists. At the critique session afterward, Dr. James Britten of the Georgia Institute of Technology took exception to a number of Conot's points and suggested that the scientific rather than the social view of Edison should have been presented.

More interesting, according to Raloff, were W. Bernard Carleson and Christopher Derganc, graduate students at the University of Pennsylvania, who discussed "Edison's Method"— his procedure for inventing and improving inventions.

Raloff characterized the Edison symposium as one of the most thorough and meaningful sessions she has ever attended. She said the information presented was well-prepared and of merit to technically-oriented audiences.

In addition to the Edison symposium, AAAS hosted the first of three Smithsonian traveling exhibits on Edison. The exhibit was well-received by the audiences and, according to officials at Houston Lighting and Power, the best display at the meeting. Following the symposium, HL&P displayed the exhibit in its downtown Houston lobby for two weeks.

Walks through history sponsored by ConEd

Consolidated Edison of New York is planning, as a Centennial of Light activity, a series of historic-area walking tours for tourists and New York City residents, starting in April. It will also open a Museum of Energy in its headquaters building in July.

The tours—entitled "Where They Lit Up New York: A Walk Through Yesterday, Today and Tomorrow in Thomas Edison's First District"— will take walkers from Pearl Street in lower Manhattan, the site of Edison's first central generating station, to Con Edison's new South Street Seaport substation.

The new substation is near the Jaspar Ward House, a 19th century counting house, which Con Edison donated to Columbia University and the South Street Seaport Museum as a "laboratory for techniques for preservation of buildings."

"Whenever they go on the tour, walkers will be reminded of the history of the area, its place in the cultural and commercial life of the city and the nation, and Edison's contributions to the quality of life," said Irv Levine, the utility's director of news information.

Other sites on the tour include the Seaport Museum, the Sub-Treasury Building on Wall Street, the Louise Nevelson Plaza, Chase Manhattan Plaza and John Street Methodist Church. Maps in brochures provided to the strollers note that City Hall, the Woolworth Building and the Whitney Museum are also nearby.

Con Ed's Museum of Energy will be housed on the street floor of its main office building at 4 Irving Place in Manhattan. It will display electrical antiques, plus Edison artifacts and equipment, and offer a film on Edison.

CILCO distributes Centennial teacher's guide

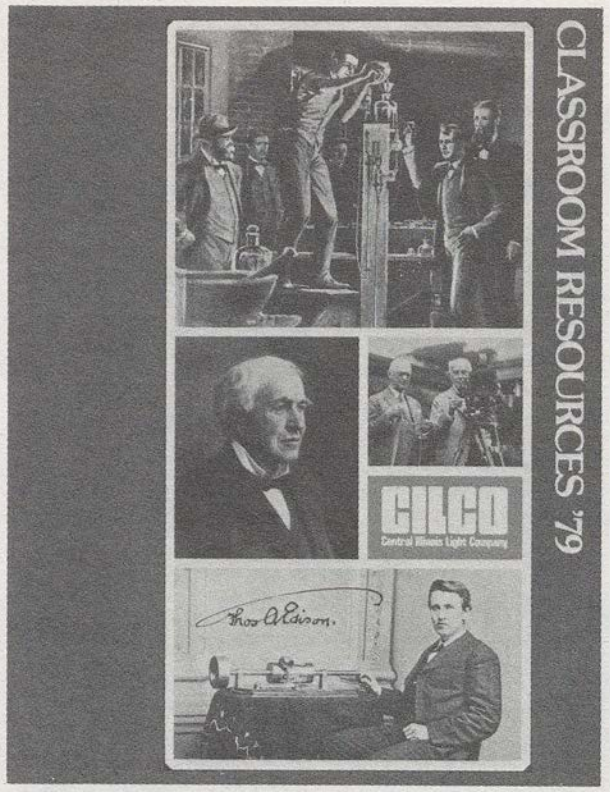
More than 500 schools in the greater Peoria area have received a special Centennial of Light edition of "Classroom Resources '79," a guide to films, speakers and tours available through Central Illinois Light Company's Community Relations Department.

According to Ted Krosse, CILCO community relations representative, the guide features information on the 100th anniversary of Edison's invention of the incandescent light, plus appropriate photos and quotations.

CILCO sent the booklet to all high school science and social studies teachers in its service area, as well as to all elementary teachers in grades 5 through 8, Krosse added.

Other highlights

Highlighted this year are film and speakers programs entitled "Edison's Miracle of Light" and "Mr. Edison's Dilemma." Also available is "American Enterprise Series: Innovation," a film that explores "the unique talent for turning crazy ideas into Yankee ingenuity." It looks at the ways in which great innovators like Edison, McCormick, Whitney, and Howe made America move. In addition, CILCO provides films on Edison's invention of the phonograph and motion picture camera, as well as booklets detailing experiments for students to perform.



Krosse said CILCO plans to form a Centennial of Light committee to coordinate events in its service area. Employees in the utility's district offices will work with local community leaders to foster education programs and other events commemorating Edison's inventions.

Cook named ICCL executive secretary

James G. Cook, president of the Thomas Alva Edison Foundation of Southfield, Mich., has been named executive secretary of the International Committee for the Centennial of Light (ICCL). His appointment was announced by Robert I. Smith, chairman of the ICCL and board chairman of Public Service Electric and Gas Co. of New Jersey.

The top-level executives of leading U.S. and international corporate and labor organizations serving on the ICCL direct and coordinate the activities planned for the Centennial.

Cook has been president of the Edison Foundation for the past 13 years, developing science programs for the nation's schools through symposia, Edison Science Youth Days, and the International Edison Birthday Celebration. A graduate of Michigan State University, he holds a masters degree in guidance and counseling from Eastern Michigan University.



Smithsonian Centennial Exhibit, first displayed at the AAAS annual meeting in Houston, Texas, in January. Houston Lighting and Power continued to show the exhibit in its downtown office building lobby for two weeks.

CIPSCO speakers wear Centennial blazers

Central Illinois Public Service Co. (CIPSCO) of Springfield, Ill., has pulled out all the stops for the Centennial of Light.

Members of its reactivated speakers bureau will wear blue blazers featuring a Centennial patch. The symbol has also been placed on all CIPSCO letterheads, publications, and other printed materials, including stuffers and bills.

According to Reg Akron of CIPSCO's public affairs department, the utility sponsored six students and teachers to the International Edison Birthday Celebration in February at

please turn to page 8

Edison's inventions: a chronological listing

Most people can identify Edison as the inventor of the light bulb, the phonograph, and the motion picture camera. Beyond that, their knowledge of his works is limited.

The following list of Edison's most significant inventions has been prepared at the request of many Edison Centennial News readers. (Edison earned 1,093 U.S. patents in all, more than any other individual.)

The list should help stimulate further planning of local Centennial events built around Edison's legacy.

1868 Invented electric vote recorder (Oct. 13).

1869 Invented electric stock ticker.

1872 Invented motograph and duplex, quadruplex, sextuplex and multiplex telegraph systems.

1874 Invented "electric pen" and manual duplicating press.

1875 Discovered "etheric force" (Nov. 22). (Twelve years later this was recognized as being due to electrical waves in free space — the foundation of wireless telegraphy or radio.)

Invented automatic copying machine (mimeograph), later sold to A.B. Dick.

1877 Invented telephone transmitter and the microphone (April 27).

Invented the phonograph (Dec. 6).

1878 Invented the microtasimeter, a device indicating minute heat variations by electrical means (July 29).

1879 Invented the incandescent electric light (Oct. 31).

Gave first public demonstration of electric street and building lighting in Menlo Park, N.J. (Dec. 31).

1880 Discovered "Edison Effect," the fundamental principle of the science of electronics.

Invented magnetic ore separator (April 3).

Invented and installed first electric railway for freight and passenger use (May 13).

1882 Began operation of first commercial electrical distribution station in New York City.

1883 Patented the electric indicator using "Edison Effect" (Nov. 15).

1885 Invented system of wireless telegraphy for use between moving trains and railway stations as well as ship-to-shore (March 27).

1889 First projected an experimental motion picture (Oct. 6).

1891 Patented the motion picture camera (Aug. 24).

1894 First commercial showing of motion pictures on Broadway in New York City (April 14).

1896 Invented the fluoroscope, using principles of x-ray for medicine and surgery.

1899 Invented the fluorescent light (May 16).

1902 Invented the alkaline storage battery.

1903 Invented the rotary kilns for cement production.

1905 Established the first Portland Cement mill.

Introduced new dictating machine which allowed the dictator to hear repetitions and note corrections.

1907 Introduced the first universal electric motor which operated on all lighting circuits.

1912 Introduced the Kinetophone (talking motion picture).

1914 Invented a method for producing synthetic carbolic acid.

Invented the Telescribe, combining the telephone and the dictating phonograph.

Patented electric safety lanterns for use by miners (Oct. 13).

1915 Established plants for manufacture of coal-tar derivatives.

As president of Naval Consulting Board, developed many inventions for military and naval use.

1927 Commenced experiments to discover a domestic source of natural rubber.

Centennial film

continued from page 2

clude "The Magic Lantern Show," "The Talking Machine," and "The Wizard of Menlo Park." He said he believes "A Centennial of Light" will be one of the most significant and widely seen productions in the firm's history.

Lectures

continued from page 2

chairman of the board and president of the Charles F. Kettering Foundation, Dayton, Ohio. The series concludes on May 24 when Dr. David L. Lewis, professor of business history, Graduate School of Business Administration, University of Michigan, lectures on Henry Ford.

Upcoming Centennial Events

SYNDICATED NEWSPAPER FEATURES, March: Features on Edison and Centennial themes will begin appearing in daily and weekly newspapers throughout the country and abroad.

EDISON FILM, March: Production will begin on a 30-minute motion picture covering all aspects of Edison's life. It will be used as a public service feature for television and will be offered to schools, civic and social groups.

FILM FESTIVAL, March 11-14: The 7th Annual Birmingham International Educational Film Festival in Birmingham, Alabama, will feature the Centennial by showing Edisonian films.

THE 28TH THOMAS ALVA EDISON SCIENCE INSTITUTE, March 19-20: Montana Power Company will cosponsor this year's Institute at the Montana State University campus in Bozeman. On the program are 16-18 lectures by outstanding scientists, engineers and science educators. More than 350 junior and senior high school teachers, counselors and administrators will attend.

NEW JERSEY TEACHERS WORKSHOP, March 21: The New Jersey Historical Commission is sponsoring a special Teachers Workshop on Thomas Edison, his heritage and the importance of electricity to industrial and technological development and the Centennial of Light.

ACADEMY AWARDS SALUTE TO EDISON, April: A special award will be made by the Academy of Motion Picture Arts and Sciences in honor of Edison's invention of the motion picture camera. Edison received the first honorary Academy membership in 1929.

EDISON CENTENNIAL SYMPOSIUM, SAN FRANCISCO, April 1-4: Over 1,000 government leaders, scientists, university professors and students from many countries have been invited. The symposium is the largest ever sponsored by the Electric Power Research Institute and the Thomas Alva Edison Foundation. It will examine technological and scientific progress over the past 100 years, and electricity's tremendous impact on the world. A special 1000-slide extravaganza will be one of the highlights of the meeting.

FLORIDA STATE SCIENCE FAIR, April 27-28: Sponsored by the "Florida Foundation for Future Scientists," this year's fair will be held in the Fort Myers area. Two thousand students and teachers will take special tours through Edison's summer home and laboratory. Edisonia displays also will be featured at the fair.

Today, we are entering another new era, a time when a new Edisonian spirit is sorely needed."

Dr. Frank Press
Science Adviser
to the President

CIPSCO

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Walt Disney World in Florida. This was the largest number sponsored by any utility.

Akron expects the complete CIPSCO Centennial program to be fully formulated by April 1979. It will include science fairs, exhibits and other activities. A "gala" celebration is planned for Oct. 21, the 100th anniversary of Edison's invention of the incandescent light.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Livvy Floren
Editorial Assistant: Kathleen D'Aloise
Staff Assistant: Swea Nightingale

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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EDISON,- CENTENNIAL
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CENTENNIAL OF LIGHT
1879 1979

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Edison Centennial News

MARCH 1979 VOLUME 2 NUMBER 3

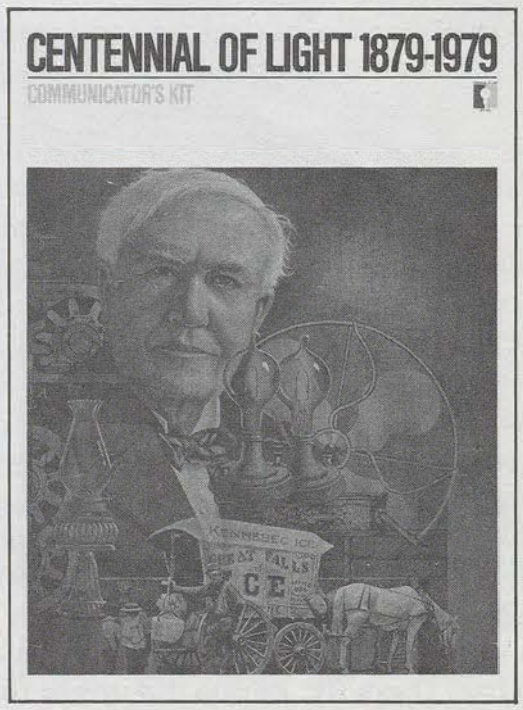
Communicator's Kits distributed to companies
Will aid local organizations in planning community events

Centennial of Light Communicator's Kits are being delivered this month to a wide variety of corporate, labor, and association communications executives throughout the United States and in many countries overseas who are planning local commemorations to coincide with the worldwide program.

A transmittal letter from Tom Sedlar, vice president of Reddy Communications, Inc., public relations counsel to the International Committee for the Centennial of Light, says: "We have designed (the kit) so that you and your organization can easily and inexpensively tie in with the year-long Centennial...(and) highlight Edison in your area as the symbol of technology's ability to solve problems and improve the quality of life."

Each Communicator's Kit contains:

•A catalog for ordering tie-in materials, such as exhibits, educational programs, booklets, slide shows, movies,



public-service announcements, photographs and promotional items.

•Feature articles for internal and external media use.

•Speeches (long and short) about the Centennial's relevance.

•A roster of speakers available for any Centennial occasion.

•A sample copy of the Edison Centennial News.

•Camera-ready artwork of the Centennial of Light symbol.

•Edison chronology, quotes and bibliography.

•A calendar of upcoming Centennial events and activities.

The kits will be supplemented periodically as new Centennial materials become available.

While supplies last, single Communicator's Kits are being sent, free of charge, to organizations supporting the Centennial. On orders for additional kits there will be a charge of $5.00 (plus shipping) per kit.



On receiving his company's copy of the Centennial of Light Communicator's Kit, Irving J. Levine, assistant director of public information for Consolidated Edison, convened members of the public affairs staff to familiarize them with its contents.

Edison musical available

A lively musical play about the early childhood of Thomas Alva Edison is available for local sponsorship throughout the Centennial year.

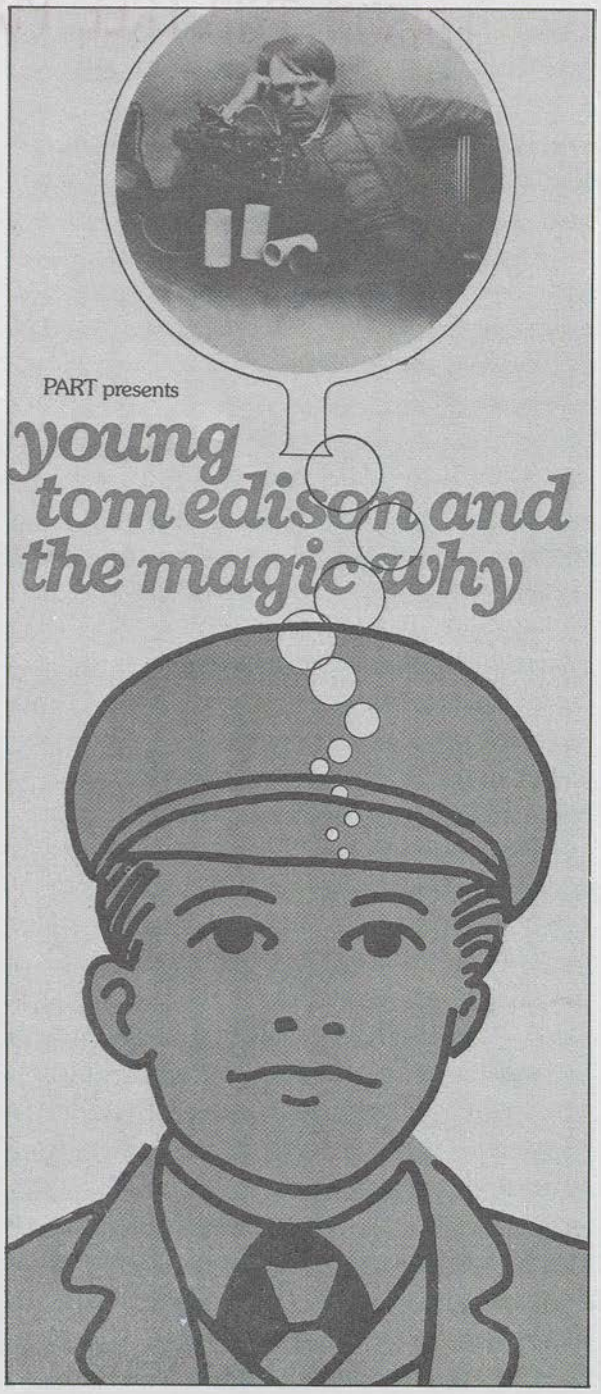
First produced a decade ago, "Young Tom Edison and The Magic Why" is being revived and expanded for the Centennial period by the Performing Arts Repertory Theatre (PART) Foundation Inc. of New York. It has previously been performed for 600 thousand youngsters and their families in the East and Southeast, including audiences at Lincoln Center in New York City.

The revamped production highlights how Tom Edison's independent, impetuous spirit and love of experimentation embroil him in troubles at home and in school. But Tom perseveres in his scientific inquiry and, assisted by the magical "Why," ingeniously saves a neighboring community in crisis.

"Many of the events of the play are factual," according to PART managing director Charles Hull, "and the characters are based on real people. Tom really did attend Reverend Engle's school and did try to make his friend Michael Oates fly. Edison did invent the word 'hello' during his work to improve Bell's telephone, and he did signal Sarnia, Canada, by steam whistle during an emergency. And the burned baggage car in which Tom had his laboratory has been preserved as a monument at Smith's Creek, Michigan."

The PART production's "book" is by Robert K. Adams, whose credits include comedy writing, Shakespearean acting on Broadway, and duty as an NBC national production manager. Music and lyrics are by Martin Kalmanoff, whose compositions range from pop songs recorded by Elvis Presley to operas sung by Robert Merrill.

A reviewer for the Children's Entertainment Section of the New York Times called PART "a company that can generally be counted on to give young people a high quality theater experience. The shows are usually musical biographies . . . done with professionalism, pride, poignancy and punch. Facts are well-researched and authenticity is a by-word. Yet, there's always a sense of theater."



A Winston-Salem (N.C.) Journal critic wrote: ". . . those who are fortunate enough to see 'Young Tom Edison' will not only never forget it, but will develop a taste for the theater that will provide them many delights in the years to come."

The weekly cost for appearances by the PART traveling troupe is $7,500. This covers up to 10 performances in up to 10 locations provided by local sponsors. It also includes expenses for the cast, sets, costumes, transportation and promotional materials.

The Edison production has already been booked for 1979-80 season performances in Michigan, New York, Texas, Oklahoma, Kansas, Nebraska, the Dakotas, Idaho and Wyoming.

Full details are available from PART Foundation, P.O. Box 415, Cathedral Station, New York, N.Y. 10025. Telephone (212) 866-9191.

Poster board theme: "light" a bulb

In late spring an Edison-theme educational game will be ready to accompany the Smithsonian's traveling Centennial of Light exhibit, "Edison and the Electrical Age — 100 Years."

The board game in poster form, complete with information cards and dice, is built around Edison, his invention of the electric light bulb, and the world in which he lived. Although the game won't be electrified, the players' goal is to "light" a bulb while learning about electricity in the process. Local museums and galleries hosting the exhibit will handle game distribution.

Further details will be available in the April issue of Edison Centennial News. Or contact: Marjorie Share, Educational Coordinator, Smithsonian Institution Traveling Exhibition Service (SITES), Washington, D.C. 20560. Telephone (202) 381-6631.

Dallas students to be awarded scholarships

Dallas area students will soon compete for Centennial of Light Science Awards and three scholarships for $500, $250 and $100. They will be recognized at a mid-June science fair sponsored by the Texas Power & Light Company in cooperation with the Texas Science Teachers Association.

Energy projects submitted by entrants from grades 9-12 will be screened for excellence by a panel of educators and industry officials. Up to 50 finalists will be invited, with their teachers, to the fair in Trinidad, Texas, for final panel judging. All expenses will be paid by the Dallas utility.

According to Steve Williams, TP&L's supervisor of program development, each participant in the Trinidad fair will receive a certificate of accomplishment signed by TP&L's president, R.K. Campbell. The three top finalists will win the scholarships.

Schools, libraries to receive Edison posters

McGraw-Edison announces ambitious local and national Centennial program

Sets of two, four-color posters highlighting the ideas of Thomas Alva Edison are being distributed nationally to schools and libraries by McGraw-Edison Company. Each poster features a memorable quote from Edison's diary, accompanied by a red-neon simulation of the inventor's distinctive signature.

One poster reads: **"The Man who doesn't make up his mind to cultivate the habit of thinking misses the greatest pleasure in life. He not only misses the greatest pleasure, he cannot make the most of himself. All progress, all success, springs from thinking."**

The other says: **"When I want to discover something, I begin by reading up on everything that has been done in the past. That's what all the books in the library are for. I gather the data of thousands of experiments as a starting point, and then I make thousands more."**

The poster sets are available in limited quantities from: Edison Posters, Corporate Communications Dept., McGraw-Edison, 333 W. River Rd., Elgin, Ill. 60120.

McGraw-Edison Company — a billion-dollar manufacturer of electrical products for industrial, power systems, commercial and consumer markets worldwide — has ambitious plans to commemorate founding-father Thomas Alva Edison's invention of the incandescent lamp in 1879.

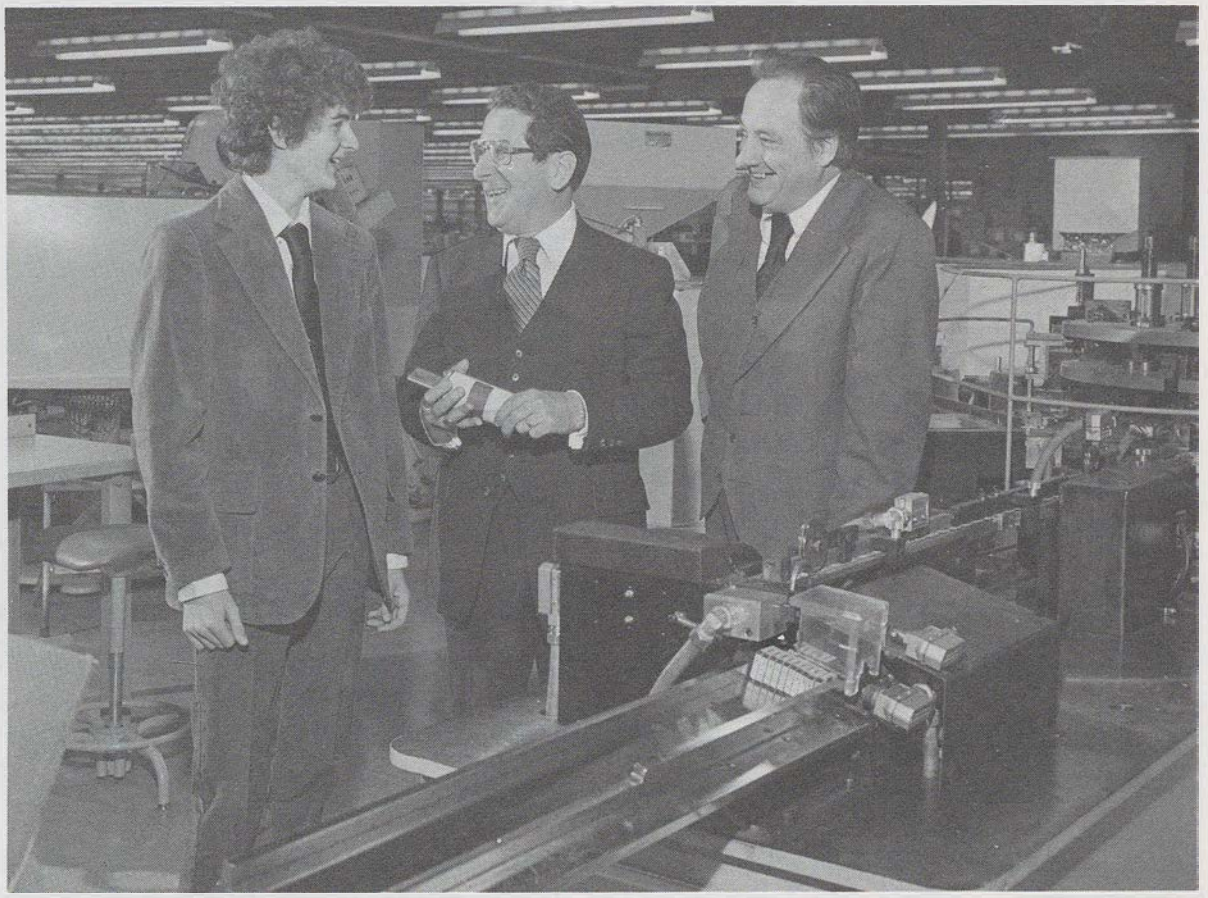
At the 6th annual Energy Technology Conference in Washington, D.C., Feb. 26-28, McGraw-Edison premiered its modular electrical power exhibit, tracing the growth of electric power from the Pearl St. Station of 1882 in New York City to the present day and beyond. It will be available for use at corporate plant facilities and will be offered to other firms and organizations for lobby display and other uses.

Greenfield Village weekend

On a weekend to be scheduled this fall, the company will host outstanding employees and their spouses at the Edison Institute, Dearborn, Mich. A dinner-dance is planned for the couples, along with a full day's tour of Greenfield Village and the Henry Ford Museum.

As a memento, each honored employee will receive a special trophy—a replica of Edison's original incandescent lamp, plus a plaque, in a plexiglass housing.

A sample of the trophy will be featured in a free-standing, energy-efficient lighting fixture which McGraw-Edison will display in the main lobbies of its 90 plant facilities worldwide. With it will be framed copies of some of Edison's major patents, and copies of a special corporate brochure on the Centennial of Light, Edison's inventive achievements, and the importance of the special personal qualities which accounted for Edison's inventive genius and many innovations.



St. Louis high school junior Richard K. Waldo, left, winner of the "The Next 100 Years of Electricity" essay contest, examines the assembly of a fuse on the production line with Robert E. Murray (center), president of Bussman Manufacturing Division, McGraw-Edison Co., and Louis C. Lunte, Richard's science teacher.

President on ICCL

Edward J. Williams, McGraw-Edison's president and chief executive officer, is a member of the International Committee for the Centennial of Light, which is coordinating the year-long commemoration.

The Elgin, Ill., firm resulted from a 1957 merger of Thomas A. Edison, Inc. and McGraw Electric, producer of the original pop-up toaster. Its household products today include Edison heaters and power tools, as well as Toastmaster toasters, broilers and fans; Speed Queen washers and dryers, and Modern Maid built-in kitchen appliances and microwave ovens. It has 24,000 employees and operates 90 manufacturing facilities in the U.S., Canada, Mexico and Europe.

February sets tone for Centennial year

The Centennial of Light will reach a number of crescendos during 1979.

One of them lasted the entire month of February, as one Edison-related event after another drew heavy media and public attention.

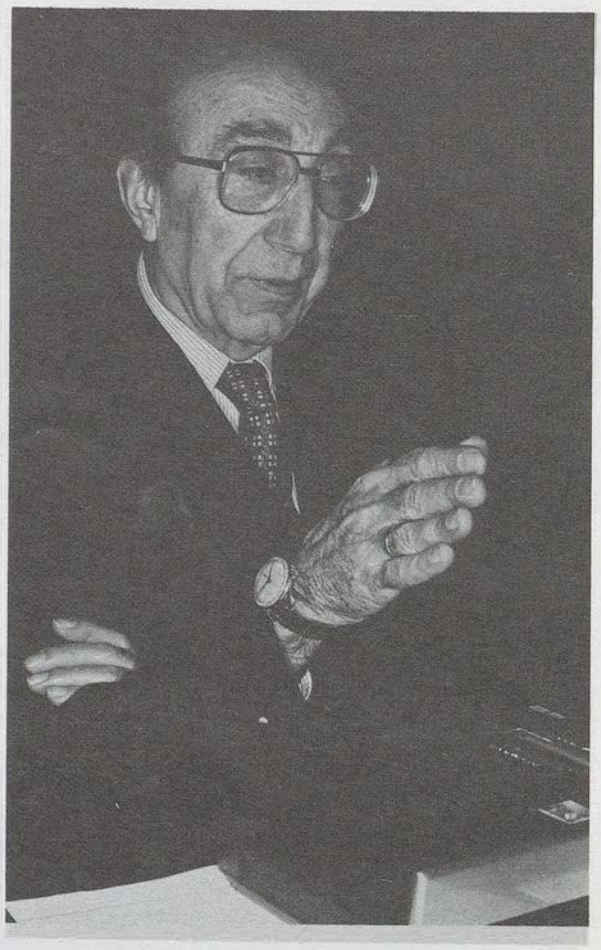
Science and travel features in the New York Times triggered many calls to the Centennial information center in Greenwich, Conn.

A Julie Fredericks interview for AP Radio with International Committee Executive Secretary James G. Cook was carried by hundreds of stations nationally. It was taped in Washington, D.C., when Cook and members of the International Committee for the Centennial of Light gathered for a meeting with key Administration officials at the White House on Feb. 14.

AP business columnist John Cuniff's interview with Cook at about the same time appeared in hundreds of newspapers across the nation.

Youngsters watching "In the News," the CBS-TV Saturday morning featurette, learned about Edison and his many inventions.

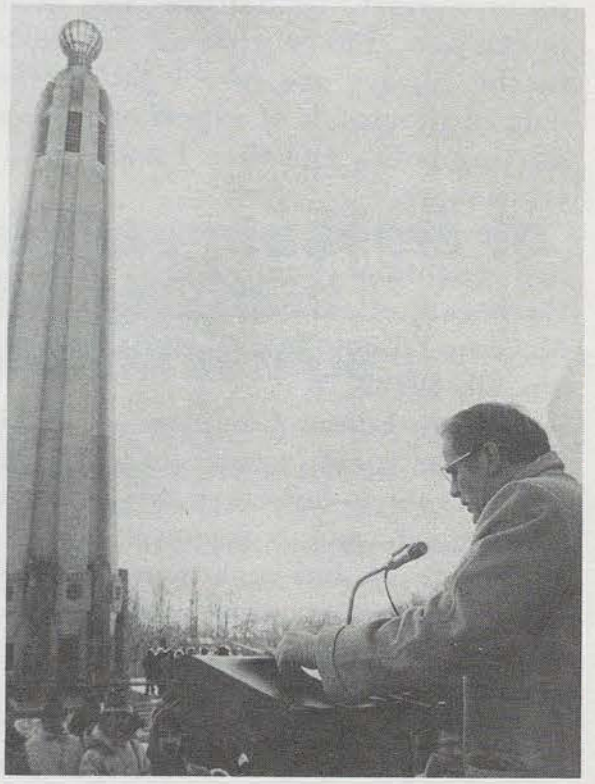
Much of the coverage was triggered by Edison's birthday on Feb. 11, the date appropriately picked as National Inventors Day. Edison figured prominently in the opening of a permanent National Inventors Hall of Fame exhibit at the U.S. Patent and Trademark Office in Arlington, Va. He was the Hall's very first inductee in 1974.



Dr. Michael DeBakey makes a point while conducting a seminar on "Advances in Heart Disease" at this year's 23rd International Edison Birthday Celebration.

Hometown papers covered the personal pride and exhilaration felt by honor students chosen to attend the 23rd Edison Birthday Celebration at Walt Disney World, Fla., where the students would be addressed by Dr. Michael DeBakey and other distinguished scientific figures.

The Kokomo (Ind.) *Tribune* ran a three-photo feature on the rehearsals and other preparations of a local high school marching band honored by an invitation to perform in the annual Pageant of Light celebration in Fort Myers, Fla.



New Jersey Gov. Brendan Byrne at proclamation signing Feb. 11 announcing the Edison Centennial year at Lighting Tower Memorial in Edison, N.J. Site is where Edison's Menlo Park compound originally stood.



ICCL members discuss Centennial plans and goals at White House meeting with President Carter's science adviser, Dr. Frank Press on Feb. 14.

Many governors issued proclamations designating 1979 as the Centennial of Light year in their states. In some cases, young science students were on hand with their teachers or parents for the

continued on page 8

State Coordinators Named for Edison Centennial Scholars Program

The International Committee for the Centennial of Light is funding an Edison Scholars Program to award $1,000 merit scholarships to 100 high school seniors "whose spirit of creativity, dedication and belief in individual initiative most favorably compares with the philosophy of Thomas Edison."

Selection of the 100 Edison Centennial Scholars — one male and one female high school senior from each of the 50 states — will take place in April. The selection process is being coordinated by the National Science Supervisors Association and the Council of State Science Supervisors. All scholarship recipients will be invited to a special scientific symposium on May 3-5 at the General Electric Lighting Institute, Nela Park, Cleveland, Ohio.

Companies participating in the Centennial of Light are urged to contact their local state science coordinator for publicity tie-ins, sponsorship of students to the symposium, and general liaison. Robert A. Dean, curriculum coordinator-science, Department of Education, San Diego County, 6401 Linda Vista Road, San Diego, CA 92111 (714) 292-3500, is overall program coordinator. The individual state coordinators are:

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A Century of Light

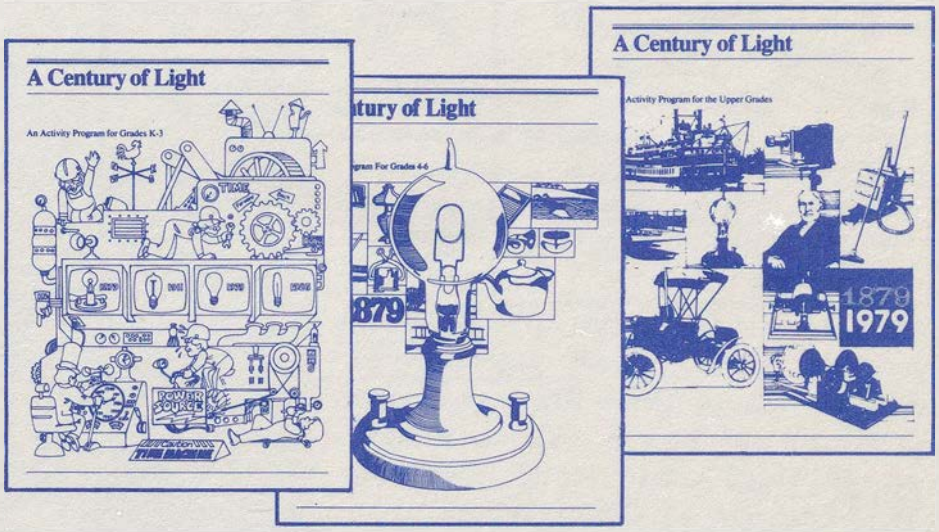
One hundred years ago—

on October 21, 1879—Thomas Alva Edison invented the incandescent electric light, heralding a century of scientific and technological progress. To commemorate the event, a year-long Centennial of Light has been planned by the International Committee for the Centennial of Light, a committee made up of leaders of industry and labor. As part of the scheduled events and activities of that celebration, the Centennial Committee has prepared three separate classroom activity units for the young people in your community, their teachers, and their parents.

A CENTURY OF LIGHT has been developed by education specialists to reach children in three grade levels:

- Kindergarten through grade 3
- Grade 4 through grade 6
- Upper level students in junior and senior high schools

Each kit of materials consists of • six spirit-duplicating activity masters • a 17" x 22" wall poster and • a sturdy illustrated file folder on which is printed a guide for the teacher. The program kits are interdisciplinary, leading students at every age into an exploration of some aspect of social studies, science, or the language arts.



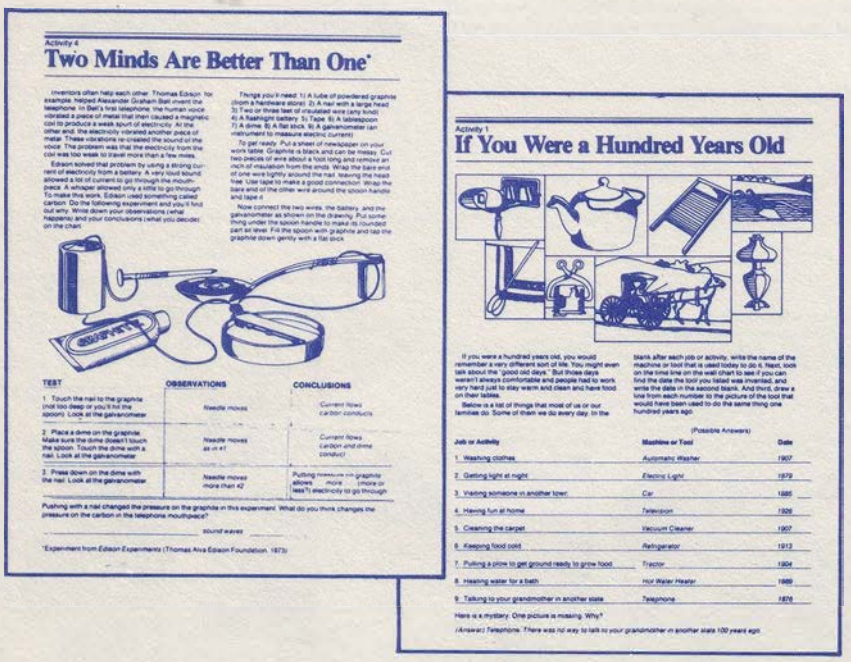
A CENTURY OF LIGHT is made available to sponsors across the country to distribute to schools in their area as a public service, providing a splendid opportunity for school children to evaluate the impact of technology on their lives and the lives of their families. YOU WILL FIND ORDERING INFORMATION ON THE REVERSE SIDE OF THIS SHEET.

These are the topics and the activities students will enjoy:



K-3

The activities in A CENTURY OF LIGHT for primaries help both readers and non-readers bridge the gap of time between past, present, and their own futures. They climb aboard a "let's pretend" time machine and simulate a day in the life of boys and girls of a hundred years ago. They use their imaginations to solve some simple everyday problems. They perform actual scientific experiments —with their teacher's or their parent's help; they observe and make reports. One side of the colorful wallchart pictures seven inventors, showing their inventions and telling an anecdote about each of their childhoods. The second side illustrates events in the boyhood of Tom Edison.


Activity 4

Two Minds Are Better Than One*

Inventors often help each other. Thomas Edison, for example, helped Alexander Graham Bell invent the telephone. In Bell's first telephone, the human voice vibrated a piece of metal that then caused a magnetic coil to produce a weak spurt of electricity. At the other end, the electricity vibrated another piece of metal. These vibrations re-created the sound of the voice. The problem was that the electricity from the coil was too weak to travel more than a few miles.

Edison solved that problem by using a strong current of electricity from a battery. A very loud sound allowed a lot of current to go through the mouthpiece. A whisper allowed only a little to go through. To make this work, Edison used something called carbon. Do the following experiment and you'll find out why. Write down your observations (what happens) and your conclusions (what you decide) on the chart.

Things you'll need: 1) A tube of powdered graphite (from a hardware store) 2) A nail with a large head 3) Two or three feet of insulated wire (any kind) 4) A flashlight battery 5) Tape 6) A tablespoon 7) A dime 8) A flat stick 9) A galvanometer (an instrument to measure electric current)

To get ready: Put a sheet of newspaper on your work table. Graphite is black and can be messy. Cut two pieces of wire about a foot long and remove an inch of insulation from the ends. Wrap the bare end of one wire tightly around the nail, leaving the head free. Use tape to make a good connection. Wrap the bare end of the other wire around the spoon handle and tape it.

Now connect the two wires, the battery, and the galvanometer as shown on the drawing. Put something under the spoon handle to make its rounded part sit level. Fill the spoon with graphite and tap the graphite down gently with a flat stick.

TEST	OBSERVATIONS	CONCLUSIONS
1. Touch the nail to the graphite (not too deep or you'll hit the spoon). Look at the galvanometer.	Needle moves.	Current flows. Carbon conducts.
2. Place a dime on the graphite. Make sure the dime doesn't touch the spoon. Touch the dime with a nail. Look at the galvanometer.	Needle moves as in #1.	Current flows. Carbon and dime conduct.
3. Press down on the dime with the nail. Look at the galvanometer.	Needle moves more than #2.	Putting pressure on graphite allows more / more or less*) electricity to go through.

Pushing with a nail changed the pressure on the graphite in this experiment. What do you think changes the pressure on the carbon in the telephone mouthpiece?

_____ sound waves _____

*Experiment from *Edison Experiments* (Thomas Alva Edison Foundation, 1973)

Activity 1

If You Were a Hundred Years Old

If you were a hundred years old, you would remember a very different sort of life. You might even talk about the "good old days." But those days weren't always comfortable and people had to work very hard just to stay warm and clean and have food on their tables.

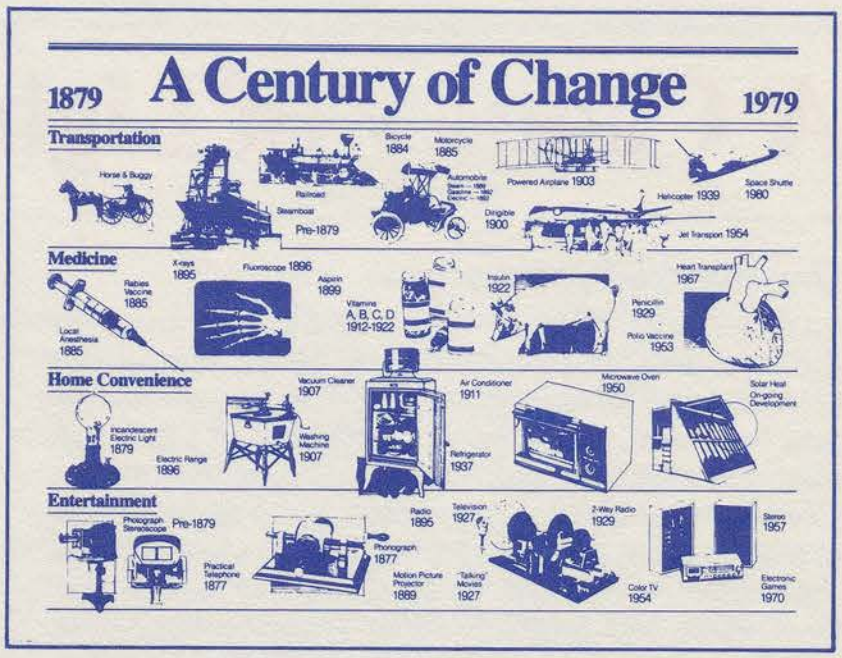
Below is a list of things that most of us or our families do. Some of them we do every day. In the blank after each job or activity, write the name of the machine or tool that is used today to do it. Next, look on the time line on the wall chart to see if you can find the date the tool you listed was invented, and write the date in the second blank. And third, draw a line from each number to the picture of the tool that would have been used to do the same thing one hundred years ago.

(Possible Answers)

Job or Activity	Machine or Tool	Date
1. Washing clothes	*Automatic Washer*	*1907*
2. Getting light at night	*Electric Light*	*1879*
3. Visiting someone in another town	*Car*	*1885*
4. Having fun at home	*Television*	*1926*
5. Cleaning the carpet	*Vacuum Cleaner*	*1907*
6. Keeping food cold	*Refrigerator*	*1913*
7. Pulling a plow to get ground ready to grow food	*Tractor*	*1904*
8. Heating water for a bath	*Hot Water Heater*	*1889*
9. Talking to your grandmother in another state	*Telephone*	*1876*

Here is a mystery. One picture is missing. Why?

(Answer) Telephone. There was no way to talk to your grandmother in another state 100 years ago.



4-6

The activities in the intermediate kit show students how technology has made their lives more convenient—and more fun. They locate a dozen or more common household tools on a timeline wallchart. They identify personality traits that may characterize an inventor, an engineer, or a scientist—traits that range from inquisitiveness to an awareness of the needs of society. This kit, too, includes experiments students can do in class using materials they can bring from home. Finally, students are reminded that they are the inventors and the problem solvers of the future as they "brainstorm" the challenges our society must meet in the decades to come.

Upper Level

A CENTURY OF LIGHT for students in junior and senior high school classes helps them measure the technological advances that have made life easier, safer, and more enjoyable for the whole population. They learn about the "scientific method," and using the steps of this process they solve a hypothetical problem and construct a "lab report." By performing experiments, conducting research, and compiling data, they identify ways technology can help solve society's problems. The teacher's guide with this unit—and with the other kits as well—includes background information, teaching methods, and a wealth of additional classroom and community activities to enrich and extend the program.

Here's How You Can Help the Young People in Your Community Celebrate the Centennial of Light in a Meaningful and Lasting Way...

Please designate numbers of primary, intermediate, and upper level kits. Kits are packed 150 to a carton.

Order kits today from:

Thomas Alva Edison Foundation
Cambridge Office Plaza, Suite 143
18280 West Ten Mile Road
Southfield, Michigan 48075

We will deliver them to your address and bill you at $2.00 per kit plus mailing or shipping charges.

Please send us the following **A Century of Light** programs, at $2 per kit:

_____Primary

_____Intermediate

_____Upper Level

We enclose our check for _____.

Please bill us _____.

_____

Name

_____

Address

_____

City

Florida P&L begins extensive Centennial events

Florida Power & Light Company is mounting one of the most comprehensive utility commemorations of the International Centennial of Light.

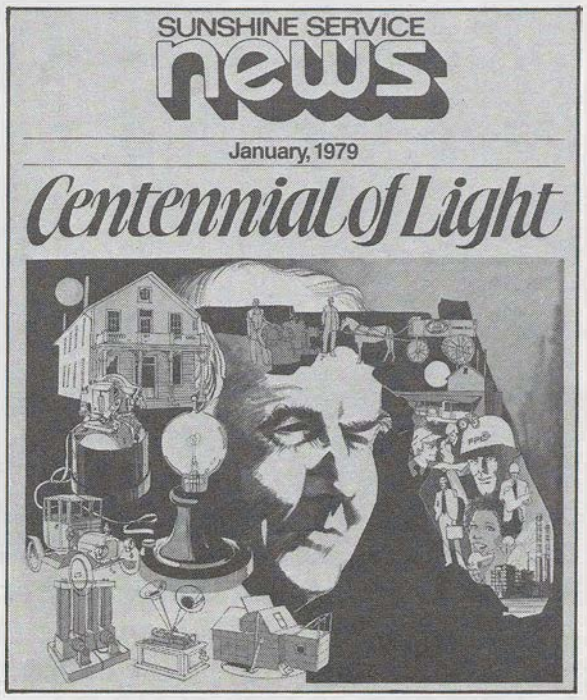
The "Sunshine State" utility has plans for just about everything under the Centennial sun, according to Dr. J. H. Francis, FPL's vice president for corporate communications. One of six investor-owned utilities in the state, Florida Power & Light serves 1.9 million customers and has 9,000 employees.

As of late February, the Miami-based utility reported the following highlights of its events and activities with many more on the drawing board:

•**Publications:** *"Edison—The Man Who Turned Darkness into Light," as well as various "experiments" booklets, ordered from the Thomas Alva Edison Foundation . . . . "Meet Tom Edison, America's Most Useful Citizen," a 16-page illustrated booklet, ordered from Channing L. Bete Co. . . . . Both were initially offered to 11,000 Dade County teachers, and notification to educators in 25 other counties is in the offing . . . . Also, a specially designed pamphlet for 5,000 educators promoting Edison Centennial of Light educational aids will be available.*

•**Films:** *FPL will sponsor Screen News Digest films in 14 Florida counties, including the 13-minute "The Talking Machine," a Hearst movie produced in 1977 (100th anniversary of Edison's invention of the phonograph) . . . and distribute a new Screen News Digest film on Edison when it is completed later in year. . . . These films, plus others (GE's "Thomas Edison: Reflections of a Genius" starring Pat Hingle; Paramount's "Thomas Edison's Glenmont," narrated by E. G. Marshall) will be used by FPL's Community Information Program Speakers Bureau for classroom presentations.*

•**Exhibits and tours:** *FPL's annual meeting for shareholders (April 17) will feature a Centennial display or exhibit. . . . With Florida Endowment for the Humanities, FPL and others are sponsoring one-month tour of 20 Florida colleges and universities of "Einstein the Man." This one-man stage show includes cross-references to celebration in 1979 of both Edison and Einstein Centennials . . . . "Energy Today & Tomorrow" (Oak Ridge Associated Universities program sponsored by FPL, Florida State Energy Office and six other utilities) will highlight Edison Centennial in its tour of 200 junior high and high schools.*



Shown above is the cover of FP&L's January employee publication. Pictured are: Edison's laboratory in Menlo Park, his invention of the ticker tape, the electric car, generators, the phonograph, the first moving picture studio, and, of course, the light bulb.

•**Industry-wide tie-in:** *FPL was one of 37 utilities in Florida Electric Power Coordinating Group sponsoring "Statewide Women's Conference on Energy" (Feb. 27 - Mar. 1). More than 100 key women opinion leaders from throughout Florida saw the Centennial slide presentation, received the official booklet, and attended the Energy Theatre featuring films about Edison.*

•**Educational groups:** *Six students and six science teachers from throughout FPL service area were sponsored at the Edison Birthday Celebration at Walt Disney World in February . . . . Information on Edison and the Centennial of Light will be sent to more than 120 libraries statewide through FPL's involvement in Edison Electric Institute's Library Grants Programs.*

•**Employee communications:** *"Sunshine Service News," FPL's employee newspaper, will carry regular monthly feature on Edison and his inventions under the "Centennial of Light" banner . . . . Discounts will be provided to all employees visiting Fort Myers Museum during Centennial year . . . . Speech linking Edison, the Centennial and FPL growth is being developed for company speakers bureau.*

24th annual Florida science fair dedicated to Centennial

Students and teachers attending the 24th annual Florida State Science Talent Search and Science Engineering Fair at Naples on April 27 will be able to tour the Edison complex at nearby Fort Myers.

Sponsored by the Florida Foundation for Future Scientists, the science programs and tour are being arranged by Florida Power & Light Company as International Centennial of Light events.

"Each year, state science fair participants are offered a tour in some way connected with science and techology," said Dr. Francis, vice president of the utility and a member of the FFFS Board of Directors. "We are especially pleased that we can offer this activity to encourage students through association with the memory of one of America's true geniuses."

The bus trip will include visits to the Edison winter home, laboratories, botanical gardens and museum.

Mississippi utility plans TV special

Mississippi Power & Light plans to commemorate the Centennial of Light with "at least one television special on Edison," according to spokesperson Katherine Nelson.

The utility's Centennial activities, she said, will be "at once a celebration of one of the great contributors to technology and a serious effort to find new pathways to the future—an extension of Edison's own example."

MP&L recently conducted an essay contest to select the high school students it sent to the Edison Birthday Celebration in February at Walt Disney World, Fla. All 43 nominated students attended an Edison Science Youth Day in Jackson, Miss., with their science teachers. Each student received an "Award of Excellence" and was photographed with MP&L's president, Donald C. Lutken.

Grand award winner Mary V. Duke of Vicksburg and her chemistry teacher were present when Mississippi Gov. Cliff Finch signed a proclamation designating Feb. 11, 1979, as Edison Science and Engineering Youth Day in the state.



Mary V. Duke of Vicksburg, winner of the grand award in the essay contest sponsored by MP&L and her teacher, Mrs. Kathryn Dupuy, are shown with Mississippi Gov. Cliff Finch. Standing at left are John D. Holland and Bill Cossar, both of MP & L.

In March, MP&L has Centennial of Light exhibits in the five display windows of its central office in Jackson. One features Edison and his incandescent lamp. The others compare antique and 1979 electric equipment used for cooking, water heating, home entertainment, and laundering.

Already using the Centennial symbol in all its corporate advertising, MP&L will feature the Edison celebration in "Helping Build Mississippi," its stockholder publication.

It will also sponsor a science fair competition built around electrical projects, and assist the Russell C. Davis Planetarium in Jackson in booking one of the Smithsonian's traveling exhibits devoted to Edison's life and achievements.

Plans are also underway for a special Speakers Bureau presentation on the Centennial, plus a portable exhibit for use at schools, shopping malls, and other display areas.

Governors sign Centennial proclamations

The International Centennial of Light drew special attention in most of the proclamations issued this year by State Governors commemorating Feb. 11 as Edison's birthday, Edison Science and Engineering Youth Day, and National Inventors Day.

In his Inventors Day proclamation, Gov. John V. Evans made special note that "Idaho has been and is most important in the mining, nuclear and agricultural industries — all of which depend greatly on inventions to make their work more efficient, effective and productive."

In a letter to ICCL Chairman Robert I. Smith, Gov. Carlos Romero-Barcelo of Puerto Rico commented: "We are all indebted to this remarkable man, who illuminated not only the incandescent electric lamp, but our lives as well."

"The future holds the promise of beneficial developments in many areas," wrote California Gov. Edmund G. Brown Jr., "and this promise can be fulfilled if inventors emulate the spirit and perseverance of Edison."

Several public officials thanked Chairman Smith for an ICCL fact sheet listing Edison's major achievements. Among them, Gov. George R. Ariyoshi remarked that it "should prove a useful document for International Centennial of Light activities in Hawaii."

"If the American spirit were ever summed up in one man, Thomas Edison would have to be that individual," observed U.S. Senator Jesse Helms of North Carolina. "I certainly do commend you for your efforts to see that a suitable tribute is paid to this great benefactor of the entire human race."

In Congressional Record remarks hailing Edison as "a man who created a better world for all," Rep. Robert K. Dornan (Calif.) pointed out to his colleagues that Edison "is responsible for the electrical vote recorder, which in our sphere of activity is certainly indispensable."

Editor's Note: About the vote recorder, author-historian John T. Cunningham has written: "Edison remembered forever the cool reception when he showed the vote recorder to a committee of Congress in 1868. 'Young man,' said the chairman, 'that is exactly what we don't want.' Anonymous, slow votes suited Congress just fine, the chairman explained. Edison vowed then to invent only items that would be 'in commercial demand.' "

More statements from ICCL members



Walker L. Cisler
Chairman,
Thomas Alva Edison Foundation

In my youth and as an emerging engineer, Thomas Edison was a great inspiration to me. It thrilled me to think of the man and his inventions. It is for all this and other reasons that I have found my association with the Thomas Alva Edison Foundation so rewarding. Our programs use the name of Edison to inspire the young people of the world to follow in his footsteps. Edison epitomizes to me the meaning of science and technology to mankind.

The Centennial of Light provides a unique opportunity to further the objectives of the Edison Foundation: to inspire young men and women to look into careers in science, technology and engineering, and, further, to insure that every student has an opportunity for a science education adequate for him to function in our ever-increasingly technological society.

It is because of science, technology and engineering that we are part of our unprecedented high standard of living. Many of our youth and those older blame technology for many woes that confront us. We need to have our young men and women understand that science is not the culprit, but rather the benefactor. The Centennial and the symbol of Edison's name provide an important means to return the image of science and engineering to the level of esteem in which it was held during those very productive years of Edison's life and in my own life as well.



Charles F. Luce
Chairman of the Board and Chief Executive Officer,
Consolidated Edison Company of New York, Inc.

Ninety-six years ago, Thomas Edison began operation of his famous Pearl Street Central Lighting Station in New York City.

Since the establishment of that first commercial lighting station, Con Edison and the people of New York City and Westchester have shared in the benefits of his technical, industrial, and humanitarian genius.

We are proud to join in a celebration of his accomplishments.

EEI celebrates black inventors

Lewis Howard Latimer, a colleague of Thomas Alva Edison, was featured in a series of five radio public-service announcements on black inventors and scientists who have made contributions to the electric utility industry. The Edison Electric Institute made the series available to its member companies for radio placement during February, which was "Black History Month."

Each spot began with the question, "Where do great ideas come from?" and closed with the answer, "They come from all of us."

The Latimore segment pointed out that he invented and patented a process for making carbon filaments for light bulbs, and supervised the installation of street lights in New York, Philadelphia and Toronto.

Four other black scientists recognized in this public-service series were: Granville Woods, whose 35 electrical inventions included the "third rail" system of railway power; J. Ernest Wilkens Jr., who contributed to the development of nuclear power; Louis W. Roberts, a pioneer in microwave; and Garrett A. Morgan, who invented the forerunner of today's four-way electric traffic signal.

Spain announces Centennial program

"Lux 79 Memorial Edison" is the name created for a year-long Spanish commemoration of Edison's invention of the incandescent lamp in 1879.

Seeking "to attain maximum exposure of all the technical and sociological aspects related to illumination," the program is sponsored by the Barcelona group of the Asociacion Electrotecnica Espanol, Valencia 169, Barcelona - 11.

Although planned by and for lighting professionals, "Lux 79" will also involve teachers, students and consumers, according to Ramon San-Martin Paramo, president of the Barcelona group.

Work groups are being created to develop discussion of various illumination problems. A major symposium is slated for the final quarter of 1979, and other expositions, fairs and congresses are planned. Also, awards will be given to the press, radio and television for stories, news reports or productions with lighting themes.

Noteworthy studies and reports will be published later in the year.



EDISON TWP. FREE PUBLIC LIBRARY

Upcoming Centennial Events

Syndicated Newspaper Features, March: Weekly features will begin in some 200 newspapers throughout the country and abroad on Edison, his life and his contributions.

Edison Film, March: High quality motion picture is planned on all aspects of Edison's life. It will be used as a public service feature for television and will be offered to schools, civic and social groups.

Film Festival, March 11-14: The 8th Annual Birmingham International Educational Film Festival in Birmingham, Alabama, will feature the Centennial and showings of Edisonian films.

The Montana Edison Centennial Science Institute, March 19-21: Montana Power Company and the Thomas Alva Edison Foundation will co-sponsor the 28th Edison Science Institute to be held at the Montana State University in Bozeman. The conference will consist of 20 lectures by some of the nation's outstanding scientists, engineers and science educators. In attendance will be approximately 400 Montana junior and senior high school science teachers, counselors and administrators.

New Jersey Teachers Workshop, March 21: New Jersey Historical Commission will sponsor a half-day Teachers Workshop on Thomas Edison, his heritage, the importance of electricity to industrial and technological development, and the Centennial of Light. It will be held at the Educational Improvement Center, Princeton, N.J.

Academy Award Salute to Thomas Edison, April 9: The Academy of Motion Picture Arts and Sciences plans to honor Thomas Edison for his invention of the motion-picture camera and contributions to the industry.

Edison Centennial Symposium on "Science, Technology and the Human Prospect," April 1-4: Co-sponsored by the Electric Power Research Institute and the Thomas Alva Edison Foundation, this symposium in San Francisco will bring together 1,000 invited leaders from science, industry, government, academia and the media to examine issues and future directions for science and technology. Added attractions include a multimedia spectacular reviewing technology and society over the past 100 years, and a banquet honoring the newest inductees into the National Inventors Hall of Fame.

Florida State Science Fair, April 27-28: This annual event sponsored by the "Florida Foundation for Future Scientists" will be held this year in the Fort Myers area. Two thousand students and teachers will take special tours through Edison's summer home and laboratory. Edisonia displays also will be at the fair.

February

continued from page 4

ceremonial signings.

Gov. Brendan T. Byrne was joined by local Congressman Edward J. Patten at festivities in Edison, N.J., the community formerly called Menlo Park. The occasion was the rededication of the 131-foot Edison Tower, topped by a 14-foot replica of the incandescent lamp invented in 1879. Town officials are now raising funds to restore the tower after a decade of disrepair.

Edison was memorialized by many members of the U.S. Senate and House of Representatives during February, and in a statement by President Carter hailing him as one who "brought change, opportunity and progress for all mankind."

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson
Editorial Assistant: Kathleen D'Aloise
Staff Assistant: Swea Nightingale

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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"ASK AT DESK" EDISON CENTENNIAL 1979

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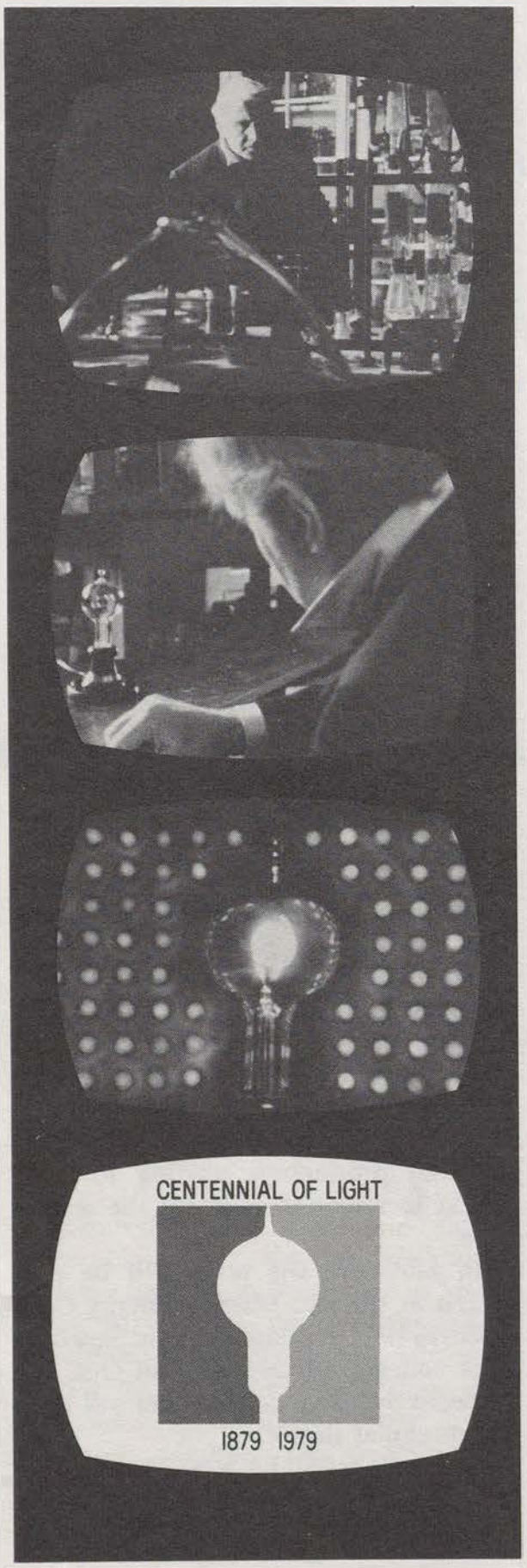
CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

APRIL 1979 VOLUME 2 NUMBER 4



Public service announcements for radio and TV available to Centennial participants

In the public interest the Centennial of Light has produced a series of television and radio announcements for Centennial sponsors to place with local stations—each of which uses an average of 200 public-service spots per week.

The 60-second television announcement was filmed on location at the Edison National Historic Site in West Orange, N.J. It opens on Thomas Edison doing research in his laboratory. A close-up of an incandescent lamp lingers on the filament, which appears to revolve in space. As the camera pulls away, blue and red bulbs surround the white incandescent lamp to form a replica of the Centennial of Light symbol. This dissolves into the actual red, white and blue Centennial logo and credits the International Committee for the Centennial of Light.

The narration points out that while ideas like Edison's light bulb changed the course of human history, the innovation recession in America today is dramatically affecting our economy and way of life. Viewers are urged to encourage new "Edisons" by supporting business and public involvement in research and development and to upgrade scientific education in order to "turn on America's brainpower as never before."

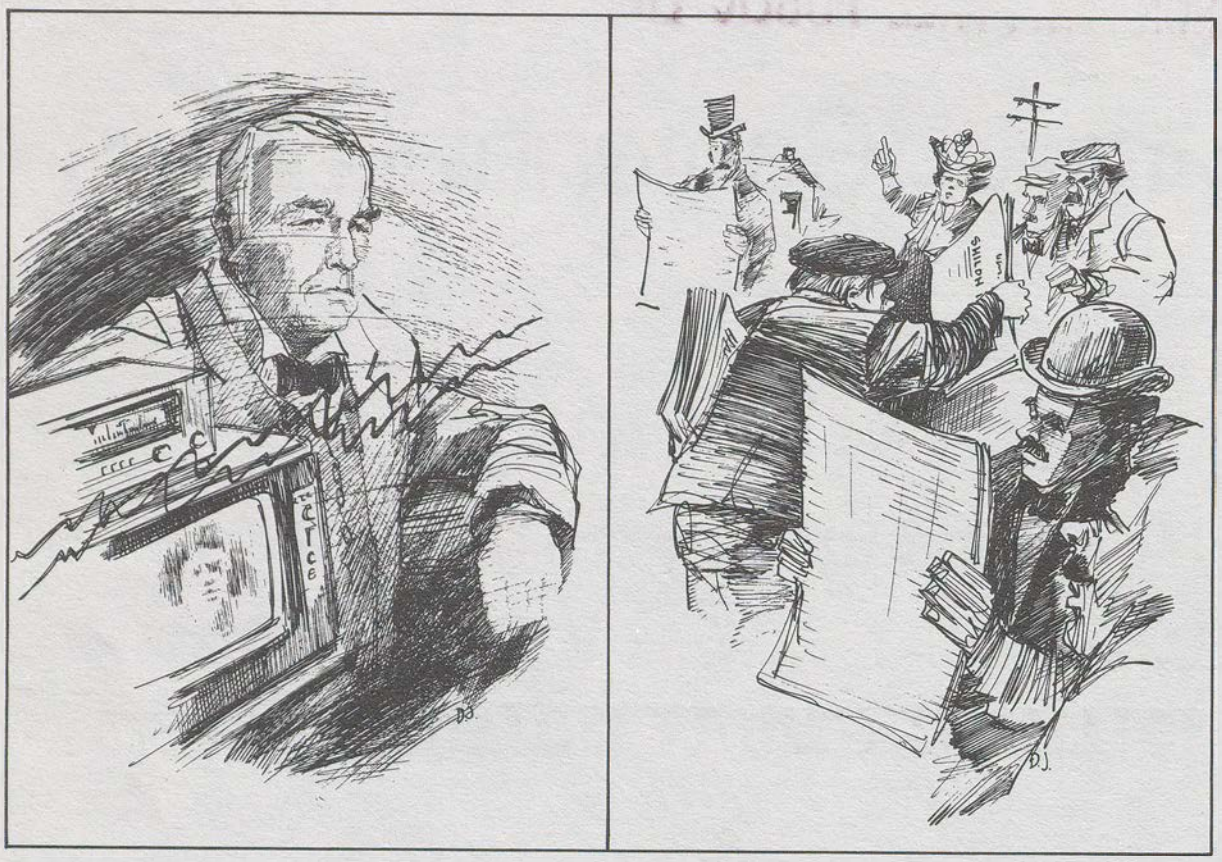
Similar themes featured in a series of 30-second and 60-second radio announcements are available on one side of a seven-inch LP disc. On the flip side are short interviews with Robert I. Smith, chairman of the International Committee for the Centennial of Light (ICCL), and with James G. Cook, executive secretary of the ICCL and president of the Thomas Alva Edison Foundation.

In addition to discussing the Centennial's goal to regenerate enthusiasm for scientific invention and technological innovation, Mr. Smith probes long-range problems and the commitment needed to meet future challenges to our quality of life. Mr. Cook stresses the educational goals and programs of the Centennial of Light "to inspire succeeding generations of students to investigate the world of science."

Both the television and the radio annoucements are available from the Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830. The cost of a 16mm color sound print is $45.00 plus shipping. The LP disc costs $30 plus shipping.

As Edison (played by actor Jan Leighton) examines artifacts in his laboratory in the public service announcement made for television, the narrator emphasizes the need to encourage new "Edisons" and to "turn on America's brainpower as never before."

Syndicated column begins



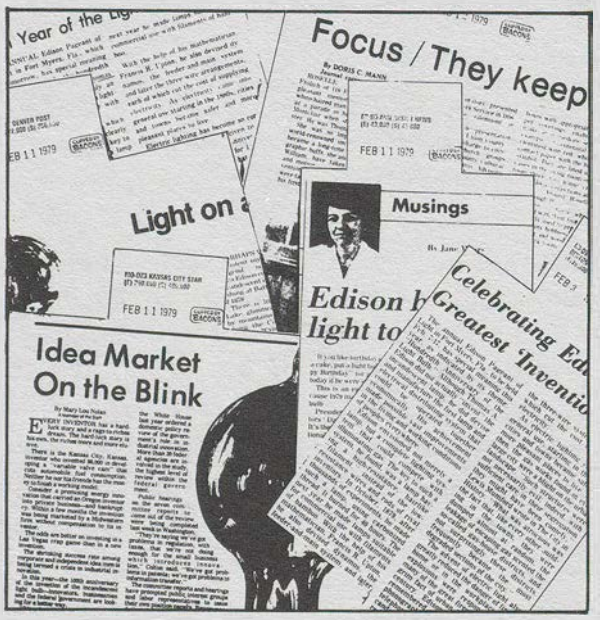
Two of the drawings appearing with Cunningham articles being sent to newspapers through utility companies. Artist is Bill Canfield.

A series of 18 articles—bannered "Edison's Life and Legacy"—is being specifically written for the Centennial of Light by noted author-historian John T. Cunningham. The series includes vignettes from Edison's life, encompassing his childhood, early career, spectacular inventions, magnificent failures and pervasive influence.

Investor-owned utilities throughout the United States are offering these articles for publication to local newspapers in their service areas, as well as reprinting the series in their own company publications.

The first article, entitled "They Called Him Wizard," gives an overview of Edison's contributions to science and humanity and explores the myths and legends that began to be interwoven into his life as early as 1877. The second article, "He Was a Little Addled," flashes back to Edison's youth and early careers as a vendor and "newspaper publisher" aboard a train. Subsequent stories will unfold chronologically and will feature his family, friends and colleagues from different periods and geographical locations in his life.

John T. Cunningham is chairman of the Edison Centennial Committee for the New Jersey Historical Commission. Many of his works, which include 14 books and more than 1,500 magazine articles, center on New Jersey, where Edison lived all his adult life. Mr. Cunningham wrote a series of articles similar to the "Edison's Life and Legacy" series during New Jersey's 300th birthday celebration in 1963-64. These "Tercentenary Tales" received several national awards and were eventually compiled into a book, "The New Jersey Sampler."



Newspapers across the country are avidly covering the "Centennial of Light."

Anyone out there know Edison?

A 93-year-old retired architect whose father worked for Thomas Alva Edison at Menlo Park recently recalled a chance meeting with the great inventor. "There was nothing stuck up about Tom Edison," Charles Carman said. "He was very friendly and never went around with a brass band."

We have received a number of requests from the media for quotes, descriptions and anecdotes from people who somehow associated with Edison.

If you know of someone who did, Edison Centennial News would like to know about that person, too. Please send names and addresses, plus brief background on their "Edison connection," to: Editor, Edison Centennial News, P.O. Box 1310, Greenwich, Conn. 06830.

Atlantic City will remember Edison the builder

Atlantic City, where Edison directed construction of some of the early hotels, is planning a vigorous Centennial program in cooperation with the Atlantic City Electric Co.

According to Dr. Fred Abbate, public affairs director for Atlantic City Electric, the utility is in the process of producing a one-man show, "The Idea of Edison." Previews will take place in the late spring, with the full-scale professional production starting in early fall at locations throughout the service area.

In addition, the plays will be presented at the two Science Energy Conferences held at Glassboro and Stockton state colleges on Oct. 19 and Oct. 26, respectively. Both conferences will have a Centennial theme.

Other plans call for a number of trips by area students to the Edison historic

please turn to page 8

Mrs. Sloane, 90, daughter of Edison, dies

Madeleine Edison Sloane, 90, daughter of Thomas Alva Edison, died Feb. 14. She was the first woman member of the Board of Directors of Western Union.



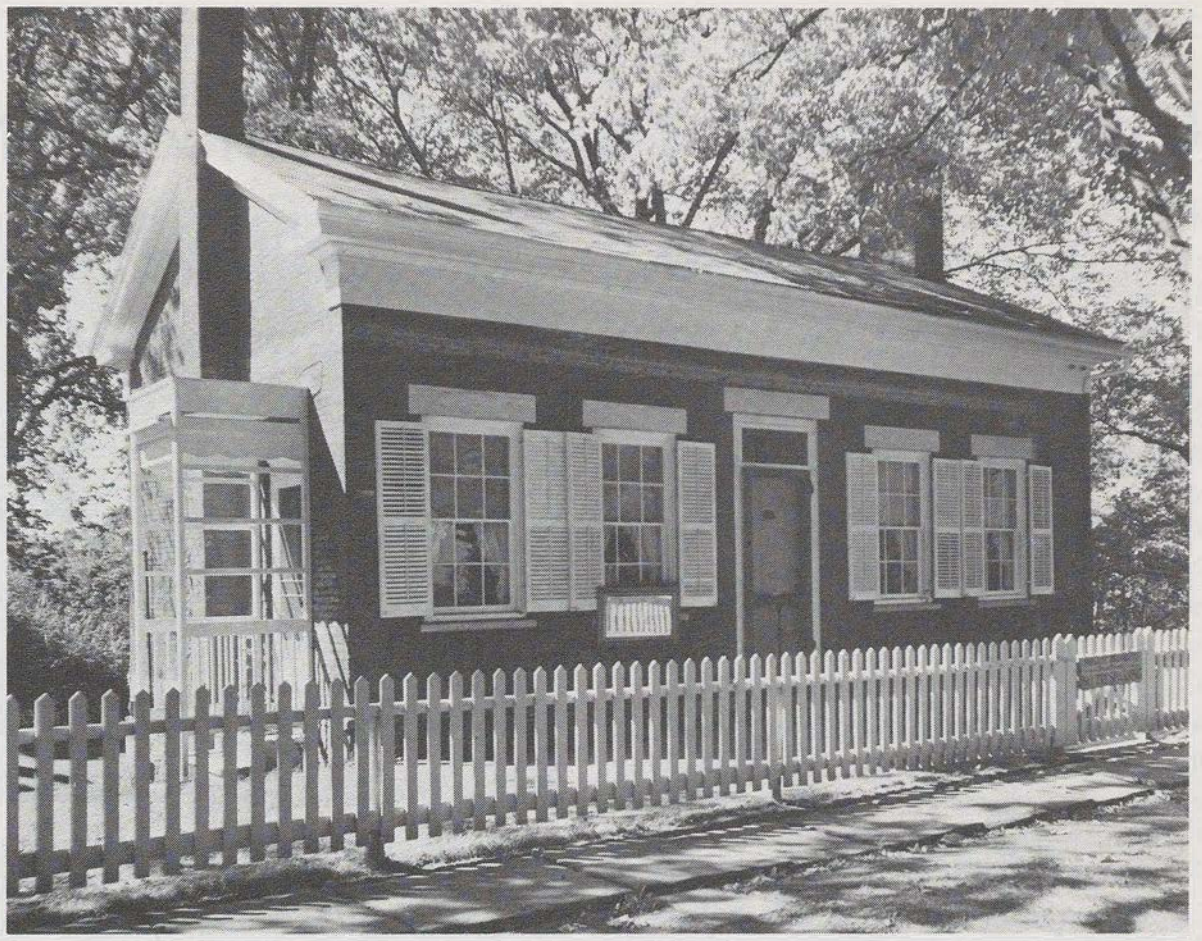
Madeleine Edison Sloane

Mrs. Sloane was born in West Orange, N.J., at "Glenmont," the Edison residence now part of the Edison National Historic Site.

In 1914, she married John Eyre Sloane and lived in New York City and Washington, D.C., before returning to West Orange to live.

Mrs. Sloane was a member of the Board of Trustees of the Newark Museum and of the Thomas A. Edison Foundation. After, she and her mother restored her fathers birthplace in Milan, Ohio, Mrs. Sloane became president of the Edison Birthplace Association Inc.

Mrs. Sloane is survived by three sons, Thomas E., John E. and Peter E. Another son, Michael, died in 1948. Also surviving are a brother, Theodore, of West Orange, seven grandchildren, and two great grandchildren.



The Edison birthplace in Milan, Ohio

Milan, Ohio

Edison's birthplace restored lovingly by his daughter

The Edison birthplace in Milan, Ohio, is a modest brick house that was once connected by a canal and the Huron River to Lake Erie. Now designated as a National Historic Landmark, the Edison home was restored by Mrs. Mina Edison and her daughter, Mrs. Madeleine Sloane ,in 1947, 100 years after Mr. Edison's birth.

Many of the furniture pieces have been provided by members of the Edison family, while others represent the period in history when the inventor was born.

Edison's birthplace is built on the side of a hill with a view over a valley where ruins of the Milan canal are located. It consists of three levels — the main floor, an upstairs and a lower floor that can be entered through a back door from the yard that slopes into the valley.

Also on the main floor is the parlor, which is now used for various exhibits, including pieces from a tea set that belonged to Edison's mother, a collection of original letters and sketches by the inventor himself, and models of the original phonograph and electric light.

For more than 40 years the home was out of the possession of the Edison family, but in 1896 a family member purchased and modernized it.

Electric lights were not added to the house until 1932. On a visit there, Edison expressed shock that his most famous invention was not installed in the home of his birth.

Near the Edison birthplace is the Milan Historical Museum. It contains a variety of displays, including early models of some of Edison's 1,093 patented inventions, as well as deeds, tax bills, paper money and letters from the period when Milan was a major port.

Teachers wishing to take classes on a field trip to Edison's birthplace should write to: Edison Birthplace Museum, Milan, Ohio 44846. Milan is located in Erie County, two miles south of Exit 7 on the Ohio Turnpike.

New Jersey fifth graders work for combined Centennial—Year of Child stamp

The fifth grade class of Our Lady of Lourdes School in West Orange, N.J., is working on a project which they hope will end with a unique commemorative stamp from the U.S. Postal Service.

To celebrate the Centennial of Light and the International Year of the Child, the students are designing a stamp symbolizing these two events with the theme, "Children of Today Create a Brighter Tomorrow."

The project is divided into four stages, according to the youngsters' teacher, Mrs. Doreen M. Holland. In stage one, the students began creating original designs for the stamp. Stage two officially began Feb. 15 when the local mayor became the first resident to sign the petition calling for a commemorative stamp. The children are distributing these petitions all over town to schools, churches, stores and all places of business, seeking to obtain signatures from as many residents as possible.

During the third stage, Mrs. Holland says, the children will write to fellow fifth grader Amy Carter, asking her to judge the designs. In the final stage the winning designs and the signed petitions will be delivered to the U.S. Postal Service, urging issuance of the stamp on Oct. 21, the 100th anniversary of the invention of the incandescent light.

Mrs. Holland says that even "if we fall short of our goal, it still will have provided my class with a learning experience they will long remember."



Sister Catherine Marita, principal of Our Lady of Lourdes School in West Orange, and Mrs. Doreen Holland, fifth grade teacher, watch as Mayor Samuel A. Spina signs a petition urging the United States Postal Service to issue an Edison commemorative stamp. Students are Mathew Lasher and Kathleen Huber.

Henry Ford II on Edison



Henry Ford II
Chairman,
Ford Motor Company

Thomas Edison's influence on our lives has extended far beyond his own brilliant achievements. My grandfather might have given up his efforts to develop a "horseless carriage" if Edison had not told him to "Keep on with your engine. If you can get what you are after, I can see a great future." The Edison Institute in Dearborn is a vital, enduring tribute to a great human benefactor, and we are proud that the Institute will serve as a major focal point of the Centennial of Light celebration.

Kansas City commemorates first organized night baseball game 49 years ago

Kansas City Gas and Electric Co., researching local history to develop a fitting Centennial of Light event, has come up with one involving baseball, the area's favorite sport. On April 28, KG&E will participate in a special ceremony at a game between the Kansas City Royals and the Cleveland Indians, commemorating the first night baseball game held between two organized professional teams exactly 49 years earlier.

That historic game pitted the Independence (Kansas) Producers against a team from Muskogee, Oklahoma. Both were Class D teams in the Western Association. Independence lost 13 to 3. Most of the 1000 fans who turned out were women.

Hundreds of Independence citizens will make the 180-mile trek to Kansas City to be part of the ceremony, which is co-sponsored by their newspaper, radio station, bank and chamber of commerce, and by the Royals booster club.

Night baseball wasn't entirely new in 1930. As early as 1880, two teams met in Lynn, Mass. However, all previous efforts before 1930 involved amateur games or exhibitions.

According to W.R. Murrow, then manager of the KG&E office in Independence, the 500-watt lamps were placed on 50- and 60-foot poles. After the installation was complete, tests determined that the diamond needed 20-foot candlepower and the outfield needed about half that. Today ballparks have about 75-foot candlepower throughout the field.

THOMAS A. EDISON

His achievements have a lesson for today's young

SUDDENLY SCIENCE has a name for them, "superkids" or "invulnerables" — children undaunted by economic, cultural or social deprivations.

They confound theorists swift to blame "society," poverty or some environmental element when a youngster fails to achieve or otherwise turns out badly. Chances are that such theorists would have had an excuse for Thomas A. Edison, the onetime $75-a-month Cincinnati telegrapher whose 132nd birth anniversary is tomorrow, if he'd turned out differently. For Mr. Edison's formal education lasted only three months — his mother yanked him out of class after his schoolmaster in Port Huron, Mich., told the district school inspector the boy, then seven, was "addled."

Addled or not, Tom Edison — self-educated with his mother's help and encouragement — was to cut a niche in history somewhat deeper than his schoolmaster's. Hawking newspapers, candy, sandwiches and peanuts on a train by age 12, he overcame any deprivations to astound the world with such inventions as the electric light bulb, phonograph and stock ticker. "Failure" was not in his vocabulary. After 10,000 unsuccessful experiments with a storage battery, Mr. Edison said, "Why, I have not failed. I've just found 10,000 ways that won't work."

So, yes, there have been many superkids or invulnerables. *Psychology Today's* January issue cites a Minneapolis boy, 10, "who lives in a delapidated apartment with his father, an ex-convict now dying of cancer, his illiterate mother and seven brothers and sisters, two of whom are mentally retarded. Yet his teachers describe him as an unusually competent child who does well in his studies and is loved by almost everyone in the school."

Thomas Edison was, to be sure, a genius. But his definition of genius is worth noting: "1% inspiration and 99% perspiration." Our guess is most youngsters, regardless of circumstances, have at least a touch of such genius. They need only to be motivated.

More research into motivation, less into excuses for lack of it, might not only prune welfare and unemployment rolls but also take a lot of the pressure off the nation's jails and prisons.

Cincinnati Enquirer
February 10, 1979

Edison cartoon booklet offered

A new Edison comic book, detailing Edison's life, and assessing the impact of electric power generation during the past century, has been published by Culver Publications Inc. of New York.

Titled "A Century of Light," the 16-page "educational cartoon booklet" (as the publisher prefers to call it) has a modern-day narrator taking a group of students through Edison's life, work, disappointments and successes, updating along the way the considerable progress that has been made in areas of work started by Edison. In addition, the narrator looks into the future of lighting and power generation, and the cost of energy, and describes the amount of energy output that will be required by 2000 A.D.

More than 20 companies have ordered the booklet so far. The cover has a space at the bottom of the front page where a company logo can be superimposed. Cost of the booklets are $117 per 1,000. Cost of putting a company logo on the booklets is $33 per 1,000.

Those companies interested in purchasing the booklets should write to: A Century of Light, Culver Publications Inc., 250 West 57th St., New York, N.Y. 10019.

Speakers available on Centennial topics

Need an extra-special speaker for an extra-special Centennial occasion this year?

The Centennial of Light Speakers Program may have just the right one for you.

Its roster already lists 10 men and women actively involved in Centennial planning, including experts on Edison's work, methodology and legacy.

According to George E. Shea, speakers program coordinator, "our speakers go well beyond the minutiae of Edison's career and challenge their audiences to see current and future problems through Edison's eyes." Shea is associate counselor at Reddy Communications Inc. (RCI), public relations counsel to the International Committee for the Centennial of Light.

In addition, Shea said, "we try to match the speaker and group, not only by topic, but by type and size of audience, and geographic area. For a major university symposium we'd probably suggest James G. Cook, president of the Thomas Alva Edison Foundation; or Robert Koolakian, curator of Edisonia at Greenfield Village and Henry Ford Museum in Dearborn, Mich.; or Reese Jenkins, director of the Edison Papers Project at Rutgers University.

"If lighting research and development are of special interest to a group, Jim Jensen, manager of GE's Lighting Institute, would fill the bill." But, he added, "if a public relations or advertising group wants to know the nuts and bolts of organizing the Centennial program worldwide, we'd probably send one of our Reddy Communications executives." Participating RCI speakers include: President Ashton B. Collins Jr., Vice President Thomas S. Sedlar, Counselors Robert D. Walsh, Livvy R. Floren, and Trina R. Lawson.

For further information on the Centennial of Light Speakers Program, contact George Shea, ICCL, P.O. Box 1310, Greenwich, Conn. 06830, or telephone: 800-243-8561.

On location:

With "Mr. Edison" at West Orange

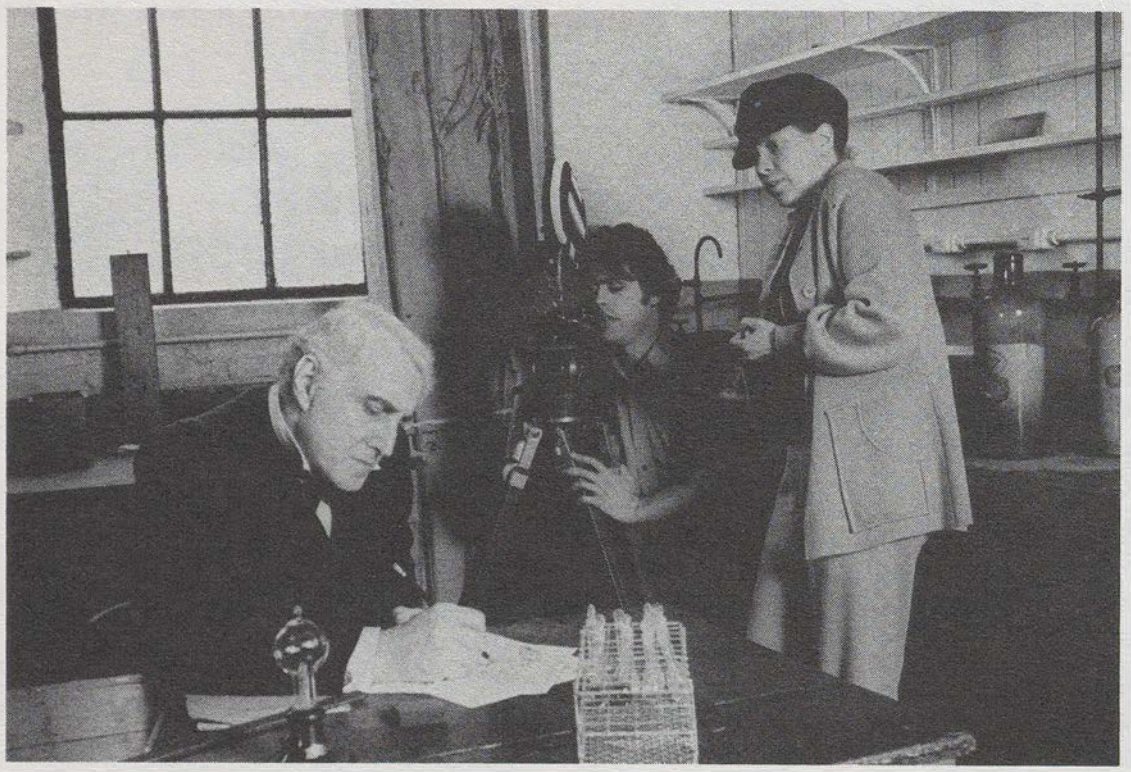
At the Edison National Historic Site in West Orange, N.J., a reporter recently observed: "While all the buildings are intact, it's the chemistry lab, with its rows of dusty varicolored bottles which speaks most of Edison, the inventor.... The lab contains only a few chemistry books (in German), some worktables, a modest array of beakers and test tubes and the graypainted table where Edison was working on the day he 'took sick' and left the lab for the last time."

At this same graypainted table in "Edison's favorite building" a film crew shot much of the TV public service announcement for the Centennial of Light. Everything in the lab remains as it was when Mr. Edison left for the last time on June 1, 1931. Thanks to the cooperation of the park rangers who administer the site, an authentic patina permeates the public-service spot.

Playing Edison is Jan Leighton, a veteran character actor listed in the Guinness Book of World Records (1978) for having professionally portrayed over 1,000 historical and famous persons. To get into character, he says, the transformation begins from within, works outward and is completed with wardrobe, in this case a winged-collar shirt, string tie and dark suit typical of Edison's day.

Leighton's portrayal was endorsed by Adolph Freda, who worked for Thomas Edison more than 50 years ago. Mr. Freda still operates the machine shop for visitors and points out the time clock where Edison used to punch in like all his workers.

On this particular day, Leighton punched in for work as "Mr. Edison."

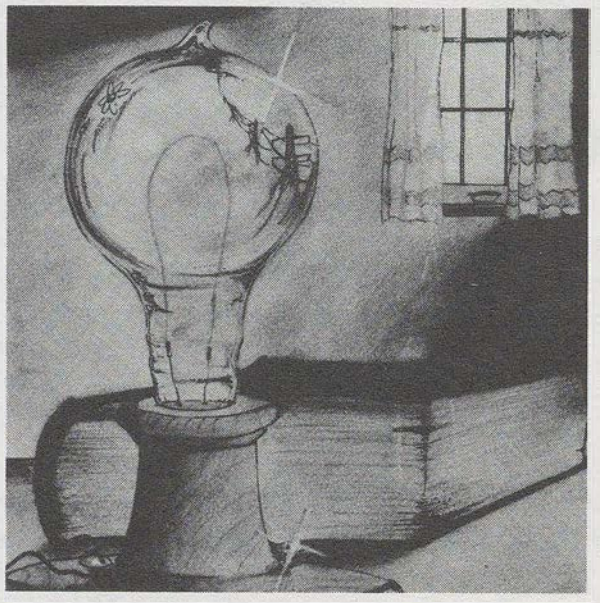


Preparing to portray Thomas Edison in the TV public-service announcement for the Centennial of Light, actor Jan Leighton reviews his "research" in Edison's West Orange, N.J., laboratory. Zooming in for a close-up is photographer Robin Bossert, as Nancy Woods directs the scene.

Alabama poster winner announced

Joel Richard McWhorter, an 11th grader from Decatur, Ala., received the "best of show" award for depicting his impression of the "Centennial of Light."

The student art contest was sponsored by the Birmingham International Educational Film Festival and the Thomas Alva Edison Foundation. All Alabama students in grades kindergarten through 12 who attend a state-accredited public, private, or parochial school were eligible to participate in the competition.



The best of show poster at the Birmingham International Film Festival was awarded to Joel R. McWhorter, an 11th grader from Decatur, Ala.

Best of show received a trophy at the Birmingham International Educational Film Festival Awards Gala on March 14, 1979. First, second, and third place trophies were presented in each division and all participants received certificates.

Judges for the contest were Livvy Floren, educational services counselor, Reddy Communications Inc., Greenwich, Conn.; Robert Friedel, Museum of History and Technology, Smithsonian Institution, Washington, D.C., John B. Hall, Ph.D., visual arts specialist, State Department of Education, Montgomery, Ala.; Wayne Pugh, art director, Alabama Power Company, Birmingham, Ala.; Daniel Moore, staff artist, Alabama Power Company, Birmingham, Ala., and John Schorrenberg, Ph.D., chairman, Art Department, University of Alabama, Birmingham, Ala.

Congressional Record abounds with Edison proclamations

The Congressional Record has recently carried many commentaries on Thomas Edison and the Centennial of Light. Calls and materials from the Centennial Information Center have resulted in laudatory statements about the inventor, his inventions and the year-long commemoration. The following are excerpts from two statements as they appeared in the Congressional Record in February at the time of Edison's Birthday and National Inventors Day:

**Senator Abraham A. Ribicoff of Connecticut:* "The Centennial of Light observance is to honor the memory of Thomas Edison, whose scientific and technological achievements changed the face of the Earth and human history. With the support of American businesses and industries, the Centennial programs are striving to upgrade scientific education and develop an environment conducive to more research and development and a resulting economic growth....

"I wish to commend the people who compose the International Committee for the Centennial of Light. It is through efforts such as this one that we may rekindle an Edison-like enthusiasm for discovery of ways to improve the quality of life throughout the world. ...Projects such as the Centennial of Light help to insure continued American preeminence in technology."

**Representative Joseph G. Minish of New Jersey:* "Sunday marked the 132nd anniversary of the birth of Thomas Alva Edison. Adding to the occasion's significance is the fact that 1979 has been designated the International Centennial of Light in honor of the 100th anniversary of Edison's invention of the incandescent light bulb. Mr. Speaker, we in New Jersey take a certain extra pride in the fact that Edison performed most of his important experiments in our state. Additionally, his home and main laboratories were located in the town of West Orange, which is in the district I have the honor of representing...."

ET6 focuses on Edison



Edison was the focus of a 90-minute session at the 6th annual Energy Technology Conference (ET6) in Washington, D.C., on Feb. 26. More than 300 registrants heard about Edison's human side from James G. Cook, president of the Thomas Alva Edison Foundation, and about his methodology from Dr. Bernard Finn, Smithsonian expert on electricity. Robert I. Smith, chairman of the International Committee for the Centennial of Light, explained how the Centennial portrays Edison as the symbol of technology's ability to solve problems and improve the quality of life. Henry Mulholland of Government Institutes Inc., ET6 coordinators, moderated the program. Smith is at Podium.

Scholarship winners to be GE's guests May 4 and 5 at Nela Park in Cleveland

Scholarship winners from all 50 states have been invited to receive their $1,000 Edison Scholars awards May 4 and 5, at General Electric's Lighting Division headquarters at Nela Park in Cleveland, Ohio.

Two scholarship winners from each state, one for the top male student and one for the top female student, are being chosen by the various state selection panels.

Edison scholars and their parents will be the guests of General Electric at the Sheraton Inn. The students will also be GE's guests for buffet breakfasts on Friday and Saturday mornings.

During their two-day stay, there will be a full schedule of lectures, seminars and tours, all part of the science and technology symposium at the Lighting Institute.

The two-day event will not be all work, however. On Friday evening students, parents and guests will be entertained by "Mr. Electric," a magician whose only props are light bulbs. Marvin Roy, "Mr. Electric," has performed across the country, appearing with performers like Liberace in Las Vegas.

Upcoming Centennial Events

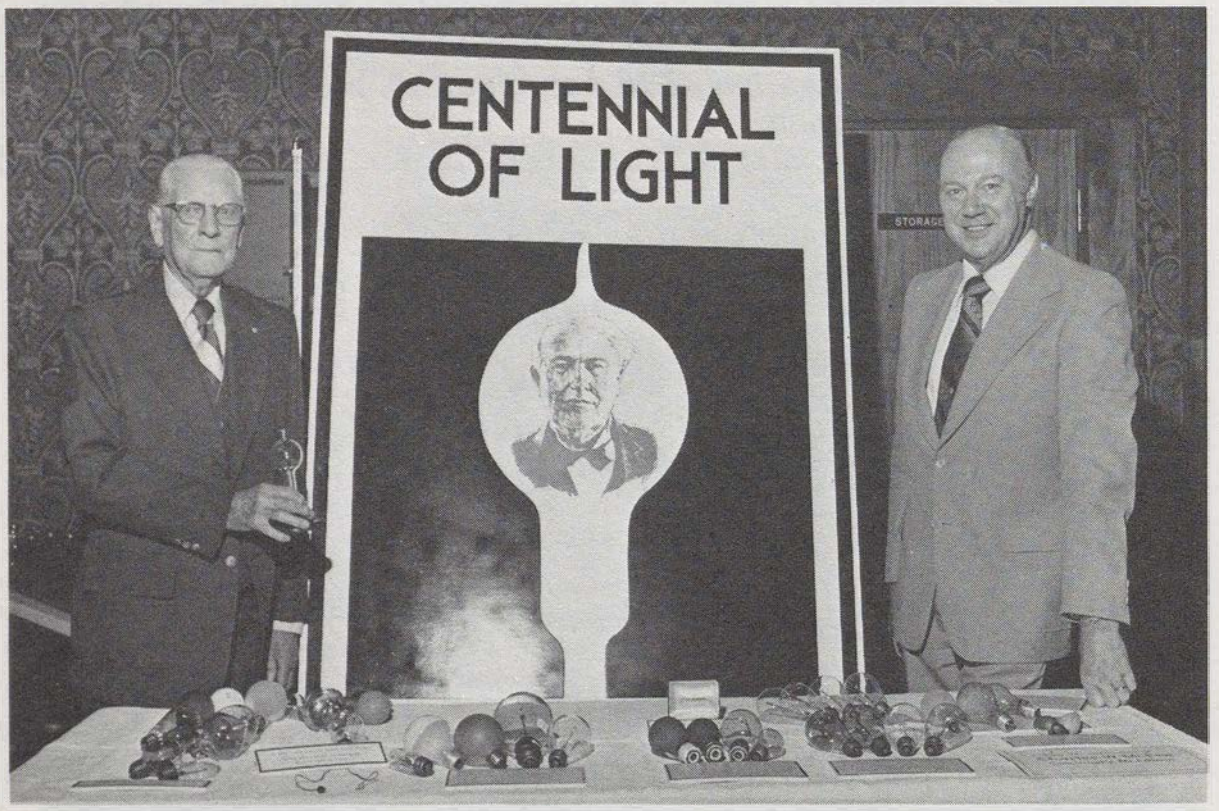
Florida State Science Fair, April 27-28: This annual event sponsored by the Florida Foundation for Future Scientists will be held this year in the Fort Myers area. Two thousand students and teachers will take special tours through Edison's summer home and laboratory. Edisonia displays also will be at the fair.

Edison Scholarship Presentations, Cleveland, Ohio, May 4-5: General Electric will host the 100 Edison scholars for presentation of their $1,000 awards and a two-day symposium featuring lectures, demonstrations and seminars at GE's Lighting Division Headquarters in Cleveland, Ohio.

National Parks Touring Drama, June — August: The National Park Service will begin a tour of a one-act play on "Energy" to numerous national parks across the country. The play will feature Thomas Edison, Benjamin Franklin and Albert Einstein.

Smithsonian Permanent Edison Centennial Exhibit, June: The Museum of History and Technology of the Smithsonian Institution will open its permanent Edison exhibit to the public. It will occupy the new main entrance on the first floor. It will concentrate on technology developed by Edison and lead into the modern technology of today's American industry.

Cincinnati holds Centennial tribute



Two hundred guests attending the 16th annual Edison Dinner Dance sponsored by the Cincinnati Electrical Association paid tribute to "Cincinnati's Mr. Edison," Charles M. McFee (left). Master of Ceremonies Clifford G. Baker, director of consumer education at Cincinnati Gas & Electric Co., presented a special award to the 88-year-old GE retiree. During the early days of his 45-year career with General Electric, McFee worked with Thomas Alva Edison. McFee graciously loaned antique light bulbs from his personal collection to the Association for its gala.

Atlantic City

continued from page 2

site in West Orange.

The city and utility also hope to reenact the spectacular light show of 50 years ago which celebrated the Golden Jubilee of Light. "This is still up in the air, but if we get enough sponsors to support a spectacular, we hope to make it a premier summer event on the Boardwalk," said Carlo Sardella, director of public affairs for the city.

"Remember, nothing that's good works by itself, just to please you—you've got to *make* the damn thing work."

Thomas Edison

CENTENNIAL OF LIGHT 1879 1979

TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

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Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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EDISON CENTENNIAL
"ASK AT DESK"
1979

CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

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MAY 1979 VOLUME 2 NUMBER 5

Centennial scholars gather at GE in Cleveland

102 high school seniors commended for "spirit of creativity"

All 102 Edison Centennial of Light Scholars — outstanding high school science students chosen competitively from all 50 states and the District of Columbia — assembled May 4 and 5 in Cleveland for honors ceremonies, lectures and science-related tours.

The Edison Centennial Scholars were chosen by individual state selection panels under varying procedures set up in each state. The selection process was coordinated by the National Science Supervisors Association and the Council of State Science Supervisors.

Students, parents and teachers who arrived Thursday evening, May 3, gathered informally at Cleveland's famed Crawford aviation and auto museum, where they were addressed briefly by James G. Cook, president of the Thomas Alva Edison Foundation, sponsor of the Centennial of Light.

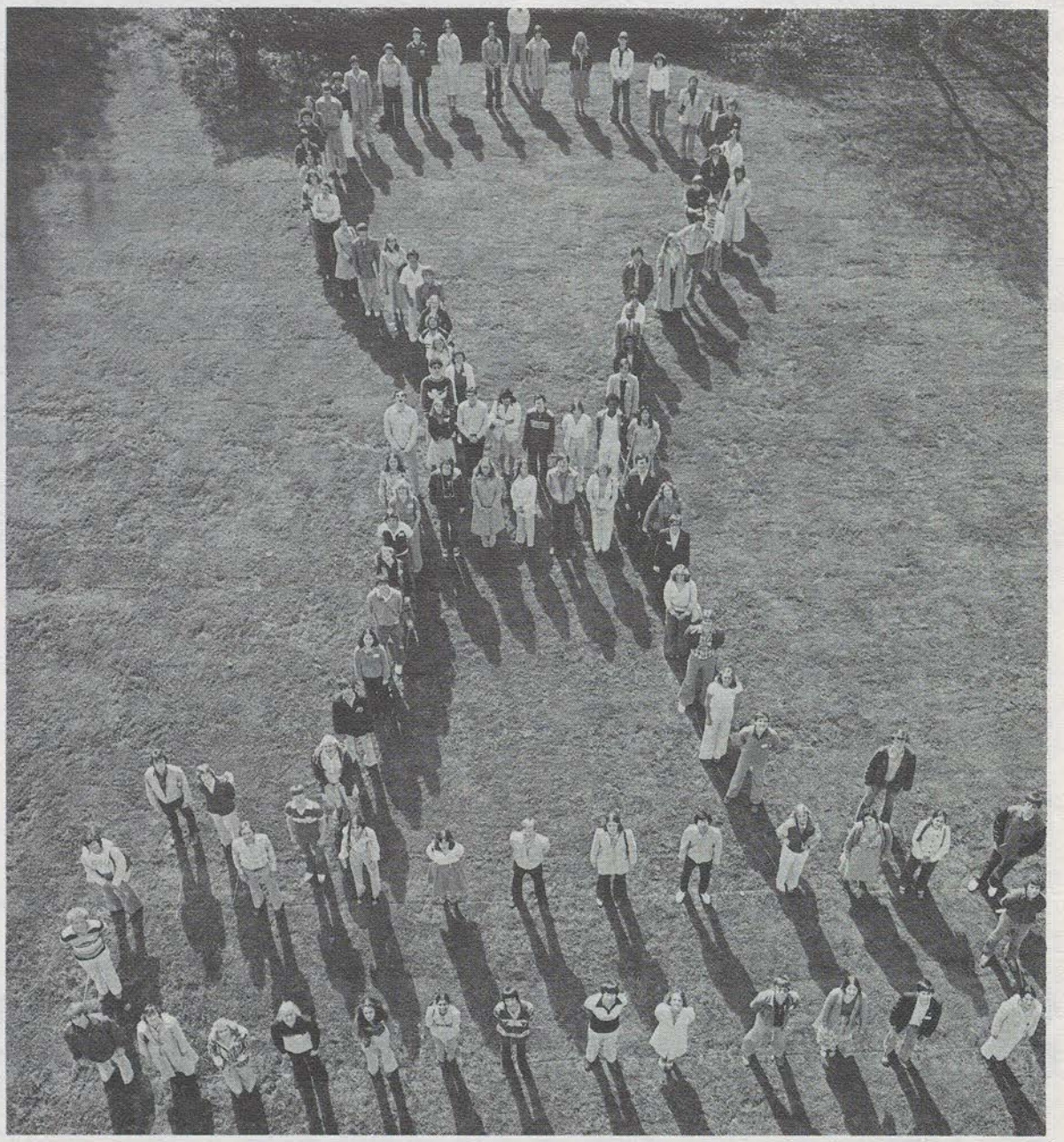
Earthquakes examined

The formal program began Friday morning at General Electric's Lighting Division headquarters in Nela Park, with a presentation by Dr. Tuzo Wilson on the theory of earthquakes. Now director of the Ontario Science Center in Toronto, Dr. Wilson for 30 years was professor of geophysics at the University of Toronto.

Through a series of slides, satellite photos and demonstrations, Wilson entertainingly showed how, over the course of millions of years, the continents separated. He said the earth's surface is still shifting, as if on plates, over the soft underbelly of its inner core, and that its shifting causes earthquakes that can be devastatingly destructive.

"I don't really know why it was that we didn't realize this many years ago," Wilson said, "but life is full of things staring you in the face and one doesn't see it."

Dr. Wilson also observed that "because they are not politically motivated, scientists are able to travel almost anywhere in the world, even under the most strained of international situations."



The 102 Edison Centennial of Light Scholars form a replica of the original light bulb on the lawn of GE's Nela Park Lighting Division in Cleveland. The scholars were the first chosen in 50 years. In 1929, Edison personally corrected the tests of the Golden Jubilee scholars.

"Whole pictures"

Dr. Mac Rugheimer of Montana State University in Bozeman detailed "holography," the art and science of

please turn to page 4

Unique theatre company offers Edison Centennial of Light special

"Light Force," a 45-minute dramatization created specially to commemorate the Centennial of Light, is now touring the country.

The playlet was written, produced and directed by The Iron Clad Agreement, a professional theatre company from Pittsburgh that has spent the last three years developing performances on the lives of famous figures from America's "Gilded Age of Invention."

This latest production focuses on the masterminds behind the development of electric systems in this country—and, in particular, the conflict over the adoption of AC or DC current. During the course of the dramatization, the principal actors journey to Menlo Park, search for the perfect filament and hold discussions about their goals with Edison contemporaries and collaborators, Nicola Tesla and Charles Steinmetz.

The repertory group wears black jumpsuits for costumes and uses no props or sets. The actors emphasize themselves as the most important element of the performance. Their characterizations of the men and their inventions, their successes and failures are presented in a kaleidescopic fashion—revolving from one character to another—in an entertaining and educational way.



The cast of The Iron Clad Agreement: center, producer/director Julia R. Swoyer; left to right, D'Arcy Webb, K. Wilson Hutton, James R. Krut, Christopher Josephs and M.M. Melozzi.

The Iron Clad Agreement started in 1976, rehearsing in an old, unheated closed Pittsburgh-area school house. Founded by its producer, Julia Swoyer, and actors K. Wilson Hutton and James R. Krut, the troupe is supported by 16 locally-based foundations, corporations and institutions.

Companies or organizations interested in having the group perform in their communities should write to: The Iron Clad Agreement, Julia R. Swoyer, Producer, 6351 Phillips Ave., Pittsburgh, Penn. 15217; or telephone: (412) 731-2445.

Chautauqua Institution to dedicate week to Edison; Centennial lecturers to include Cunningham and Conot

The Chautauqua Institution in Chautauqua, New York, will dedicate the first week of its 9-week lecture series, which begins July 23, to Edison and his contribution to present-day technological progress. The Chautauqua Institution was founded by Lewis Miller, the father of Thomas Edison's second wife, Mina Miller Edison.

According to Mrs. Nancy Lewis Arnn, an Edison niece, the lecture series coincides with the birthday of Lewis Miller, who established in 1874, the first adult continuing-education program in the nation. Chautauqua, where Edison first courted Mina, is now a summer community.

The lecture series is being funded by an endowment left to the Institution by the late Mrs. Edison, and by a grant from the Charles Edison Fund of New Jersey, founded by the late son of Mr. Edison who was a former governor of New Jersey. (See Edison Centennial News, January 1979, page 5.)

Speakers will include: Gerald O'Neill, professor of physics at Princeton University; Roger Caras, environmentalist and CBS radio commentator; neurosurgeon Dr. Richard Respak; and Albert Rosenfeld, science editor for the Saturday Review.

John Cunningham, the historian and author whose 18-part series on Edison is now appearing in newspapers across the country, and Robert Conot, author of "A Streak of Luck," a new biography of Edison, are also slated to speak.

Those interested in attending the lectures or learning more about the Chautauqua Institution's programs should write: Ms. Marie O'Connor, Chautauqua Institution, Chautauqua, N.Y. 47716; or telephone: (716) 357-5635.

Centennial symposium probes future

More than 600 international leaders from industry, science, labor, and the academic world met in San Francisco April 1-4, for the Edison Centennial Symposium, sponsored by the Electric Power Research Institute and the Thomas Alva Edison Foundation. Included in the group were representatives from the media and some 70 college students.

Events the week before at the Three Mile Island nuclear plant lent an air of immediacy to the symposium's theme, "Science, Technology, and the Human Prospect," and to its questioning of technology's proper role in the future.

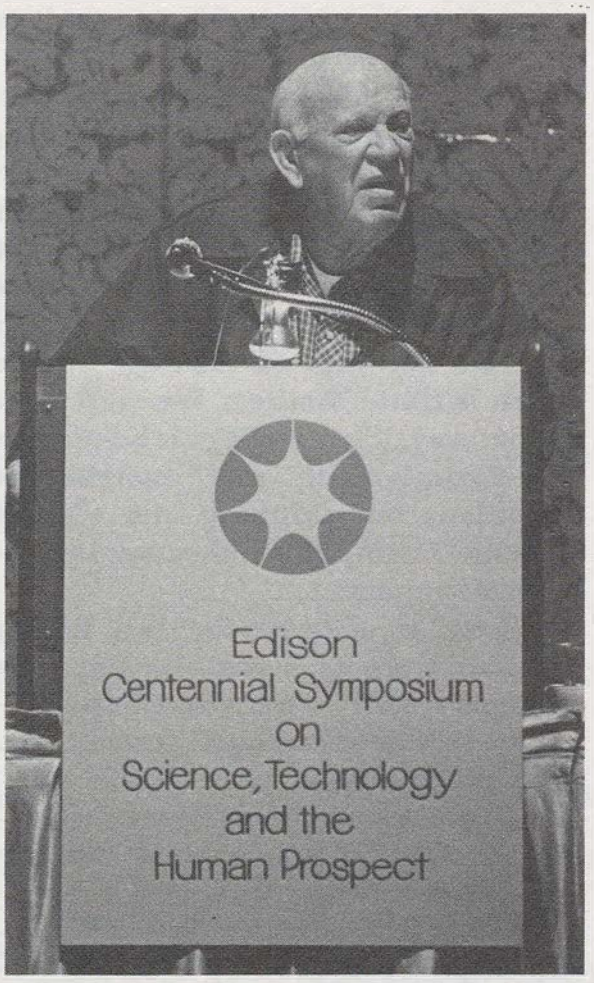
This was reflected in the opening remarks by Robert I. Smith, chairman of the International Committee for the Centennial of Light, who said: "Decisions made in the next few years on directions for science and technology will influence our lives for decades to come. We have an opportunity to coalesce the wisdom of modern thought as a basis for making choices in the best interest of humanity."

Smith's remarks followed an opening multi-image presentation produced for the symposium using 30 slide projectors and accompanying soundtrack. The presentation traced the course of technology over the past 100 years and depicted some of the ways it has affected life in the areas of food, clothing, housing, health, communications, and transportation.

Many of these same aspects were subjects of workshops held later that day to allow participants to examine more closely the effects of technology on specific areas of life.

In a keynote address, symposium chairman Chauncey Starr, EPRI vice chairman, pursued a "growth of limits" theme, contending that "science and technology have historically opened new frontiers for mankind." He said they are "powerful and unlimited resources for bettering man's condition," and can be used to reduce any undesirable by-products that result from their application.

A special session featuring electric power historian Thomas P. Hughes, chairman of the Department of History and Sociology of Science at the University of Pennsylvania, examined trends



Philosopher Eric Hoffer stresses the need for an expanding technological base to serve civilization at the Edison Centennial Symposium banquet.

and issues in the history of electric power asking, "Has the Past a Future?"

Nontechnical issues cited

Hughes cited incidents from the history of electricity to illustrate his theme that major turning points have been influenced as much by organizational, financial, and political factors as by technical ones. He argued that policy makers facing the energy problem today should heed the past and recognize that such nontechnical issues are the heart of the matter and merit increased attention.

A highlight of the symposium was a rare public appearance on the second evening by writer, social philosopher, and former longshoreman Eric Hoffer. In an inspiring address at the awards banquet honoring the 1979 inductees to the National Inventors Hall of Fame, Hoffer spoke of technology's relationship to the "human factor."

He said: "In the post-industrial age human rather than natural resources will be the wellspring of a country's wealth and vigor . . . . It is conceivable that if the exhaustion of raw materials and sources of energy makes it imperative for a society to tap the creative energies of its people, it may, in doing so, also tap a new source of social discipline. For the creative individual, no matter how highly endowed, must be hardworking and disciplined if he is to accomplish much. There is no invention that will take the hard work out of creating . . . . "

Hoffer seeks "creative society"

Hoffer conceded that the "coming of the creative society will be slow and faltering" and called for human compassion to pave the way. "As things are now, it may well be that the survival of the (human) species will depend on the capacity to foster a boundless capacity for compassion," he said.

A number of permanent records of the symposium will be available in the future. Proceedings will be published in hardbound form by Pergamon Press, Fairview Park, Elmsford, N.Y., and will be available by mid-September for $50 for orders received by August 31 and $60 after that date.

Also, a one-hour documentary videotape of the symposium, including interviews with speakers, students and other participants, is now being completed. And a special Centennial issue of EPRI Journal distributed at the symposium is now available at $2.00 per copy.

The Journal issue, entitled "Creating the Electric Age," examines the growth of electrification and the roots of modern R&D. It traces the career of Edison and notes such milestones in the electric industry as the first large-scale power development at Niagara Falls, the formation of the first industrial laboratories, the movement of scientists into industry, the creation of early utilities as electric grids stretched across the nation, and the strong acceleration in science and technology following World War II.

Orders for the special Journal issue may be sent to Susan Yessne, EPRI Journal, 3412 Hillview Avenue, P.O. Box 10412, Palo Alto, Calif. 94303.

Scholars *continued from page 1*

taking "whole pictures" through the use of laser light patterns. As a result, greater perspective and dimension are added to objects being reproduced.

"The practical uses of holography," Rugheimer said, "are limited only by your mind." He described the possibility of their use in maps, movies, textbooks, and predicted that "in two to five years, holographs will be commonplace."

An afternoon tour of NASA's Lewis Research Center, where a great deal of data concerning man's space voyages is collected and assessed, was a fitting lead-in to the evening's main speaker, former astronaut William A. Anders, now a GE vice president at San Jose, Calif.

Anders, besides being a retired naval commander, was a member of the first Apollo team to orbit the moon on Christmas Eve 1968. It will be recalled that he movingly recited Genesis as the team sent back pictures of the moon to earth.

A nuclear engineer, Anders later served as chairman of the Atomic Energy Commission, forerunner to the present-day Nuclear Regulatory Commission, and concluded his public career as ambassador to Norway. In 1976, he joined GE to head its nuclear division.

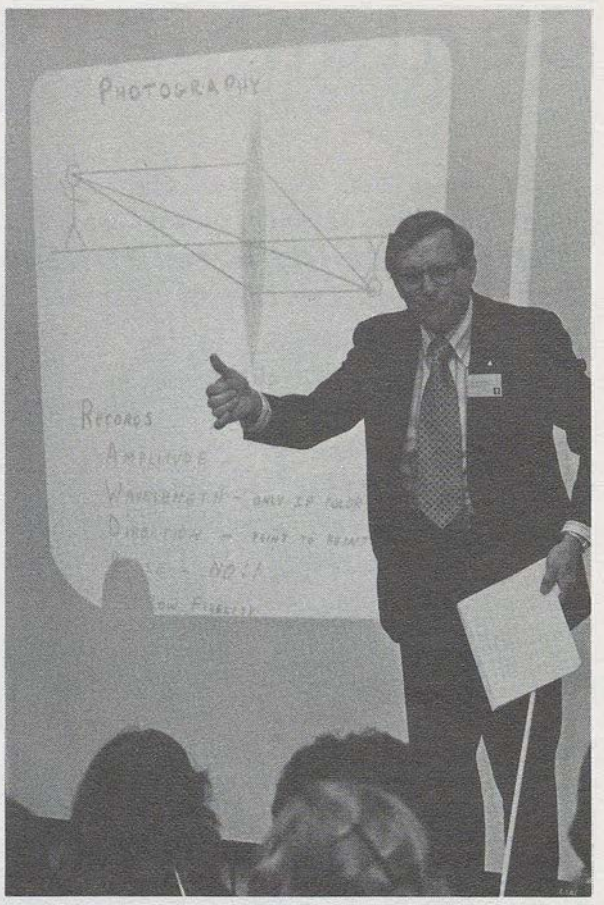
A "delicate" earth

Anders reviewed for the scholars, with some breathtaking slides, the Apollo 8 mission and the future of space exploration. Describing the lunar mission from a philosophical, as well as a technical, perspective, Anders commented: **"More important than the scientific or technical accomplishments, seeing our own planet was the most impressive thing, how delicate it was — and how carefully we must treat it. The greater message was how small the earth was. The one small orb in black nothing. The message is: The earth is finite, limited. We must treat it that way. That message is helping us in dealing with one another. It stimulates our thinking into what is beyond. I think this is the most important development."**

After his address, the two Edison Scholars from each state — one male and one female — were called up to receive special Centennial certificates. The citations noted that each is a student "whose spirit of creativity, dedication, and belief in individual initiative most favorably compares with the philosophy of Thomas Alva Edison." Individual $1,000 scholarship checks will be presented, wherever possible, at the scholars' local ceremonies.

Anders was joined in presenting the certificates to the students by James G. Cook and James A. Baker, vice president and group executive with GE, who heads GE's Lighting Division.

The second day's sessions offered lectures on four areas of science of immediate import: nuclear waste disposal, animal behavior and primate communication, industrial research and energy resources.



Mac Rugheimer explaining the principles of holography to an attentive audience.

Dr. Klaus Keil, director of the Institute of Meteoritics at the University of New Mexico in Albuquerque, described the technological solutions available to industry to protect the environment from nuclear waste. Keil said he believes that man-made storage facilities will afford the short-term protection needed while allowing time — say 50 years — to collect more data on the long-range implications of storage in salt mines and other geological formations.

Dr. Ivar Giaever, a biophysicist for GE in Schenectady, N.Y., described how industrial scientists seek solutions for real, everyday problems through the application of scientific research.

Dr. Roger Mellgren, a psychology professor at the University of Oklahoma, discussed his research and training with chimpanzees and their ability to communicate with themselves and humans, and what that teaches about human development.

John Miller, vice president, Standard Oil of Ohio, described his company's involvement in building the Alaskan pipeline, and the tremendous costs and technology involved.



James A. Baker, left, and James G. Cook, right, present an Edison Centennial Medallion to former Apollo 8 astronaut William A. Anders, the featured speaker at the Edison Scholars symposium.

THE 102 CENTENNIAL OF LIGHT SCHOLARS

ALABAMA

Byron Peel Newberry
Julie Blackwell

ALASKA

James Thomas Pinkerton
Yvette Sasseen

ARIZONA

Victor G. Bonilla
Christina L. Bertch

ARKANSAS

Mark Anthony Pippenger
Karen Marie Hearty

CALIFORNIA

George W. Crombie
Maura Mitchell

COLORADO

Mark Edson
Ruth Kennedy

CONNECTICUT

Steven Rushkowski
Marybeth A. Lyons

DELAWARE

Anthony D. So
Tina Marie Scaran

DISTRICT OF COLUMBIA

Carl V. Allen
Angela Feeling

FLORIDA

Bradley Hare
Rosemarie Bigot

GEORGIA

Timothy E. Williams
Amy L. Hertz

HAWAII

Jonathan V. Selinger
Leanne M. Tanouye

IDAHO

Kevin Karl Holsinger
Camille DeAnne Bibles

ILLINOIS

Michael Horberg
Joan Novak

INDIANA

Alan Lane Voliva
Christine Rene Clements

IOWA

Mathias C. Boddiker
Rene A. Vincent

KANSAS

Todd Wallace
Nancy D. Leazer

KENTUCKY

Stephen Noe
Kathryn Ann La Geese

LOUISIANA

Ronald Hobart Thompson
Julie Dennery Simon

MAINE

Gerard Nadeau
Tara Geelhoed

MARYLAND

Lawrence Michael Wong
Leilani Drayer

MASSACHUSSETTS

David Gauntt
Elizabeth Ann Lada

MICHIGAN

Mark S. Andersland
Lisa A. Matuszewski

MINNESOTA

Kenneth Mishark
Meena Subbiah

MISSISSIPPI

Geoffrey Franks
Mary Anna Sellers

MISSOURI

William David Richard
Lee Ann Heman

MONTANA

Mark A. Palagi
Gabrielle Savage

NEBRASKA

Jeff Isaacson
Patty Lawrence

NEVADA

Robert Leslie Willyard, Jr.
Rebecca Haag

NEW HAMPSHIRE

Kevin Sullivan
Marcia E. Pokigo

NEW JERSEY

William M. Thramann
Dana Krafchick

NEW MEXICO

Jeff Caylor
Catherine M. Piveratto

NEW YORK

John A. Kirby
Nan Jody Morrison

NORTH CAROLINA

Van Edward Morgan
Rosanne Flack

NORTH DAKOTA

Paul M. Muus
Brenda Thompson

OHIO

Mike Kupfer
Cathy Getz

OKLAHOMA

Gregory Judy
Christy Clark

OREGON

Scott R. Trappe
Kay M. Dahlien

PENNSYLVANIA

Thomas E. Rhodes
Donna Gustitis

RHODE ISLAND

Michael Howard Kagan
Patricia Hensley

SOUTH CAROLINA

Douglas Tybor Durig
Susan Michele Delk

SOUTH DAKOTA

Bruce Dingeman
Sheri Kirley

TENNESSEE

Wesley David Allen
Lea Carol Owen

TEXAS

Darrell Glenn Hill
Judith Leah Passman

UTAH

Kevin Bingham
Wendy Matis

VERMONT

Bret Benner
Carol Jones

VIRGINIA

Gary Bernstein
Jennifer J. Spevacek

WASHINGTON

Mark Yeager
Rosemary Farrell

WEST VIRGINIA

Theodore Bernstein
Mary Ellen Connelly

WISCONSIN

Bruce Wade
Karen Middleton

WYOMING

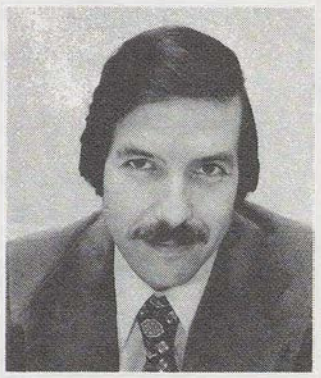
James A. Hare
Leslie Vining

What would you want Edison to invent today?

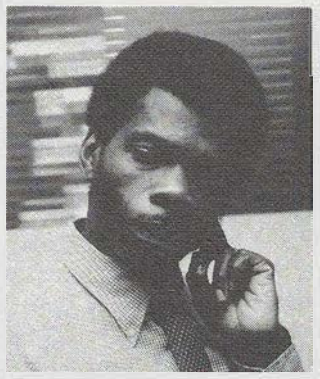
Consolidated Edison of New York recently asked some of its engineers and coordinators what they would want Edison to invent if he were alive today. Three of the twelve responses are reprinted here to encourage others to present their views on the subject. Please send your comments to: Future Needs, Edison Centennial News, P.O. Box 1310, Greenwich, Conn. 06830.



Eve R. Hershkowitz, shop coordinator, Power Generation Maintenance: "Edison harnessed electric power a century ago. If I could meet him today, I'd ask him whether he contemplated any more advanced methods of harnessing energy for our time, and if so, what those sources of energy would be. I'd want to know which alternate sources he would consider viable, and would want to work with—such as geothermal, or ocean wave. I might also ask him to invent a perpetual motion machine!"



Edward G. Alfonsin, engineer, Field & Application Engineering: "If he came through my office door, I'd tell him all his previous inventions lead me to believe he could invent a whole system to meet our energy needs. I'd ask him to invent a high-speed mass transit system, and electric generating equipment using tides and pumped storage as energy sources. I'd also ask him to invent a fuel economy system for cars that would recirculate unburned combustible gases into the engine cylinders for complete combustion."



George Watts, engineer, Electric Station Engineering: "In 1908 Thomas Edison was involved in development of the storage battery. I wish he were here today to develop a battery with about 10 times the capacity of those used in the new electric cars. The main problem with electric cars now is their limited range—about 35 miles. More range means more and heavier batteries, and each car uses about 20 now, at 50 pounds each. If Edison were alive, I'm sure he'd be working on it."

Edison Cement was forerunner of modern construction techniques

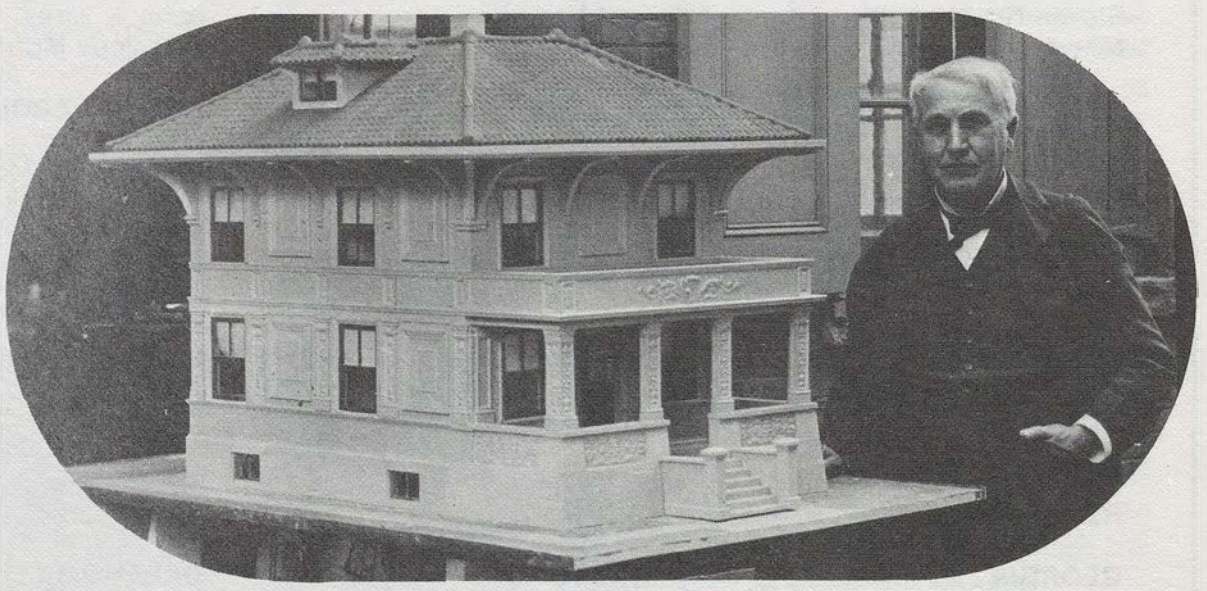
One of Edison's least-known inventions is Edison Portland Cement—the forerunner of modern construction.

More of a process than a product, it never caught on until the mid-1960s as a universal building method for large buildings. Its use is best demonstrated in contemporary buildings by the architectural firm of Skidmore, Owings and Merrill of New York.

However, when Edison developed it, he thought the process would best be used to supply low-cost housing. To promote his cement business, he devised a 3-foot-high model in the early 1900s. He claimed a full-scale house could be built "by machinery in lots of 100 or more at one location, or for a price which will be so low that it can be purchased or rented by families whose total income is not more than $550 per annum."

The seven-room concrete house could be cast in six hours at the cost of $1,200, plus another $150 for labor.

Edison's scale model house is exhibited at the Edison National Historic Site in West Orange, N.J. Last year it underwent extensive reconstruction at the National Park Service's Conservation Laboratory in Harper's Ferry, W. Va.



Edison in 1900 with his scale-model house made from Edison Cement.

The scale model reached the furniture lab with missing railings, doors, windows and pillars. Restorers made everything from glass windows to porch columns. Conservator Allen Cochran made rubber molds for the missing pieces, and castings were made with material like plaster of Paris and painted to resembled the originals.

In fact, Edison did have a chance to see some of his houses mass-produced. A project was begun in 1919 in Union, N.J., and the concrete was poured in one day. His mass production scheme never went national, but the houses built in Union still stand and now sell for about $50,000 each.

Kids do everything in new Edison musical

A new musical play for young voices, written by John Wilson and Grace Hawthorne, now being performed at schools across the country, depicts the life and inventiveness of Thomas Edison.

"Children run the whole show," said John Wilson, who wrote the music and is executive editor for Hope Publishing Co. of Carol Stream, Ill. "We've designed the package so the kids run everything. They do the acting, make their own costumes, and operate the lights, sound and equipment."

According to lyricist Grace Hawthorne, who has written for "Sesame Street"and lives in Atlanta, " 'The Electric Sunshine Man' is an extremely flexible musical. Individual productions can range from a strictly stand-up-and-sing performance to a highly-involved dramatic extravaganza, with full staging, lighting, costumes and backdrops," she said.

Typical of the bright lyrics that are fun to learn and easy to sing are these from the title song:

Sunshine in a bottle
Music in a box
There was nothing he couldn't do
He had a dream
And it all came true
The Electric Sunshine Man

©1978 Somerset Press

Others songs include "The Invention Factory," "Gonna Turn On New York City," and "Lights, Camera, Action." The catchy lyrics, which are sung to prerecorded music, express Edison's inventiveness and perserverance.



Pineda Elementary School in Cocoa, Fla: cast celebrates the grand finale of "The Electric Sunshine Man" with the song, "He Did It."

Numerous companies have offered special technical assistance and publicity to the schools. Florida Power and Light, Rochester Gas and Electric, and Virginia Electric and Power companies also have supplied photographs of Edison, slides of some of his inventions and certain Edison artifacts.

A typical response to such cooperation appeared on the program for the show staged by the Pineda Elementary School in Cocoa, Fla.: "We wish to express sincere thanks and appreciation to the Florida Power and Light Company. Their support and concern for endeavors to observe the Edison Centennial (of Light) are an outstanding display of community service."

Cost of the sheet music and script is $4.95. Recorded music is $5.95 for record, and $6.95 for cassette. A full instrumental accompaniment tape costs $25. For additional information, write to Somerset Press, Carol Stream, Ill. 60187.

Edison remembered by close associate Stringfellow

Retired industrialist George E. Stringfellow of Arlington, Va., former general manager and president of Edison Industries, has recorded highlights of his eight-year close association with Mr. Edison. Stringfellow has given his recorded recollections to the N.J. Historical Commission.

Stringfellow, now 87, became sales manager of the Edison-headed company in 1923 when he was only 31, and was promoted to president and general manager shortly thereafter.

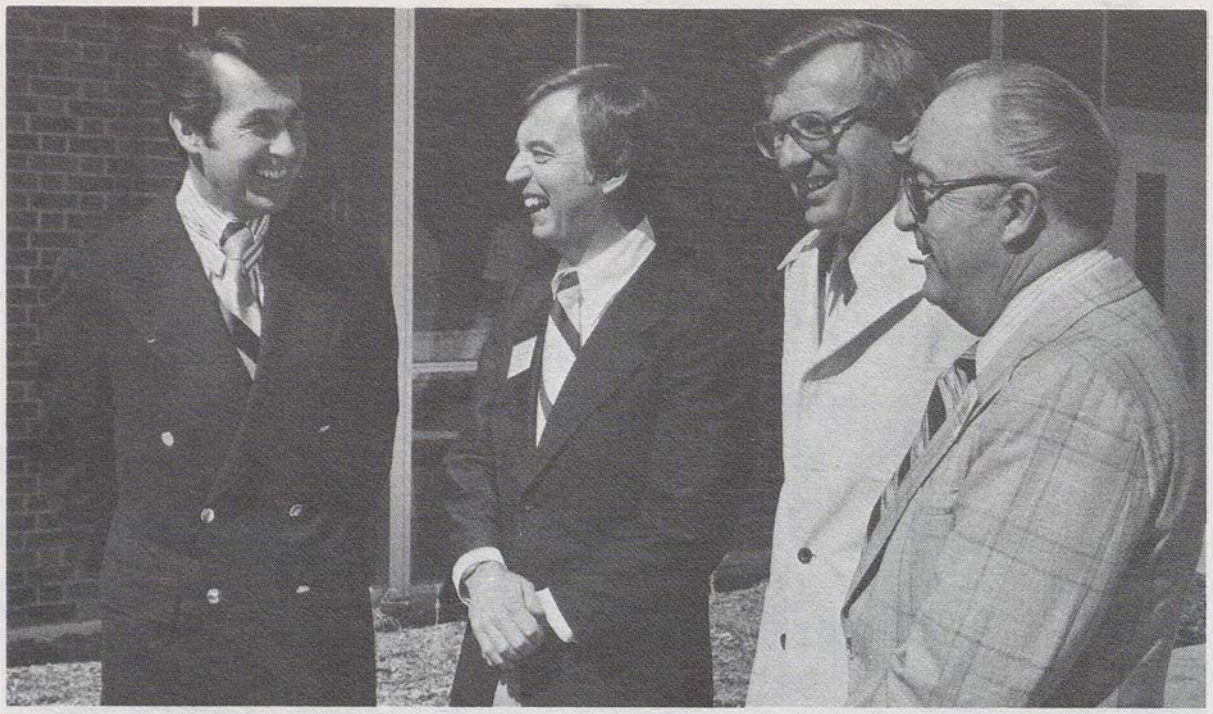
"Mr. Edison's day at the laboratory began about 8:30 a.m. and ended at 6:00 p.m., with just enough time off for a small lunch," Stringfellow said. "He would bring home with him a 'bag full of problems' which he would work on in his basement laboratory after dinner."

Stringfellow most admires Edison for his integrity.

"On one occasion," he says, "Edison placed a product on the market which had worked well in the laboratory, but its performance in the field was disapointing. He not only closed the plant where the product was manufactured, but requested his customers to return their purchases for a full refund."

According to Stringfellow, when some customers felt they should at least pay something for the service they received, Edison said, "My integrity is involved and that is not for sale."

Montana State awarding TAEF's Cook honorary Ph.D.



Edison Foundation President James G. Cook discusses the 28th Science Institute held at Montana State University in Bozeman, Mont., with Dan Regan, vice president, Montana Power Co., cosponsor of the Institute with the Foundation; Mac Rugheimer, assistant dean of MSU's College of Letters and Science; and Ellis Donahue, director of training, Montana Power Co.

James G. Cook, president of the Thomas Alva Edison Foundation and executive secretary of the International Committee for the Centennial of Light, will receive an honorary doctor of science degree from Montana State University, Bozeman, Mont. The degree will be awarded at spring commencement exercises.

At the announcement, MSU President William Tietz said, "Mr. Cook is richly deserving of the honor. As chief operating officer of the Edison Foundation, he has worked long and successfully for the advancement of science and engineering education."

Cook, 42, will be the youngest person ever to receive an honorary doctorate from Montana State. A native of Michigan, he has degrees from Michigan State University and Eastern Michigan University. Before joining the Edison Foundation in 1965, he was with General Motors Corp. He became the Foundation's executive director in 1967 and was named president in 1971.

Recently, Montana State University played host to the 28th Edison Science Institute cosponsored by the TAEF and Montana Power Company. The three-day program assembled more than 330 Montana junior high and high school students and science teachers.

"The Institute serves as a forum to create a positive environment for science education in the country, thereby attracting and keeping talented students in the hard sciences, at a time when an anti-science mood is so prevalent," Cook said.

Edison Science Institutes have been held on university campuses throughout the United States for more than 20 years. The Edison Foundation has organized as many as seven major science conferences and institutes annually.

Energy awareness in Alabama

Because of its optimistic message, the Centennial was selected as the theme of the grand finale of the Seventh Annual Energy Awareness Program sponsored by the Sand Mountain Electric Cooperative in Rainsville, Ala. The one-day program on contemporary energy issues was repeated on three consecutive days, May 1-3, for 400 high school seniors in the area.

"Unfortunately, when we talk about energy these days, it can be very discouraging to young people," said Helen Longshore, Sand Mountain's member-service representative.

"The Centennial, however, reminds young people that solutions can be found to the complex problems of our society if we create the right environment for innovation," Longshore continued. "It encourages young people to be enthusiastic about what they can do and reminds them that the attitudes of technological advancement, competition, profit-making and taking calculated risks are not anti-social, but are in fact very productive and beneficial to society."

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea

Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson

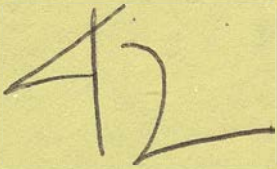
Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Katie Meehan, Judy Cash

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.



ASK AT DESK EDISON CENTENNIAL 1979,

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1879 1979

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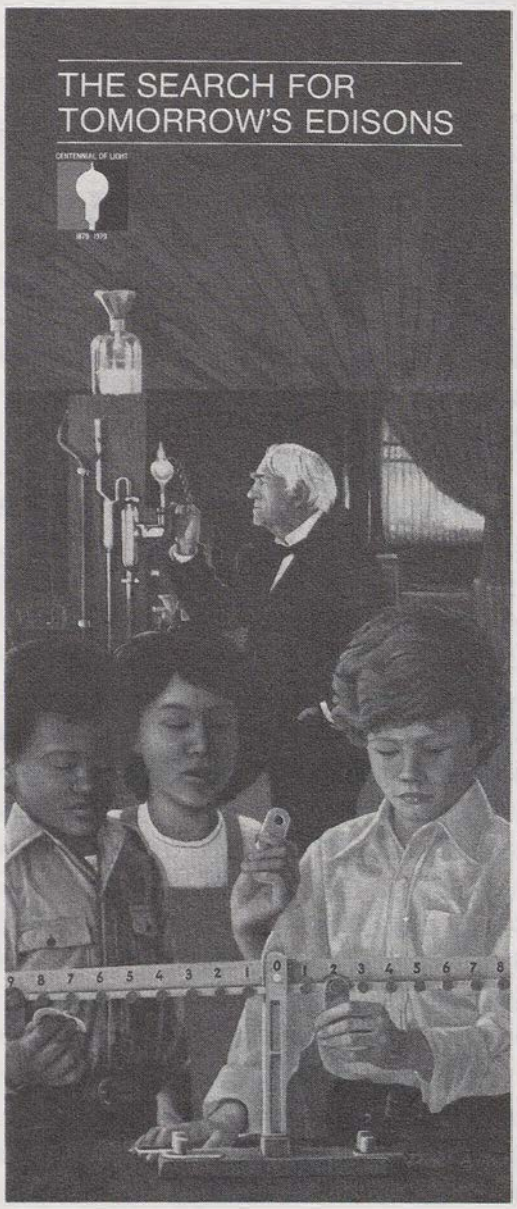
Edison Centennial News

JUNE 1979 VOLUME 2 NUMBER 6



A new 12-page, four-color booklet—The Search for Tomorrow's Edisons—traces the roots of today's "innovation recession." It suggests several ways to stimulate an invention renaissance and to encourage young Americans to pursue scientific and technological careers. Booklets are available in bulk orders only at 25 cents each. To order and for further information, contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830.

Con Edison's Luce inaugurates Centennial walking tours

As a highlight of Con Edison's observance of the Centennial of Light, Board Chairman Charles F. Luce inaugurated a self-guided walking tour on May 12 through Thomas A. Edison's historic First District in the lower Manhattan section of New York City.

Opening ceremonies were conducted on Pearl Street, just south of Fulton Street, at the site of Edison's first central generating station, which opened in September 1882.

Titled "Where They Lit Up New York," the walk guides strollers through one of New York City's most interesting areas, concluding at Con Edison's new South Street Seaport substation, which is designed in the 19th century architecture of the area.

Mr. Luce noted: "Whenever they go on the tour, walkers will be reminded of the history of the area, its place in the cultural and commercial life of the city and the nation and Edison's contributions to the improvement of the quality of life.

"We hope 'Where They Lit Up New York' will increase New Yorkers' and visitors' knowledge and enjoyment of this historic and fascinating part of the city for years to come."

Edison's Pearl Street Station by the start of 1883 had 231 customers. Despite a fire in January 1890, the plant continued in service until April 1894. In June 1895, the building was sold and was eventually demolished. The site is now a parking lot.

Mr. Luce also rededicated a bronze plaque originally placed at the site in 1917 to commemorate Edison's achievement. The plaque has been placed on a wall at 259 Pearl Street since the original plant at 257 Pearl no longer exists.

Free pamphlets guide walkers to old and new sites in the area including the Sub-Treasury Building on Wall Street, the Louise Nevelson Plaza, Chase Man-

please turn to page 5

Edison's 100th noted overseas

Japan, Germany and Spain have been recent scenes of Edison commemorations during the International Centennial of Light.

Germany played host to Part 2 of the International Edison Birthday Celebration, sponsored by the Thomas Alva Edison Foundation (TAEF) and Siemens, a major international electrical manufacturer, in Munich in March. During the two-day program science students, teachers and business leaders from throughout West Germany listened to lectures and toured the electrical exhibit at the German National Museum, as well as industrial laboratories in the area.

Walker L. Cisler, TAEF chairman, opened the ceremonies. For many years, he has promoted international cooperation in scientific research and endeavor.

In February, at Japan's Iwashimizu Hachiman Shrine, where a Thomas Edison Memorial has stood since 1929, trustees of the Edison Memorial Society of Japan, U.S. Consul General Thomas W. Ainsworth, and more than 90 other

please turn to page 5

Student wins New Jersey Centennial Award



Steven R. Morrone of Trenton, N.J., a student at Holy Trinity School in Morrisville, Pa., is presented the Edison Centennial Award by Donald Rieco, senior marketing engineer for Public Service Electric and Gas Co. He received the coveted honor for outstanding achievement at the 27th Greater Trenton Science Fair. His award-winning project illustrated the use of fiber optics in the transmission of light and its application in telecommunications and microwave transmission. Stevens also received the New Jersey Commission Award for his work. The Edison Centennial Award was established by the Edison Centennial Commission of the New Jersey Historical Commission. It is given to those who excel in the field of electricity through scientific or research endeavors.

CBS offering prints of 1954 Edison "You Are There"

On Oct. 17, 1954, just four days before the Diamond Jubilee of Light, the CBS-TV series "You Are There" devoted its half-hour program to "Edison's Miracle of Light."

CBS News, which produced the original series, is now offering the program on Edison's invention of the incandescent lamp to companies and organizations participating in the Centennial of Light.

Each program in the "You Are There" series examined a famous date in history (e.g., the death of Julius Caesar or the ride of Paul Revere). Actors recreated the event in the format of a television newscast with evocative questions being asked by off-camera "reporters." Anchorman Walter Cronkite introduced each event with the memorable lead-in: "All things are as they were then, except ... you are there."

In the Edison program, E.G. Marshall portrays the inventor. As the program opens, he is testing carbonized cotton thread as a possible filament for his incandescent lamp. He and supporting characters act out Edison's intense search for a successful incandescent lamp and speculate about its economic implications and impact on lifestyles.

CBS News is making available 16mm black-and-white sound prints of "You Are There: Edison's Miracle of Light" for $150 each plus shipping (quantity discounts are available). To order and for further information, contact: Dolores Sura, director of film and video licensing, CBS News, 524 West 57th Street, New York, N.Y. 10019; telephone: (212) 975-3200.

Edison stories from those who know

As Edison Centennial News continues to receive information on persons who knew Edison, some interesting facts about the great inventor are coming to light.

From Potomac Edison Co. of Hagerstown, Md., comes word from Art Prather, a PE retiree, that when he was a little boy in Shepherdstown, W.Va., he "snuck up" to the campsite where Edison, Henry Ford, and Harvey Firestone were visiting, just to get a glimpse of his hero. Prather's admiration for Edison remains undiminished, and he maintains a collection of Edison memorabilia. "Edison brought about profound worldwide changes in the way people lived and provided work for millions, including myself," said the former utility employee, who retired in 1972 after 42 years of service.

Peter Kushkowski, manager of process computer engineering for Northeast Utilities in Hartford, Conn., relates how he ran across a copy of an Edison letter while hunting through an antique-book store.

The letter was to Joseph Lewis, a well-known agnostic of the early part of this century, who had asked Edison to review his book, "The Tyranny of God." Edison wrote back, "I think as you do that death ends all, yet I do not feel certain, because there are many facts that seem to show that the real units of life are not the animal mechanism itself, but groups of millions of small entities living in the visible cells." Edison then refers Lewis to two articles on his discussion of the subject of immortality that appeared in the Scientific Monthly, Oct. 30, 1920, and Cosmopolitan, May 1920.

Arizona company using Centennial theme in its advertising

"See how far we have come in the lighting business, 1879-1979."

This theme runs throughout a major Centennial of Light promotion which Billings Lighting Supply Co. of Tucson, Ariz., will incorporate this summer in its radio and newspaper advertising, as well as in an extensive showroom exhibit.

On Oct. 21, Billings will open a Lighting Laboratory to display 70 different lighting techniques for both residential and commercial use.

"Our Centennial of Light promotion will be the highlight of our year," said Tom Richard, director of public relations for Billings. "We are tremendously interested in Thomas Edison and his many accomplishments. As members of the lighting industry, we feel it is our duty to thank a truly great man in American history."

Starting in July, radio commercials will refer specifically to Thomas Edison and his many inventions, particularly the light bulb, and urge that listeners "join us in the celebration of the Centennial of Light."

Coordinated newspaper ads will feature the Centennial of Light symbol and a shot of the original incandescent lamp set into the background of a modern-day lighting fixture.

The Centennial showroom exhibit, according to Richard, will make people aware of many of Edison's major inventions. Graphics, including photographs of Edison, posters, illustrations and a replica of the original light bulb, will "underscore our national need for more inventors like Edison to keep our country ahead of the rest of the world," he said.

Plans for the grand opening of the Lighting Laboratory call for showing an introductory 26-minute film (slated for release by Screen News Digest this summer) exploring Edison's legacy of scientific achievement, followed by a grand tour through the laboratory.

"It seemed only fitting to hold our grand opening for the Lighting Lab on Oct. 21 in honor of the man who made our industry possible," said Richard.

Lilco shareholders view Centennial



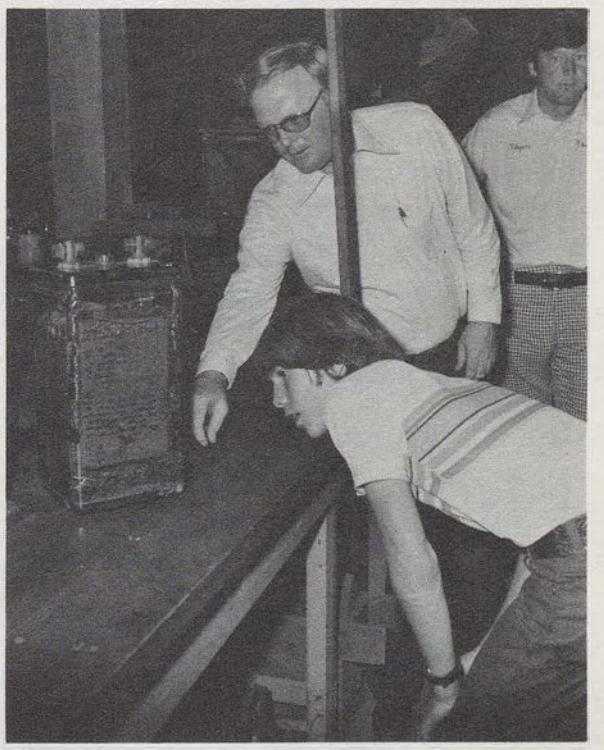
With the Centennial of Light as the theme, the Long Island Lighting Co. (Lilco) held its annual stockholders meeting in April at the company's operations center in Hicksville, N.Y. Displays, exhibits and scale models of old-time electrical equipment lined the hallways and walls of the cafeteria, which was converted to an auditorium for the meeting. The exhibit proved to be an outstanding success and gave the meeting a historic perspective of how far the world has come in just 100 years.

FPL sponsors Edison home tours for science fair students

More than 400 students and teachers attending the 24th Annual Florida State Science and Talent Search and Science Engineering Fair in Naples, Fla., April 27, toured free the Thomas Edison Winter Home and Museum.

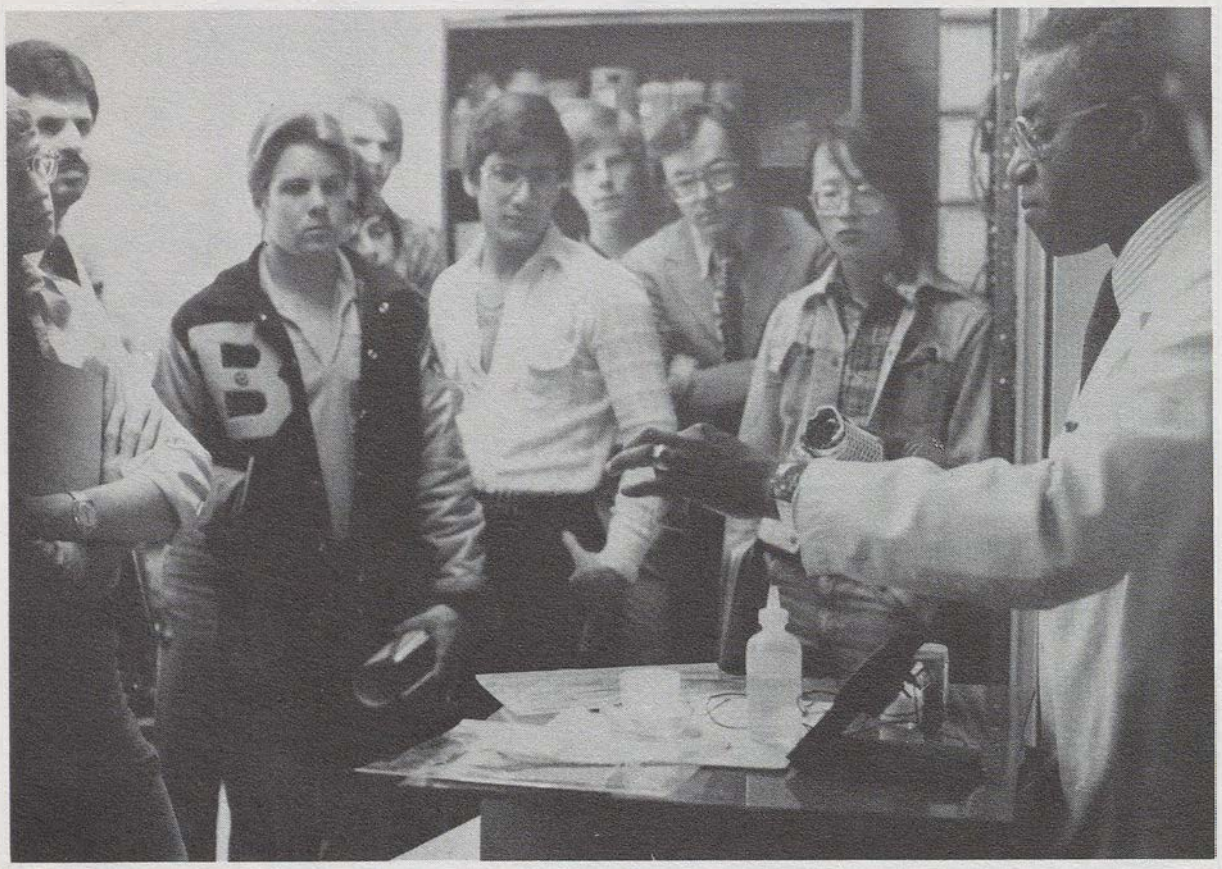
The science-related activity was arranged by the Florida Power & Light Co. and was part of FPL's continuing participation in observing the Centennial of Light.

"Each year, state science fair participants are offered a tour which, in some way, is connected with science and technology," said Dr. J.H. Francis, vice president of FPL and a member of the board of directors of the Florida Foundation for Future Scientists.



Tom Hopkins, Florida Power & Light educational services coordinator, discusses with students an early nickel-iron alkaline battery developed by Thomas Edison.

McGraw-Edison Divisions conducting numerous Centennial events



Students from area high schools listen to Hiry West's explanation of his "fuel cell" experiment at McGraw-Edison's Power Systems Division in Bloomfield, N.J.

McGraw-Edison's Power Systems Division of Bloomfield, N.J., International Metal Products Division of Phoenix, Ariz., and Bussman Manufacturing Division of St. Louis, Mo., have been conducting programs that constructively commemorate the Edison heritage during the Centennial Year.

International Metal Products held a statewide science competition to choose a student to attend the 23rd Annual Edison Science and International Edison Birthday Celebration last February at Walt Disney World in Orlando, Fla.

The winner was Travis T. Wood, who along with his science teacher, Richard M. Harkins, attended a four-day symposium. Wood was selected for his creation of "SSERP 2" or "Special Studies Environmental Robot Project," a computerized four-and-a-half-foot tall robot capable of memorizing room patterns to avoid obstacles in its path. Wood's entry also won awards at the Arizona State Fair and the Central Arizona Regional Science and Engineering Fair.

"Travis has a special knack—a gift—for computers and electronics," Harkins said. "He's hard to keep up with."

Wood credits much of his technical ability to advanced science and math programs offered at his high school.

Like a true tinkerer in the Edison tradition, he scoured junk yards and bicycle shops for ideas and parts to build his robot. The key discovery was two windshield wiper motors from a 1967 Pontiac which propel "SSERP 2" forward at 2-to-3 mph and backward at about 1 mph.

In Bloomfield, N.J., Power Systems hosted an "Edison Science and Engineering Youth Day" on March 27, where outstanding science students from New Jersey high schools viewed "The Vision Is Electric," a film that traces the history of McGraw-Edison Co. from 1889 to the present. Radko Chudacek, battery engineering project manager for Power Systems, also provided a brief history of Power Systems' battery product lines.

The students also were briefed by scientists Hiry West and Milton Oliynik on the electrochemical principles involved in the operation of both the non-renewable carbon-zinc battery and the pocket plate nickel-cadmium storage battery, both developed from Edison's original research.

To enable the students to understand the primary battery, West conducted a "fuel cell" experiment utilizing a women's plastic hair curler, a large gauze pad, flour, salt, a saucer, rubber bands, string, a thin sheet of zinc or galvanized steel, and a tablespoon of natural powdered graphite lubricant.

As mementos of their visit, students received a replica of the first incandescent lamp, a metric ballpoint pen, and the Edison Foundation Centennial booklet, "Edison—The Man Who Turned Darkness Into Light."

Edison display

Bussman Manufacturing sponsored a display highlighting modern industries that developed from Edison's inventions at the Monsanto-St. Louis Post-Dispatch Science Fair of Greater St. Louis, which was held April 18-24.

The display contained replicas of the original light bulb, the first electrical power station, the motion-picture camera, the phonograph, the storage battery, the fuse and the mimeograph.

Marion Getz, an Edisonia buff and McGraw-Edison spokesperson, who is now traveling countrywide with the exhibit, said, "It shows how far we've advanced in a century. It is designed to pay tribute to the spirit of yesterday's creativeness, and what is needed to solve the problems of today."

"While Edison's original inventions now appear dated," Getz continued, "because of technical progress since his lifetime, the Edison legacy of hard work, creative thought and dedication can never become obsolete. His accomplishments continue to inspire children and adults alike today."

Bussman, which employs more than 2,500 and produces and markets circuit protection devices, provided transportation for underprivileged school children to participate in the fair.

Walking tours

continued from page 1

hattan Plaza and John Street Methodist Church. Copies of the pamphlet may be obtained by writing to Con Edison, Room 1631-S, 4 Irving Place, New York, N.Y., 10003.

DC equipment to Smithsonian

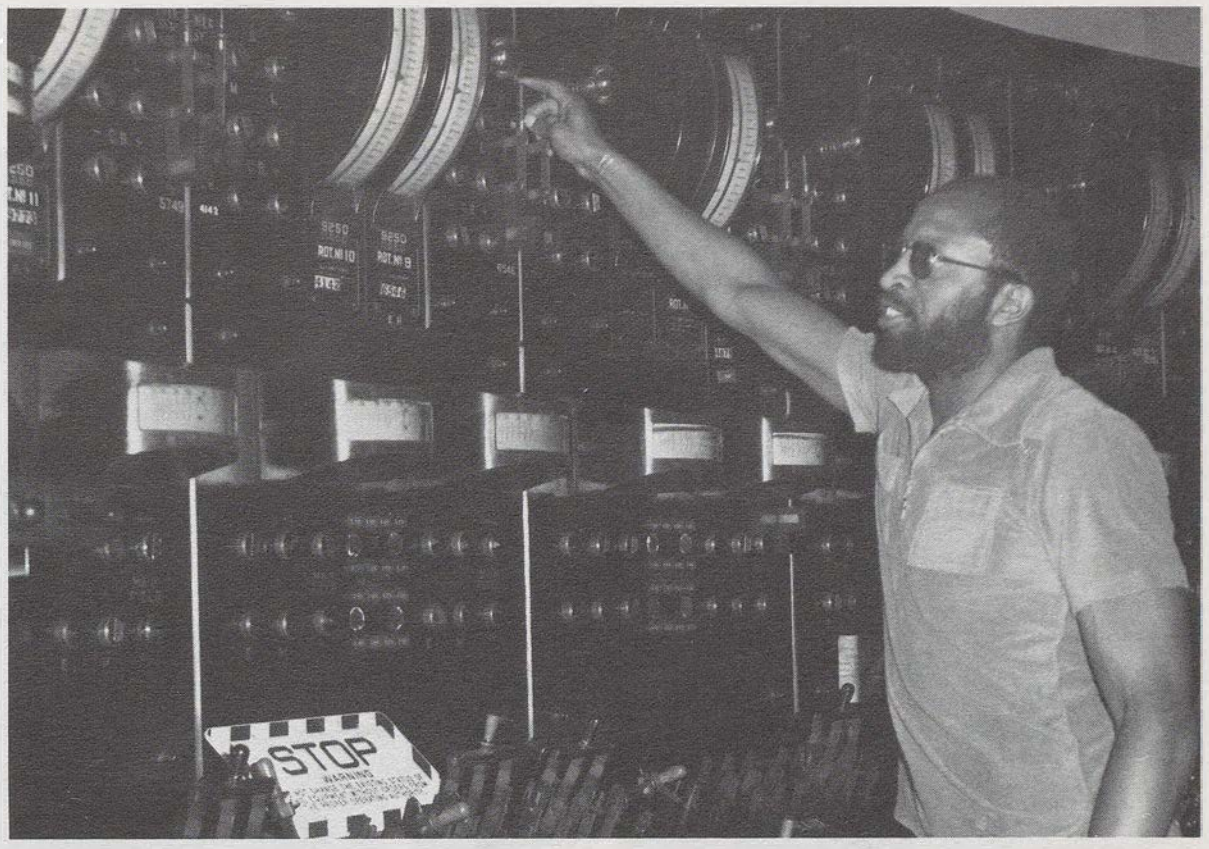
In a related event, turn-of-the-century equipment from a retired Con Edison substation has been turned over to the Smithsonian Institution in Washington to become part of the permanent collection of its Museum of History and Technology.

The equipment—representative of the method used in Thomas Edison's day to convert alternating-current (AC) to direct current (DC) electricity—will be part of the Smithsonian's Centennial of Light exhibit opening this September to celebrate the 100th anniversary of Edison's invention of the first practical incandescent light bulb.

The control board panels, machine breakers and other sample pieces of substation equipment are typical of the rotary method of ACDC conversion.

"The historical value of this equipment is that it is among that last of its kind in the country," said David M. Gigante, Con Edison's chief general engineer.

He added, "The hardware we are donating to the Smithsonian dates back to about 1902, but the rotary conversion system it was part of goes back to 1898."



SMITHSONIAN BOUND: A section of this 1902-vintage substation control board is among the items of historical electrical equipment that Con Edison has donated to the Smithsonian Institution in Washington.

The donated equipment came from the utility's West 26th Street substation, one of the last DC substations

"When Smithsonian officials heard that we were retiring the last of our DC substations, they expressed interest in preserving some of the equipment," Gigante said.

He said Con Edison retired the DC substations because of the dwindling demand for DC electricity and rectifiers now do the job of converters.

Completed in 1888, the West 26th Street facility began as Thomas Edison's fourth generating plant in New York City. Although the generating equipment was removed in the early 1900 s, West 26th Street continued to function as a substation for AC-DC conversion until it was retired in 1977.

Overseas ceremonies

continued from page 1



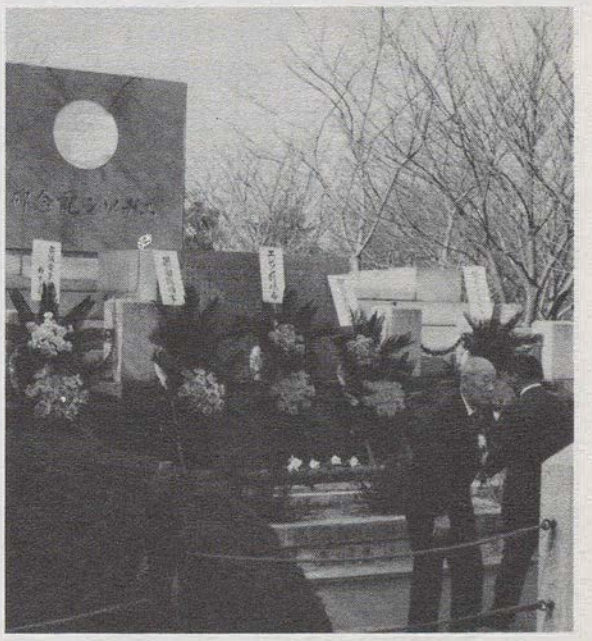
Walker Cisler addressing opening ceremonies at Part 2 of International Edison Birthday Celebration in Munich.

prominent citizens participated in an Edison Birthday Celebration.

The ceremonies included raising of the national flags of Japan and the United States, the laying of memorial wreaths, and the playing of both national anthems. Following the ceremonies, a tea party was held at the Kyoto Grand Hotel, where Mr. Ainsworth praised Edison's contributions to civilization.

In Barcelona, the city's central square monument was illuminated in honor of Lux 79 Memorial Edison to celebrate 100 years of electricity. Dedicated to Rafael de Casanova, defender of Catalonia against the Turks, the monument honors the history of Barcelona.

A number of Spanish journals and newspapers are paying homage this year to Edison's career and achievements.



Ceremonies commemorating the Centennial at Japan's Edison Shrine.

Miniature Edison sculpted by Colonial Mint



The Colonial Mint has been selected to create a special commemorative statue of Thomas Alva Edison, it was announced by James G. Cook, executive secretary of the International Committee for the Centennial of Light.

According to Lewis J. Fiore, the firm's chairman, the work was sculpted by American artist Edward DeWitt, who, he said, is widely known as "a master of detail and authenticity both in sculpture and oil painting. DeWitt has won acclaim for his "Double Eagles" sculpture commissioned by the U.S. Bicentennial Committee and for his works on President Gerald R. Ford, Robert F. Kennedy and Winston Churchill.

The Centennial sculpture is five inches high and stands on its own sculpted base. Each one is signed by the artist and bears a distinctive mintmark.

The Edison Centennial commemorative will be cast in several editions:

- The Heirloom Edition, strictly limited to 1,000 copies, is cast in solid sterling silver, then hand-finished, and costs $350.
- The Fine Pewter Edition, finished and polished with an antique lustre, will sell for $100.
- The Corporate Premium Edition, made of brass, will sell for $20 in quantities over 50.

The Edison commemorative statue is available only by direct subscription. For more information, contact: The Colonial Mint, 360 East 55th St., New York, N.Y. 10022; telephone: (212) 752-5893.

Consumers Power of Michigan shows off the Centennial for shareholders

To commemorate the Centennial of Light, Consumers Power Co. of Jackson, Mich., designed and built a special-effects exhibit for display at its regional shareholders meetings held in April.

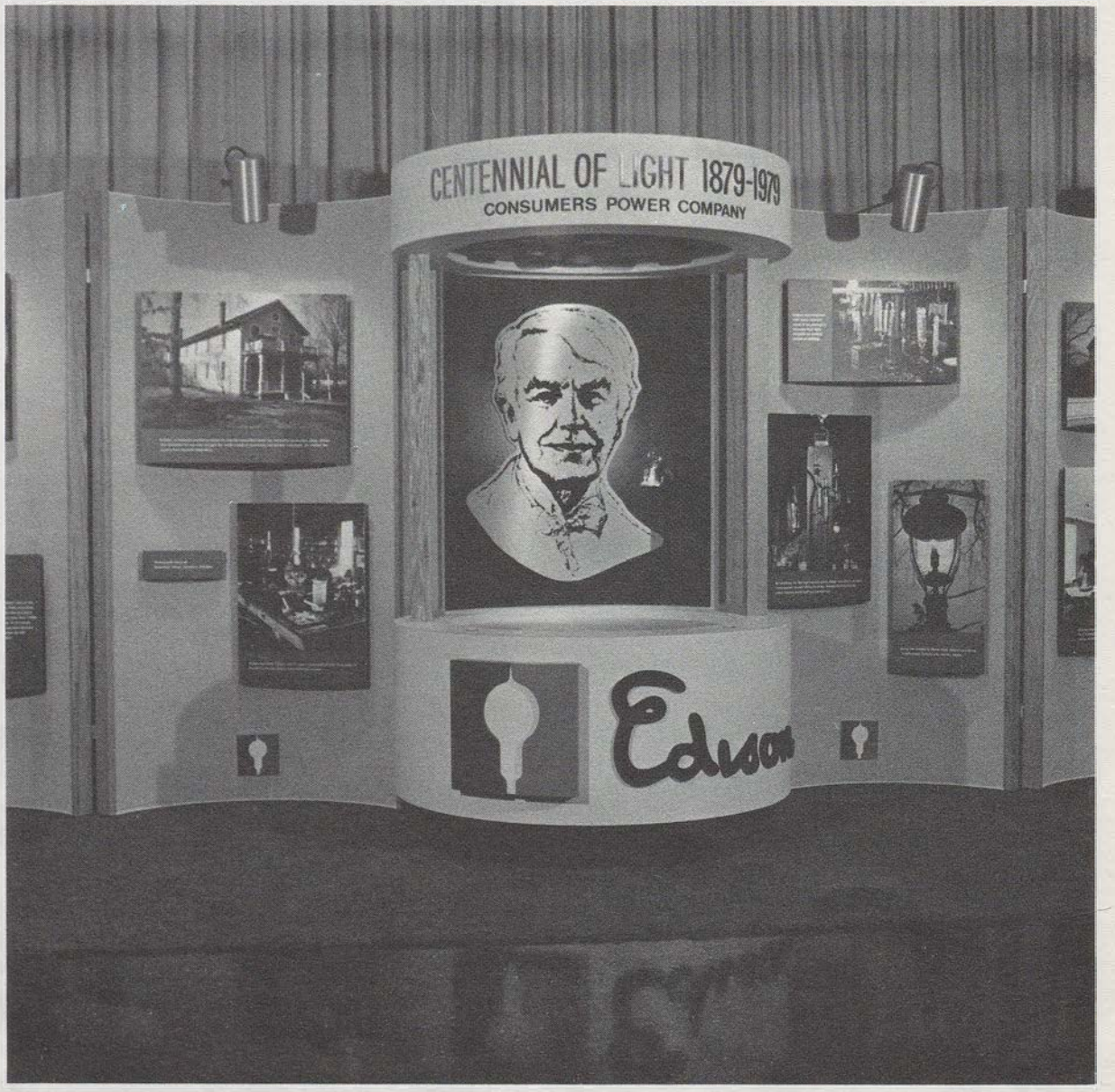
The synchronized sight-and-sound display seeks to show "to generations of people that what is a dream and what is reality is separated only by belief," and that "faith can act as the light of man's hope against the darkness of the unknown."

For the rest of the year, the exhibit is booked into shopping malls and trade shows.

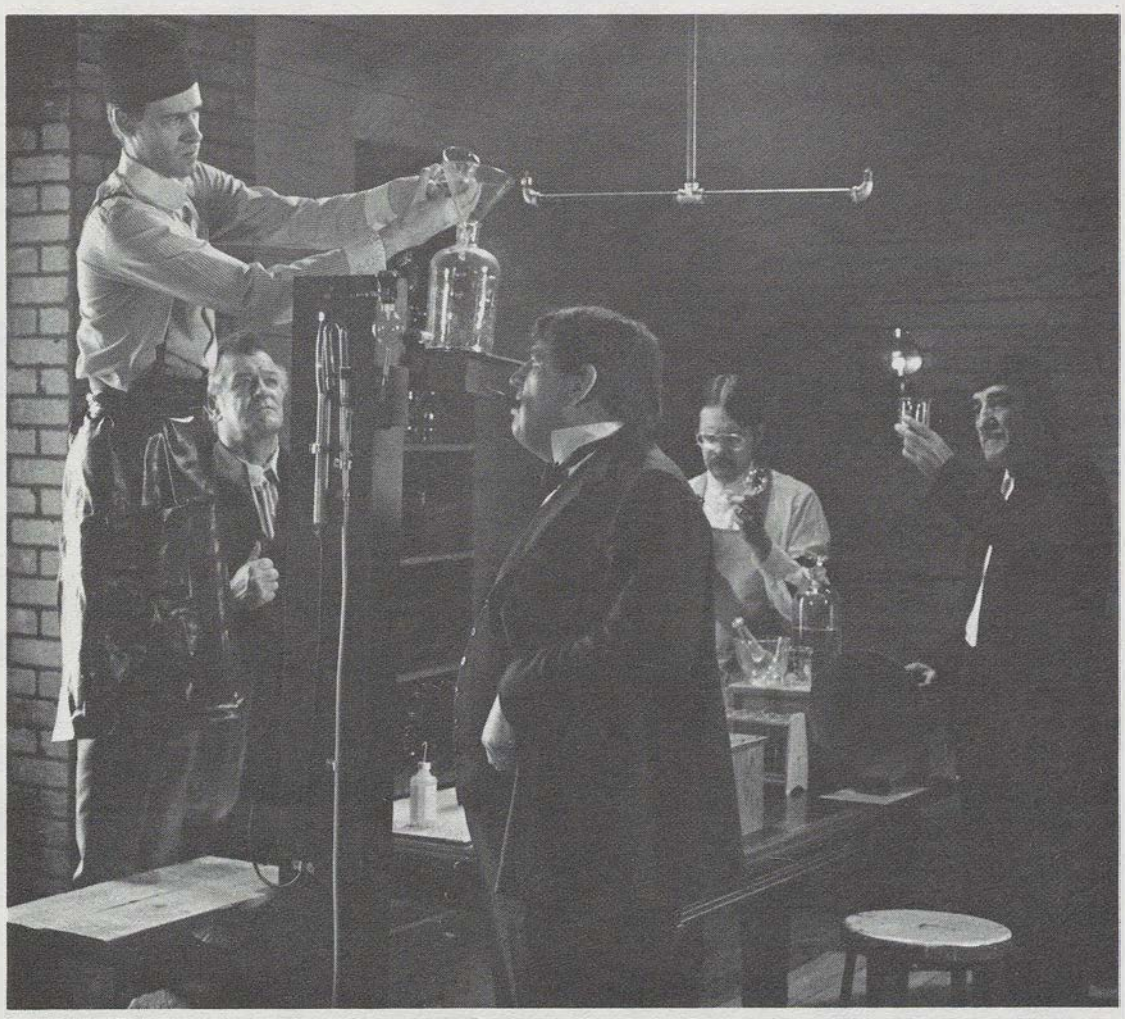
At the top of the exhibit base is a 44-inch round silk-screened Plexiglas pane. Its art work depicts Edison's laboratory when the first lamp was lighted.

At the point in the taped narration when the lamp is illuminated, a high-intensity spotlight illuminates the bulb in the art work and a bulb replica in the background lights up.

As the narrator notes that the historical event led to lighting for the entire world, a NASA translite photograph of the earth is dramatically illuminated below the art work of Edison's laboratory.



Philadelphia Electric offering new Edison film



Edison's Menlo Park, N.J., laboratory was recreated in this opening scene from Philadelphia Electric Company's 1979 shareholder film, "The Light Years," in commemoration of the Centennial of Light. The film details the history of the light bulb and PE's part in the development of electricity. Joseph P. Early of Plymouth Meeting, Pa., who plays Edison in the film, is nationally known for his portrayals of historic personalities. The film is available on loan by writing to Editorial Services, Philadelphia Electric Co., 2301 Market Street, Philadelphia, Pa., 19101.

Ohio Brass commemorates Centennial in corporate advertisements

The Ohio Brass Co. has been using corporate ads and articles in its various company publications to commemorate the Centennial year. A wholly-owned subsidiary of Harvey Hubbell Inc., the firm manufactures products for the electric utility, mining, electric transit and construction industries.

According to Carroll C. Conklin, advertising manager for transmission products: "Thomas Edison's invention of the first practical electric light proved to be the foundation of the electric utility industry—an industry Ohio Brass has been serving since 1909. Ohio Brass is pleased that the Centennial of Light provides an opportunity to recall our own contributions to this industry, while simultaneously honoring the man whose inventive genius made our industry possible."

A recent ad headed "It was more than a marvelous invention" appeared in a special Sunday business section of the Mansfield (Ohio) News Journal. Another one—headed "O-B says 'happy

please turn to page 8

Pat Hingle's Edison film available

Last year during General Electric Co. 100th anniversary celebration, well-known character actor Pat Hingle toured GE facilities in the role of Thomas Alva Edison. His one-man show has since been made into a movie that strikingly portrays Edison the scientist, the inventor and the humanist.

Titled "Thomas Edison: Reflections of a Genius," the 45-minute film is now available during the Centennial of Light year through GE's district sales managers. It will be available to local schools and organizations on a first-come, first-serve basis.

As Edison in his later years, Hingle discusses his inventions, famous people he knew and worked with, and his successes and failures.

For more information contact George Shea, Centennial of Light, 800-243-8561.

PP&L organizes Centennial program

Pennsylvania Power & Light Co. is joining the worldwide Centennial commemoration by organizing programs and events throughout the year.

In addition to publicizing international activities through its various publications and communications media, PP&L will:

- Offer feature articles to newspapers throughout its service area.
- Use the Centennial symbol on all company mailing envelopes and certain conservation advertisements to increase public awareness.
- Develop company conservation displays at shows and meetings that will incorporate the symbol and highlights of the Centennial.
- Present a modular exhibit at company offices.
- Organize employee picnic events.
- Produce Edison films and slides for employee and community groups.
- Offer Centennial information and items of interest on Edison's accomplishments to service area schools.

UPCOMING CENTENNIAL EVENTS

New Jersey Touring Play, Summer: Sponsored by Atlantic Electric Co., a touring one-man drama on Edison will be presented at locations throughout the utility's service area in and around Atlantic City.

Smithsonian Traveling Centennial Exhibits, Summer: The special Edison exhibits will continue their tours at these locations: June 16-July 15: Illinois State Museum, Springfield, Ill.; Western Reserve Historical Society, Cleveland, Ohio; Aug. 4-Sept. 2, Public Service of Colorado headquarters, Denver, Colo.

Syndicated Newspaper Series, Summer: The John T. Cunningham 18-part Edison series continues through the summer with parts 7 and 8 being distributed in June, parts 9 and 10 in July, and parts 11 and 12 in August. Check your local newspapers.

Con Edison's Walking Tours, Summer: From May through September, Consolidated Edison of New York will conduct self-guided walking tours through lower Manhattan, Edison's first service district, site of the famed Pearl Street generating station.

Menlo Park Tower glowing again



Brighter than ever, the 13-foot light bulb atop the 130-foot Edison Memorial Tower in Edison, N.J., is shining again after being shut off in 1976 due to faulty wiring. As part of the celebration of the Centennial of Light, the township revamped the deteriorating Edison Memorial Park and Museum, and rewired the tower at a cost of $60,000. The tower was built 50 years ago for the Golden Jubilee of Light to mark the spot—then the community of Menlo Park—where Edison created the first incandescent lamp. The township of Edison plans to renovate the 45-acre state park into a recreational area similar to Valley Forge as soon as funds are available.

Ohio Brass

continued from page 7

birthday' to the light bulb..." —ran in Electrical World and in Hi-Tension News, an O-B external publication reaching almost 20 thousand engineers and executives in the electrical industry.

A four-part Hi-Tension News series of Centennial of Light articles recounts the company's work in developing suspension insulators and surge arresters. Future articles will review corporate research and facilities related to Edison's pioneering work in electrical transmission.

CENTENNIAL OF LIGHT 1879 1979 ™ Edison Centennial News

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EDISON-CENTENNIAL 1979

"Ask at Desk"

ASK AT DESK

CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

JULY 1979 VOLUME 2 NUMBER 7

"THE ENDLESS SEARCH," EDISON FILM AVAILABLE FROM SCREEN NEWS DIGEST

"The Endless Search" — a 26-minute color educational film on Edison the man, his inventions and his legacy — is now available to companies and organizations for distribution to schools and civic and community groups.

Produced and distributed by Screen News Digest, the film uses Edison's life of invention to illustrate how technology has changed our lives over the past 100 years. It underscores the need for new Edisons to solve current problems and improve our quality of life for future generations.

With off-camera narration and "voice" of Edison, the documentary presents three dominant pictorial themes:

- Edison's personal life and pioneering genius.
- People, places and events that shaped the world in which Edison lived and worked.
- Industrial progress and scientific advances that flowed from Edison's research during and after his lifetime.

Writer-producer Cloyd Aarseth shot new footage at the Menlo Park laboratory which was relocated to Greenfield Village in Michigan in 1929, as well as at Edison's West Orange laboratory and his "Glenmont" residence in New Jersey. In addition, he has incorporated classic film of Edison in his laboratories, at home, on camping trips, visiting a light-bulb factory, and at the ground-breaking ceremony at Greenfield Village.

"The Endless Search" is the third element in a total Centennial of Light educational-services package developed to tie in with ongoing community-relations programs. The film complements "A Century of Light" teaching aids and student-activity programs available to teachers of kindergarten through twelfth grade from the Thomas Alva Edision Foundation. It also parallels the theme of "The Search for Tomorrow's Edisons," a new booklet available in bulk orders for 25¢ per copy from the Centennial of Light.



"The Endless Search" is available for sale, except in areas where contractual commitments to non-utility sponsors of Screen News Digest may limit usage. For further information, contact: Martin J. Kendrick, Screen News Digest, 235 East 45th Street, New York, N.Y. 10017. Telephone: (212) 682-7690.

Orders for medallion and lamp should be received by Aug. 31





Both an official Edison Centennial Medallion and a reproduction of Edison's original incandescent lamp are now available on a limited-edition basis.

The bronze medallion is being produced by the Village Mint of Southfield, Mich. It was designed by eminent sculptor Mico Kaufman. Its front features a portrait of Edison, and the reverse side portrays the lighting of the first incandescent lamp. However, purchasers may choose either theme for one side of the medallion and personalize the reverse side with their own design or company message.

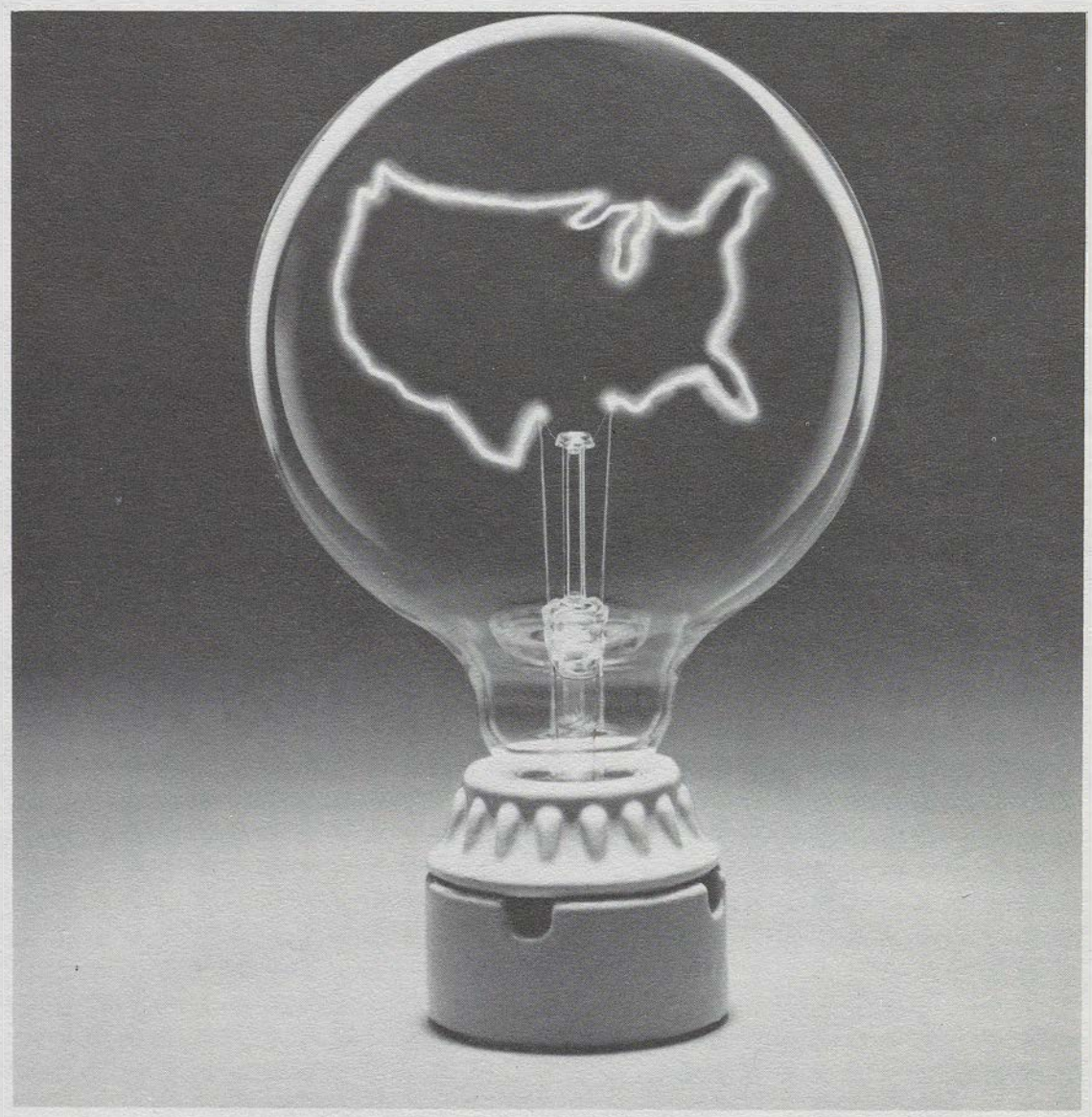
Those wishing to order medallions in quantity for presentations and ceremonies in October should have their orders in by Aug. 31, to ensure delivery. Each medallion costs $17.95.

The working replica of the original incandescent light bulb sits on a polished wood base and makes an ideal night light. It is modeled after those Edison handcrafted himself for the Golden Jubilee of Light in 1929.

Light bulb replicas may be purchased for $24.95 each. Orders also should be received by the end of August to ensure delivery by October.

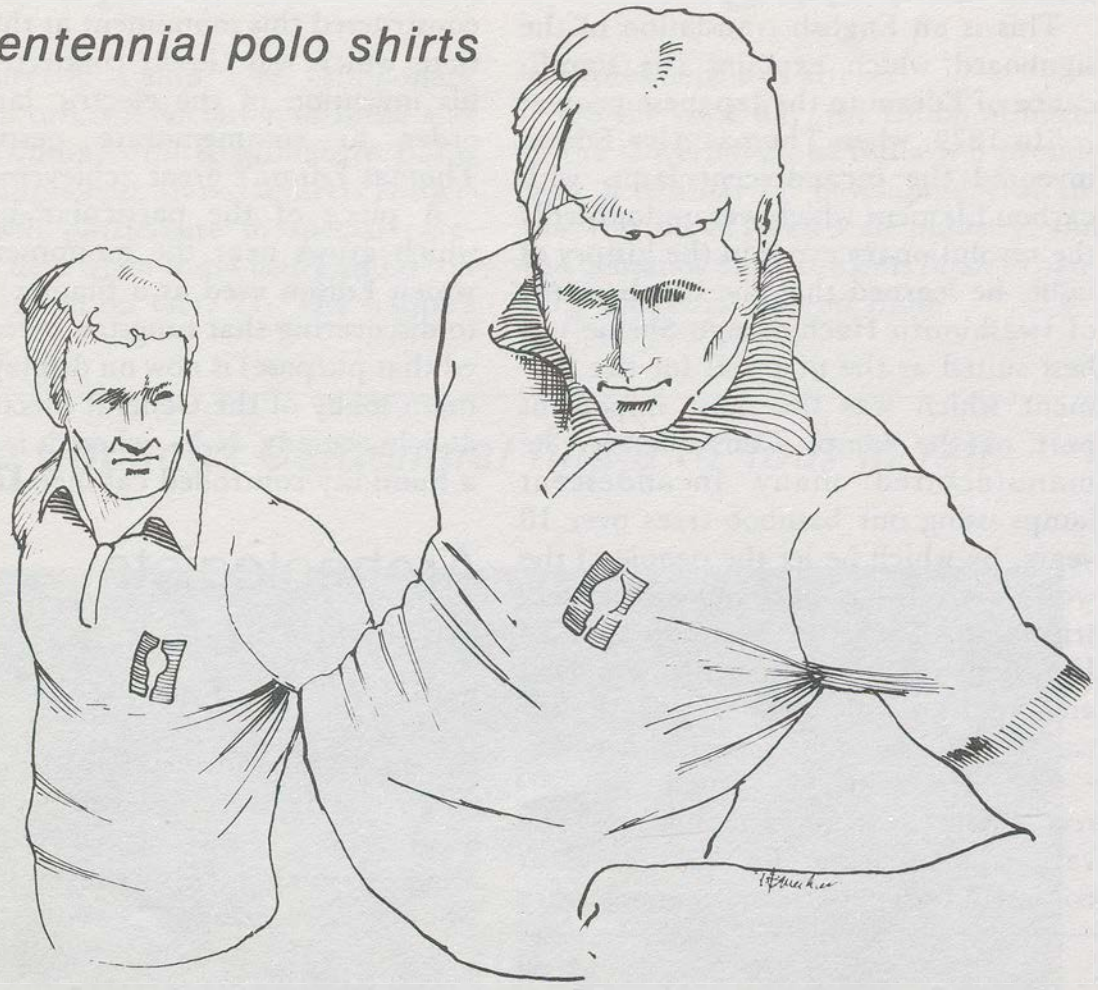
Orders for both the bronze medallion and the light bulb replica should be sent to the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075.

An American filament



This unusually-filamented light bulb "never was." It's a retouched-photo creation of Campbell-Mithun Inc., Chicago-based agency for the Air Correction Division, UOP Inc., Darien, Conn., makers of equipment that controls emissions at power plants. It was featured in a recent ad headlined: "Our electric utilities are doing more than just lighting up America."

Centennial polo shirts



Polo shirts appropriate for golf, tennis or any athletic or leisure activity are now available in a cotton-polyester knit, with the official Centennial of Light symbol. They may be ordered with either a pointed or ribbed-knit collar. Normally sold for $18 at department and clothing stores, the shirts are available to Centennial participants and individuals for $9.50 each, with a minimum order of 12, f.o.b. New York, N.Y. The Thomas Alva Edison Foundation receives a royalty on each shirt bearing the Centennial symbol. Orders should be sent to Centennial Shirts, Vantage Custom Classics, 342 Madison Ave., New York, N.Y. 10017. Customers should allow four weeks for delivery.

Edison-technology symposium set for N.J. Oct. 19-20

The New Jersey Historical Commission will hold a special symposium on "Thomas A. Edison and the Recent History of Science and Technology" Oct. 19-20 in Newark to commemmorate the 100th anniversary of Edison's invention of the light bulb. The symposium will be held in conjunction with the annual meeting of the Society for the History of Technology.

Cosponsoring are the National Park Service, the Newark Public Library and the New Jersey Committee for the Humanities. Other cooperating institutions are the Newark and New Jersey State museums and the Thomas Edison Papers Project of Rutgers University.

Robert V. Bruce of Boston University, Theodore Berstein and Terry Reynolds of the University of Wisconsin, and James E. Brittain of the Georgian Institute of Technology will discuss "Edison in Combat: Inventors in Competition." Another program segment will examine "Edison's Impact on Contemporary Industry."

Bernard Finn, curator, Division of Electricity and Nuclear Engineering, Smithsonian Institution, will speak at a reception in the Newark Museum.

Those interested in obtaining a complete program should write: Richard Waldron, New Jersey Historical Commission, 113 W. State St., Trenton, N.J. 08625.

CIPSCO expands Centennial programs

Central Illinois Public Service Co. of Springfield is sponsoring a series of Centennial of Light events highlighting Edison's work and his influence on today's lifestyles.

According to Reg Ankrom, public relations officer for CIPSCO, a highlight is an exhibit tying the utility's history into the Centennial special retrospectives on Edison, electricity and lighting. It has appeared at major expositions in central Illinois.

Besides sending six students to the International Edison Birthday celebration last February, CIPSCO arranged for a graduate student studying solar energy conservation at Southern Illinois University to attend the Edison Centennial Symposium in San Francisco in April.

In the fall, high school bands throughout CIPSCO's service area will receive complimentary music and choreography for a Centennial of Light show for football halftime activities.

The company's employee news magazine regularly carries news and articles on the Centennial, and Edison's inventive genius is being featured in print advertisements.

Letters being sent to labor leaders urge that they incorporate references to Edison and the Centennial of Light into their Labor Day festivities. The utility also provides a 5-minute prototype speech on Edison, his inventions, and their importance to organized labor in this country.

Local television stations will be running CIPSCO-sponsored 10-second television spots honoring 100 years of light this fall. One is a "happy birthday" tribute slated for use on a scattered basis until Centennial week in October. The second spot, showing a fascinated child learning the importance of electricity, will be broadcast on a saturation schedule during Centennial week. The same themes will be used on radio.

On Oct. 21, CIPSCO will light a giant "E" on the side of the Illinois Building in Springfield between 8 p.m. and midnight, coinciding with the national Centennial of Light ceremonies at the Menlo Park compound in Dearborn, Mich.

Edison and Japan

Last month, Howard I. Forman, deputy assistant secretary for the U.S. Department of Commerce, sent us a copy of his letter that appeared in the Washington Star on March 15, concerning the public esteem for Edison in Japan. Since it expands our June account of the ceremonies held in Japan, we are reprinting the letter here.

The letter from Lt. Gen. Arthur G. Trudeau which you published under the caption, "Abraham Lincoln in Japan" (Feb. 22), was most interesting. It was gratifying to learn that Lincoln is "the best-known and best-loved American in Asia and the Far East."

My candidate for the second best-known and best-loved American in the Far East is Thomas Alva Edison. Here is a photograph of a magnificent memorial to Edison which is situated in the Iwashimizu Hachimangu Shrine, a Shinto shrine in a suburb of Kyoto, Japan. It was erected by the Thomas Edison Society of Japan.

This is an English translation of the signboard which explains the significance of Edison to the Japanese people:

"In 1879, when Thomas Alva Edison invented the incandescent lamp with carbon filament which was undoubtedly the revolutionary event in the history of light, he learned that the bamboo tree of Iwashimizu Hachimangu Shrine was best suited as the material for the filament which was the most important part of the lamp. Consequently, he manufactured many incandescent lamps using our bamboo trees over 10 years, by which he let the people of the world know the importance of the electric lamp. Thus, the bamboo trees of Iwashimizu Hachimangu Shrine played an important role in supplying the incandescent lamps for practical use.

"Therefore, in 1929, when the Electric Lamp Festival was held in the various countries around the world in commemoration of the 50th anniversary of the invention of the electric lamp, we constructed this monument at this location, which was closely connected with his invention of the electric lamp, in order to commemorate perpetually Thomas Edison's great achievement."

A piece of the particular bamboo which grows near the monument and which Edison used as a filament (prior to discovering that tungsten better served that purpose) is now on display in the main lobby of the General Electric Co. at Schenectady, N.Y., where it is kept in a humidity-controlled cabinet.

Nobel winner urges economic growth at Chicago Edison ceremony



Hans Bethe, Nobel Laureate in physics and professor emeritus at Cornell University, recently addressed more than 200 prominent Chicagoans at the Museum of Science and Industry. He spoke at a reception commemorating both the Centennial of Light and the opening at the museum of the Smithsonian Institution's traveling exhibit, "Edison and the Electrical Age: 100 Years." There is no substitute for nuclear power, added Bethe, who is chairman of Americans for Energy Independence, a Washington-based, nonprofit organization devoted to informing the public about all forms of energy.

Archeologists digging for Edison's home

On the 100th anniversary of the invention of the light bulb, archeologists are digging up a vacant lot in Port Huron, Mich., hoping to find the location of Thomas Alva Edison's boyhood home.

Edison was 7 years old when his family moved from Milan, Ohio, to Port Huron in 1852 and settled in a house that had been built 12 years before. Some of the inventor's earliest experiments were done there.

The house burned down more than 100 years ago, but archeologists hope they can find the foundation and litter left by the Edison family. So far, all they've unearthed is a 1958 dog license, an automobile nameplate and an empty rouge bottle of recent vintage.

But they're not giving up. "The biggy for me would be finding a well-defined basement foundation, a front and back porch with trash around them, the outhouse and well," said Dr. Richard Stamps, assistant professor of anthropology at Oakland University and director of the dig.

Charles Martinez, field supervisor for the dig and an admitted skeptic, said he would settle for a lot less—just something with Edison's name on it. In an earlier test dig, the team did find pieces of printing type identical to the kind young Edison used in printing his own newspaper.

As a teenager, Edison set up a laboratory among the potato and carrot barrels in his home's basement. That basement laboratory, historians believe, was the training ground that led to Edison's later inventions such as the light bulb, motion pictures and phonograph.

India, Taiwan offering Centennial activities

The Electric Lamp and Component Manufacturers Association of India and the All-India Auto & Miniature Bulbs and Components Manufacturers Association will participate in special ceremonies held when India issues an Edison postal stamp on Oct. 21. The nation's vice president will attend.

On the same day, the Union Minister of the Government of India will preside over a seminar on development of India, the role of small-scale industry, and the demands and problems of an expanding industrial base in India.

A commemorative publication will be produced, featuring articles on Edison, light sources over the years, light and vision, the lamp industry in India, and other topics.

According to P. Sharan Gupta, chairman of Shar-Lee Filtorites Pvt. Ltd. of Delhi, a manufacturing conglomerate, the India Centennial of Light committee will organize a small exhibition and produce a film tribute to Edison.

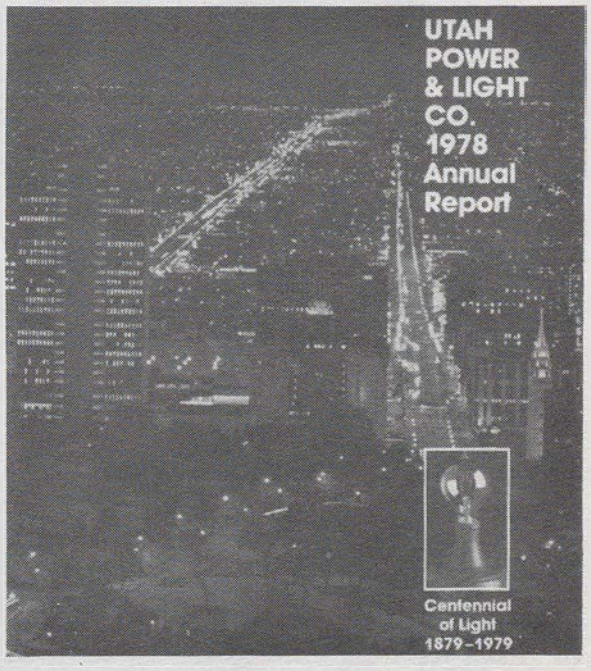
In Taiwan, Republic of China, the National Chung Ching Academy of Science and Engineering convened last June 879 students with outstanding records in mathematics physics, and chemistry from senior high and vocational schools. Each received a special booklet on Edison. In addition, 200 select students received a Centennial medallion.

The 5-day program included a tour of teaching facilities of the university, lectures on natural and physical sciences, and a visit to a hydro power plant, as well as opportunities for research writing and laboratory experiments.

Ice Capades Centennial finale to tour in fall



Starting in the fall, the Ice Capades will begin touring its new show featuring the Centennial of Light. Shown above, the Ice Capettes and Ice Cadettes pay tribute to Thomas Edison and the 100th year of electricity in the sparkling finale. The lavish production features a 60-member cast. It is the biggest and most brilliantly illuminated show ever staged on ice. It employs more than 7,000 lights, both in the production's scenery and on the cast members' costumes.



Utah Power & Light Company received a special citation for the best thematic use of the Centennial of Light in a 1978 annual report. Judges commended UP&L in the 40th Annual Report Competition sponsored by Reddy Communications, Inc. Awards will be presented on Sept. 11 at the Smithsonian Institution in Washington, D.C.

UPCOMING CENTENNIAL ACTIVITIES

New Jersey Touring Play, Summer : Sponsored by Atlantic Electric Co., a touring one-man drama on Edison will be presented at locations throughout the utility's service area in and around Atlantic City.

Smithsonian Traveling Centennial Exhibits, Aug. 4 - Sept. 2: Special Edison tour at Public Service Company of Colorado, Denver; Fort Worth Museum of Science and History, Fort Worth, Texas; Northeast Utilities Hartford, Conn.

Syndicated Newspaper Series, Summer : The John T. Cunningham 18-part Edison-biography series continues. Parts 11 and 12 go out in August; parts 13 and 14 in September.

Con Edison's Walking Tours, through September : Consolidated Edison of New York will provide self-guided walking tours through lower Manhattan, Edison's first service district, and the site of the famed Pearl Street generating station.

Chautauqua Institute Edison lectures, July 23-30: The first week of the lecture series will be dedicated to Edison and feature Princeton physics professor Gerald O'Neill; broadcaster and environmentalist Roger Caras; neurosurgeon Dr. Richard Respak; Saturday Review science editor Albert Rosenfeld; and Edison biographer Robert Conot.

Release of "The Endless Search," Edison Centennial Film, August: Prints of this official film, reviewing the career and personality of the great inventor and the impact of technology on our past and its importance to our future, will be released to subscribers of Screen News Digest. They will also be placed on limited sale.

Smithsonian Permanent Edison Centennial Exhibit, September : Grand opening ceremonies are scheduled in Washington, D.C., for Sept. 11 at the Museum of History and Technology, where the exhibit will occupy the new main entrance area on the first floor. It will concentrate on technology developed by Edison and lead into the modern technology of today's American industry. Public showings begin Sept. 12.

Multi-media slide show being turned into 16mm film

The 1,000-slide multi-media presentation which was featured at the Edison Centennial Symposium in San Francisco in April is being transposed by its producers into an 8-minute, 16mm film. The original production used 30 projectors to shoot images on a 12-foot by 40-foot screen

The presentation's review of technology in our daily lives begins with man's basic development of food, shelter and agriculture. It rapidly moves to the industrial eras of the 18th and 19th centuries. It reaches a climax in 1879 when Edison created the incandescent light, then continues into the present era. As the William Tell Overture is played at an ever-increasing tempo, the production looks to the future and at the vast reaches of the universe.

Michael Creedman, who created and designed the program, says that "the ideas and aspects reviewed so rapidly in this show spark conversation and lead into marvelous discussion of where technology has been and where it is taking us. Particularly this year, as we celebrate Edison's Centennial of Light, it would be especially meaningful in science, philosophy and history classes.

"Transferring this program from slides to film has been a very complex technical endeavor," Creedman said. "Doug Sandberg, the chief film editor, had the enormous task of taking these 30 slide trays, redesigning the slides to fit the smaller-dimensioned 6-foot by 8-foot screen, and simplifying continuity while retaining the flavor, flow and vitality of the production. He's done an absolutely fantastic job in making it a reality."

Prints of "Science, Technology and the Human Prospect" will be available by mid-August. Each costs $29, plus shipping charges. Orders and inquiries should be sent to: Michael Creedman Associates, 2015 Bridgeway, Sausalito, Calif. 94965.

Edison zoetrope from Greenfield Village



Greenfield Village and Henry Ford Museum has produced a zoetrope folder recreating Edison's invention of the light bulb, and providing a short history of the museum and Edison's career. A zoetrope is an early method of making images move through rotation of pictures on a disc. The folders are free and may be obtained by writing G. Donald Adams, Manager, Print Media Services, Office of Public Relations, Greenfield Village and Henry Ford Museum, Dearborn, Mich. 41821.

Ship lost for 21 months

Edison dynamo on early polar expedition

This year's observance of the Centennial of Light also marks another Edison achievement that worked...on a polar voyage that failed 100 years ago.

On July 8, 1879, the DeLong Expedition yacht *Jeanette* sailed from San Francisco in search of the North Pole. Aboard was Thomas Alva Edison's first dynamo to provide power for an arc light and several of the inventor's early platinum filament incandescent lamps.

On June 11, 1881, the *Jeanette*, which had been frozen into the Arctic ice pack for a harrowing 21 months, was crushed by the ice and sank the following day.

Navy Lieut. George Washington DeLong and his men survived the sinking, managing to save most of their provisions and three small boats. During the following two months they made an agonizing trip to reach open water. When they did, one of the boats sank. Another managed to reach a small settlement and the men were saved.

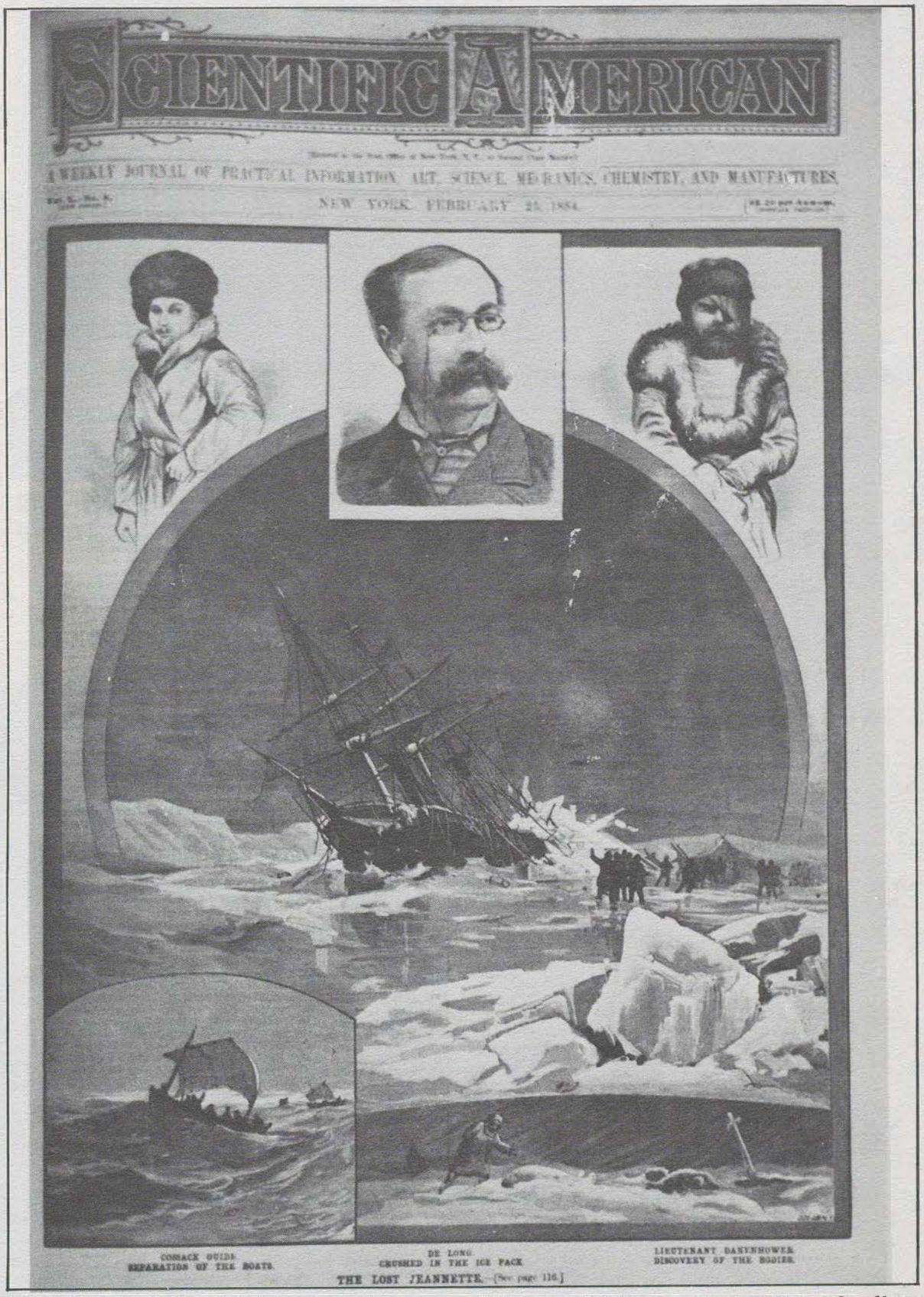
But DeLong and the men in the third boat had become separated from the rest and landed in a barren, bitterly cold area. One by one the men succumbed to starvation and sub-zero temperatures.

It was almost three decades later, in 1909, that Admiral Robert E. Perry led the first expedition that finally succeeded in reaching the North Pole.

But to begin at the beginning...

Edison's involvement with the DeLong polar project began on April 21, 1879—the year that he perfected the first successful incandescent lamp—when he received a letter from the lieutenant who wrote: "Will you be kind enough to point out to me some practical method by which we can use the electric light during the coming Arctic Expedition under my command?

"I should like to illuminate the ship from time to time during the long Arctic Winter, and subject our crew to the benefits morally and physically arising from that light; but as I am quite ignorant of any simple and practical way to carry out my ideas, I request your cooperation and assistance."



The fate of the DeLong polar expedition, which carried Edison's first dynamo aboard the yacht* Jeannette *is depicted on the cover of the* Scientific American *of Feb. 23, 1884.

Edison replied to DeLong, "I'll make a frame with a large wooden wheel and crank for you, so you can belt the dynamo on it when you have no steam, and your crew can take a hand in driving the machine..."

The dynamo Edison built for the ship was the earliest prototype of the "Jumbos" used in later commercial generating stations.

GE's Lighting Business Group expands Centennial programs



James A. Baker, GE vice president and group executive of its Lighting Business Group, shows off a Centennial of Light baseball jersey to Cleveland Indians manager Jeff Torborg.

General Electric's Lighting Business Group at Nela Park in Cleveland, Ohio, has broadened its Centennial of Light programs to include an essay contest among high school juniors in 46 cities nationwide where there are GE facilities.

The essay contest has as its theme, "Why Today's Edisons Are Needed in Tomorrow's World." Each participating city school system may submit one entry for the national competition.

First prize will be a $1,000 honorarium and an all-expense paid trip for the winner and his or her immediate family to Greenfield Village in Dearborn, Mich., next Oct. 19-22, to participate in the Centennial ceremonies.

Each runner-up will receive an Edison medallion and a new GE product, "Blackout," a blacklight fluorescent lamp that creates unusual lighting effects on accompanying disco- and space-oriented posters.

The essays will be judged by a panel of technical and professional GE employees in Cleveland. The national winner will be notified in September.

GE employees from northeastern Ohio were hosted, along with their families, at a Cleveland Indians baseball game in May. Nearly 15 thousand of them attended, following a "Meet the Indians" picnic. The Nela Park men's chorus sang the national anthem at the game, and the Indians management presented a souvenir plaque at home-plate to GE Vice President and Group Executive Jim Baker.

Menlo Park Reenactment being prepared for Oct. 21

Plans are taking shape at Greenfield Village and Henry Ford Museum, Dearborn, Mich., for a reenactment of the "miracle of light" on Oct. 21.

The ceremonies will take place in Edison's original Menlo Park laboratory which was transplanted from New Jersey in 1929. At the Dearborn site are more than 85 original buildings spanning three centuries of American history.

The reenactment will be staged this fall for 400 leaders from business, science, education, the arts and politics, just as it was 50 years ago, when auto pioneer Henry Ford brought Edison, President Hoover and some 400 dignitaries to the site to honor the inventor.

Ford regarded his close friend Edison as a model for the nation's youth. "The American spirit of endeavor represented in its fullness by Thomas Alva Edison," he said, "is the real wealth of the nation."

Final details on the Dearborn activities will be announced in early September.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson
Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Katie Meehan, Judy Cash

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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Edison Centennial News

AUGUST 1979 VOLUME 2 NUMBER 8

1929 Edison Scholars hold their first reunion

19 of original "49ers" gather at West Orange, N.J.

Nineteen of the 1929 Edison Scholars, personally selected by the great inventor, were reunited Aug. 6-9 for the first time in 50 years at the New Jersey site where they first met and competed. They now call themselves the "49ers" because there were originally 49 of them, one from each state in the union and the District of Columbia.

To advance the cause of education, Edison had sponsored a national competition and personally awarded the grand prizewinner a full four-year scholarship to the college of his choice. More than 9,000 students had applied. Each state administered a preliminary test among eligible contestants and chose a single representative to attend the finals at Edison's home ("Glenmont") in West Orange, N.J. There Edison personally administered a test he had personally devised.

Now they were back again—many of them with their wives—all remembering those callow days. The future was much brighter for them than for most at the beginning of the Great Depression.

Reminiscence about test

They reminisced about the test administered by Edison. "Grueling," one said. "Philosophical in nature," another recalled. "The toughest of my life," most agreed.

"Each question on the test would offer you a number of situations and facts," said Al Kunze, of Winter Park, Fla., who had represented Georgia in 1929. "And then you would have to figure out the basic answer, not necessarily the mathematical or analytical answer. For instance, I remember one question, where we were told that a 100-pound rock was at the top of a hill and had to be moved 10 feet vertically and 10 feet horizontally. Well, we started figuring out all sorts of ways, but the answer was simply 'Roll it.' "



Nineteen of the 49 original 1929 Edison Scholars gather around Thomas Edison's West Orange laboratory desk. From left to right: TV reporter, Edison Fund trustee John Venable, William H. O'Donnell (Wyoming), Edward B. Morris (West Virginia), Edward P. Eardley (Utah), William T. Evans (Texas), Rex R. Robinson (Nebraska), Chatten R. Haynes (Arkansas), Robert J. Westfall (Nevada), Albert F. Kunze, Jr. (Georgia), James Seth (New Mexico), Bernard M. Sturgis (Indiana), Hugh Spatz (Ohio), David H. Currie (Iowa), Charles R. Millard (Oklahoma), Roy Burton Power (Kansas), Gustav A. Grab (Oregon), Philip W. Maurer (Michigan), Malcolm G. Townsley (Montana), and Robert E. Rawlins (South Dakota). Standing over Edison's desk is Wilber B. Huston (Washington State), winner of the Grand Prize in 1929.

Others recalled the Edison radio-phonograph that each had won—a floor model with doors that swung out. "It was a gem, and we listened to it for years, but like all things, it became old-fashioned and somewhere along the way it disappeared. Probably in somebody's attic right now," said Hugo Spatz, now an optometrist from University Heights, Ohio, who represented that state in 1929.

Rubber experiments with Edison

Robert J. Westfall of Kankakee, Ill., who represented Nevada in 1929, especially remembers the day after the

please turn to page 4

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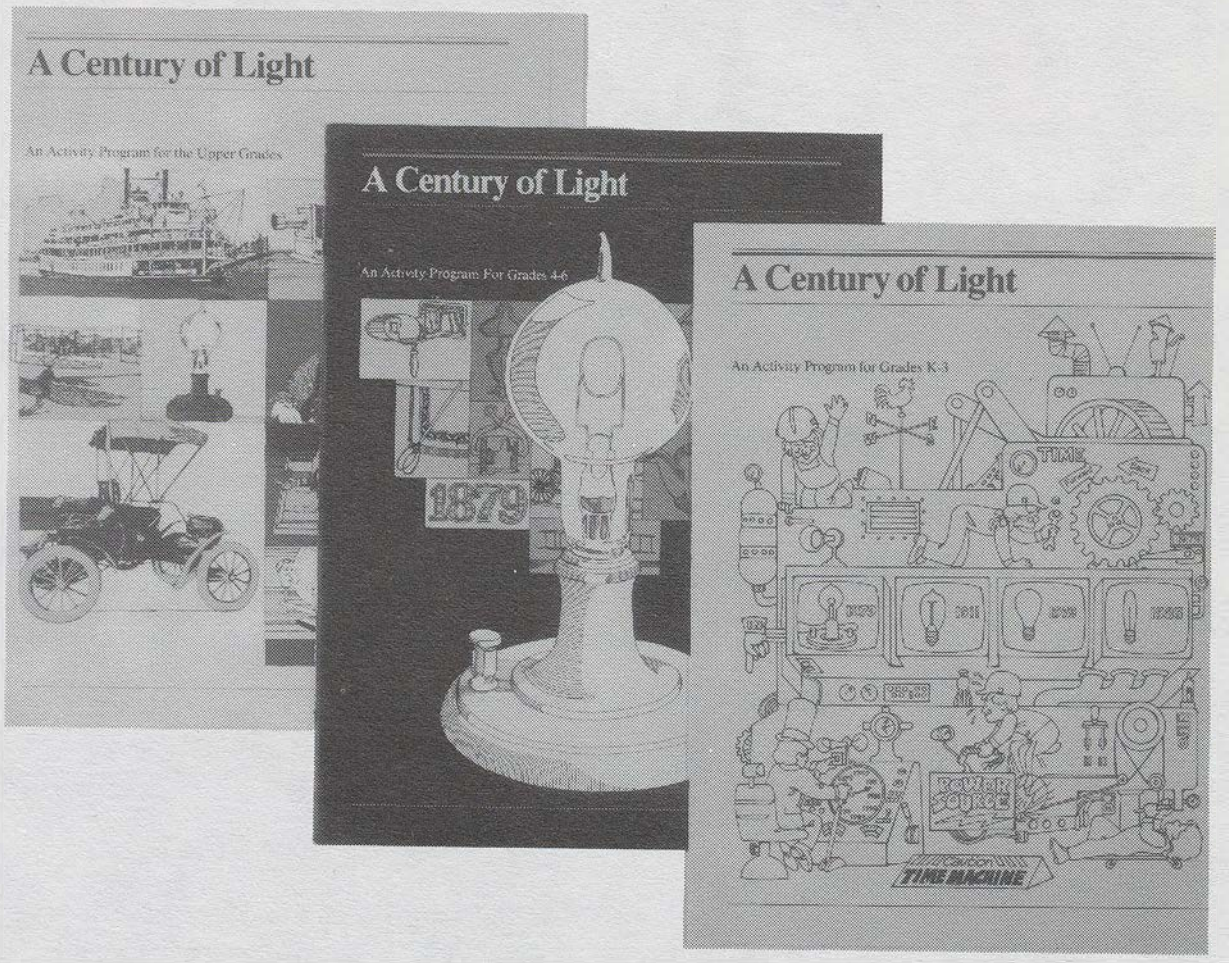
EDUCATION KITS SUPPORT CENTENNIAL OBJECTIVES

Are schools today offering the programs and opportunities needed to stimulate an inventive spirit? Are we encouraging today's young men and women to explore and search for better technologies? Are there lessons about inventiveness to be learned from men like Thomas Alva Edison, who received 1,093 U.S. patents in his 84-year lifetime.

Edison's innovative spirit is now reaching the schools, thanks to three new "Century of Light" Education Kits.

These teaching packages were developed by experts for grades K - 3, 4 - 6, 7-12. Each kit includes a colorful 17-inch by 22-inch wall poster, six spirit duplicating activity masters and an illustrated file folder, which includes a teacher's guide.

"Thomas Edison and his inventions are dramatic evidence of man's potential to change the world," said James G. Cook, executive secretary of the ICCL. "And these kits are a focus of a program that involves students in activities at every level."



Jon Lundgren, supervisor of community relations for Wisconsin Electric Company, said he believes the kits are particularly relevant today. "At a time when the value of technology is being seriously questioned by adults and students alike, this new material provides educators with an effective illustration of the vital contribution creativity and inventiveness have made to the quality of our lives," Lundgren said.

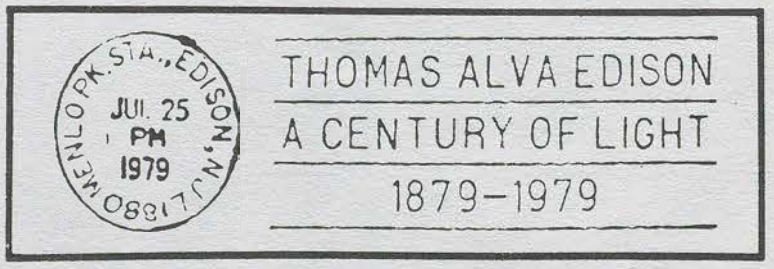
Carol McCall, educational services representative at Potomac Electric Power Co., praises particularly the kits "imaginative and stimulating" wall posters. She predicts that the Centennial of Light will be a major theme in science classes this fall.

Craig Battles, community services director for Alabama Power Co. and chairman of the Edison Electric Institute's Committee on Relations with Educational Institutions, says: "The material is attractively presented in a familiar, comfortable format for teachers. The emphasis on technology and innovation rather than straight electricity makes it especially viable for our school systems."

Another reviewer of the kits, Tom Hopkins, educational representative at Florida Power and Light Co., remarks: "The kits' natural tie-in to other Thomas Alva Edison Foundation materials increases their usefulness in the classroom. They are ideal for the Centennial commemoration and beyond."

Centennial kits are available for $2.00 each, plus shipping. Orders should be sent to the Thomas Alva Edison Foundation, Cambridge Office Plaza, Suite 143, 18280 West Ten Mile Road, Southfield, Mich. 48075.

Post Office offering Edison commemorative



The United States Postal Service is featuring a special commemorative cancellation on all first class mail going through the Edison, N.J. Post Office through Dec. 31, 1979. The service has been provided at the request of New Jersey's Edison Centennial Commission.

Edison invented the light bulb in a laboratory in the Menlo Park area of Edison, N.J., in 1879. The laboratory was moved in 1929 to Greenfield Village and Henry Ford Museum in Dearborn, Mich. On the original New Jersey site stands the Edison Memorial Tower, which has just completed repairs.

Collectors wishing a souvenir cancellation should send an enclosed, self-addressed stamped envelope to the Edison Postmaster, Edison, N.J. 08817. The Post Office will affix the special cancellation and return the envelope without extra charge. Those interested may enclose as many self-addressed stamped envelopes as they wish. The postmaster recommends that a filler card of postal card thickness be inserted in each envelope.

According to postal officials, requests for the special cancellation have already arrived from all over the United States and from several foreign countries.

Cook visits media in L.A., St. Louis and Chicago

Discusses long-range Centennial goals

James G. Cook, president and chief executive officer of the Thomas Alva Edison Foundation and executive secretary of the International Committee for the Centennial of Light, visited with Los Angeles, St. Louis and Chicago media during July. He acquainted them with the objectives and goals of the Centennial of Light, as well as the long-term programs and projects being undertaken.

Southern California Edison Co., Union Electric Co. of St. Louis, and Commonwealth Edison Co. in Chicago helped Cook meet with their major local stations and newspapers.



Los Angeles/Bakersfield

In the Los Angeles area July 14-18, Cook appeared on three television programs and three radio shows. Feature stories were published in three newspapers.

Two of Cook's TV interviews were one-on-one discussions with talk-show hosts. On KTTV's "Let's Rap with Alicia Sandoval," televised live in Los Angeles, Cook elaborated on the long-range goals of the Centennial, then provided voice-over commentary for a nostalgic film clip of Edison at the Golden Jubilee of Light in 1929.

Two other radio shows—"Transition" (KRTH) and "Spangler's World" (KGIL)-ran half-hour interviews on the Centennial of Light and the need to encourage new Edisons.

Innovation recession

Newspaper coverage concentrated on the innovation recession. In interviews with the Los Angeles Herald Examiner and the Valley News, Cook took issue with those who blame technology for society's ills and with restrictions which impede U.S. innovation.

"All the evil things technology has been used for gave science and technology a bad name," he told the Valley News. "The good technology has done has never really gotten the credit in this generation that it has in the past."

At the Herald Examiner Cook said: "The two major areas where we (U.S.) still have dominance are computers and agriculture. We've lost the lead in other areas . . . If Edison were to come out with the electric light in 1979 instead of 1879, he couldn't market the thing. He couldn't get by the bureaucratic red tape, the safety controls and environmental controls."

St. Louis newspapers

On the second leg of his tour in St. Louis, Cook was featured in a six-column Post-Dispatch story on the innovation recession and in a similar article in the Globe Democrat. **In each, Cook emphasized that the "U.S. technological slide has accelerated in the past five years. But while the reasons for the slowdown in innovation are not simple or clear-cut, the bottom line is that the reward for individuals or corporate inventions is declining and government restrictions are a hindrance."**

Appearing on a KSD-TV talk show, "Midday AM," Cook discussed Edison and the Centennial. He also discussed scenes from the original "Great Train Robbery" film and played an original Edison recording.

On KMOX-TV, he appeared with reporter Kathi MacDonald at the Union Electric presentation of awards to employees who had brought in unusual antique appliances during a scavenger hunt competition.

Cook also appeared on KSD Radio for an evening talk show with Doug Carrick. Originally scheduled for only an hour, the conversation proved so interesting to listeners that Carrick asked Cook to stay an extra hour.

Other radio interviews in St. Louis were with radio stations KMOX and WIL. They aired segments of their Cook interviews throughout the week.

Chicago next

On July 25, Cook was interviewed by the Chicago Sun Times, the Chicago Tribune, and the Chicago Daily Calumet, one of the Panax chain of 23 newspapers. He also visited with Commonwealth Edison Chairman Tom Ayers, who is a member of the International Committee for the Centennial of Light.

Sun Times reporter Liza Schlafly described Cook as "the 43-year-old apostle for technology."

A Daily Calumet full-page spread detailed the accomplishments of Edison and highlighted the educational aspects of the Centennial.

Citing the media-tour cooperation of the three utilities, Cook had special praise for Bob Krauch at Southern California Edison, Jim Beisman and Patricia Barrett at Union Electric, and John Hogan at Commonwealth Edison.

Edison Scholars

continued from page 1

awards ceremony where Wilber Huston was presented with the grand-prize scholarship. (Huston went on to receive his degree in satellite meteorology from MIT.) Westfall didn't have a scholarship, or even a job. So he went to Mr. Edison and asked him for a job. Edison agreed to let him stay on, working on rubber experiments for six months and then at the Edison factory for another six months. In that period, Westfall earned enough to start college and eventually earned his doctorate in mechanical engineering.

Others remember the graciousness of Mr. Edison and his family and of the other heroes of the day who were there: Ford, Lindbergh and Firestone. In addition to taking the national examination, contestants were hosted at gourmet luncheons and dinners in their honor. They met the greats of the day and visited New York. "It is something that all of us here have not forgotten, a high point in our lives that spurred us on at a time when there was great national uncertainty," said Edward P. Eardly of Annandale, Va., who represented Utah in 1929.

1979 Scholars

The 1929 scholars also had the opportunity to meet four of the 1979 scholars —young men and young women—from New York and New Jersey. "I'm glad to see that the event occurred again on the Centennial of Light," said the wife of one of the "49ers." "All our married life I've been hearing about and impressed with my husband's achievement of 50 years ago. Now to see these young people renewing this accomplishment, I think it's marvelous."

Many of the 1929 scholars wanted to know who the 1979 winners in their states were so they could contact them. "It's a link with a tradition of scholastic excellence that Edison believed in and that all of us believe in." said Al Kunze. "I didn't go to college. I had to work. But I achieved some success in the printing business, which was always a challenge, and I've never lost faith in the belief that challenges are always worth facing."

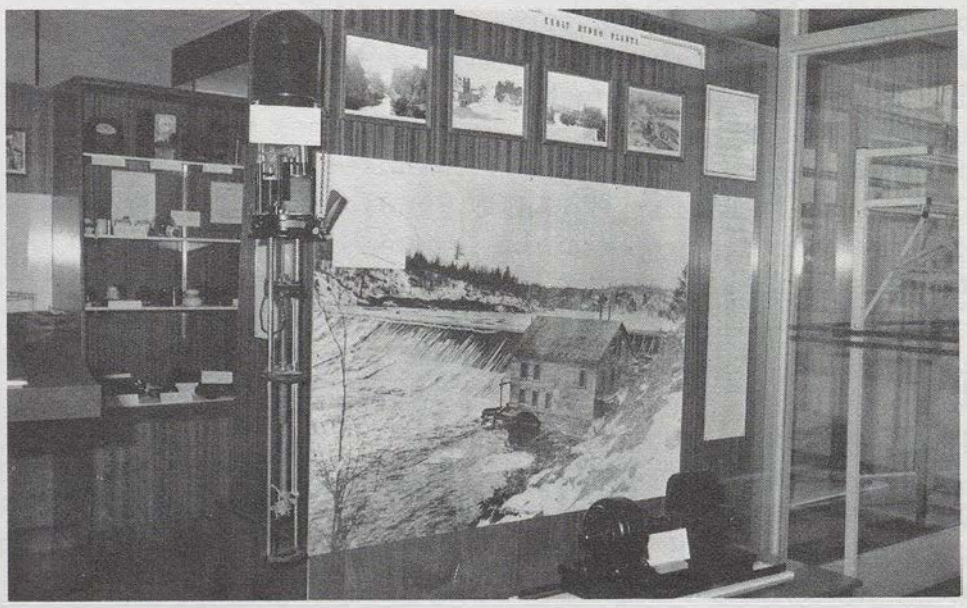
For two full days, the scholars reminisced and discussed their lives over the past 50 years. They got to tour the Edison National Historic Site and "Glenmont," Edison's home. This reunion (they hope there will be more) concluded with a dinner sponsored by the Charles Edison Fund, whose staff had worked hard to contact as many as they could about the reunion. They heard speeches on Edison's achievements, on the events and meaning of the Centennial of Light, and were escorted throughout by John B. Venable, trustee of the Charles Edison Fund, and Lynn Wightman, curator of the Edison site.



1979 Edison Scholars Nan Morrison and John Kirby of New York, who are both going to Yale, with Dana Krafchik and William Thramann of New Jersey. Krafchik will attend the University of Pennsylvania, and Thramann will attend Harvard.

And the meaning of it all? As one 1929 scholar put it: "You know, when I was a young man growing up in the South, I was an exception. I had friends, but their interests were not always the same as mine, nor was their point of view about science. When I came here, I found 48 others just like me. I'll always remember it. I learned never to fear to excel in whatever I did."

NB Power opens electric museum



The New Brunswick Electric Power Commission dedicated recently its new 25-Year Club Museum on the occasion of the Centennial of Light. The Museum houses and catalogs artifacts of electricity in New Brunswick and of pioneers who worked hard to bring electricity to that area of Canada. Pictured above is a section of the museum showing an early hydro plant. The club was formed in 1964 to promote a friendly and helpful spirit among veteran employees. Members of the club contribute to a foster parents plan and provide college and trade school scholarships.

CENTENNIAL OF LIGHT
1879 1979

International Committee
Centennial of Light
Thomas Alva Edison Foundation
P.O. Box 1310
Greenwich, Connecticut 06830
(800) 243-8561

Dear Communicator:

Whatever the status of your Centennial plans...there's always room for new ideas and new twists on old ones.

You'll find some in the checklist below... plus guidance to sources of Centennial aids already available.

Need more help? Call us toll-free at 800/243-8561.

Tom

Thomas S. Sedlar

Centennial Celebration Checklist

SPECTACULAR POSSIBILITIES.

Light up the village square or other local historical landmark that recalls the Edison era. Use a searchlight. Or go all-out with a laser-beam spectacular interconnecting major buildings (as they've done in the Netherlands).

Stage a football game half-time salute to Edison. See AIDS for full details.

Arrange a "torchlight" parade, using battery-operated lamps. (Edison invented the alkaline storage battery, too.)

Light up a huge letter "E" on the face of your corporate headquarters (or other tall building). "E" for Edison, of course.

Survey marquees, scoreboards, free-standing bulletin boards (e.g., outside hotels, motels and office buildings); "moving signs," billboards. All are prospects for Edison salutes.

GO OFF YOUR DIET.

Bake sheetcakes in the shape of the Centennial logo. Red-white-blue frosting is easy to make; easier to eat.

Ask your ice cream or frozen custard shop to make up Centennial cakes. (How about a raspberry, lemon and blueberry sherbet combination?) If the logo is too tough, try a light bulb theme.

SHOW-BIZ.

Be an "angel." Provide professional scripts and music for youngsters to perform in assemblies, at parents' nights, at Scouting and "Y" socials. (See AIDS for details.)

Sponsor Centennial arts competitions. Award medallions, etc., for the best posters, sketches, sculptures, editorial cartoons, montages, collages, original songs and skits, "commercials," films, videotapes.

Stage an Edison-era costume ball or promenade. Ask local drama teachers about sources of clothing, props, false beards and make-up. Award prizes for originality and authenticity.

Urge Halloween revelers to make up as Tom Edison. Provide them appropriate photos and sketches, even makeup. Prizes for the best Edison look-alike(s)?

Coach someone to play "You Light Up My Life" on a church or college carillon (with permission, of course).

FOR BOOKWORMS.

Urge librarians to feature Edison biographies and related books throughout the fall. (Do they know about available films and literature? Can you help provide them?)

Promote Edison book-review competitions for critics of all ages. If you can't place winning entries in local media, at least run them in your house organs.

Sponsor Edison essay contests for young and old alike.

INVOLVING OTHERS.

Drum up Centennial resolutions and statements from your Mayor, city council and other public officials. Get school and college "senates" to memoralize Edison, too.

Arrange an energy-issues forum keyed to Edison and the Centennial of Light. Involve public officials, educators, opinion leaders as panelists, moderators, questioners, rapporteurs, consensus-formulators.

Supply Centennial-theme ideas, audiovisuals and graphics for business, civic, fraternal, women's, professional organizations to use at their October and year-ending meetings. Offer a speaker, film or slide show; copies of "The Search for Tomorrow's Edisons"; an Edison-legacy gift to raffle off for charity.

Honor the best corporate Speakers Bureau or Toastmasters presentation on Edison and the goals of the Centennial. How about a medallion...plus either a sound-motion picture camera or tape recorder...as prizes?

Urge your local clergymen to comment on Centennial goals in their October sermons.

Check whether your local TV and radio stations have, and plan to run, Centennial public service announcements. If they don't have PSAs already, see AIDS for ordering information.

HUMAN INTEREST.

Underwrite a family trip to an Edison historical site. E.g., the Menlo Park complex at Dearborn, Mich.; Edison winter home in Fort Myers, Fla.; "Glenmont," Edison's mansion in West Orange, N.J.; new Edison electricity exhibit at the Smithsonian in Washington, D.C.

Pick your own organization's "Edison," the employee who most approaches the Great Inventor's inquiring and innovative spirit. The one who always submits suggestions...or has a prolific workshop at home.

Interview your oldest living employee (or area resident) for Edison recollections and reflections on how electricity changed that person's lifestyle and the local economy.

Sound out foreign visitors about their knowledge and impressions of Edison, and record the ones with the best insights. Provide tapes (even VTR?) and transcripts to internal and external media.

IN-HOUSE FLAIR.

Give your regular plant tours and open houses a Centennial flavor. A few ancient appliances, a little guide training and some bunting can work wonders.

Have your art department create a "Thanks, Mr. Edison" format for window signs, bumper stickers, cafeteria placemats...whatever. (Don't forget the official Centennial logo.)

TAKING CHANCES.

Run a charity raffle. How about an electric car as 1st prize? Proceeds to help deaf youngsters. Or for science scholarships to minority or handicapped youngsters. Or even for senior citizens who yearn to catch up on science studies.

Fill a big bowl or barrel with light bulbs and give a prize to the one who comes closest to guessing the actual number. Charge a penny, nickel, dime or quarter per guess; proceeds go to a worthy local charity. Scale up the potential prize according to the entrant's contribution.

Your ideas

Aids Available Now

Gifts, Prizes & Awards

Replica of the Original Incandescent Lamp

6-8 watt nightlight with wooden base, brass thumbscrews and carbon filament. $24.95 ea.; quantity discounts available. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

"Centennial of Light" Bronze Medallion

2-3/4″ in diameter; relief portrait of Edison on one side and relief rendering of lighting of the first incandescent lamp on the other. $17.95 ea.; quantity discounts available. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

Edison Commemorative Sculpture

Statue of Thomas Alva Edison is 5″ tall and stands on own sculpted base. Sterling silver: $350 ea.; Pewter: $100 ea.; Corporate premium edition: Less than $20 ea. for quantities over 50. Contact: The Colonial Mint, 360 E. 55th St., New York, N.Y. 10022 (212) 752-5893

Centennial Polo Shirts

Cotton-polyester knit shirts with Centennial patch. Available with pointed or ribbed-knit collar. $9.50 ea.; minimum order of 12. Contact: Vantage Custom Classics, 342 Madison Ave., New York, N.Y. 10017 (212) 557-0001

Edison Poster

Collage showing Edison and electrical artifacts from Edison's time to the present is reproduced on a black-and-white poster measuring 37-1/2″ x 20-1/2″. Created by Smithsonian Institution to accompany its traveling exhibit, "Edison and the Electrical Age: 100 Years." This title is in bold type at the bottom of the poster. $2 per poster; discounts available on orders of 25 or more. Contact: Debbie Dawson, Science Coordinator, Smithsonian Institution Traveling Exhibition Service, Washington, D.C. 20560 (202) 381-6631

"The Incredible Talking Machine"

Single long-playing album of original Edison recordings of popular artists of the day. $5.00 ea. Contact: Edison National Historic Site, Main St. and Lakeside Ave., West Orange, N.J. 07052 (201) 736-0550

"When Edison Recorded Sound"

Double album of original, and in some cases, unreleased Edison recordings, including classical, jazz, vocal and popular music. $7.50 ea. Contact: Edison National Historic Site, Main St. and Lakeside Ave., West Orange, N.J. 07052 (201) 736-0550

"Thomas A. Edison, 1847-1931, Inventor"

Song, story and sound effects introduce kids to Edison's life and inventions. Part of "My American Heritage" album series. $2.98 ea. for stereo record or cassette tape. Contact: Dan Mount, Manager, Special Markets, Pickwick Records, 7500 Excelsior Blvd., Minneapolis, Minn. 55426 (612) 932-7940

"The Search for Tomorrow's Edisons"

12-page, four-color booklet traces the roots of today's "innovation recession" and suggests ways to halt decline in new ideas and encourage young Americans to pursue scientific and technological careers. 25¢ ea. Contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

"Edison—the man who turned darkness into light"

56-page booklet with more than 40 photos traces Edison's life and challenges young inventors to ensure this nation's continued technological growth. Authored by James G. Cook, president of the Thomas Alva Edison Foundation. $1.00 per copy; quantity discounts available. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

Films

"The Endless Search"

Produced and distributed by Screen News Digest, this 26-minute color educational film uses Edison's life of invention to illustrate how technology has changed our lives over the past 100 years. It also underscores the need for new Edisons to solve current problems. Three pictorial themes include: Edison's life; people, places and events that shaped his life; and scientific progress from Edison's research during and after his lifetime. Prints available for sale, except in areas where contractual commitments to non-utility sponsors of Screen News Digest may limit usage. Contact: Martin J. Kendrick, Screen News Digest, 235 E. 45th St., New York, N.Y. 10017 (212) 682-7690

"You Are There: Edison and the Miracle of Light"

E.G. Marshall portrays Edison in this reenactment from the classic TV series "You Are There." Originally broadcast on Oct. 17, 1954, the half-hour program recreates the invention of the incandescent lamp in the form of newscast. Off-camera newsmen ask questions of historical participants. Anchorman Walter Cronkite introduces the program with the memorable lead-in: "All things are as they were then, except...you are there." $150 for 16mm black-and-white sound print; quantity discounts available. Contact: Dolores Sura, Director, Film and Video Licensing, CBS News, 524 W. 57th St., New York, N.Y. 10019 (212) 975-3200

"Thomas A. Edison and His Amazing Invention Factories"

Produced by Smithsonian Institution to accompany traveling exhibit ("Edison and the Electrical Age: 100 Years"), this 28-minute film describes development of Edison's concept of the research laboratory. Historic film clips, as well as modern footage and musical improvisation, illustrate the Edison years at Menlo Park and later at West Orange. $95 for 16mm color sound print. Contact: Dr. Bernard Finn, Division of Electricity, Smithsonian Institution, Washington, D.C. 20560 (202) 381-4067

"Thomas Edison: Reflections of a Genius"

Actor Pat Hingle portrays Edison the scientist, inventor and humanist in a one-man show produced by General Electric for its 100th anniversary last year. This 45-minute film shows Edison in his later years, with Hingle discussing his inventions, famous people he knew and worked with, and his successes and failures. On loan only; available free through GE district sales managers. Contact: George Shea, Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

"Science, Technology and the Human Prospect"

1,000-slide show featured at Edison Centennial Symposium in San Francisco last April has been converted into an 8-minute film. It reviews technology in our daily lives, beginning with man's improvements in areas of food, shelter and agriculture. It rapidly moves to the industrial eras of the 18th and 19th centuries and climaxes in 1879 with Edison's invention of the incandescent lamp. The film concludes with a look to the future and the vast reaches of the universe. $79 for 16mm color sound print. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

Public-Service Announcements

Television PSA

60-second public-service announcement shows "Edison" in his laboratory as narrator emphasizes the need to encourage new Edisons and to "turn on America's brainpower as never before." $45 for each 16mm color sound print. Contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

Radio PSA's

Themes similar to the TV announcement are featured in 30- and 60-second radio announcements available on one side of a seven-inch LP disc. On the flip side are short interviews with Robert I. Smith and James G. Cook, respectively president and executive secretary of the International Committee for the Centennial of Light. $30 per disc. Contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

Classroom Aids

"A Century of Light" Education Kits

Classroom activity programs for three grade levels (K-3, 4-6, upper levels) use Edison's life and legacy to challenge students'

curiosity for discovery and ability to change the world. Each kit contains teacher's guide, activity masters and wall poster. $2 per kit. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

"Experiments You Can Do...from Edison"

Easy-to-do experiment booklets cover scientific subjects from energy conservation to building useful electrical devices. Write for publication and series price list. Contact: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Rd., Southfield, Mich. 48075 (313) 559-1780

School Productions

"The Electric Sunshine Man"

Musical play for young voices depicts the life and inventiveness of Thomas Edison. Package is designed so that kids can run the show. Individual productions can range from strictly "stand-up and sing" to full extravaganza. $4.95 for sheet music and script. $5.95 for record. $6.95 for cassette. $25.00 for full instrumental accompaniment tape. Contact: Somerset Press, 380 S. Main Place, Carol Stream, Ill., 60187 (312) 665-3200

Edison Halftime Program for Marching Band

Developed by Southern Illinois University's band director, this program includes musical suggestions and choreography (for use as a package or separately), plus script announcement materials and marching routines. Available FREE while supplies last. Contact: Reg Ankrom, Public Relations Dept., Central Illinois Public Service Company, 607 E. Adams, Springfield, Ill. 62701 (217) 523-3600, ext. 228

Speakers and Speeches

Speakers

Centennial of Light can provide a speaker for any Centennial occasion. Roster includes ten men and women involved in Centennial activities including experts on Edison's work, methodology and legacy. $150 honorarium plus expenses. Contact: George Shea, Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

Speeches

Centennial of Light has two speeches ready for direct delivery or adaptation. The short speech is titled "How We Can Best Honor Edison Today." The longer speech: "Has the Edison Legacy Been Lost in the United States?" Both are available FREE. Contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561

Exhibits/Photos/Graphics

Centennial Modular Exhibit

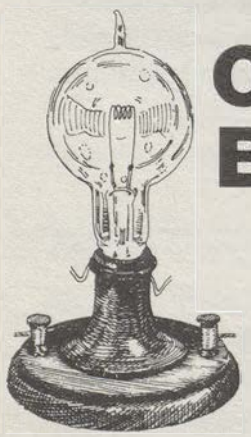
Silkscreened black-and-white photographs provide overview of Edison and his achievements. 10′ x 10′ unit: $1,750. 20′ x 7-1/2′ unit: $3,500. Contact: Bob Cash, Robbins Tesar, Inc., 388 West Ave., Stamford, Conn. 06902 (203) 356-1330

Photographs of Edison and His Times

Glossy 8 x 10″ black-and-white photographs of Thomas Edison, his inventions, friends, family, colleagues, etc., are available for reproduction. Contact: 1) Ford Archives, Greenfield Village & Henry Ford Museum, Dearborn, Mich. 48121 (313) 271-1620, 2) Edison National Historic Site, Main St. and Lakeside Ave., West Orange, N.J. 07052 (201) 736-0550

Centennial of Light Logo

Camera-ready artwork in both black-and-white and color in varying sizes. Available FREE. Contact: Centennial of Light, P.O. Box 1310, Greenwich, Conn. 06830 800-243-8561



Only The Beginning...

While the Centennial of Light will "officially" end with 1979, for many communicators it's not a culmination but a new beginning.

> Thus, October 21, 1979, will usher in the second century of incandescent lighting for home, office and factory. New Year's Eve will mark the start of a second century of community and street lighting.

This will enable them to continue the Centennial's focus on urgent issues like energy, productivity, innovation, capital formation, and scientific education.

For further suggestions you can use, drop a line to CENTENNIAL OF LIGHT, P.O. Box 1310, Greenwich, Conn. 06830.

CENTENNIAL ARTIST: DANIEL A. MOORE

The artist behind the Edison-theme oil paintings gracing Centennial of Light booklets and communication materials is Daniel August Moore, a 25-year-old staff artist in the Public Information Department of Alabama Power.

He painted the now-familiar Edison montage which appeared first as a cover for Alabama Power's 1977 annual report.

It was then used by the Thomas Alva Edison Foundation as a cover both for its annual report released in 1978, and its official Centennial booklet, "Edison—the man who turned darkness into light." Later it appeared on the cover of both the Centennial of Light Communicator's Kit and Catalog.

Birmingham-born Moore has been with Alabama Power since November 1977 and is responsible for illustration and design of company publications and printed materials, including annual reports, house organs, flyers, brochures and posters. He holds a bachelor's degree in fine arts from the University of Alabama, and is a member of both the Birmingham Art Association and Alabama Watercolor Society. He also belongs to the local chapter of the International Association of Business Communicators, which has honored him for illustration.



Daniel A. Moore, Alabama Power staff artist, flanked by his popular paintings used in Centennial of Light Materials.

Moore says it took two weeks to research the Edison montage and 75 hours (after sketching) to meld in the dark-to-light sepia tones which he found to be "a workable medium to indicate the transition and progress of electrification."

His interpretation proved so popular that he was commissioned to do a new cover painting for "The Search for Tomorrow's Edisons," a booklet available from the International Committee for the Centennial of Light. It shows Edison in the background perfecting his incandescent lamp as a group of children in the foreground work in a modern laboratory.

Gulf Power sponsors company art contest

Gulf Power Co. of Pensacola, Fla., has invited employees, their children and their grandchildren to graphically convey how Tom Edison's many achievements have affected society. A $100 U.S. Savings Bond will be presented as a grand prize for the most effective rendering.

Artists will compete in five age categories—grades K-2, 2-5, 6-8, 9-12, and the "Grey Division," for all employees. Judgings for the contest will be held in August and September. The winner will be announced at the company picnic in September.

The daily Pensacola Journal plans to do a large fall feature spread on Thomas Alva Edison based on the John T. Cunningham series supplied by the Centennial of Light. According to Scott Harrington, manager of news and public information at Gulf Power, one section will focus on Edison's personal life and the other on Edison's progress as an inventor.

SPECTRUM '79 HONORS EDISON

More than 1,000 U.S. and Canadian secondary school science teachers will gather in Vancouver, British Columbia, Oct. 26-27 for "Science Spectrum '79," the 20th International Science Education Symposium. This year's meetings, lectures, workshops and exhibits are being dedicated to the "Spirit of Edisonian Invention and Innovation."

The program is cosponsored by the department of science education at the University of British Columbia, the British Columbia Science Teachers Association and the Thomas Alva Edison Foundation.

Junior and senior high school science teachers from throughout the northwestern United States and the western provinces of Canada will attend. They will be able to choose from among more than 80 workshops, led by distinguished educators from the United States, Canada, and Europe to better prepare them to teach science in the classroom.

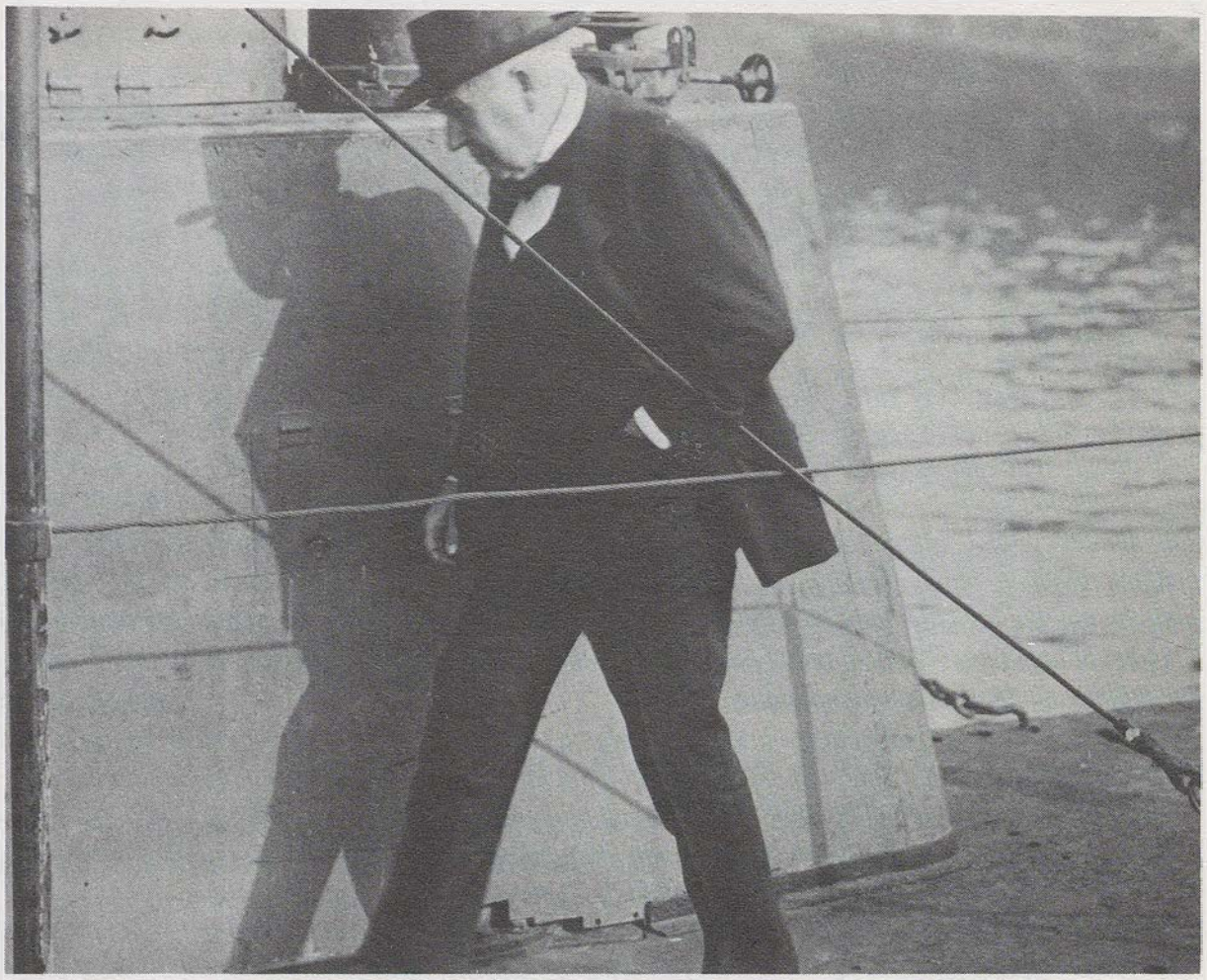
A complete agenda is to be announced in early September. Teachers interested in participating should contact the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075.

Edison and the Naval Research Laboratory

On May 30, 1915, the New York Times printed selections from an interview with Thomas Edison in which the then 68-year-old inventor discussed the general state of American defense in light of the war raging in Europe. To prepare properly, he argued, America's armed forces should enlist industry and science, not more soldiers. "Modern warfare," he said, "is more a matter of machines than of men."

Edison recommended creation of a government research laboratory "under military and naval and civilian control." These sentiments expressed the original concept that led to the creation of the Naval Research Laboratory in Washington, D.C.

Reading these remarks in the New York Times, Secretary of the Navy Josephus Daniels sought the assistance of Edison in forming within the Navy a "department of invention and development." Such an organization would allow the Navy, Daniels said, to use ". . . the natural inventive genius of Americans to meet the new conditions of warfare as shown abroad . . . ."



Edison inspecting Navy submarine in 1916

Naval Consulting Board

Edison agreed to help and Daniels quickly informed the press. The news hit the front pages. "Edison Will Head Navy Test Board," ran the headline of the Times; "Best Engineering Genius of Nation to Act with Naval Officers in Strengthening Sea Power." The new body was eventually called the Naval Consulting Board and was the first attempt during the wartime period to mobilize science on a national level. Later, other organizations would be created for the same general purpose, but in 1915, the Naval Consulting Board was unique.

Membership of the board included Edison as president, and 22 representatives of major national engineering societies. Its charge was to advise the Navy on scientific matters and to direct the powers of civilian scientists to solve the Navy's technical problems. The most significant project the board undertook was the plan to build a research laboratory.

Edison came to the initial board meeting on Oct. 7, 1915, with an outline of the laboratory in hand; it was quickly accepted by other members. Soon he made another effective presentation to the House Naval Affairs Committee, and in 1916, Congress authorized $1.5 million for the new institution.

Naval difficulty

At this point, the plan for the laboratory ran into difficulty. Edison came to disagree with other members over the site for the institution. Moreover, while he had initially favored placing a naval officer in charge of it, he now insisted on a civilian. His experiences during the war had convinced him that no naval officer really understood scientific research and that none could administer properly a successful research and development laboratory.

Despite Edison's opposition, the project continued, with construction beginning in November 1920 at the site of the old navy magazine at the southernmost tip of the District of Columbia. The five buildings composing the institution would not be completed, however, until 1923.

Eventually, when the basic policy of the NRL was established, neither Edison, who had resigned from the Naval Consulting Board in 1921, nor any other members had anything to do with it. General Order No. 84 appointed a naval officer as its director, with formulation of policy and scientific programs to be determined by naval officers.

A just tribute

In 1952, a bust of Edison was erected at the entrance of the Naval Research Laboratory to commemorate his role in its founding. It was a just tribute: NRL would never have been created without him. And, undoubtedly, he would be proud today of the institution and what it has done for the nation. Indeed, it is said that several years later, he wrote that his objections to its location had apparently been without foundation.

This article is adapted with permission from one which originally appeared in the July 1979 issue of United States Naval Institute Proceedings—"The Origin of the Naval Research Laboratory," by David K. Allison, historian at the Naval Research Laboratory.

Companies broadcast Centennial commercials

With the Oct. 21 anniversary date fast approaching, companies throughout the country are employing broadcast commercials, print advertisements and employee publication features to commemorate the Centennial of Light.

To capture the spirit of Edison, Gulf States Utilities of Houston went "on location" — to the Henry Ford Museum in Dearborn, Mich. — to film its series of Centennial-theme commercials. Each features Donham Crawford, chairman of the board, taking viewers on a tour of the original laboratory where 100 years ago Edison invented the incandescent lamp. Utmost care was necessary during the shooting since Mr. Crawford and the crew were moving among priceless technical heirlooms and tools used by Edison himself.

The Gulf States series of four 30-second commercials was devised by Vance Matthews Advertising, with filming by FGH Inc. Both are Houston firms.

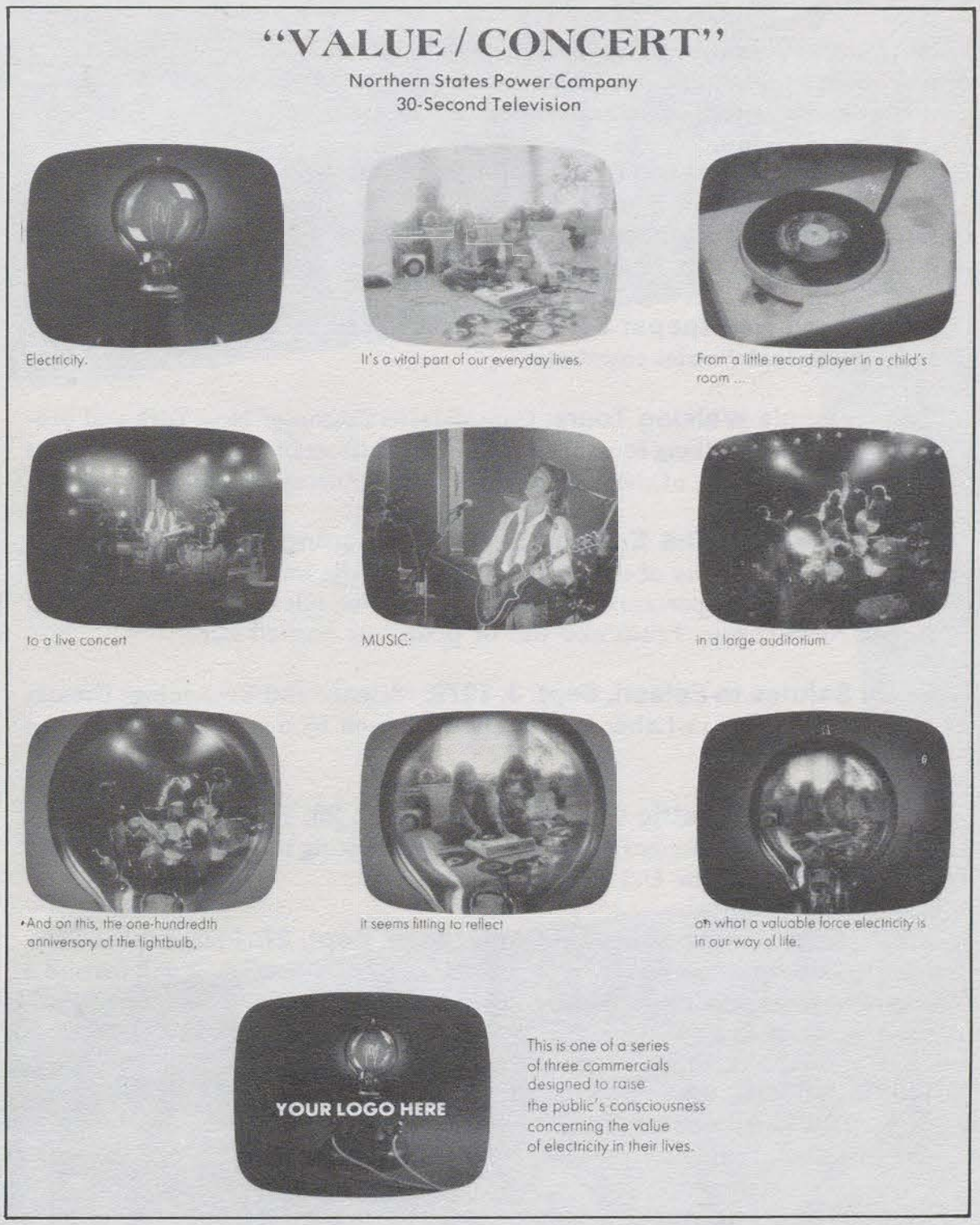
Northern States Power Co. of Minneapolis has developed four compelling television commercials about the vital role electricity plays in everyone's life. According to NSP's Mary Ellen Kenner, a communications supervisor, "Our intention is to raise public perception about the value of electricity."

Three of the commercials feature the electrical wonders of medicine, computers and entertainment. Each contains an "in-the-home" use, and an "out-of-home" or "societal" use, linked to the Edison Centennial. An alternate sound track has been cut for use after the Centennial.

The fourth NSP commercial, showing a large variety of household electric appliances in operation, reminds viewers to use electricity wisely.

Because of their universality and timelessness, NSP is offering the commercials for sale to other utilities. Preview videotapes are available from Bob Helgeson at (612) 330-6048 or Mary Ellen Kenner at (612) 330-6925.

Oklahoma Gas and Electric Co. of Oklahoma City has been broadcasting a series of radio and television commercials showing Edison at work, famous Edison sites and inventions, and a montage showing people at work and play or in school.



The thrust of the campaigns, says Bill Strong, vice president of Lowe Runkle Co., OG&E's advertising agency, "is to rekindle interest and enthusiasm for invention and private enterprise." Each ad closes with the announcer saying, "OG&E People helping you . . . to continue seeing the light." The TV version ends with a shot of Edison's glowing lamp.

The L. E. Myers Co. of Chicago, a builder of utility plants, has been featuring articles about Edison and the Centennial in its corporate magazine, "Myerscope." The summer issue, which featured Edison quotations, was mailed to 6,000 employees as well as 5,000 prospective investors.

In 1891, founder Lewis Myers was a sales aide to Edison who played a key role in the midwestern development of street cars. According to Robert T. O'Connor, the firm's director of employee relations, one of Myers' earliest feats was the electrification of the Chicago elevated line built to handle transportation to and from the 1892 World's Fair. His company is one of the nation's largest contractors specializing in the construction of transmission lines, distribution systems and substations for electric utilities.

UPCOMING CENTENNIAL ACTIVITIES

New Jersey Touring Play, Fall: Sponsored by Atlantic Electric Co., a touring one-man drama on Edison will be presented at locations throughout the utility's service area in and around Atlantic City.

Smithsonian Traveling Centennial Exhibits: Sept. 22-Oct. 23: Museum of Arts & History, Port Huron, Mich.; Rochester Museum & Science Center, Rochester, N.Y.; Sept. 22-Oct. 21: Toledo Lucas Public Library, Toledo, Ohio.

Syndicated Newspaper Series, Fall: The John T. Cunningham 18-part Edison biography series continues.

Con Edison's Walking Tours: Consolidated Edison of New York will provide self-guided walking tours through lower Manhattan, Edison's first service district, and the site of the famed Pearl Street generating station.

Distribution of "The Endless Search," Ongoing: Film (reviewing the career and personality of the great inventor and the impact of technology on our past and its importance to our future) will be released to subscribers of Screen News Digest. Prints also will be placed on limited sale.

Labor Salutes to Edison, Sept. 3, 1979: "Science and Technology Creates Jobs" is key theme in Labor Day salutes to Edison by unions throughout the country.

Pacific Gas & Electric Co. Luncheon, Sept. 28: PG&E will hold a civic luncheon at San Francisco's Palace Hotel, celebrating the first central station for arc lighting in the U.S. in 1879 in that city.

4th Annual Energy Scholars Conference, Sept. 27: Philadelphia Electric Co. is dedicating this year's conference to the Centennial. It will feature a special keynote address by James G. Cook, president of the Thomas Alva Edison Foundation.

Public Utilities Association of the Virginias Annual Convention, Sept. 28-29: Robert Koolakian, curator of Edisonia at Greenfield Village, will speak at the Greenbriar.

Illuminating Engineers Conference, Atlantic City, Sept. 18: Illuminating Engineering Society of North America will hear James G. Cook, president of the Thomas Alva Edison Foundation. Program theme is "The 100th Anniversary of Electric Light."

Electrical Contractors Convention, San Francisco, Oct. 8: National Electrical Contractors Association keynoter will be James G. Cook, president of the Thomas Alva Edison Foundation.

Smithsonian Permanent Edison Centennial Exhibit, October Grand Opening: Ceremonies are scheduled in Washington, D.C., for Oct. 9 at the Museum of History and Technology. Occupying the new main entrance area on the first floor, the exhibit will concentrate on technology developed by Edison and lead into the modern industrial technology. Public showings begin Oct. 10. Exhibit includes a half-hour film.

CORRECTIONS

In last month's issue of ECN an error and an omission were regrettably made.

First, the cost of the Edison Centennial Symposium film, "Science, Technology and the Human Prospect," being made from a multi-media slide show presented in San Francisco last April, should have been listed as costing $79, instead of $29, with orders going to the Thomas Alva Edison Foundation, 143 Cambridge Office place, 18280 West Ten Mile Road, Southfield, Mich. 48075.

Second, the Centennial polo shirt has an embroidered rather than silkscreened logo.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea

Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson

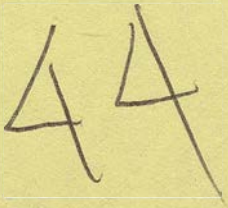
Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Katie Meehan, Judy Cash

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.



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"ASK AT DESK"

EDISON - CENTENNIAL

CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

SEPTEMBER 1979 VOLUME 2 NUMBER 9

An Interview

ICCL Chairman Smith: U.S. needs "Edisons"

For the past year, Robert I. Smith, chairman of Public Service Electric and Gas Company, Newark, N.J., has presided over the International Committee for the Centennial of Light. PSE&G serves the northern area of New Jersey where Edison devised many of his most important inventions and where his home and some of his laboratories are located. Recently, Edison Centennial News discussed with Mr. Smith the Centennial of Light and the future of technological innovation.

ECN: Why is there a Centennial of Light?

Smith: Because the Thomas Alva Edison Foundation and representatives of electric utilities, electrical equipment manufacturers and allied industries, which developed as the result of Edison's pioneering work, thought it important to celebrate the 100th anniversary of his best-known invention, the electric light. Actually, we are continuing a tradition. There was a major 50th anniversary celebration, as well as broad recognition of Edison's achievements at the 75-year point. The electric light is the centerpiece, symbolic of the many inventions — 1,093 of them — which Edison developed over its lifetime.

ECN: Is the Centennial relevant to our future? Or is it just a celebration of an historical moment?

Smith: If the Centennial achieves its goal of convincing people that science and technology represent unlimited resources to provide benefits for mankind and if we are able to create a ground-swell of support for technological development, the Centennial will have made a major contribution to our future well-being. From what we've already seen, the Centennial marks not just a celebration of an historic moment, but rather the beginning of this country's return to world technological leadership.

ECN: Do you think the past year has made the public reflect on the "technical recession" through promotion of the Centennial?

Smith: Although the obvious purpose of the Centennial is to memorialize Edison — to remind people of all the wonderful things he accomplished during his lifetime — the International Committee felt that this occasion provided an opportunity to counter the anti-technology movement which is active here and overseas today. There are people who feel that many of our prob-

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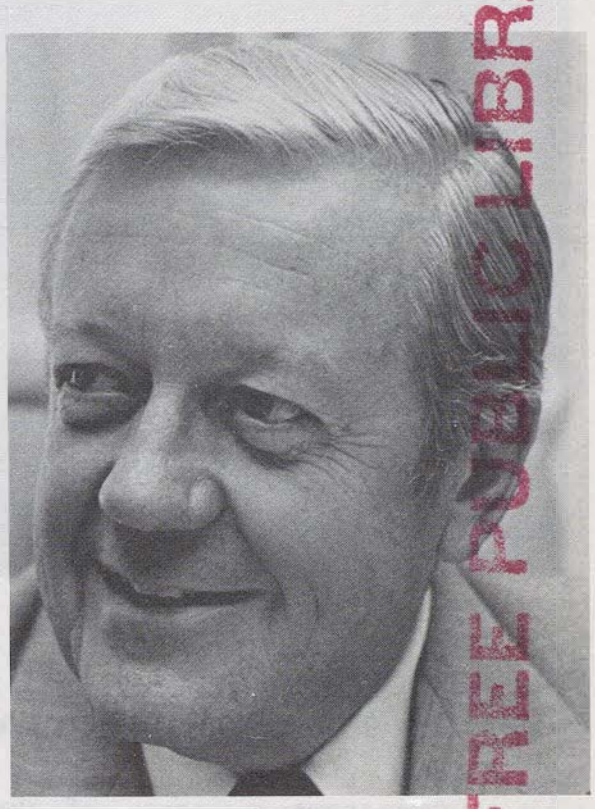


Robert I. Smith

130,000 view Centennial exhibit at Ohio State Fair

The Centennial of Light was the focal point of this year's exhibit at the All-Electric Building at the Ohio State Fair in August.

Approximately 130,000 persons visited the Edison Energy Fair during its 13-day run and the reactions were extremely favorable, according to Paul Hemberger, chairman of the Ohio Electric Utility Institute and a member of the Ohio State Fair Committee.

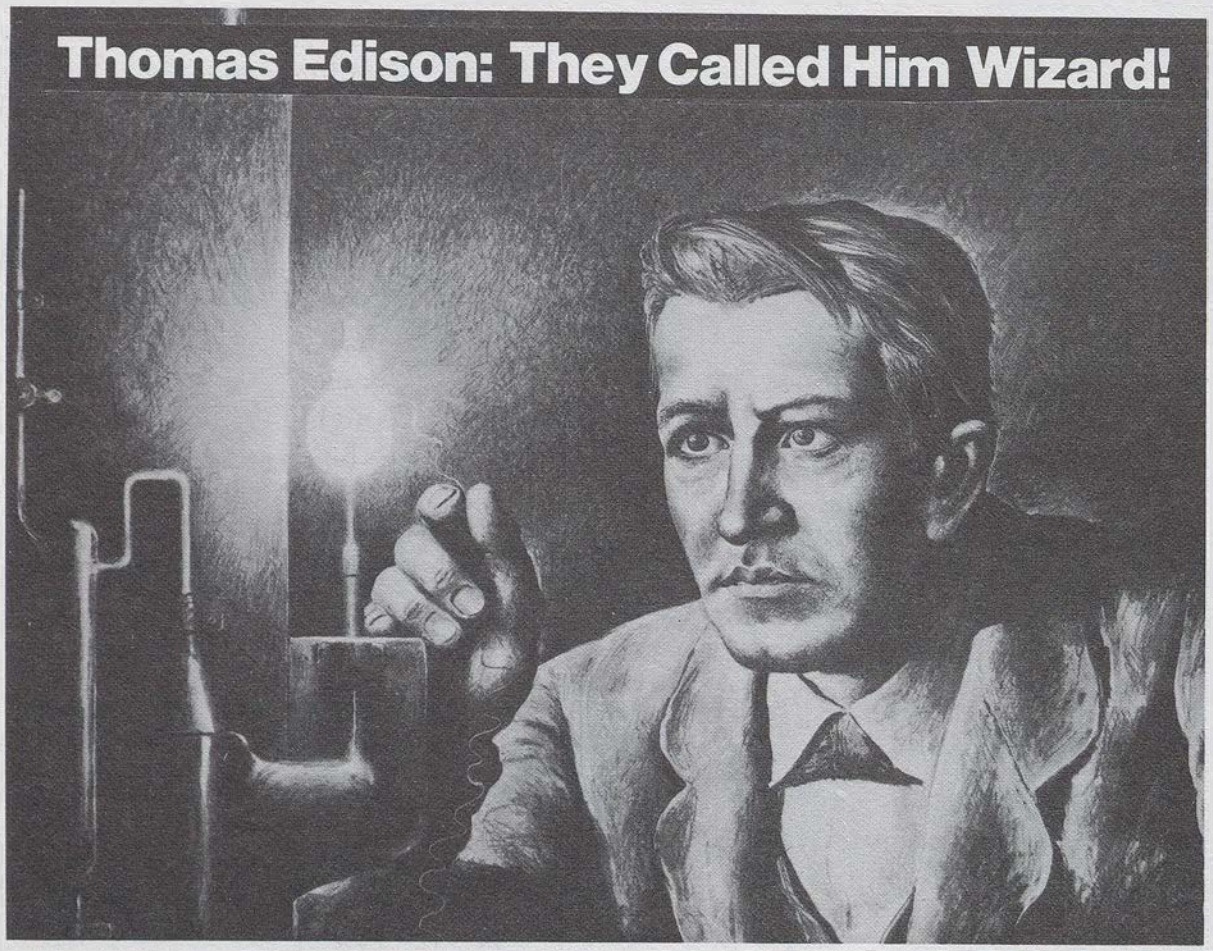
"The viewers saw history, current developments and the challenges we face in the future to meet energy needs," Hemberger said.

The Edison Energy Fair, a General Electric Company program, contains 11 exhibit modules, tracing the development of electrical energy from Thomas A. Edison's invention of the incandescent lamp in 1879 through the present and on into the future.

A part of the exhibit is a 13-minute multi-image slide show which examines in non-technical terms the current energy situation, energy options, and challenges to meeting America's future energy needs.

EDISON TWSP. FREE PUBLIC LIBRARY

PSE&G Publishes Booklet as Centennial Commemorative



The front cover of PSE&G's 8½ x 11 inch booklet containing the 18 Centennial articles on Edison's life and legacy by John T. Cunningham.

As a permanent memento of the Centennial of Light, Public Service Electric & Gas Co. of Newark, N.J., will publish in booklet form the complete 18-part series of articles on Edison's life and legacy by historian John T. Cunningham.

Entitled "Thomas A. Edison: They Called Him Wizard," the 48-page booklet reprints each article Cunningham wrote for the Centennial of Light. Line drawings by noted cartoonist Bill Canfield of the Newark Star-Ledger accompany each article, along with photographs of Edison, his inventions, colleagues, family, and friends.

PSE&G expects the first 10,000 copies to be available before Oct. 21. The utility plans to supply the booklets to public and school libraries in its service area and to distribute copies at special events. It will also offer them for purchase to interested companies (see box).

A foreword to the booklet has been written by Robert I. Smith, chairman of both PSE&G and the International Committee for the Centennial of Light.

Cunningham, who is also chairman of the New Jersey Centennial Committee, has written 14 books and over 1,500 magazine articles. In the special preface Cunningham wrote:

"Genius is too easy a word to characterize a man whose life would be beyond the inventive powers of even the most imaginative of fiction writers."

Single copies cost $1.00. Quantity discounts are available. To order and for further information, contact: Richard A. Cross, general manager — advertising and community relations, PSE&G, 70 Park Place, Newark, N.J. 07101. Tel: (201) 430-5905.

This past year, the Cunningham articles have been placed in daily and weekly newspapers, and have appeared as an exclusive feature service in many utility publications.

The 18 chronological vignettes encompass Edison's childhood, early career, spectacular inventions, magnificent failures and enduring influence.

Edison stories from those who know

The International Committee for the Centennial of Light recently asked a number of distinguished senior Americans for their recollections of Thomas Edison.

One respondent was Richard L. Strout of the Christian Science Monitor, who said he is "glad you are holding a celebration" in Edison' honor. Now 83, Strout has been a Washington-based correspondent since 1925.

Strout recalls: "When I was a young reporter, I interviewed Edison for some reason or other. Due to his deafness, I literally had to put my mouth to his ear and shout questions into it. I have frequently noted that I had to kiss Edison to make myself heard."

Joel Hildebrand also responded. Considered by many to be the dean of American chemistry, he is, at 97, the eldest active professor-scientist in America today. He has been a fixture at the University of California campus at Berkeley for 66 years.

Hildebrand remembers: "When I was eleven my father took me to the Columbian Expositon in 1892, in Chicago. The buildings were festooned with Edison carbon-filamented electric bulbs, incandescent with direct current. Also, I listened with earphones to recorded sound. At home we still used kerosene lamps."

An Edisonian at heart, Hildebrand told the Los Angeles Times last spring: "It's what you start that's most exciting, rather than what you finish. I'm still very much alive, still starting things." A few months earlier he had published his 275th scientific paper.

James Stewart to MC Oct. 21 Menlo Park Compound Event

Veteran actor James Stewart will act as master of ceremonies at the historic commemoration of Edison's invention of the first successful incandescent light on Oct. 21 at the Greenfield Village and Henry Ford Museum in Dearborn, Mich. The event also celebrates the 50th anniversary of the village and museum, officially named the Edison Institute by Henry Ford to honor his close friend.

Stewart, an experienced civil and military aviator, has had a long association with the Ford Museum dating back to 1957, when he starred in the motion picture, "The Spirit of St. Louis," portraying Charles A. Lindbergh.

At that time, Stewart learned of a 1927 Ryan monoplane stored near Denver, Colo., said to be identical to the one in which Lindbergh crossed the Atlantic. The plane was brought to California where it was refurbished for the movie. Stewart showed the airplane to Lindbergh, who approved of the modifications and declared it identical to his original plane, which had no windshield or space for passengers.

In 1959, Stewart donated his replica of the "Spirit of St. Louis" to the Henry Ford Museum, where it is a featured aircraft in the aviation section.

More than 400 persons are expected to attend the historic ceremonies, including the great-granddaughter of Edison, Madeline Edison Sloane, who will reenact the historic moment at Edison's original laboratory which Ford had moved to Dearborn from its original site. When Ford restored the building in 1929, he included it in his museum of Americans to help preserve the 19th century way of life that he believed might be lost forever.

Guests will include members of the International Committee for the Centennial of Light, Edison Foundation Trustees, and prominent scientists and engineers from around the world. President and Mrs. Carter have been invited.

Next month, Edison Centennial News will present extensive preview coverage of the events to take place throughout the country on Oct. 21, including the Greenfield Village ceremonies.

SOUTHERN CAL EDISON TOURS CENTENNIAL OF LIGHT TRAILER

The dramatic development of electricity —nationally and locally—is the focus of a trailer-exhibit now touring Southern California.

In recognition of the Centennial, Southern California Edison has collected hundreds of striking photographs and artifacts relating to the many inventions of Thomas Edison and the development of the electric power industry.

An exhibit highlight is a filmed interview in which the renowned inventor describes the steps he took in assembling the first successful incandescent lamp.

Displayed Aug. 4-12 at the La Habra Festival, the exhibit moved on to the Orange International Fair in Orange, Calif. It will tour communities all over SCE's service area through June 1980.



EPRI OFFERS CENTENNIAL EXHIBIT

A new Centennial of Light exhibit, developed under the auspices of the Electric Power Research Institute, is being produced for use during the coming year. In spanning the past, present and future of electric technology, it features the accomplishments of Thomas Edison. Twelve feet wide and eight feet high, the sturdy modular structure is reusable so that it may be retained for other presentations following Centennial activities. Two persons can set it up in an hour. For more information, contact the exhibit designer: Roger Tierney Associates, 2955 McCall Street, San Diego, Calif. 92106; telephone: (714) 222-9900.

Edison's first village lighting plant to be honored

Roselle, N.J., where Thomas Alva Edison established his first village illuminating plant, plans a Centennial of Light celebration on Oct. 14. The local historical society has invited the public to attend an exhibit of pictures and slides of the Roselle Illuminating Station, old Roselle, and Edison at work. The celebration will be held in the Roselle Borough Hall from 2 to 5 p.m.

Those attending will have a chance to meet J. Maurice Hicks, author of "Roselle, N.J.: Site of Thomas A. Edison's First Village Plant."

According to Hicks, Edison selected Roselle for this venture because he wanted a small town where there were no gas lights, a sparse population (approximately 1,000 at that time), and the first chance to light an entire village by electricity.

Roselle has long been overlooked as a place of importance in Edison's work, Hicks insists, pointing out that the local village plant and another Edison constructed are the forerunners of many of today's great power utilities.

continued from page 1

lems, particularly environmental ones, are a direct result of technological advances. A primary goal of our Centennial program is to convince people that technology is necessary to solve our problems. Technology is the solution — not the problem. We must come out of the current "technological recession" if this country is to continue to prosper. It is difficult to measure the results of this part of our program, but I think our message is beginning to hit home on a number of levels.

ECN: Are there adequate incentives for a young person to pursue a career in science?

Smith: Yes, in spite of the anti-technologists who may try to dissuade a young person from a scientific career, I believe there are more than enough incentives to counter-balance the negatives. There are challenges — problems which can only be solved by the application of creative talent in combination with scientific principles, and I think our young people recognize this. The needs of the world's people for food, energy and health care are going to be met in the future by the application of science and technology.

ECN: Do you think schools today are offering programs and opportunities needed to stimulate an inventive spirit?

Smith: My general impression is that we lack programs designed to stimulate and develop innovation. To be sure, students today have educational tools — computers and TV — which hadn't been invented when I went to school, but curiosity just doesn't seem to be a common characteristic of the "typical" present-day student I come across. There are many exceptions, of course, and I hope I am wrong in my overall appraisal. In any event, my Committee colleagues and I have stressed a major focus of the Centennial on educational programs which are designed to awaken the creative spirit in students — to inspire inventiveness.

ECN: Are we being outdesigned by our free world competitors?

Smith: The United States is no longer the unquestioned world leader in science and technology it once was. The only supersonic air transport flying today is a British-French development. The transistor is an American invention, but the Japanese have developed equipment, utilizing the transistor, which supplies the world market. We are not inventing as many things as we used to. We are experiencing a "technological lag" in the United States and we are being outdesigned by our competitors in the free world.

ECN: Recently you discussed the problem of developing innovation with President Carter's science adviser, Dr. Frank Press. What did you say to him?

Smith: Back in February the Centennial of Light Committee did meet with a number of Administration officials involved in scientific affairs. We were pleased that the Administration too recognizes the "technological lag" exists, and that the President had called for a comprehensive study of how government regulations affect industrial innovation positively and negatively. All in all, I thought the meeting was a good one. I am hopeful that President Carter will be able to follow through with his expressed desire to provide a more favorable climate for technological development.



ECN: Ayn Rand's "Atlas Shrugged" set a scenario where all technology was developed by government. Do you foresee this happening in our future?

Smith: In my opinion, that would be the wrong path to follow. Governments are notoriously inefficient when it comes to things like technological development — there are too many political pressures and self-serving interests. We need the competition of the free enterprise system to spur such development. However, the Rand scenario may become a reality if we continue on the path of excessive regulation and taxation. Changes should be made in the system to encourage invention and innovation. Unless the rewards are worth the risks, all technological development may well end up in government hands.

How does your company individually promote technological innovation?

Smith: We were one of the pioneers in the use of the binary-vapor cycle, a mercury-steam system for electric generation. We also installed and operated the first SNG — synthetic natural gas — plant in this country. Two years ago, we established the PSE&G Research Corporation, a wholly owned subsidiary, to coordinate our research activities and improve the utilization of our energy resources.

Winners of the Reddy Communications, Inc. annual report competition among electrical utilities recently had a "sneak preview" of the Smithsonian's nearly-completed exhibit — "Edison: Lighting a Revolution." Utah Power & Light Company was honored for the best thematic use of the Centennial of Light in its 1978 report. James L. Shoemaker (far right), UPL public affairs manager, accepted the award. Congratulating him are (from left): James G. Cook, president of the Thomas Alva Edison Foundation; Robert I. Smith, chairman of the International Committee for the Centennial of Light, and Dr. Bernard S. Finn, curator of the exhibit and director of the Smithsonian's Division of Electricity and Modern Physics. The exhibit will be dedicated in Washington, D.C. on Oct. 9 and opened to the public on Oct. 10.

EDISON'S BOYHOOD HOME FOUND?

A team of archeologists believe their discovery of 42 pieces of printer's type in an excavation in Port Huron, Mich., confirms they have unearthed the ruins of Thomas Edison's boyhood home.

Richard Stamps, who led an Oakland University team on a six-week search this summer, said: "We know that Edison as a young man published a newspaper on the train between Port Huron and Detroit. The likelihood of finding printer's type in some other context is really very slim."

Major portions of a house foundation dating from the mid-19th century were found and an estimated quarter million bits and pieces of artifacts were removed from the excavation on the north side of Port Huron. "I feel that I have got enough information to say, 'Yes, this is the house.' The detail we've found is just beautiful," Stamps said.

The house burned in 1867 and was buried — and thereby protected — several years later by workers installing railroad tracks across the property.

Also found at the site were military buttons dating from the period and corresponding to an earlier occupant of the Edison home. All the artifacts will be turned over to Port Huron's Museum of Arts and History, which sponsored the project.

The search ended Aug. 10 due to lack of funds, but Stamps said he hopes to be able to resume digging later. Much work remains in evaluating and preserving the artifacts. The original budget of $80,000 was cut to $20,000, and only 60 percent of that money was raised, according to Port Huron Museum Director Steve Williams.

The museum plans to display some of the artifacts recovered from the excavation when the Smithsonian's Edison Centennial traveling exhibit appears there Sept. 22 to Oct. 21.

A Centennial Bakeoff



Con Edison's Centennial exhibit at the recent Empire State Labor-Management Exhibit in New York City prompted members of the Bakery-Confectionary Workers Union to bake a special Centennial of Light cake. Displaying their tasty handiwork are, left to right, Michael Sandruff, Local 3 secretary-treasurer; William Brathurn, the union business agent who personally baked the cake; Louis Sandhop and Carol Green of Con Edison, and Ernest Schenkman, Local 3 labor manager.

Northeast Utilities highlights Centennial

Northeast Utilities, which serves Connecticut and western Massachusetts, has been working hard all year at celebrating the Centennial. In August, it attracted large audiences to view the traveling Smithsonian Edison exhibit at NU's Connecticut Yankee Energy Information Center at Rowe, Mass.

In addition, NU plans to tour several Centennial modular exhibits depicting Edison's life and inventions to regional offices within the NU system and to area shopping malls. Also, an employee designed a Centennial of Light button.



Raymond G. Erickson, director for Systems Communications at NU, said the company plans a special October bill insert to describe Edison's many contributions to our modern standard of living. Its employee publication, "Scope," featured a front page on Edison, and a special issue described the Centennial of Light, featuring a series on the early days of electricity. The utility's National Energy Watch program to conserve energy highlighted Edisonian innovation as a guide to alternative energy sources during the next 100 years.

"Remember, nothing that's good works by itself, just to please you—you've got to *make* the damn thing work."

Thomas Edison

FORT MYERS TV STATION SETS EDISON SPECIAL

"An Evening With Mr. Edison," a half-hour monolog, will be broadcast on the eve of the Centennial of Light by WINK-TV, Fort Myers, Fla.

Dr. Howard Kane, a science professor at Edison Community College in Fort Myers, created the original 45-minute presentation. WINK-TV taped it at the Edison Laboratory and Seminole Lodge, Edison's winter home, then edited it down to 28 minutes for the showing on Oct. 20 at 6:30 p.m.

Fred Greene, the station's public affairs director, said Dr. Kane has produced monologs of other famous figures in an attempt to bring them alive for his students. For the Edison re-creation he was assisted by Edison Home officials Robert P. Halgrim and his son Robert C., Alice Stevenson of the Charles Edison Fund, and other Fort Myers residents.

In the dramatization, which portrays Edison in the late 1920's, Dr. Kane stresses Edison's human side.

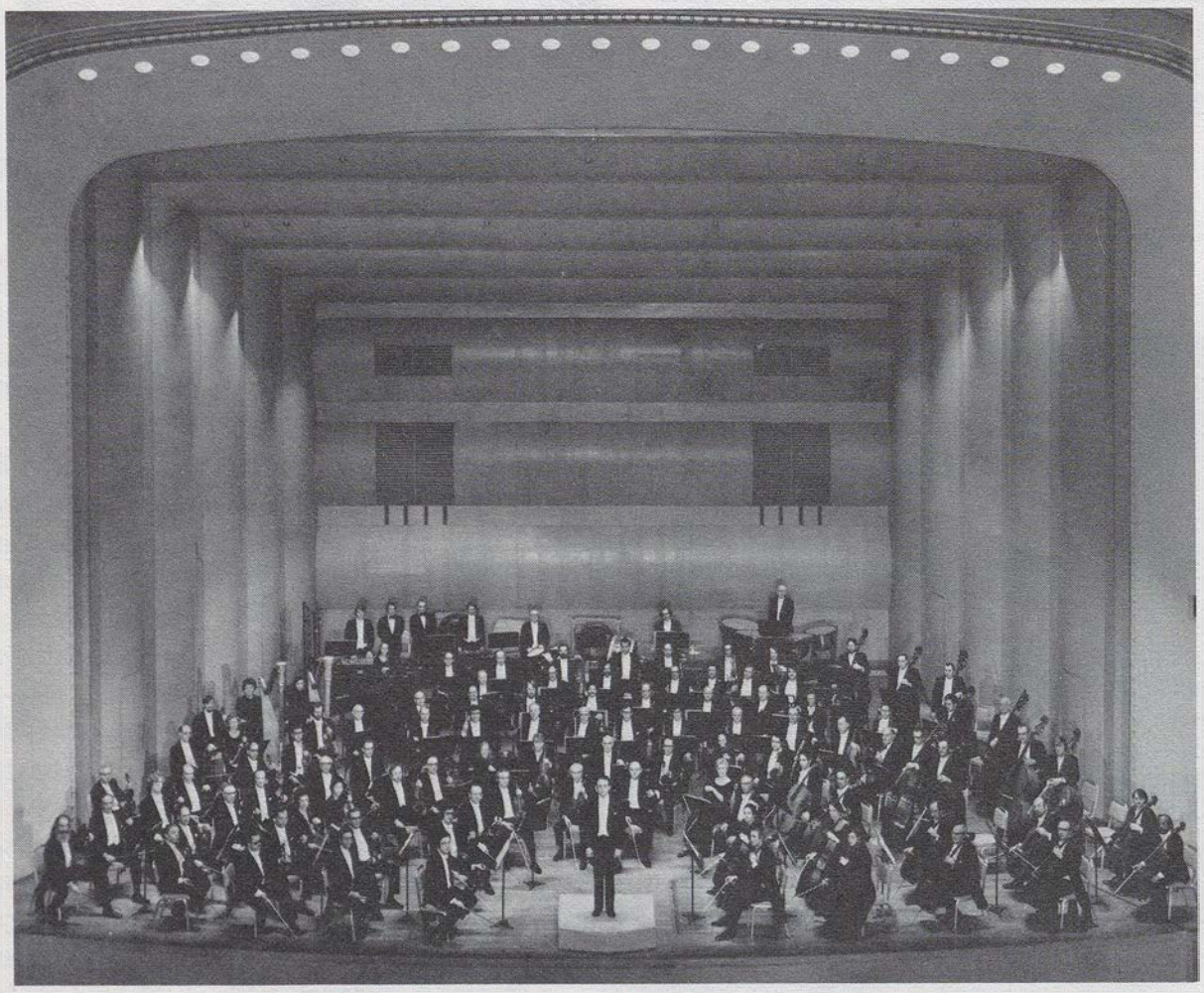
The telecast was produced by Fred Greene and Special Projects Director Dwight Pennebaker. Videography was by Gordon Gair, with editing assistance from Pennebaker.

Anyone out there know Edison?

We have received a number of requests from the media for quotes, descriptions and anecdotes from people who somehow associated with Edison.

If you know of someone who did, Edison Centennial News would like to know about that person, too. Please send names and addresses, plus brief background on their "Edison connection," to: Editor, Edison Centennial News, P.O. Box 1310, Greenwich, Conn. 06830.

Cleveland Symphony program to salute Centennial



A musical fanfare by the renowned Cleveland Orchestra will salute the Centennial of Light on Sunday, Oct. 21, under the sponsorship of the Lighting Business Group of the General Electric Company.

The orchestra will perform a varied selection of music for approximately 2,000 people. Andrew Massey, assistant conductor of the Cleveland Orchestra, has selected most of the music for the program, according to B.E. Schaller of GE.

Invitees to the Severance Hall salute include civic, governmental, media and community leaders.

EMPIRE STATE BUILDING TO HONOR EDISON

Numerous buildings around the country will be "lighting up" on Oct. 21 for the Edison Centennial of Light. The Empire State Building, perhaps the most famous skyscraper in the world and still one of the tallest, will join in the tribute by lighting up the numeral "100" between the 72nd and 81st floors on the East, West, and North sides of the building on Oct. 21. If it's a clear evening the numerals will be visible even in New Jersey and Connecticut.

Fifty years ago, the Empire State Building was still in the planning stages, so this will be an historical first for the Art Deco spire on the corner of Fifth Ave. and 34th St. in Manhattan.

A week before the Oct. 21 anniversary, the building will light its famous spire in blue and gold. The luminescent blue will inspire memories of early light bulbs, while the gold symbolizes the golden age of lighting. Then, on Friday, Oct. 20, the "100" will appear at dusk and burn for the next three evenings.

The engineering for the display is being directed by "The Man Who Lit Up New York," Douglas Leigh, a prominent lighting engineer famous for his massively intricate advertising signs in Times Square and midtown Manhattan.

Centennial Ball set for Edison N.J.

"Edison is a native son as far as we are concerned," according to Johanna Wira, honorary chairman of the Century of Light Ball in Edison, N.J.

She said residents of the Township of Edison can claim the inventor as their own because Menlo Park, birthplace of the incandescent light and the site of the world's first industrial research laboratory, is located within the township.

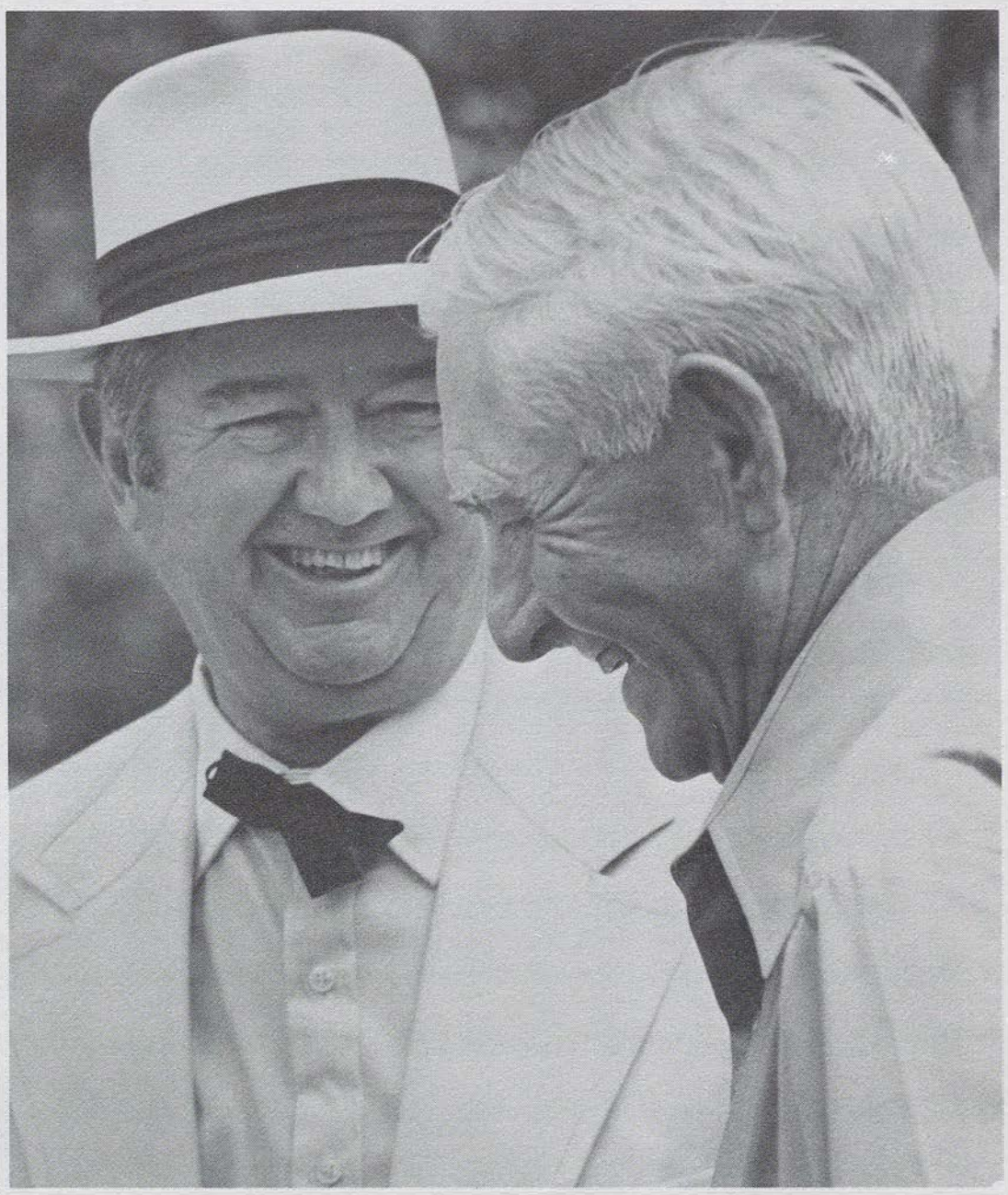
To observe the Centennial of Light, the township will sponsor a ball Friday, Oct. 19, at Pines Manor, beginning at 7 p.m. Cosponsored by the state's Thomas A. Edison Centennial Commission and the Edison Chamber of Commerce, the festivities will include a formal program, dancing and other musical entertainment.

The ball also marks the 25th anniversary of the renaming of the former Raritan township to honor Edison.

SCIENTIFIC AMERICAN

OCTOBER, 1879: "When Mr. Edison said he was about to produce a practical economical electric light for general use, the entire business world took it for granted that it was forthcoming. Gas stocks tumbled both in this country and in Europe, and people waited for the coming light. Scientists having had experience in this direction shook their heads but for the most part suspended judgment. Delay on the part of Mr. Edison comforted the holders of gas stocks, and confirmed the scientists in their belief that he had undertaken not only a task of great magnitude and difficulty but also one that would require more time and means than are available to most experimenters. But Mr. Edison, flushed by his earlier victories, is undaunted and determined to yield to no obstacle. Unfortunately, however, the daily papers have from time to time printed articles about progress in electric lighting, which, because of their extravagance and inaccuracy, have placed Mr. Edison in an extremely embarrassing position. At present little is said by Mr. Edison concerning the electric light, except that he considers it an assured success and that he is perfecting the details of his electric lighting system as rapidly as possible."

Potomac Edison employee portrays Edison



"Tom Edison" chatted with the residents of Pectonville, Md., just as he would have in the old days on his camping trips to nearby Camp Harding.

He appeared at the local community fair on Labor Day, dressed in a white suit and hat, and a black bow tie. As he moved about the Labor Day crowd, he spoke of the energy situation today and enlightened people about his bygone era and the one we live in today.

Edison was portrayed by Ed Norman, head of the Potomac Edison Company drafting department at Hagerstown. Talking to people, giving out prizes for such things as the greased pole climb and the oldest and youngest picnickers, he was on hand to remind everyone of the Centennial of Light as well as the part the inventor played in local history.

One woman proudly showed Norman an incandescent light bulb Edison had given one of her kin, reports Potomac Edison's Phil O'Connell.

Another bemused lady at the fair said she received her first kiss from Edison when he was camping there in the Twenties along with President Harding, Henry Ford and Harvey S. Firestone. The lucky lady received a second "first kiss" from Ed Norman and was charmed once again.

UPCOMING CENTENNIAL EVENTS

Mobile Exhibit: Ongoing. Drawn from Southern California Edison's 10,000 item collection of electrical memorabilia, a mobile exhibit tours schools and public events in SCE's service area.

Edison Historic Exhibit: Ongoing. The Edison National Historic Site in West Orange, New Jersey, is receiving visitors in its new visitor and exhibition center, which was dedicated in February 1979 in honor of the Centennial of Light.

Consolidated Edison Museum and Walking Tour: Ongoing. Con Ed features the Centennial in the new Museum of Energy at its main office in Manhattan. "Where They Lit Up New York: A Walk Through Yesterday, Today, and Tomorrow in Thomas Edison's First District" includes Pearl Street, where the first Edison power generating station stood.

Earliest Continuing Service Generating Plant Commemoration: September, 1979. Southern California Edison will commemorate the oldest 30-phase AC generation plant still operating in the U.S. (Mill Creek No. 1 at Santa Ana). It has been in service since 1893.

National Electrical Contractors Association Convention and the National Electrical Exposition: October 7-11, 1979. The 25th anniversary of this convention and exposition will be an official Centennial event with programs dedicated to science and technology. The Exposition, the largest of its type in the world, will include many Edison exhibits and programs. James G. Cook, president of the Thomas Alva Edison Foundation, will be keynote speaker on Oct. 8, San Francisco.

Smithsonian's Edison Exhibit: October, 1979. Major 4,000 square foot exhibit opens in the National Museum of History & Technology, Washington, D.C. It occupies the new main entrance on the first floor.

Newark Museum Exhibit ("Thomas Edison: The Giver of Light"): October 18, 1979. An exhibition of the practical success of Edison, with special emphasis on the Centennial. Shown will be stock tickers, telegraph, phonograph, fluoroscope, motion picture technology, office and household inventions, and winged projectiles developed during World War I. Cosponsored by the New Jersey State Museum in Trenton, the exhibit lasts through January 16.

Fort Myers, Florida, Tribute: October 21, 1979. Fort Myers — winter home of Thomas Alva Edison and one of his famous laboratories—will hold a special program to honor the man who made the area one of the state's major tourist attractions.

Reenactment of Original Lighting of Bulb: October 21, 1979. Reenactment of the invention of the electric light using Edison's original equipment will be held in his Menlo Park laboratory now located at Greenfield Village, Dearborn, Michigan. Top industrial, academic and governmental leaders will attend. Major news coverage is expected.

The First Street of Light; Reenactment at Menlo Park Compound: December 31, 1979. Reenactment of the first lighting of a public street will be held in the Menlo Park Compound at Greenfield Village, illuminating the same buildings and houses that were first lighted by Edison for a public display on New Year's Eve, 1879.

Special supplement to quote personages on Edison's legacy

A special supplement entitled "Perspectives on Thomas Alva Edison and his Centennial of Light (1879-1979)" will accompany our October issue.

It will compile statements graciously submitted by current world leaders in business, labor, government, science and technology, and other fields in response to a request by the International Committee for the Centennial of Light.

Statements received too late for the supplement will appear in later issues.

CENTENNIAL OF LIGHT 1879 1979

TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea

Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson

Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Lynn Elder, Sharon Testa

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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Ask at Desk

Edison - Centennial '79

CENTENNIAL OF LIGHT
1879 1979 ™

WITH THIS ISSUE: Special supplement of dignitaries' quotes about Thomas Alva Edison and the Centennial of Light.

Edison Centennial News

EDISON

OCTOBER 1979 VOLUME 2 NUMBER 10

Greenfield Village is Centennial focal point Oct. 21

On Sunday, Oct. 21, the Greenfield Village and Henry Ford Museum in Dearborn, Mich., will be the focal point of the nation's commemoration of the 100th anniversary of Thomas Alva Edison's invention of the first successful incandescent lamp.

At 6:30 p.m., more than 500 dignitaries and media representatives from all over the world will gather for dinner and to witness the reenactment of Edison's achievement at the original laboratory carefully removed from Menlo Park, N.J., and reconstructed at Dearborn during Light's Golden Jubilee.

Master of ceremonies for the event is actor James Stewart.

After dinner, a small party representing notables present at the 1929 festivities will reenact the historic invention in the small reconstructed laboratory. Madeleine Edison Sloane will represent her great-grandfather. Bob Koolakian, curator of Edisonia at Greenfield Village, will portray Francis Jehl, an assistant who was at the side of the great inventor both in 1879 and 1929. And, William Clay Ford will stand in for his grandfather, who idolized Edison.

James Stewart will narrate the ceremonies for dinner guests watching closed circuit television. Their dining room will be illuminated by candlelight initially, then by incandescent light as the laboratory bulb is "created," just as Henry Ford had arranged it in 1929.

Closed circuit TV

The reenactment will also be transmitted to Cleveland via closed circuit TV to General Electric's Lighting Group Offices in Nela Park and to Severance Hall, where a special Centennial of Light concert will be performed by the Cleveland Orchestra.

Other featured speakers include Walker Cisler, chairman of the Thomas Alva Edison Foundation, sponsor of the Centennial of Light, and Robert I. Smith, chairman of the International Committee for the Centennial of Light.

Each guest will receive a special gold-plated Centennial medallion and a souvenir program of the 1979 ceremonies.

For a listing of other major events taking place around the United States to commemorate the Centennial of Light on or about Oct. 21, turn to pages 4 and 5.

SEVAREID TO HOST PBS SPECIAL



Veteran newsman and network commentator Eric Sevareid (left) interviewed Reginald H. Jones, General Electric chairman and ICCL member, for an upcoming television documentary on Edison and his legacy. The program, produced by South Carolina Educational Television, will be televised over most Public Broadcasting System stations before the end of the Centennial year. As program host and narrator, Sevareid interviewed a broad spectrum of leaders from industry, labor, science and academia, while film crews shot footage in a number of locations including Greenfield Village, West Orange and the Smithsonian Institution.

The Edison Centennial and the Voice of America

As part of its Centennial of Light observance, the Voice of America will broadcast programs in October on the life of Edison and the history and evolution of the incandescent light bulb.

On October 21, the actual 100th anniversary date, the Voice will broadcast a fifty-minute special on "Thomas Alva Edison—The Man and Personality." The program, which will be broadcast worldwide in English, will feature recordings of Edison's voice on the 50th anniversary of light in 1929 as well as interviews and reminiscences of a number of people who either knew the inventor or have devoted considerable study to his life.

Included among others will be the late Madeleine Edison Sloane, Edison's daughter; George Stringfellow, a former employee of Edison; the late President Herbert Hoover; Robert Koolakian, curator of the Edison Institute; James G. Cook, president of Thomas Alva Edison Foundation; Robert Conot, author of a current Edison biography; Donald Banner, formerly an attorney with the U.S. Patent and Trademark Office; Bernard Finn, curator of electricity at the Smithsonian Institution in Washington, D.C.; and Prof. Reese Jenkins, a Rutgers University historian working on the Edison papers.

The program will include anecdotes of Thomas Edison as husband, father, boss, inventor and human being.

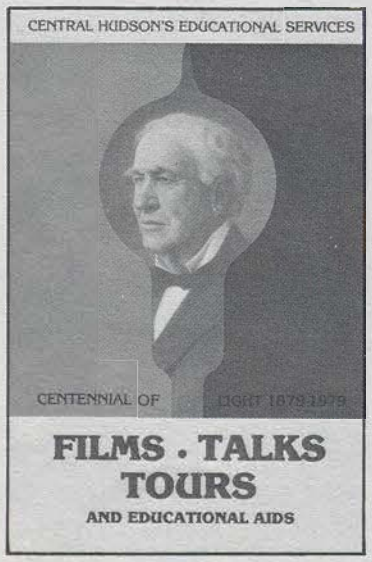
Producer of the program is VOA editor Lisa Keathley who, coincidentally, attended the Greenfield Village School in Dearborn, Michigan, not far from the reconstructed site of the original laboratory in which Edison invented the incandescent lamp.

In another October observance of the Edison Centennial of Light, the Voice will broadcast a short program on the origin and evolution of the light bulb, from Edison's invention in 1879 to the essential place of light in all phases of our lives today. Broadcast in English and several other languages, it will demonstrate how the light bulb revolutionized industry, everyday life, urbanization, commerce, science and art.

The Voice of America is the 109-transmitter— global radio network of the International Communication Agency, which seeks to promote understanding abroad for the United States, its people, culture and policies. The Voice beams 820 hours of programming a week in 38 languages via short-and medium-wave to an estimated 75 million listeners. VOA and radio programs produced abroad by ICA personnel are also made available to local stations in many countries.

The Voice's frequent programs on science and technology, usually broadcast on weekends, are among the most popular with listeners throughout the world.

Central Hudson's Centennial theme



Centennial of Light graphics highlight a new educational services brochure which Central Hudson Gas & Electric Corp. of Poughkeepsie, N.Y., recently mailed to schools in its service area. The brochure informs schools about the publications, speakers, tours, exhibits and workshops Central Hudson sponsors for teachers and students. Many of the activities feature Centennial themes.

Florida engineer remembers Edison

Fifty years ago, on the occasion of Light's Golden Jubilee, the Allied Service Council of the Central Congregational Church of Lynn, Mass., coordinated a number of local events surrounding the observance of Edison's invention.

One program included an address by Stephen C. Rogers—then a design illuminating engineer with the old GE Outdoor Lighting Department, which made arc lamps—to members of the church's congregation and the local Lions Club. He provided an assessment of the half century since Edison's greatest accomplishment.

On Oct. 16, 1979, Mr. Rogers, who now lives in Winter Park, Fla., will again deliver his 1929 address to more than 200 members of the University Club of Winter Park. Now 91, he retired in 1946.

Rogers, who knew the great inventor and remembers discussing lighting design with him on numerous occasions, has also recorded the original address, which is a real "living" history of the events of the day. Anyone interested in interviewing Rogers may call him at (305) 647-5710.

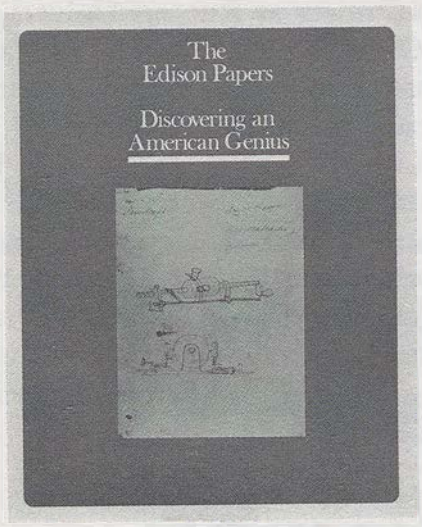
Some Centennial Reading

For your Edison Centennial reading,two 1979 books focus on Edison's life and inventions:

A Streak of Luck by Robert Conot, Seaview Books, New York, N.Y., 1979. A "warts-and-all" biography which concludes: "Edison succeeded, where others failed or never tried, because it was his nature to dare . . . There was never anyone like him before."

1929: America Before the Crash by Warren Sloat, Macmillan Publishing Co., New York, N.Y. 1979. Profiles of Edison, Ford and other participants in Light's Golden Jubilee are highlighted in what the publisher calls "a vivid portrait of a dynamic and brash society on the brink of unseen catastrophe."

Edison Papers Project seeks financial support



The Edison Papers Project—now being conducted by Rutgers University under the direction of Professor Reese Jenkins—is so massive that it is expected to cost $300,000 for each of the next 20 years. This includes the salaries of a professional staff specializing in science, technology and business of the Edison era, and the expenses of such essentials as printing, editorial space and travel, and photo-duplication associated with the search of Edison documents.

To meet this challenge, cosponsors of the project—the Smithsonian Institution, the National Park Service, the New Jersey Historical Commission and Rutgers—have committed approximately $2.7 million toward the projected $6 million budget. Another $1.5 million is being sought from Federal sources, and $1.8 to $2 million from private corporations, foundations and individuals.

Companies, foundations, associations and individuals interested in contributing to the Edison Papers Project should contact the Rutgers University Foundation, 191 College Ave., New Brunswick, N.J. 08903. Pledges and outright gifts may be made over a five-year period to support the project.

Smithsonian Opens Exhibit "Edison: Lighting a Revolution"



Throwing the switch to light up the new Edison exhibit at the Smithsonian's National Museum of History and Technology are, from left: Roger Kennedy, museum director; Dr. Bernard Finn and James Cook.

A major new exhibition — "Edison: Lighting a Revolution" — opened Oct. 9 at the Smithsonian Institution's National Museum of History and Technology in Washington, D.C.

The exhibition, created to commemorate the 100th anniversary of the invention of the light bulb, is supported by a grant from the International Committee for the Centennial of Light (ICCL).

ICCL executive secretary James G. Cook, who is also president of the Thomas Alva Edison Foundation, represented the ICCL at the opening ceremonies. Several hundred leaders in government, science and industry attended. Earlier, Cook answered questions at a special press preview.

Dr. Bernard Finn, director of the Smithsonian's Division of Electricity and Modern Physics, developed the exhibition, which traces the developments leading to Edison's invention of the first practical light bulb and describes the beginnings of electrical power in America.

Among the artifacts displayed is an incandescent lamp Edison used during a public demonstration at his Menlo Park laboratory on New Year's Eve, 1879. Also, there are historic photographs, laboratory notebooks, Edison's handwritten notations about different filaments he tested at Menlo Park, and the dynamo from his first electrical system used on board the coastal steamer Columbia.

The exhibit uses historic equipment and operating machinery to tell the story of the era. Examples include:

- **the oldest object exhibited is a voltaic pile battery from 1805 which paved the way for future innovations and provided power to the early telegraph and telephone industries;**
- **a model of a Niagara Falls generator from 1895 illustrates the successful use of energy by falling water to generate large quantities of electrical power for homes and businesses over a 20-mile square area;**
- **the impact of electricity in the home from 1890 to the present is demonstrated with examples of household appliances, including electric irons, toasters and fans.**

A 100-page illustrated catalog of "Edison: Lighting a Revolution" with essays by Dr. Finn and Dr. Robert Friedel, museum historian, is being sold at the Museum's bookstore for $3.00 a copy.



OCTOBER CENTENNIAL OF LIGHT EVENTS SCHEDULED THROUGHOUT THE NATION

Following is a city-by-city listing of known events and activities planned to celebrate the Centennial of Light on or about October 21, 1979, the 100th anniversary of Thomas Alva Edison's invention of the light bulb.

Leading off is the reenactment of Edison's invention of the Menlo Park Compound now located at Greenfield Village and Henry Ford Museum, Dearborn, Mich. Events in West Orange, N.J., and Fort Myers, Fla., precede activities in other cities, which are listed in alphabetical order.

Where possible, a media contact has been given for each event. For general information, contact Centennial of Light headquarters at (800) 243-8561.

This year-long commemoration of Edison's invention and legacy has been coordinated by the International Committee for the Centennial of Light.

DEARBORN, MICH.

Oct. 21—Actor James Stewart m.c.'s reenactment of Edison's invention of electric light bulb at Greenfield Village & Henry Ford Museum. Event duplicates Edison's own 1929 reenactment of his invention. Contact: Bob Blair—TV/Radio; Don Adams—print (313/271-1620).

FORT MYERS, FLA.

Oct. 21—Edison's Winter Home and Museum open free to tourists, including tours and continuous showing of Edison movies and film clips. Contact: Gary Thomas (813/334-3614)

STATE OF NEW JERSEY

For information on all New Jersey events listed below, contact: Richard A. Cross, Public Service Electric & Gas Company (201/430-5905), except as noted.

Edison, Oct. 19—"Century of Light Ball," commemorates Centennial and 25th anniversary of renaming of Edison Township; The Pines Manor. Sponsors are Thomas A. Edison Centennial Commission and Edison Chamber of Commerce . . . Oct. 28—Edison Parade with 100 marching units and floats depicting Edison's inventions.

Newark, Oct. 1-Nov. 28—Newark Library exhibits books, documents, photographs and memorabilia depicting "Edison and His World." Contact: Charles Cummings (201/733-7776) . . . Oct. 18-Dec. 31—Newark Museum opens new exhibit ("Thomas Edison: The Giver of Light"), co-sponsored by New Jersey Museum in Trenton.Contact: Mary Sue Sweeney (201/733-6605) . . . Oct. 19—4:30 PM—Centennial speeches in Military Park by Robert I. Smith, chairman of the International Committee for the Centennial of Light and board chairman of Public Service Electric & Gas Company, and by John T. Cunningham, chairman of Edison Centennial Committee, New Jersey Historical Commission. Governor's proclamation will also be read. Centennial red/white/blue emblem will be illuminated on facade of PSE&G headquarters (70 Park Place) . . . Oct. 19-20—Symposium ("Thomas A. Edison and the Recent History of Science and Technology") in conjunction with annual meeting of the Society for the History of Technology. Sessions at Hotel Robert Treat and Hilton Gateway Hotel. Oct. 19 banquet features Dr. Reese V. Jenkins, director of Edison Papers Project at Rutgers University.

West Orange, Oct. 20—Edison National Historic Site—Edison's Laboratories in West Orange, N.J.—open free from 9:30 a.m. to 5:30 p.m. Contact: Lynn Wightman (201/736-0550) . . . . Oct. 20-21—Boy Scouts dedicate "Edison Memorial Trail" with 12-mile, 2-day hike. Jamboree of 300 scouts will begin and end at Edison National Historic Site . . . Oct. 20—9:00 AM—Dedication of "Edison Memorial Wing" at West Orange Public Library. 10:00 AM—West Orange Rotary Club dedicates park as "Edison Plaza" and unveils large replica of original incandescent bulb. 11:00 AM—Main Street officially renamed "Thomas Alva Edison Blvd." for one month. 11:30 AM—Parade with all Essex County towns participating, including antique-car contingent, followed by picnic and entertainment. 4:00 PM—Screening of "Young Tom Edison," starring Mickey Rooney, at the Essex Green Cinema; proceeds to West Orange Scholarship fund for Edison Scholarship. 7:00 PM— Reception at Lincoln Mountain High School followed by performances by New Jersey Ballet, Montclair Chamber Music Quartet and the Cable-Car Chorus.
Contact: Jack Shteir (201/623-7161) or (201/731-5986 — evenings).

Trenton, Oct. 28 — Edison Centennial Year Commencement Ceremonies, Thomas A. Edison College, War Memorial Building. Contact: Mary Skelton (609/452-2977).

Various locations: Special free performances of an Edison-emphasis version of "JERZ," a musical-comedy program dealing with highlights of New Jersey's history. Oct. 18, Passaic; Oct. 19, Mountainside; Oct. 21, Eagle Rock Reservation, West Orange; Oct. 22 and 30, Paterson elementary schools; Oct. 29, Linden Recreation Department; Oct. 31 - Nov. 2, Passaic public schools. Contact: Halfpenny Playhouse (201/991-2938).

CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

SPECIAL SUPPLEMENT

October 1979

Centennial of Light
Thomas Alva Edison Foundation
P.O. Box 1310
Greenwich, Connecticut 06830
(800) 243-8561

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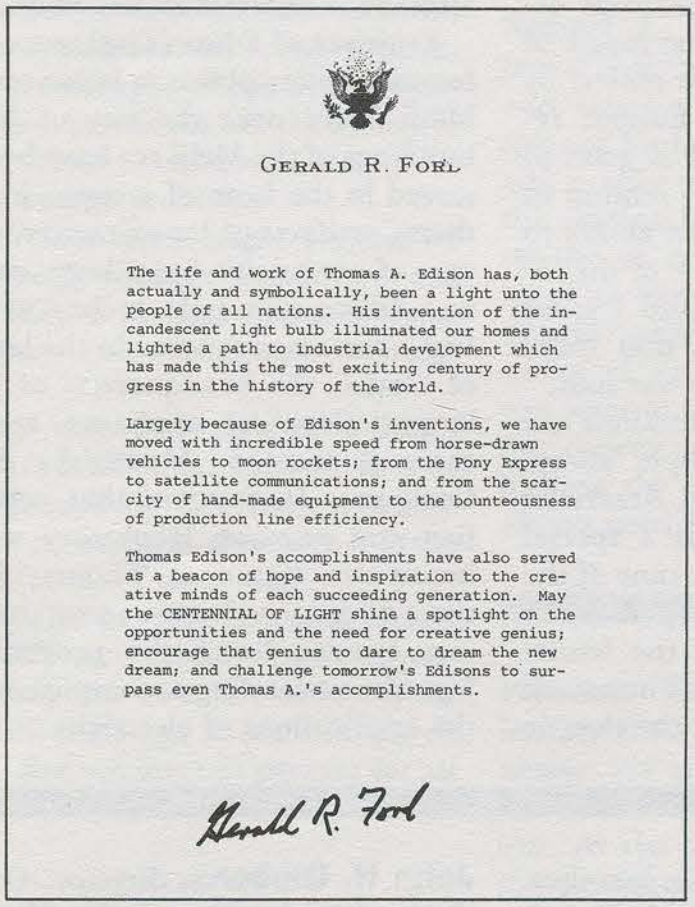
Perspectives on Thomas Alva Edison and his Centennial of Light (1879-1979)



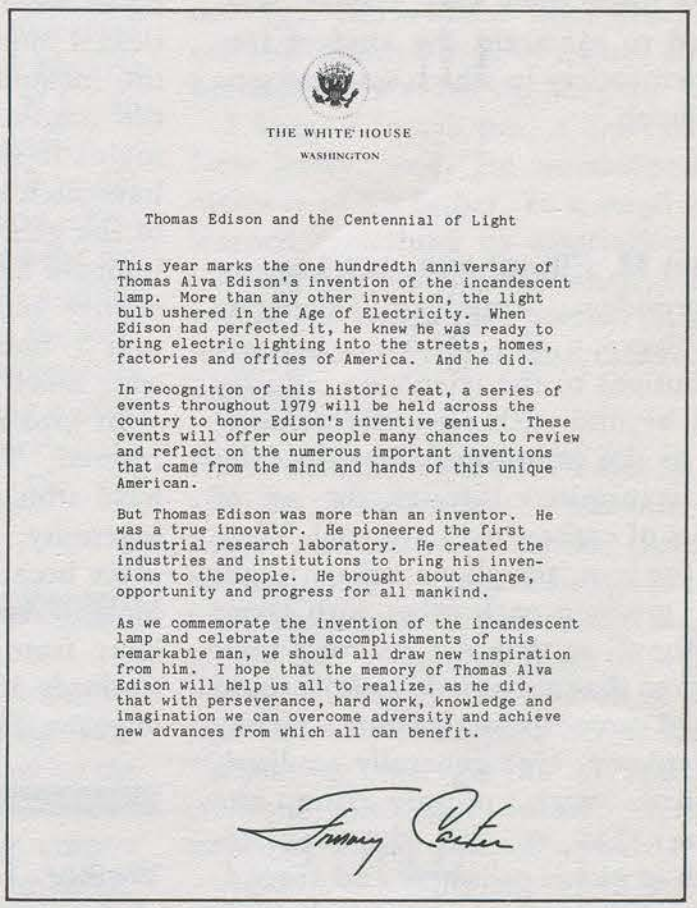
GERALD R. FORD

The life and work of Thomas A. Edison has, both actually and symbolically, been a light unto the people of all nations. His invention of the incandescent light bulb illuminated our homes and lighted a path to industrial development which has made this the most exciting century of progress in the history of the world.

Largely because of Edison's inventions, we have moved with incredible speed from horse-drawn vehicles to moon rockets; from the Pony Express to satellite communications; and from the scarcity of hand-made equipment to the bounteousness of production line efficiency.

Thomas Edison's accomplishments have also served as a beacon of hope and inspiration to the creative minds of each succeeding generation. May the CENTENNIAL OF LIGHT shine a spotlight on the opportunities and the need for creative genius; encourage that genius to dare to dream the new dream; and challenge tomorrow's Edisons to surpass even Thomas A.'s accomplishments.

Gerald R. Ford



THE WHITE HOUSE
WASHINGTON

Thomas Edison and the Centennial of Light

This year marks the one hundredth anniversary of Thomas Alva Edison's invention of the incandescent lamp. More than any other invention, the light bulb ushered in the Age of Electricity. When Edison had perfected it, he knew he was ready to bring electric lighting into the streets, homes, factories and offices of America. And he did.

In recognition of this historic feat, a series of events throughout 1979 will be held across the country to honor Edison's inventive genius. These events will offer our people many chances to review and reflect on the numerous important inventions that came from the mind and hands of this unique American.

But Thomas Edison was more than an inventor. He was a true innovator. He pioneered the first industrial research laboratory. He created the industries and institutions to bring his inventions to the people. He brought about change, opportunity and progress for all mankind.

As we commemorate the invention of the incandescent lamp and celebrate the accomplishments of this remarkable man, we should all draw new inspiration from him. I hope that the memory of Thomas Alva Edison will help us all to realize, as he did, that with perseverance, hard work, knowledge and imagination we can overcome adversity and achieve new advances from which all can benefit.

Jimmy Carter

The Centennial of Light, sponsored by the Thomas Alva Edison Foundation, is a year-long commemoration of the invention of the incandescent light on October 21, 1879.

The Centennial is directed by the International Committee for the Centennial of Light—industrial, government and labor leaders identified in the statements below as "ICCL members."

Reginald Jones, ICCL member; chairman and chief executive officer, General Electric Company: The company that Thomas Edison founded to finance his development of the incandescent lamp was the predecessor of the current General Electric Company, and we celebrate the company's 100th anniversary at the same time we celebrate the Centennial of Light.

Our fundamental need is a social and political climate that favors technological progress. We used to have it. We don't anymore. We have begun to accept limits to scientific inquiry, limits to technological innovation, limits to economic growth. If science has brought us problems—as it has—then the answer is more knowledge, not less. If technology has brought us problems—as it has—then the answer is better-managed technology, not a slow slide back to the poverty and squalor that most people had to endure in the falsely idealized past.

George Meany, president, AFL-CIO: The electric light was already well established in New York when I was born, 15 years after Edison's breakthrough, but I well remember hearing from my elders about the changes it brought.

And throughout my lifetime I have watched those changes take place throughout America as the power com-

panies, especially the co-operatives encouraged by the Rural Electrification Administration, carried Edison's gift to America's remotest corners. The process is still far from complete in Africa and Asia, where newly installed electric light and power facilities produce the same pleasure, excitement and progress that they did in New York in the 1880s.

Edison's inventions and his methods have been vastly refined by modern industrial research and development teams, but Edison himself stands as an inspiring example of what one man, blessed with an original mind, bottomless curiosity and clear goals, can accomplish.

We can't hope for many Edisons, but we need to be alert to recognize and encourage them when they appear. And we need to maintain the kind of free and open society in which such persons can flourish.

William M. Ellinghaus, ICCL member; president, American Telephone and Telegraph Co.: Thomas Edison's contributions to the telephone industry extend beyond such scientific achievements as the improvement of the telephone transmitter through the use of granules of carbonized hard coal. Were it not for him, telephone callers might still be greeting each other with terms like "Ahoy!" as they did before Edison discovered that a shouted "Hello!" could be heard more distinctly from a receiving telephone. He's generally credited, therefore, with popularizing the greeting that to this day initiates millions of phone calls here and abroad.

Perhaps more important, Edison is also recognized as the father of industrial research — a lesser known but equally important achievement for which all of America should be eternally grateful. By convincing business that organized research could keep our country in the forefront of technological achievement, Edison laid the groundwork for more than a half-century of American technological leadership throughout the world. Certainly the Bell System owes a large share of its success to the research and development record of Bell Telephone Laboratories, which only recently added two more Nobel Prize winners to its growing list of laureates.

Henry Ford II, ICCL member; chairman, Ford Motor Company: Thomas Edison's influence on our lives has extended far beyond his own brilliant achievements. My grandfather might have given up his efforts to develop a "horseless carriage" if Edison had not told him to "Keep on with your engine. If you can get what you are after, I can see a great future."

Robert E. Kirby, ICCL member; chairman and CEO, Westinghouse Electric Corporation: Electricity has been synonymous with Tom Edison and George Westinghouse since the late 1880s. They gave the industrial revolution new impetus. The freedom to experiment in science and the talent to develop man's resources were the ingredients for progress then, as they are now.

Mike Mansfield, U.S. Ambassador to Japan; former majority leader, U.S. Senate: Coming from the frontier state of Montana and being of appropriate age, I can recall times when electric lights were not our only source of artificial illumination. Thus the magic of the incandescent light, as invented by the immortal Thomas A. Edison, remains fresh in my mind. It is good to have such experiences. They remind us of the genius of Man and his ability to improve his lot. The epitome of the inventive genius was Edison and I guess that I find myself wishing that there were more Americans today like him.

In Japan, Edison's contributions are revered. The Japanese people always have admired and emulated American ingenuity, but Edison holds a special place because he lived at the time of the Meiji Restoration—when Japan broke loose from the shackles of the feudal warlords after an isolation of hundreds of years. Thus the advent of the electric light in Japan was both pragmatic and symbolic. Every Japanese child is taught that the bamboo from which the filaments of Edison's first light bulbs were made came from Japan, making the association more than vicarious.

Evidence of Edison's influence can be found in many places in Japan today. In Meiji Mura near the city of Nagoya, buildings of the Meiji era have been preserved in the form of a town; in one of them, artifacts of Japan's entry into the age of electricity have been collected and Edison-type light bulbs—so identified—are among them. In the large city of Osaka, the headquarters of Japan's largest electrical appliance manufacturer is located, Matsushita Electric Company. In front of that company's first-rate research laboratory stands a heroic-size statue of Thomas Edison, since he is looked upon more than anyone else as being the progenitor of Japan's outstanding accomplishments in the applications of electricity.

Walker L. Cisler, ICCL member; chairman, Thomas Alva Edison Foundation: In my youth and as an emerging engineer, Thomas Edison was a great inspiration to me. It thrilled me to think of the man and his inventions. It is for all this and other reasons that I have found my association with the Thomas Alva Edison Foundation so rewarding.

It is because of science, technology and engineering that we are part of our unprecedented high standard of living. Many of our youth and those older blame technology for many woes that confront us. We need to have our young men and women understand that science is not the culprit, but rather the benefactor.

John H. Gibbons, director, Office of Technology Assessment, Congress of the United States: Edison gave two kinds of light to humankind—the kind we see with our eyes and the kind that illuminates our spirit. This second kind of light—the light of innovation, which reflects both the ability and commitment to learn and the discipline needed to achieve—is perhaps more important to us now than ever before.

How do we create that kind of light? We fashion opportunities for bright minds to flourish by providing special environments for growth and development. And we establish situations in which those who dare to try—and then succeed—can personally profit through both recognition and wealth.

Charles W. Duncan, Jr., The Secretary of Energy: One of the greatest contributions of Thomas Alva Edison was the creation of the research laboratory and the utilization of a wide variety of talent. His inventions became reality more quickly, thanks to the diversity of the laboratory.

Our claim to international pre-eminence in efficiency was staked out by Mr. Edison and enhanced by thousands of others in the never-ending search for progress and a better life.

Pessimists today note a slackening of inventions in the United States, implying now and then that we are reaching the end of the technological line—especially since limitations are appearing on the production of conventional fuels.

One wonders what Mr. Edison, with his record number of 1,093 patents, would have thought of the dire predictions. Have Americans lost the ability to invent a better mousetrap? Can't we solve the energy problems?

A dour soothsayer might suggest we should give up the search and lower our sights. They said that about Edison. And Henry Ford, Bell and Westinghouse.

We say that the spirit of Edison's Menlo Park is all about us in the field of energy. Everybody has energy, everybody uses it, needs it; therefore it is the problem for all of us to solve.

The challenge of more and better energy efficiency brings with it opportunity today just as surely as it did for Edison 100 years ago in his own search for light. But not just one person; for all of us.

Juanita M. Kreps, The Secretary of Commerce: Edison's genius is well documented.

By patenting his inventions, Edison secured for himself a valuable property right in exchange for disclosing his inventions to the world. These patent disclosures inspired others to experiment further, thereby pioneering research into electronics, wireless telegraphy, radio and other high-technology fields.

Edison exemplified the spirit of American ingenuity which has made our country a leader in technology and industrial innovation. This example poses a challenge for us today in preserving and encouraging the inventive zeal which has made our country great.

Ray Marshall, The Secretary of Labor: Thomas Alva Edison is perhaps the leading symbol of American ingenuity and inventiveness. The products of his mind, combined with the industriousness with which he developed them for use by people throughout the world have contributed immeasurably to the progress and to the material well-being we enjoy.

Today, in our rapidly-changing world economy, the example Edison set is more important than ever, as we strive to maintain American productivity and our standard of living which previous generations fought so hard to establish.

Robert I. Smith, ICCL chairman; board chairman, Public Service Electric and Gas Company, Newark, N.J.: In spite of his lack of formal education — and in spite of laboring all his life under the physical handicap of deafness—Edison set an example of achievement for all of us. His insatiable curiosity and his determination to succeed were the keystones of his career — characteristics you want in a researcher seeking a cure for cancer or the scientist trying to harness the energy of fusion. We will always need "Edison types."

Howard H. Baker, Jr., minority leader, U.S. Senate, representing Tennessee: We are surrounded today by the fruits of the inventive genius of Mr. Edison. At the same time that we admire the products of Mr. Edison's imagination, however, it is especially appropriate now that Americans not forget the spirit that fostered the creativity of Thomas Edison, sustained him in the often difficult hours of research and development in his laboratory, and ultimately resulted in a product which the average American could afford and enjoy.

I am confident that this same spirit will see America through the complex problems which confront us today. Mr. Edison, I am sure, would have attacked those problems—whether energy supply, preservation of our environmental heritage, or feeding and clothing the people of the world—with a boldness and decisiveness that we must emulate.

Charles F. Luce, chairman of the board and chief executive officer, Consolidated Edison Company of New York, Inc.: Ninety-six years ago, Thomas Edison began operation of his famous Pearl Street Central Lighting Station in New York City.

Since the establishment of that first commercial lighting station, Con Edison and the people of New York City and Westchester have shared in the benefits of his technical, industrial, and humanitarian genius.

We are proud to join in a celebration of his accomplishments.

Robert Moses, public works planner and engineer: Thomas A. Edison was one of the greatest inventive geniuses of our age. He suffered from every conceivable disadvantage of nature and inheritance. He swam up Niagara.

I knew Edison's son, a Governor of New Jersey, well. He worshipped the memory of his father. In a small way I learned something by association with the inner circles of some other geniuses and of the lamps that burned all night while Edison invented and others were sleeping.

Rev. Norman Vincent Peale: Shortly after Mr. Edison's death I was with Mrs. Edison and her son, Charles, Governor of New Jersey, in Mrs. Edison's home. I knew them both quite well and had the pleasure of being with them on a number of occasions. Mrs. Edison told me that one day she asked her husband, "Where do you get all of these incredibly marvelous ideas?" With a smile, he simply pointed upward.

Again, she told me that on Mr. Edison's deathbed he was attempting to say something. Bending low, his physician clearly heard him say, "It is very beautiful over there."

This latter incident makes one think that this great scientific genius would scarcely report something of a fantasy nature because his entire mental habit was one of testing and accuracy.

Governor Edison once told me that his father had said to him on several occasions something to this effect: "If we were to do all that we are capable of doing we would literally astonish ourselves," and I recall that Charles, with a smile, said, "Now, have either you or I ever really astonished ourselves?"

Dr. Simon Ramo, engineering executive: Today, as we celebrate 100 years since Edison's invention of the incandescent light bulb, the U.S. finds itself with serious doubts as to its technological leadership and prowess and shows evidence of declining technological innovation. Yet the need and opportunities for creative technology are present today just as in Edison's time. Men like Edison may be born only once in a century, but the basic ingenuity of Americans cannot have changed. Only the environment for innovation is different. If we want to emulate Edison we need to reverse declining motivation, diminished returns for risk-taking, and shortage of available capital for investment in speculative technological ventures.

Richard L. Lesher, president, Chamber of Commerce of the United States: Thomas Alva Edison, the man and the inventor, epitomizes the essence of the American dream.

His dreams and inspirations bore fruit because they were developed in the atmosphere of private enterprise. Today, eternal vigilance is needed to retain this private enterprise system in the face of the many challenges threatening it.

Rene Dubos, bacteriologist and Pulitzer Prize author: Edison was more than a technologist. He was never satisfied merely to invent and patent a device. He was determined to see it used and he behaved throughout his life as an inventor-entrepreneur. His uniqueness consisted in his ability to take into consideration non-technological factors such as economics and politics and to involve himself in all phases of the technological process from invention to installation.

William T. Ylvisaker, ICCL member; chairman and CEO, Gould, Inc: If Edison were alive today, I believe he would say: "Science and technology can and must answer our problems. If they don't, nothing else will. Recognize what technology can do, and what it cannot do. Direct technology to meet specific challenges the future brings. Support scientific inquiry as enthusiastically as it was in my day and as it was as recently as the late 1950s and early 1960s."

James G. Cook, ICCL executive secretary; president, Thomas Alva Edison Foundation: No other man of the 19th century did as much as Edison to change the face of America, to create the wealth of America, and to improve the living standards of the nation and, indeed, the world.

As we begin the second century of light, we will literally need thousands of well-trained young men and women with the kind of wisdom, imagination, and courage that led Edison on his lifelong conquest of the unknown. One Thomas Edison in a generation is no longer enough to sustain our kind of progress.

Donn B. Tatum, ICCL member; chairman, Walt Disney Productions: The Centennial of Light provides an opportunity to reaffirm the crucial importance of inventiveness and innovation in meeting the challenges and solving the problems which lie ahead. The continued application of the divine gifts of talent and ingenuity, applied with a spirit of confidence and optimism, will provide the answers to the questions of tomorrow.

H. Guyford Stever, former White House science adviser and National Science Foundation official: My generation of scientists and engineers who have lived through the 45 years from 1935-1980 have taken the great inventions, discoveries, innovations, and entrepreneurial accomplishments of Thomas Alva Edison for granted, as they have addressed the science and technology problems of World War II, the Nuclear Age, the Space Age, and the Age of the Computer and Information Revolutions. Yet everyone of these great advances rested heavily on Edison's work.

Today we would do well to study his works once again for he laid some of the technical grounds for the Information Revolution, and we are faced with the job of installing all of the technical infrastructure in society to handle the full future of that field. There is a job to be done comparable to that which Edison did establishing the great networks of electric power for its many uses. Reference to the methods used by Thomas Alva Edison could greatly help us.

Merle W. Kremer, ICCL member; president, GTE Sylvania Inc.: The Centennial of Light will commemorate one of mankind's most historic milestones. After centuries of striving, the development of the electric light permitted us to eliminate darkness when we chose, increasing our comfort and well-being and vastly improving the productivity of our work efforts. Not only will the observance recognize the great achievement of Thomas A. Edison, but it will have the dual purpose of focusing attention on today's social and economic problems, hopefully inspiring new Edisons to produce solutions of the magnitude which occurred 100 years ago in Menlo Park, N.J.

R. Heath Larry, president, National Association of Manufacturers: A half century is a long span for one man's inventiveness; but Edison never let up.

More important even than his demonstrations of what could be done with electrical energy, was his continuing demonstration of what could be done with human energy.

Inspiration was only part of his genius; perspiration provided the rest.

Goro Inouye, ICCL member; retired chairman, Japan Atomic Energy Commission: Of all the overseas technology introduced to Japan since the Meiji restoration and the opening up of Japan to the rest of the world, the people of Japan owe most to the inventions of Thomas Edison.

The introduction of the incandescent light is of especial interest to us. Only six years after Edison invented the electric light, a private electric light company commenced operations in Tokyo, introducing the invention with surprising rapidity for the time. The long-life carbon filament, which Edison went to the greatest pains to develop, used Japanese bamboo as its raw material and the Yawata Shrine near where it was grown a stone monument to Edison has been set up. Each year, on Edison's birthday, people associated with the electricity industry gather at the monument for a memorial service.

It is to be hoped that this memorable Centennial will be celebrated not only by the United States, but the whole world, holding Edison's achievements up as a stimulus to the young people of today.

Robert A. Frosch, administrator, National Aeronautics and Space Administration: In December of 1968 when Apollo 8 was making mankind's first journey to the moon, the five-year-old son of one othe astronauts had just one specific question—who was driving? When the question was relayed to the spacecraft, the answer came promptly back—Isaac Newton.

It was true; the balance of the gravitational forces of the Sun, the Earth and the moon, exactly as Newton had predicted, was defining the course of the mission. But if Newton was driving, certainly Thomas Edison was copilot.

The complex and sophisticated spacecraft and the ten-story Saturn V rocket which launched it, with their total of more than five million tightly integrated parts, would have been inconceivable without the heritage of the greatest of all inventors. Edison's original discoveries were not only the basis for the instrumentation, communications, guidance and other systems which made the mission possible, but the very research labs in which the Apollo program was developed were themselves his invention.

In the second hundred years after his invention of the incandescent lamp, we will continue to be indebted to the genius of Thomas Edison, who handed us the ignition key to the Age of Space and the technological future of mankind.

S.D. Bechtel, Jr., ICCL member; chairman of the Bechtel group of companies: The memory of Thomas Edison doesn't need a celebration for added luster. His pioneering spirit is recognized every day by many of the people benefiting from his inventiveness.

However, I believe one of the real values of the Centennial of Light is to remind us that the encouragement of creativity and technological advancement are a vital part of our history as a nation.

Unfortunately, American innovation and technology are now lagging badly. We simply are not creating, new job-making industries. We have deprived inventiveness of incentive, and too often legislated it into subservience.

Helping restore the spirit of Edison's era is the greatest challenge of the Centennial of Light.

Isidor I. Rabi, Nobel Laureate in Physics: Edison was one of the greatest American inventors. He could no more refrain from inventing than a punster could stop punning. He saw needs and invented devices to fill these needs. His greatest discovery of profound significance was the Edison Effect which will live in the history of science.

Charles H. Pillard, ICCL member; international president, International Brotherhood of Electrical Workers: Thomas Alva Edison's invention of the incandescent lamp launched not only the electrical age, but the IBEW itself, which is now more than a million members strong. Even more significant to us is the fact that a major portion of the North American workforce is employed in an industry that can trace its origin to one or more of Edison's many inventions.

As direct heirs to the Edison legacy, we in our great Brotherhood feel a special responsibility to stand up to those persons or groups in our society who would demean and shackle science and technology while seeking to dampen economic growth. Our nations urgently need new Edisons to develop new sources of useful energy and to build new industries that will offer exciting and rewarding jobs.

To create an atmosphere in which new Edisons will flourish, we will have to re-examine our attitudes toward scientific and technological education and careers, our research and development priorities and levels of spending, and our environmental requirements. Our policies must encourage new and far reaching innovations to grow and prosper.

Albert Thulman, P.E., executive director, The Association of Energy Engineers: Thomas Alva Edison was certainly one of the first energy engineers. His creative genius and insights into energy have provided the roots of the energy engineering profession. Edison's ability to "brainstorm" new methods and his inventive creativity are what is needed most today.

The answer to today's energy problem is not to turn off the lights and live in darkness. Rather it is to apply and develop new systems in the spirit of Edison which will save energy.

Raymond C. Firestone, ICCL member; chairman retired, Firestone Tire Rubber Corporation: Thomas Edison was not only a great inventor, but a great man. His contributions to society and civilization's progress were immense. My family's association with Thomas Edison was close, and it is my hope that the ideals and concern he had for the world will be emphasized and appreciated by all of us during the celebration of the International Centennial of Light.

Douglas J. Bennet, Jr., administrator, Agency for International Development, U.S. Department of State: The process of turning new ideas into benefits for millions of people was, it seems to me, the essence of Edison. It is also at the heart of what this country is attempting to do in our development programs in the Third World: Not the transfer of American goods, or money or even light bulbs; but rather the encouragement of this process of invention and application, of using peoples' minds and wills to overcome the ageless problems of disease and poverty. This process is what Edison represents to America, and what I hope this country can offer to the world.

A.B. Dick III, ICCL member; chairman, A.B. Dick & Co.: Since Thomas Alva Edison was one of the most prolific inventors in the history of our country, we wish to underscore the enthusiasm he showed for invention, as we firmly believe that the degree of future comfort, safety, and welfare of the world will be in direct relation to the novel ideas that can be focused on its problems.

Through his inspiration and untiring efforts in the fields of electronics, electromechanical, and chemical engineering. Mr. Edison not only spawned new industries, but also made contributions to mankind which raised our standard of living to new heights. One example is A.B. Dick Company, an early beneficiary of one of his inventions, whose first product, the Edison Mimeograph, was manufactured and sold in 1887 under the Thomas Alva Edison Autographic Printing patent of 1880.

Today the need for invention, innovation, and discovery is more pressing than ever before to provide answers to the many needs of mankind.

R. Buckminster Fuller, architect and planner: Being born in 1895, I grew up under the powerful influence of Thomas Alva Edison's inventing. My home in Milton, Massachusetts, was one of the first in that town to be illuminated with his incandescent light. My childhood was greatly affected by his introduction of the talking machine.

From time to time I had glimpses of the living man himself. I never knew him personally, though I had the pleasure and privilege of getting to know his son, Charles.

I am certain that my confidence in the effectiveness of inventions was greatly fortified by Mr. Edison's work.

Edgar H. Griffiths, ICCL member; president and chief executive officer, RCA Corporation: The Centennial of Light celebration is an opportunity for American business to pay tribute to Thomas Alva Edison and his many accomplishments that have benefited the human race as a result of his genius.

Ivan A. Getting, a 1929 Edison Scholar; aerospace industrialist; past president, Institute of Electrical and Electronics Engineers: The 1929 Edison Scholar competition, obviously, was one of the most exciting experiences of my life. It started with a formal examination and contest in Allegheny County followed by a similar contest in the State House of Pennsylvania at Harrisburg.

The week spent in West Orange as a guest of Thomas Edison was fantastic. It was an honor to meet Thomas Edison, Firestone, Henry Ford, Charles Lindbergh and Sam Stratton. Our interactions with Mr. Edison were quite limited. However, I had continued a close relationship with Sam Stratton until he died. It was through Dr. Stratton's influence that I chose to go to MIT under the fellowship provided by Thomas Edison.

I also had the pleasure of working for Theodore Edison, Thomas Edison's son, in the summer of 1933 and through him to learn more of his father's prodigious capabilities. In the basement of the factory in West Orange I found a large flywheel — a weapon conceived by Thomas Edison during World War I as a means of delivering munitions in trench warfare. Many years later I applied the same principles to the launching of the American Buzz Bomb.

Livingston L. Biddle, Jr., chairman, National Endowment for the Arts: Edison's main concern was communication, it seems to me: perhaps that is the best single word to describe the theme of his life's work. From his earliest fame as the fastest telegraph key operator in town through his inventions such as the transmitter, microphone, vote counter, his efforts were geared toward bringing people closer together by making it easier for us to see, hear and understand each other.

It was inevitable that the Arts should benefit from his gifts; and while there is no way to even begin to estimate the impact that Edison's inventions have had on the arts, some of the things that come to my mind are the following:

The poet or painter working late into the night,
Under clear and true unflickering light;
The student conductor hearing again and again
A piece of Bach, Mozart or Beethoven,
Through the aid of a hidden microphone;
Drama, adventure, dance and song fantasy,
As near as a neighborhood movie.
But the best thing of Edison
That could ever be said,
Is that we still call Inspiration
A bulb lighting up in a thinker's head.

Lutrelle F. Parker, Acting Commissioner of Patents and Trademarks: Thomas Alva Edison was a firm believer in a strong patent system. His patent for a phonograph, filed in August 1877, was issued by the United States Patent Office within two months after application, without a single reference!

Jack K. Horton, ICCL member; chairman, Southern California Edison Company: There is scarcely a major problem confronting our economy that wouldn't be solved by important new "big ideas" . . . ideas that would build productive, job-creating new industries. We need new Edisons. Lots of them.

Whatever degree of encouragement we give potential Edisons depends entirely on the kind of society we want. If we want to create new jobs, increase our productivity and continue to improve the quality of life, we need inventiveness.

Willard Frank Libby, Nobel Laureate for conceiving the "atomic time clock": Throughout my life I have admired Edison's great achievements. Shedding light was his way. Trained as a pure scientist, I learned early that there is much invention in Science. As one of the architects of nuclear power (AEC, 1954-59) I thank the Edison Electric Institute for the assistance they gave the AEC in the area of education. This was in the spirit of Edison.

As a young man I met Edison's close friend Luther Burbank, the great botanist, who lived in Santa Rose, California, near my home in Sebastopol. The influence they had was enormous for me.

David C. Scott, ICCL member; chairman of the board, chief executive officer, and president, Allis-Chalmers Corporation: Our company is delighted to honor Edison and, to have the excellent opportunity to tell people everywhere the vital role that electricity should and can play to enhance their living conditions in the future.

Gerard Piel, publisher, Scientific American: The Centennial of Light is a good occasion to recall how modern — 20th Century — a man Thomas A. Edison was. He was not the trial-and-error tinker of legend; he was a powerfully imaginative analytical thinker who knew how to ask good questions. Edison did not invent a mere light bulb; he put together the essentials of the system of generating and distributing electricity that lights and powers the world today. His still greater invention is the industrial laboratory. At Menlo Park he organized what is called today an interdisciplinary research team to bring the full spectrum of contemporary scientific understanding to bear on the answers to his practical questions.

Edward J. Williams, ICCL member; chairman, president and chief executive officer, McGraw-Edison Company: Because Thomas Edison was one of our company's founders, the Centennial of Light has particular meaning for McGraw-Edison. The legacy of Edison's name epitomizes technology and its benefits to mankind. We at McGraw-Edison believe that the Centennial of Light provides a fitting tribute to the accomplishments of this great man.

J. Philip Richey, president, The American Society of Inventors: My vision of Thomas Alva Edison started in 1929 with an imaginative science instructor in an 8th grade class of a "Washington Junior High School" in a small Illinois city, Rock Island. He formed the "Edison Science Club," and gave to it the charge of all collaborative inquiry since Socrates: "Why?"

To that charge, of course, Edison inevitably added: "How?" And no matter the time, the effort, the level of persistence, or the breach with tradition, his genius prevailed beyond any others of his time or ours. And, as Teacher Bergman had it when he installed me 50 years ago as "President" of that small club, the product of invention went one more step. It *worked*, and it went to *market*.

For although Edison is apparently remembered as a persistent mechanic, a tireless explorer, and a genius with the recombinant idea, his true insights lay across all of these to enable him, with a discipline only now fully illuminated, to translate an intellectual property into a material contribution to society. . . and, thence, into wealth.

There may never be again a time for such a person with Edison's web of magnificence to make change and leave it so firmly anchored. But it is to the chance that another one in two hundred million may yet arise that we dedicate tomorrow's challenge and our aim for today's youth.

S.L. Fawcett, president, Battelle Memorial Institute: First, Edison saw science as a way to help people live healthier and happier lives, and all of his efforts were directed toward practical use of science. Nothing is nearer or dearer to us at Battelle than this credo.

Second, it is apparent that, very early, Edison became convinced that by building a team of experts to work with him that he could extend his own usefulness and make research more productive and beneficial. In effect, he "invented" the forerunner of the modern industrial research center with its diversity of facilities and talents. We, at Battelle, have a special regard to this achievement of Edison, and we commend the International Committee for the Centennial of Light for its efforts to create renewed interest in technical innovation and to inspire young people.

William McCollam, Jr,. president, Edison Electric Institute: In this centennial year of Edison's electric light, our nation is moving through a period of transition in energy. As we seek to reduce reliance on uncertain and diminishing supplies of petroleum, we are looking ahead to the development of virtually unlimited and renewable energy sources. Getting from here to there, however, with a minimum of hazard to our civilization, will require the increased use of electricity generated by coal and nuclear power to smooth the way.

Edison began the electrical revolution a century ago with the invention of the incandescent light and the building of an innovative electric power supply system. His achievements did more than bring illumination—they lifted physical burdens as old as history from the backs of people throughout the world. And, in keeping with Edison's original vision, electricity will be increasingly relied upon to enhance the human condition—in ways which Edison himself could hardly have imagined.

Edison was a man dedicated to practical accomplishments which would be of clear benefit to people. He had well-defined goals and he worked with determination to achieve them. Without a doubt, he was an outstanding example of American ingenuity and enterprise.

As we work toward policies and undertake actions to reach that future of energy abundance and human well-being which we know is attainable, we would do well to reflect on those characteristics of Edison which contributed so much to the progress of the last hundred years. To realize the prospects of the next hundred years will require the nation as a whole to demonstrate the constructive traits which Edison exemplified.

Gov. Fob Jones, Alabama: It is my pleasure to commend the Thomas Alva Edison Foundation for its efforts to pull our nation out of its "innovation recession."

Our country has seen such an explosion in technological advances in recent years that we sometimes feel that there is nothing left to invent. The Centennial of Light will do much in fostering a new spirit of invention and innovation which will enable us to meet the challenges that will face us in the closing decades of the twentieth century.

Amadou-Mahtar M'Bow, Director-General, UNESCO: With only three months of formal education, the young Thomas Alva Edison proved — through dint of persevering curiosity, endless experimentation and unswerving effort — that an unschooled genius is capable of high technical achievement and worldwide recognition. Of the almost eleven-hundred patents Edison garnered, it is probably the incandescent light (electric light bulb) which is most familiar in the remotest rural villages of the world.

The non-polluting, safe electric light has not only helped us see better in twilight or the dark, it has facilitated the acquisition of new knowledge through literacy and extensive reading, the widespread communication of the visual and dramatic arts, and the betterment of social contact between individuals, families, sporting and other affinity groups, entire communities, and even nations.

These are among the ideals to which the United Nations Educational, Scientific and Cultural Organization is dedicated and I take this occasion, in the year 1979, to salute the memory of Thomas Edison and the contributions he made to civilization. I commend especially the International Committee of the Centennial of Light for its initiative in helping mark a centenary of such universal significance.

Gov. Edmund G. Brown, Jr., California: Edison's invention—one of the most significant in history—has led to untold improvements in our standard of living. As we reflect upon this accomplishment, let us also emulate the spirit of Edison. There could be no more fitting tribute to Edison than for our nation to rededicate itself to the technological, innovative spirit for which he stood.

Gov. William P. Clements, Jr., Texas: Thomas Alva Edison contributed as much to the birth of modern American science as any man. His inventive genius has greatly improved the welfare of Americans and other people of the world; has created industries upon which the soundness of the American economy rests, and has contributed significantly to America's present technological pre-eminence in the world today.

The motivation of more young Americans toward careers in science, inspired by the example of Edison, has never been more urgent.

Courtland D. Perkins, president, National Academy of Engineering: There is increasing concern that the remarkable progress of the past will not be matched in the future because the essential Edisonian-type of enthusiastic inventiveness might be be able to flourish—or even survive—in our present highly-charged way of life fraught with economic, social and environmental issues.

One might ask what would Thomas Edison do if he were confronted with this situation today. No one, of course, can respond with certainty; but if I were to hazard a guess, I would have to be confident that a man with Thomas Edison's record of prolific achievements in the face of many adversities would meet the challenge willingly and successfully.

The National Academy of Engineering is working even now to try to assess the true nature and extent of the problems of creativity and productivity. Perhaps the broad national attention that is now being given to all levels to this problem will provide the spark needed to achieve great technological progress in the next century.

Jack Dempsey, boxing champion: Thomas Edison—a great companion to all in that he allowed man to actually see how he was living. The light within Edison was pretty strong and even though I never knew him I respected the Great Man—who like myself also worked damned hard with his best tools, his hands and his instincts.

Abraham Ribicoff, U.S. Senator from Connecticut: The Nation will always be in the debt of Thomas Edison, for his work and vision helped to make the United States achieve preeminence in technical competence. It is of particular importance today that we recognize the genius, discipline, and courage of an inventor and innovator like Edison because we very much need people of his caliber.

I wish to commend the people who compose the International Committee of the Centennial of Light. It is through efforts such as this one that we may rekindle an Edison-like enthusiasm for discovery of ways to improve the quality of life throughout the world.

Whitfield J. Bell, Jr., executive director, American Philosophical Society: Thomas Edison was held up to us in school as the embodiment of traditional Yankee ingenuity, as one of those who had contributed vastly to the comforts, conveniency, and efficiency of life. The mere list of his inventions — the electric light, the phonograph, the motion picture camera, and Portland cement (to mention no others) — made him seem a mythic and legendary figure; and yet, he was living and working at Menlo Park not very far away.

I remember as a youngster hearing a radio broadcast of ceremonies marking the 50th anniversary of the invention of the electric light in 1929. Hearing those exercises, knowing that the invention had been made in the lifetime of many still living gave one a sense of history and of the speed with which it can happen. Edison for me was thus not only an inventor of unparalleled ingenuity but a sort of benchmark of modern history which remotely and peripherally I could almost touch.

Daniel J. Boorstin, now the Librarian of Congress, has graciously granted permission for us to use his copyrighted material below, extracted from his book, *The Americans: The Democratic Experience* (Random House, 1973).

Inventions, according to Edison, were not strokes of luck by minds exploring at random; they were the products of purpose. And Edison believed that the right men, properly organized, could turn out inventions just as regularly and as intentionally as a factory could turn out any other product . . .

By an "invention" Edison meant a social, or more precisely, a marketable product. And this gave his very idea of "invention" a distinctively American cast. Edison was a *social* inventor. . . .

Edison's invention factory was emphatically a *factory*, where he intended to turn invention into large-scale business, meeting the needs of the market. Although off in a village, it was not intended to be a research institute or a place of withdrawal for scientific speculation. Just as stove factories were bringing together workmen who could make the different parts of a stove, so Edison intended to assemble men who would be able to make the different parts of an invention. He had his own toolmakers, and before long he added a mathematical physicist. Edison believed that the best way to invent was to collect a sufficient number of competent men with the best possible equipment, and then organize them for the dogged pursuit of their object. The businesslike Edison actually put little store by "inspiration" or the idea of inventive "genius." He was, as his biographer observed, "a genius who held that there was no such thing as a genius." . . .

For Edison himself, inventing would be a passion. He sometimes complained that every young applicant for a job at Menlo Park wanted to know only how much was the pay and how long were the hours. And he would tell them, "Well, we don't pay anything, and we work all the time!" But many young men shared his passion and joined him on the job . . .

Edison's grasp of the problem of electric lighting proved to be as far as possible from the intuitions of simple "Yankee ingenuity" or of the naively inventive gadgeteer. For him this was a *social* problem. Which meant, of course, a problem of the market . . .

On November 1, 1879, Edison applied for a patent on a carbon filament lamp. At the time he designed a parallel circuit whose thousands of outlets could be independently turned on or off. And he developed an improved dynamo. Edison thus was not simply "inventing" a new incandescent bulb, he was organizing a new electric lighting system for whole communities.

Like the pioneer organizers of the fur-traders' rendezvous a half-century before or like the blazers of cattle trails, he, too, was thinking of times and places and people . . .

With no intention of hiding his light under a bushel, Edison announced that Menlo Park would be illuminated by the magical new lighting on New Year's Eve, 1880. In the week between Christmas and New Year's, crowds flocked to Menlo Park to see Edison's miraculous "light of the future." Forty incandescent bulbs, all lit from a single dynamo, amazed the visitors. What impressed them was not merely the lights themselves, but even more the fact that they could instantly be turned on and off . . .

BALTIMORE, MD.

Oct. 20-21—Baltimore celebrates its 250th anniversary and Centennial of Light at opening of new convention center. Baltimore Gas and Electric has arranged an Edison exhibit at center. Contact: Ed Kane, Baltimore Gas and Electric (301/234-7346).

BOSTON, MASS.

Oct. 15-Nov. 9—Boston Edison sponsors EPRI electrical technology exhibit at Prudential Center. Thereafter exhibit will circulate to nine BE service centers. Contact: Priscilla Korell (617/424-2000 . . . Oct. 16-17—In **Cambridge**, the Center for Policy Alternatives (MIT School of Engineering) conducts symposium on "Technology, Innovation and Industrial Development," and releases new study, "Technological Innovation for a Dynamic Economy" (Pergamon Press). Contact: Lee Johnson (617/253-1000) . . . Nov. 10-Jan. 27—Smithsonian Institution traveling exhibit ("Edison and the Electrical Age: 100 Years") will open at Museum of Science in Cambridge. Joint sponsors: Boston Edison, New England Electric System and New England Electric and Gas Association.

CINCINNATI, OHIO

Oct. 1-23—Centennial exhibit ("Thomas Alva Edison: Ohio's Electrical Genius") displayed in headquarters lobby of Cincinnati Gas & Electric. Contact: Dave Altemuehle (513/632-2638).

CLEVELAND, OHIO

Oct. 21—Cleveland Orchestra concert salutes Centennial of Light, sponsored by General Electric's Lighting Business Group. Severance Hall program also features closed-circuit TV coverage of reenactment of Edison's invention of light bulb as it takes place live in Greenfield Village, Dearborn, Mich. Contact: B.E. Schaller (216/266-2205).

DETROIT, MICH.

Oct. 15—Detroit Edison opens Edison and electricity exhibit at Detroit Public Library. Contact: Janice Moore (313/237-8807).

LOS ANGELES, CALIF.

On-going-Southern California Edison mobile-trailer exhibit of photographs and artifacts of Edison and the development of electrical power tours schools and community groups in utility's service territory. Contact: Bob Krauch (213/572-2245).

MILWAUKEE, WIS.

Oct. 12—Wisconsin Electric Power Company holds open house at East Wells Street Power Plant. Contact: Jon Lungren, Wisconsin Electric Power (414/227-2345).

MINNEAPOLIS, MINN.

October-May—"Small Change Theater," sponsored by Northern States Power Company, travels to 360 schools in Minnesota, North Dakota and South Dakota, to perform two 20-minute skits on Thomas Edison and electrical safety. Skits performed by two actors for students in kindergarten through 6th grade. Contact: Carl Lehman (612/330-7681).



NEW YORK CITY

Oct. 20 (Raindate: Oct. 21)—From 8 to 11PM a dozen buildings visible on lower Manhattan waterfront will be lighted in variety of triangular and diamond shapes as creative project dedicated to Centennial of Light. Buildings include Chase Manhattan Bank, American Express, Manufacturers Hanover Trust, Chemical Bank, 77 and 160 Water Street buildings, Citibank, Wall Street Plaza, and 127 and 130 John Street buildings. Cooperating organizations include Public Arts Countil, New York Chamber of Commerce and Industry, The Downtown-Lower Manhattan Association, Inc., and Con Edison. Contact: Bill Rudman (212/873-0706). . . . Oct. 20-22—Empire State Building lights up numeral "100" between the 72nd and 81st floors on east, west and north sides. During preceding week, spire lighted in blue and gold, symbolizing early light bulbs and golden age of light. Contact: Colleen MacDonnell, Howard J. Rubenstein Associates, Inc. (212/489-6900) . . . On-going-Consolidated Edison features Centennial in new Energy Museum located in its East 14th Street headquarters and in self-guided walking tour of Edison's First District in Lower Manhattan, site of historic Pearl Street generating station. Free guides entitled "Where They Lit up New York" available from Con Ed. Contact: Irv Levine (212/460-4113).

ROCHESTER, N.Y.

Sept. 22-Oct. 23—Smithsonian Institution traveling exhibit ("Edison and the Electrical Age: 100 Years") displayed at Rochester Museum & Science Center. Co-sponsor is Rochester Gas & Electric. Contact: Dick Sullivan or Ken Laubacher (716/546-2700).

ST. LOUIS, MO.

On-going—Union Electric's Museum of Science exhibit—a Centennial adaptation of a Monsanto prototype exhibit—circulates in St. Louis school system. Contact: Patricia Barrett (314/621-3222).

WASHINGTON, D.C.

Oct. 9—Smithsonian Institution hosts press preview of major exhibit ("Edison: Lighting a Revolution") in National Museum of History and Technology. Open to the public Oct. 10. Contact: Geraldine Sanderson (202/381-6586) . . . Oct. 20-21—Edison Energy Fair on Exhibit at U.S. Patent & Trademark Office (Department of Commerce), Crystal City, Arlington, Va. National Council of Patent Law Associations is co-sponsor. National Inventors Hall of Fame (whose first member was Edison) is on same premises. Lutrelle F. Parker, acting Commissioner Patents & Trademarks, formally opens exhibit at 4:30 p.m. on Oct. 20. Contact: Oscar Mastin (703/557-3428).

WICHITA, KANSAS

Oct. 28-29—Kansas Gas & Electric, Kansas City Power & Light Company, Thomas Alva Edison Foundation and other organizations sponsor symposium ("Searching for Tomorrow's Edison") at Broadview Hotel. Students and teachers of science and journalism invited from approximately 1,000 schools statewide. Demonstrations, speeches and field trips to area industries planned to encourage (and prepare) young people to pursue science/communications careers. Contact: Bob Rives, Kansas Gas & Electric (316/261-6455).

Edison's Boston Connection

Boston Edison has sent out a special Centennial of Light press kit to area media highlighting Boston events, the touring Smithsonian exhibit and the complete set of the John T. Cunningham Edison stories being distributed to newspapers throughout the country ***(see pp. 4-5).***

In addition, Priscilla Korell, the utility's events coordinator, has written a special feature story detailing Edison's Boston career and the long connection Edison had with the city and especially with the Massachusetts Institute of Technology. It is reprinted here with permission.

Thomas A. Edison made one of his most important decisions in Boston. He resolved to give up a career in telegraphy and became an inventor.

It all began in the winter of 1867-68. He arrived in the city hungry and dirty and sought a job in the Boston Western Union office. Edison wrote later in understatement: "My appearance caused much mirth."

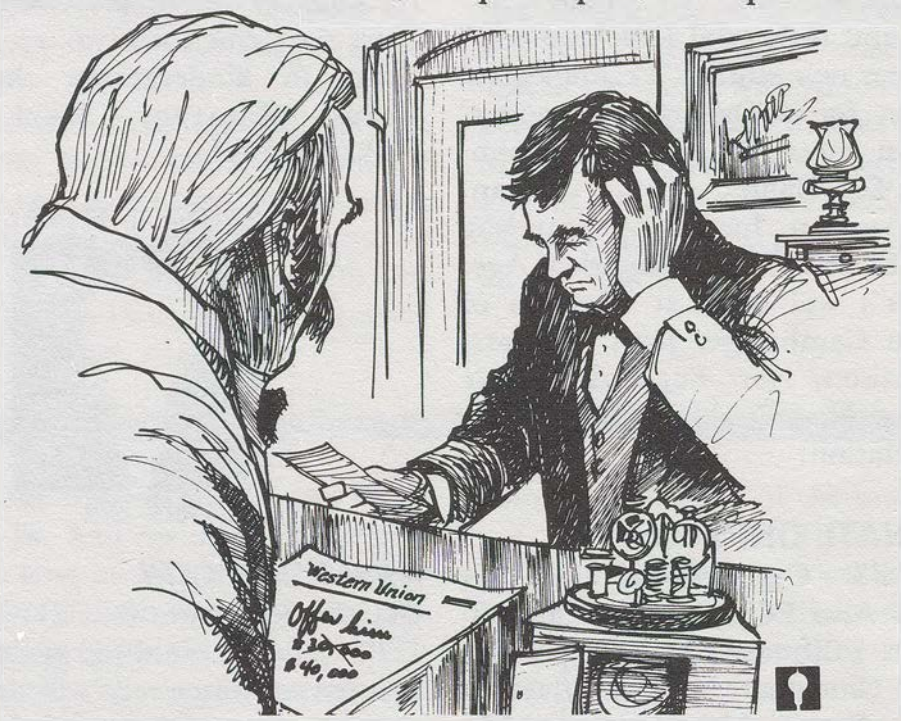
The Boston crows stifled laughter when rustic-looking Thomas Edison sat to the key his first night on the job. They had arranged for the fastest operator in New York to send messages while Edison received. The sender tried every trick; Edison kept up. Recognizing that he was supposed to be the butt of a joke, Tom went along until there was a pause in the incoming messages. Then he signaled: "Say, young man, charge off and send with the other foot." He had passed the test.

Hall bedrooms were cheap

Twenty-one-year-old Edison lived at 4 Bulfinch Street, Bowdoin Square in a hall bedroom, "because hall bedrooms were cheap." Whereas he had been something of an oddball in telegraph offices in the midwest, in Boston he was one of many young telegraph operators devoted to invention. The city, at the time, was the crucible of electrical research. The shop of Charles Williams on Court Street displayed in its window a working platinum incandescent lamp designed by Moses Farmer, the nation's foremost electrical engineer.

By April 1869 Edison had perfected a duplex apparatus for sending two messages simultaneously over the same telegraph wire. Though others had preceded him, an article in the "Telegrapher" focused on Edison's duplex. With some others, he established a small workshop, purchasing equipment at Williams' shop. He lived frugally, spending most of his $120 monthly salary on chemicals, equipment and books—among them Michael Faraday's works.

In an article in the Scientific American Edison came across the formula for nitroglycerin "Unable to resist," biographer Robert Conot relates, "he soon had a jar prepared. To test the solution, he let a couple of drops fall to the floor. They went off like the opening rounds of Bunker Hill." (The rest, it is reported, he capped in a container and gently lowered into a sewer in the center of the city!)



Gold ticker system

Edison with some other telegraphers established a gold ticker system in Boston. From an office in the city's gold exchange, he clambered over roof tops stringing private telegraph wires. The city, it seems, did not regulate the stringing of wires and property owners didn't seem to care that little by little the business district was beginning to look like a giant spiderweb.

Edison's first patent—number 90646—was taken out in Boston October 13, 1868. It was a device ahead of its time—an electrographic vote recorder. The Massachusetts legislature, in its wisdom, didn't take kindly to an invention which took the pizazz out of last-minute lobbying.

So Edison left Boston for New York. He quit his job here, placing this boyishly boastful advertisement in an issue of the "Telegrapher":

> T.A. Edison has resigned his situation in the Western Union office, Boston, and will devote his time to bringing out his inventions.

The next dozen years were prolific ones for Thomas Edison. In quick succession after the electric vote recorder, he invented the electric stock ticker (1869); the motograph and duplex, quadruplex, sextuplex and multiplex telegraph systems (1872); the "electric pen" and manual duplicating press (1847). He discovered "etheric force," electrical waves in free space—the foundation of wireless telegraphy or radio (1875); he invented the mimeograph (1877) and the microtasimeter, a device indicating minute heat variations by electrical means (1878).

1879

The incandescent electric light, after many unsuccessful attempts, came in 1879. "The day was October 21," Edison wrote. "We sat and looked and the lamp continued to burn and the longer it burned the more fascinated we were. None of us could go to bed. It lasted about 45 hours."

While Edison continued to have friends and business associates in Boston, his stay of longest duration after abandoning the youthful profession of

telegrapher was probably in the summer of 1885. He spent a fortnight in Winthrop at "Woodside Villa," the seaside summer home of Ezra Gilliland. It is the only time Edison kept a diary—one designed to be read aloud and shared with the other guests at the rambling Victorian cottage.

He was back again February 20, 1886—four days before his second marriage. On that date Thomas Edison personally regulated the flow of current from Boston's first generating station, in an old stable at the corner of Haymarket Place and Bumstead Court, to the Bijou Theater on Washington Street, first electric customer in Boston.

MIT

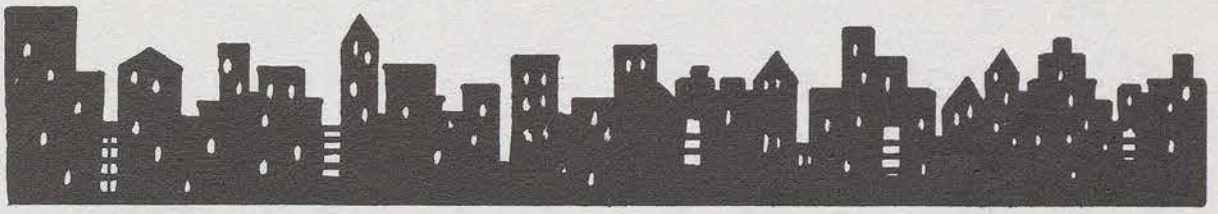
Edison reportedly had a warm spot in his heart for the Massachusetts Institute of Technology. The affection stems from the testimony given in 1899 by Professor Charles Crosse in Edison's behalf at one of the many patent trials establishing and dating his use of the carbon filament in the incandescent light.

Two of Edison's sons, Charles and Theodore, attended M.I.T. Charles, in the class of 1913, started his career at Boston Edison Company (November 13, 1912 - July 2, 1913). He went on to become secretary of the navy and governor of New Jersey. Theodore, a member of the class of 1923, was the founder and president of Calibron Products, Inc., a research and development firm in New Jersey. The youngest of Edison's six children, he is still living.

Longtime Boston Edison president Charles L. Edgar was a protege and close associate of Thomas Edison and the personal interest the inventor took in this company stems from their half century of association.

On the 50th anniversary of the incandescent light in 1929 Edison came to Boston and was honored in two separate appearances amidst a week-long commemoration. The Boston Chamber of Commerce and the Associated Industries of Massachussets hosted the occasions and the theaters took a prominent part in the celebration, honoring the first application of electric lighting in the city.

In 1932, the year after Thomas Alva Edison's death, the City of Boston erected a plaque in Bowdoin Square, the site of Edison's residence.



A "Sculpture of Light" for Manhattan

The lower Manhattan skyline will be lighted up by a "sculpture of light" Oct. 20 to commemorate the Centennial of Edison's invention of incandescent light. A rain date of Oct. 21 is scheduled.

From 8 to 11 p.m., a dozen buildings visible on the lower Manhattan waterfront will glow in a variety of triangular and diamond shapes created by artist Jim Pelletier of New York City. He calls his project "Night/Light."

The lights will be framed by a search light at each end of the 12 buildings.

Pelletier says he conceived of the idea of "Night/Light" after completing a similar light sculpture for the U.S. Bicentennial in 1976. That earned him a commendation from then President Gerald R. Ford.

Buildings in the project include the Chase Manhattan Bank, American Express, Manufacturers Hanover Trust, Chemical Bank, 77 and 160 Water Street, Citibank, Wall Street Plaza, and 127 and 130 John Street.

The 28-year-old artist, who studied with the Art Students League in New York, says, "By organizing light, you force people to experience it in a wider periphery than they are accustomed to." He considers the work to be a "monumental concept." It's based on almost a year of research. He had to compile a blueprint for each building, then work with corporation heads and building owners willing to participate.

Pelletier says he often deals with as many as 1,000 variables in a building, noting he is limited by each building's light potential.

"Night/Light" received funding, promotion and organizational assistance from the New York Public Arts Council, the Chamber of Commerce and Industry, the Downtown-Lower Manhattan Association Inc., Con Edison and the International Committee for the Centennial of Light.

The artist noted that the cost of electricity and labor does not exceed $100 per building.

To Pelletier, "Night/Light" is a "quiet peace, a meditation over three hours on the meaning of Edison's achievement."

Kansas students note Edison achievements

More than 1,000 outstanding Kansas high school students interested in science will participate in a Centennial of Light symposium in Wichita Oct. 28-29. Its theme is "Invention . . . Innovation . . . Information . . . Rekindling the Genius of Edison."

In addition, many teachers, industry leaders, and media representatives will attend the program, which is the major event in Kansas commemorating the 100th anniversary of Edison's invention of light bulb.

Cosponsors include the Kansas Association of Teachers of Science, the Greater Wichita Area Teachers of Science Association, Kansas Press Women Inc., Wichita Press Women Inc., the Wichita Area Chamber of Commerce, and the Thomas Alva Edison Foundation.

With support from Kansas City Power & Light Company, Kansas Gas and Electric Co. of Wichita is coordinating the program. Details are available from Robert L. Rives (316) 261-6455 or Donna Dilsaver (316) 261-6258.

Featured on the two-day program will be Sara Miller, Business Week energy correspondent in Washington, D.C.; Dr. Hubert N. Alyea, professor of chemistry at Princeton; and Dr. LeLand Keller, biology professor at Pittsburg State University in Kansas.

"We hope to bring into focus for future journalists the importance of technology in media production and their responsibility to maintain accuracy," Dilsaver said.

Industry, foundations and individuals have contributed over $5,000 to provide the scholarships to qualified students.

Edison boarding house restored

The Butchertown, Ky., home where Thomas Edison lived as a 19-year-old telegrapher has been restored and is scheduled to open Oct. 21, the 100th anniversary of his light bulb invention.

The Louisville-area house was restored by the Edison House Corporation, said Jim Segrist, Butchertown planner.

Restoration of the one-story brick house as it was when Edison lived there began about three years ago. He lived in the house from 1865-1866 during the period when he roamed the Midwest as a "fast reader" in the telegraphy field.

Painted a buff color with gray trim, the house has a standing red tin roof and chimney pots. Half of the structure will serve as an Edison museum and the rest will be used as the Butchertown City Hall, Segrist explained.

Community development funds, private contributions and a donation from the General Electric Co. offices in Louisville defrayed the $80,000 restoration cost. Heavy volunteer activity helped keep costs at a minimum, Segrist said.

The Thomas Edison Butchertown House will be open to the public weekdays from 9 a.m. to 5 p.m., and by appointment.

Hawaiian Electric highlights Centennial at annual Energy Education Program

Hawaiian Electric Co. featured a Centennial of Light theme as it hosted over 275 science, social studies, industrial arts and home ecomonics teachers at its annual Energy Education Program at the Sheraton Waikiki Hotel in Honolulu Sept. 15.



This year's programs also included workshops and lectures on microwave ovens, organizing for consumers, and heat pumps. Carl Williams, president and chief executive officer of Hawaiian Electric, spoke on "Utilizing Alternate Energy Sources in the Future."

HEscreened two films it now offers to schools - "The Endless Search," a film review of Edison's accomplishments and technology's future, and a special "Centennial of Light" film produced by Corning Glass Works.

Centennial Ice Capades set for major cities

The 40th Annual Ice Capades pays tribute to Thomas Alva Edison in a sparkling finale "Salute to the Centennial of Light."

The lavish production, featuring a 60-member cast, is the biggest and most brilliantly illuminated ice show ever staged, according to Richard Palmer, Ice Capades president.

Performances have been scheduled in the cities listed below. In many areas utilities will sponsor employee nights.

New Haven, Conn., Memorial Coliseum, Oct. 3 - 7
Springfield, Mass., Civic Center, Oct. 9 - 14
Providence, R.I., Civic Center, Oct. 17 - 28
Buffalo, N.Y., Memorial Auditorium, Oct. 30 - Nov. 4
Toronto, Ont., Maple Leaf Gardens, Nov. 6 - 11
Montreal, Que., The Forum, Nov. 13 - 19
Ottawa, Ont., Civic Centre, Nov. 21 - 25
Cincinnati, Ohio, Riverfront Coliseum, Nov. 27 - Dec. 2
Atlanta, Ga., The Omni, Dec. 5 - 9
Boston, Mass., The Boston Garden, Dec. 26 - Jan. 6

The extravaganza will run through 1980. Its further schedule will be announced in December.

CENTENNIAL OF LIGHT 1879 1979

TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson
Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Lynn Elder, Sharon Testa

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

Edison-Centennial

CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

NOVEMBER 1979 VOLUME 2 NUMBER 11

REENACTMENT OF LIGHT INVENTION LEADS OCT. 21 EDISON CELEBRATIONS AROUND THE WORLD

On Sunday, Oct. 21, 1979, and for several days preceding it, ceremonies, dinners, television shows and other events commemorated the 100th anniversary of Thomas Alva Edison's invention of the first practical incandescent light bulb.

The centerpiece of the Centennial of Light observances was a step-by-step reenactment of the invention of the light bulb 100 years before, with Madeleine Edison Sloane assuming the role of her great-grandfather. She lighted a bulb in his Menlo Park laboratory, now located in Greenfield Village in Dearborn, Mich. Edison himself had successfully created his invention there in 1879 and 50 years later personally reenacted the event during Light's Golden Jubilee.

In New York City, a "light sculpture" involving a dozen skyscrapers near Battery Park conveyed the beauty of night lighting, and the Empire State Building lit up the number "100" to celebrate the event. West Orange, N.J., held a festive parade in honor of its famous "son." Special ceremonies were held in Washington, D.C.; Edison, N.J.; Florida, Wisconsin, and Ohio. These and other events surrounding the anniversary date are reviewed in greater detail in pictures and words in other sections of this issue. In each, the theme of the Centennial is featured.

With Ms. Sloane at the Dearborn reenactment was William Clay Ford, chairman of the Edison Institute (Greenfield Village and Henry Ford Museum). He is the grandson of its founder, auto tycoon Henry Ford. Curator Robert Koolakian assumed the role of Francis Jehl, who was at Edison's side in 1879 and 1929.



From right: Madeleine Edison Sloane, William Clay Ford and Robert Koolakian reenacted Thomas Edison's invention of the incandescent lamp on Oct. 21 in Edison's Menlo Park laboratory at the Edison Institute.

As the lamp replica began to glow in the laboratory, candlelight gave way to electric-lighted chandeliers in Greenfield Village's Lovett Hall, where more than 300 distinguished dinner guests from science, industry, government, academia and the arts watched the reenactment over closed-circuit television.

The reenactment took place following the formal cocktail reception and dinner hosted by Mr. Ford and Walker Cisler, chairman of the Thomas Alva Edison Foundation, sponsor of the Centennial of Light. James Stewart, the noted actor, emceed the program.

After the reenactment, the president of the National Academy of Sciences, Dr. Philip Handler, criticized the foes of technological advancement at home and abroad, in an after-dinner address, and warned that there is "a serious possibility" that American society will fall if more research is not encouraged.

Smithsonian invents game to accompany Edison exhibits



The Smithsonian Institution Traveling Exhibition Services (SITES) has produced an Edison-based board game, "Bright Ideas." Players, ages 12 and older, get to discover the wide range of Edison's inventions and the impact of electricity on their lives.

The concept of the game derives from Edison's statement, "Genius is 1% inspiration and 99% perspiration," and follows the play patterns of "Monopoly." The game includes a brightly colored 20-inch-square board, "genius" and "patent" cards, instructions, a time-line of Edison's life and inventions, and markers. The markers are a fuse, a plug, a switch and a meter. The winner is the first player to reach the filament of the light bulb in the center of the board.

SITES developed the game to accompany the permanent Edison exhibit at its National Museum of History and Technology and the four Edison exhibits that are currently touring the country.

"Bright Ideas" is available at the Smithsonian's museum shops and at museums participating in the tour of the traveling exhibitions. The unit price is $3.50. The game may also be purchased by mail by sending a check for $3.50 plus 35¢ handling and shipping to "Bright Ideas," Smithsonian Institution, Washington, D.C. 20560.

Japanese Centennial Mission tours U.S.



A 25-member Japanese Edison Light Mission toured the U.S. in October to honor the memory of Edison and the Centennial. Edison is highly revered in Japan. The mission toured Edison historic sites as well as numerous electric companies. Above, Consolidated Edison of New York's assistant vice president for research and development, Dr. Robert A. Bell, discusses the research and development section of the utility's Energy Museum, located in its headquarters building.

Chemist views Edison as "a scientific General Patton"

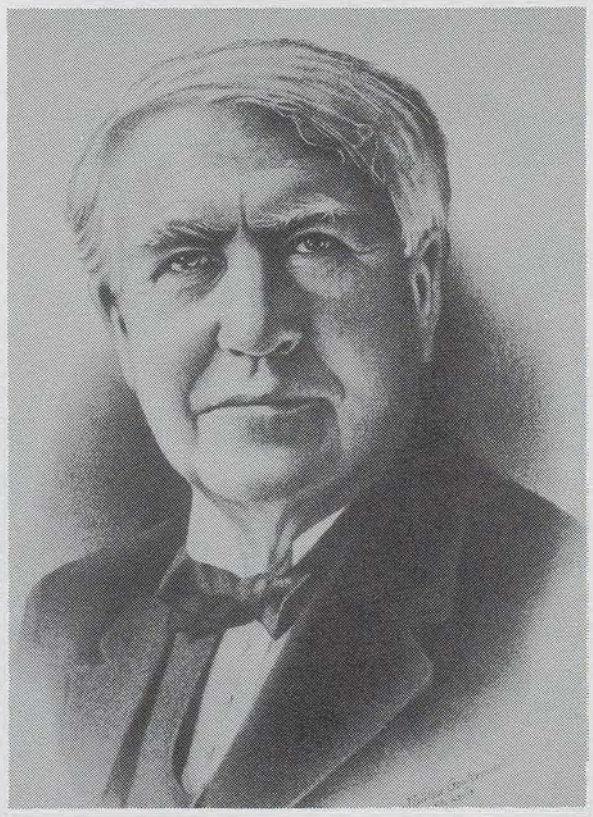
For a comprehensive Sunday feature on Thomas Alva Edison and his invention of the incandescent lamp, the Akron Beacon-Journal turned to a local Edison buff — G. Allan Stahl, a polymer research chemist at B.F. Goodrich.

Stahl's interest in Edison began when he was growing up in Dickinson, Texas, near Houston. (He later earned three degrees in chemistry from the University of Houston.)

"When I was 12," he recalls, "I actually tried to change my name to Thomas, until my mother informed me Thomas definitely was not my name."

Edison himself was "my first point of scientific interest, not the light bulb," he says. "He did a lot of very interesting science, but I'd have to say two things attracted me to him: his humble beginnings and his aggressive, devil-may-care attitude. Nothing was sacred to him — he'd go after any problem. Sort of a scientific General Patton."

Edison Sketch Available



This vintage charcoal sketch of Thomas Alva Edison is available for certificates, awards and other commemorative uses from its copyright owner, Gonterman & Associates, Inc., P.O. Box 8072, St. Louis, MO 63156.

"Night/Light" uses Manhattan skyline as artistic medium



"Night/Light," the awesome light sculpture created by James Pelletier, became the premiere event in New York City's Centennial celebration. A dozen lower-Manhattan skyscrapers were emblazoned between 8 p.m. and 11 p.m. on October 20, the eve of the 100th anniversary of Edison's perfection of the incandescent light. The striking geometric patterns of light among the skyscrapers reflected on the surface of the East River, creating a spectacular urban vista.

Edison honored at Patent and Trademark Office

Thomas A. Edison was honored on the 100th anniversary of the light bulb with ceremonies and an exhibit at the U.S. Patent and Trademark Office in Arlington, Va., Saturday, Oct. 20. The program was sponsored by the U.S. Patent and Trademark Office and the National Council of Patent Law Associations.

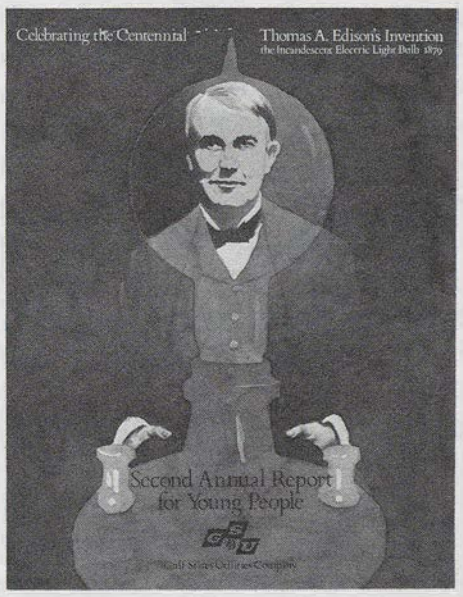
Principal speaker was Howard T. Markey, chief judge of the U.S. Court of Customs and Patent Appeals. (His remarks are excerpted elsewhere in this issue.) Lutrelle F. Parker, acting Commissioner of Patents and Trademarks, served as master of ceremonies.

This year's inductees into the National Inventors Hall of Fame — Jay W. Forrester of Massachusetts Institute of Technology and Charles J. Plank and Edward J. Rosinski, both of Mobil Oil Corporation — received monetary Common Wealth Awards of Distinguished Service, established under the will of the late Ralph Hayes, a Coca-Cola executive.

Forrester received $18,250 in recognition of his pioneering work in early digital computer developments. Plank and Rosinski shared a joint award of $18,250 for their work in the field of applied catalysts. Between them, Plank and Rosinski hold 159 U.S. patents.

The G.E. Edison Energy Fair was on display, along with patent memorabilia compiled by Patent Office personnel.

Gulf States Utilities issues Second Annual Report for Young People



Gulf States Utilities of Beaumont, Texas, features a Centennial of Light theme in its 1979 report designed for elementary school children. The report is distributed to schools and other organizations throughout its service area, which covers southeast Texas and south central Louisiana.

New Jersey celebrates its electrical heritage

New Jersey commemorated the 100th anniversary of its adopted son's most famous invention with a series of parades, symposia, grand balls, special exhibits and touring shows, with major events concentrated around Oct. 21.

Kicking off the New Jersey celebration, Oct. 19, Robert I. Smith, chairman of the International Committee for the Centennial of Light and chairman of New Jersey's Public Service Electric and Gas Co., delivered a Centennial address at Newark's Military Park. Earlier, PSE&G's headquarters building was illuminated with the red, white, and blue Centennial emblem.

Among activities were the Thomas A. Edison Science and Technology Symposium at the Hotel Robert Treat in Newark Oct. 19 and 20...an "Edison and His World" tribute at the Newark Public Library, open through Nov. 28...a West Orange Centennial of Light Celebration Oct. 21...a "Century of Light Ball" Oct. 19 in Edison Township...and a "Transportation — New Jersey's Lifeline" exhibit at the Newark Library.

The Edison Science and Technology Commemorative Symposium was sponsored by the New Jersey Historical Commission. Presentations ranged from "The Spirits of the Age: Science and Technology in 19th Century America" to "Edison's Impact on Contemporary Industry." Scientists, engineers, college professors and authors from across the country participated.

On Oct. 19, business, industry, education and government leaders attended the Century of Light Ball in Edison, N.J., sponsored by the Thomas A. Edison Centennial Commission and the Edison Chamber of Commerce. On Oct. 28, Governor Brendan Byrne joined a special ceremony at the Edison Memorial Tower and was Grand Marshal of the festive Edison Centennial Parade. Edison Township was formerly known as Menlo Park, site of the inventor's original laboratory.



PSE & G decorated its headquarters with the Centennial symbol Oct. 19. Inset shows PSE & G's Chairman Robert I. Smith at ceremonies.

Part of the Newark Library exhibit features material on innovations in transportation created in New Jersey, such as the traffic signal, low-level highway lighting, synchronized lighting, the "clover leaf," "jug handle," and median divider. Included in the exhibit are photographs of Edison's journey on the first electric-powered Erie-Lackawanna train out of Hoboken in 1930.

In West Orange, where Edison spent the last 45 years of his life, ceremonies and celebrations were held Oct. 21, beginning with the dedication of the new "Edison Memorial Wing" at the public library.

The same day, the Rotary Club's dedication of the Thomas Edison Plaza was followed by a parade which included 50 antique cars. The parade concluded with a Victorian family picnic at the town's Eagle Rock reservation.

CENTENNIAL SALUTED ON BROADWAY

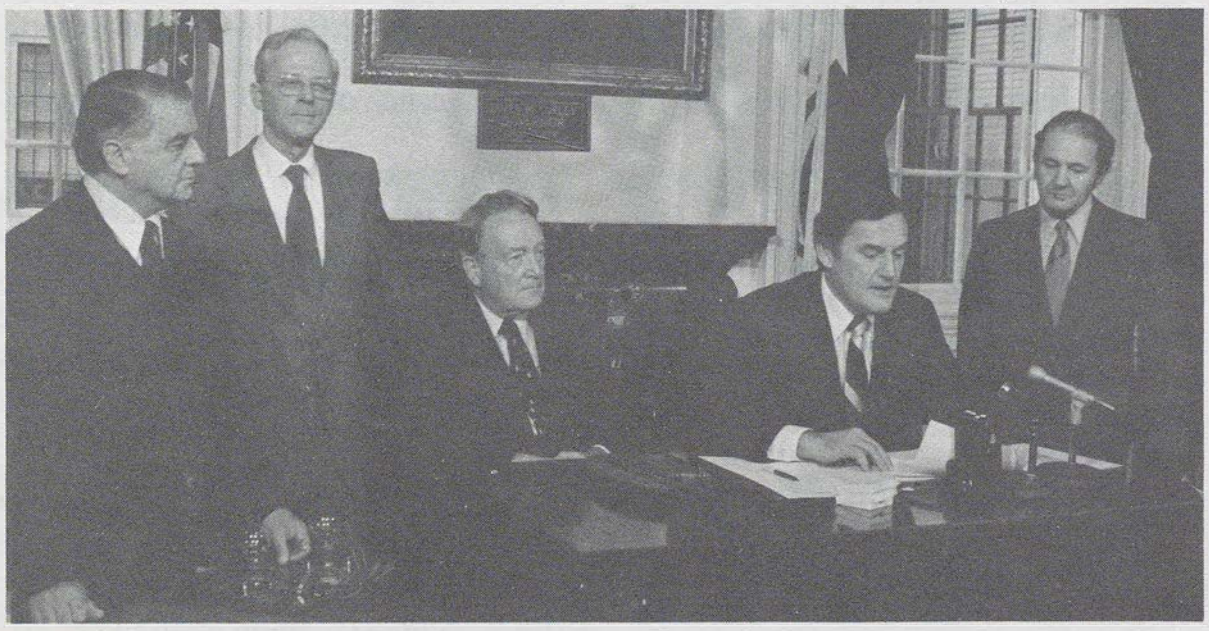


In New York City's Times Square, this 20- by 40-foot "Spectacolor" billboard flashed a red-white-blue Centennial message three times an hour during the last two weeks in October. Computerized animation of the 8,000-light sign located on the old Times Building brought the Edison salute to a potential 1.5 million viewers daily.



Leanne Tanouye, a 1979 Edison Centennial Scholar from Hawaii and now a freshman at cornell University, discusses the place of technology in today's world with veteran newsman Eric Sevareid on the upcoming television documentary on Edison and his legacy.

Massachusetts declares Centennial Day



While famed scientists Edwin Land and Jay Forrester, Boston Edison President Thomas J. Galligan, center, and Mico Kaufman, sculptor of the Edison Centennial Medallion, look on, Massachusetts Governor Edward J. King reads his proclamation designating October 21 as Centennial of Light Day.

Dr. Land, known for the Polaroid camera, and Dr. Forrester, an MIT professor renowned for his work in microcomputers, received Centennial medallions from Galligan, who was representing the International Centennial of Light Committee. Both scientists, like Edison, are members of the National Inventors Hall of Fame.

Governor King noted that Edison's organization of research and development "took the mystique out of invention and set the groundwork for the type of work we do so well in Massachusetts — high technology industry." He also noted that there is a "tie binding together invention, research, a climate for innovation and an opportunity for the investment community to stand behind the inventor and add practically to his dream." King described Land and Forrester as "successors to Thomas Edison and an inspiration to future Edisons."

EDISON TV SPECIAL: "LEGACY OF GENIUS" SCHEDULED DECEMBER 29 OVER PBS STATIONS

A one-hour television documentary entitled "Legacy of Genius: The Story of Thomas Alva Edison" will be aired over most Public Broadcasting System (PBS) stations in the U.S. on Saturday, December 29, at 8 p.m.

Host and narrator is veteran news commentator Eric Sevareid, who opens the show by stating: "If Thomas Alva Edison had invented nothing else, he would still be remembered. For the light bulb was only one of the ways Tom Edison transformed America — and the world."

Prominent leaders from industry, labor, science and academia will be interviewed during various program segments on Edison's life and how he invented the light bulb, the development of the electrical distribution system in the U.S., Edison's legacy of invention, the "innovation recession," the need for more science education, and the search for new Edisons to improve today's quality of life.

The film will take viewers to the original Menlo Park laboratory now located in Greenfield Village in Dearborn, Mich.; to the Edison laboratories and his home "Glenmont" in West Orange, N.J.; and to the "Edison: Lighting a Revolution" exhibit which opened this fall at the Smithsonian Institution. Historical film clips, photographs and artifacts will also be used throughout the documentary.

"Legacy of Genius," produced by South Carolina Educational Television, is being made possible by grants from Amerada Hess Corporation and Hoffmann-La Roche, Inc., with additional funding from the Thomas Alva Edison Foundation.

More Perspectives on Thomas Alva Edison and his Centennial of Light (1879 - 1979)

Norman Hackerman, chairman, National Science Board: One of the things I have always found interesting about Edison was his appreciation of the importance of basic science for later technological use.

Thomas Alva Edison's invention of the electric light bulb and construction of a practical lighting system depended on accumulated knowledge in a variety of areas. These ranged from the fundamentals of electricity and its generation, to an understanding of atmospheric pressure and the creation of an adequate vacuum on a production basis, rather than by use of a handcranked pump.

How and when the accumulated knowledge resulting from basic research will be utilized by an Edison is usually not predictable. Indeed, the rate of scientific advance itself is not smooth. It goes by fits and starts. There is also not a direct relationship between the discovery of a bit of knowledge and its utilization. This is in part because there is a displacement in time and in part because, in some major but quite unanticipated way, one bit of science may be found useful only in conjunction with some other very specific bits.

But this we do know: almost every major invention or technological use depends in some definite way on the development of greater understanding in the area preceding the invention or the application. That understanding may have originated in some research done 100 or more years before, or, more likely now, 20 or 30 years prior to the useful event.

There is considerable concern today about whether this country is losing its capacity to innovate. I am optimistic. As long as we have a well of basic knowledge being continuously replenished by science, and inventors such as Mr. Edison to utilize that knowledge, we need not fear a decrease in our innovative capacity.

David Rockefeller, board chairman, Chase Manhattan Bank: Our society is greatly indebted to Thomas Alva Edison's many achievements. Much of today's technology could not exist without the electrical power system he worked to develop and set in place.

Let's hope the commemoration of Mr. Edison's great invention will provide inspiration for "future Edisons."

We must help to strengthen the competitive private enterprise system and thereby encourage the fruits of today's inquiring minds. The best tribute to the genius behind the age of electricity is to foster an environment where innovation can thrive and lead to greater technological advancement and productivity for the benefit of our nation and all mankind.

Donald Breidt, executive director, Society of Motion Picture and Television Engineers: One of the great seminal inventors of our time, Thomas Alva Edison was made an Honorary Member of the Society of Motion Picture and Television Engineers in 1927, and his name is on the Society's Honor Roll.

Cleveland Orchestra conducts concert



A near-capacity crowd jams the refreshment areas prior to the concert. In the middle of the photo, surrounded by banquet tables, is one of the first dynamos made by Thomas Edison. Now owned by the University of Missouri, it had been sent to GE's Erie operations for complete refurbishing before a dedication ceremony at the university.

In the June 1932 issue of the *Journal of the Society of Motion Picture Engineers,* Terry Ramsaye wrote: "It is of incidental interest in this day of the talking picture to recall that it also was Edison's exploration of the properties of the double-filament incandescent lamp that led to the radio valve of today with all its sound-picture functions and applications...

"Edison was concerned with what he deemed the great important work of the world and the mechanisms with which to do it...He brought processes and methods across the dim borderland from the dreamers and the experimental laboratories into the factories."

Warren Rex Isom, past president, Audio Engineering Society; retired chief engineer of RCA Records, whose engineering and inventions helped introduce usage of film in TV broadcasting in both black-and-white and color, magnetic tape in space vehicles, thermoelectrics in submarines, and eight-track magnetic cartridges and cassettes:

A book report to my high school freshman English class in 1922 on the story of the boyhood of Edison had a great impact upon the direction of my professional career.

Thomas Alva Edison, the world's greatest inventor; Winston Leonard Spencer Churchill, the world's greatest author, and Michelangelo Buonerroti, the world's greatest artist — all had commonalities. Edison lived at the beginning of the transition of society from dependence upon manpower to dependence upon horsepower. Churchill lived during an age of world-wide turmoil. Michelangelo lived during the re-awakening of man to his own natural talents and to the beauty and majesty of his world. Their commonality was personal: the accomplishment of a prodigious amount of work. Edison saw genius as "one percent inspiration and ninety-nine percent perspiration." Paraphrased, this becomes, perhaps, "to have a brilliant idea shows a touch of genius; to relentlessly achieve a practical and useful result is true genius."

Another commonality was their opportunity to develop their motivating interest. One of Edison's greatest benefactors was the baggageman who gave him, as a thirteen-year-old newsboy, laboratory work space aboard the Grand Trunk commuter train between Port Huron and Detroit.

The paths of greatness which Edison and others of the past trod are closed to the youngsters of today. They cannot recapture the past. They are a part of the future. Tomorrow will have the transition from horsepower to "whatever"-power. It will also have its Edisons, Churchills, and Michel-angelos.

We cannot select the future geniuses and send them on their way. However, emulating the baggageman of the Grand Trunk Railroad, we can provide for the youngsters of today, particularly the most promising, unequalled opportunities for the development of their careers so that their latent, innate talents and creativities can flourish and so that great men of tomorrow will be in abundance.

Philip Handler, biochemist; president, National Academy of Sciences, from remarks at the Edison Institute, Dearborn, Mich., October 21, 1979: It would not be difficult to agree on a very small list of those whose legacy has dramatically altered the nature of our own lives: Shakespeare, Galileo, Newton, Darwin, Maxwell, Pasteur, Einstein, and only a few others among whom, most assuredly, we must count Thomas Alva Edison.

It would be folly for me to compete with the considerable literature that has attempted to convey the grand drama of his gift to humanity, even though, in my boyhood in a village in southern New Jersey, I lived through the transitions from kerosene lamp to fragile Welsbach gas mantle to electric light. Well do I recall the sense of freedom that came with our first electric lights when I was in third grade. It is in the joy of that memory that I join in saluting the memory of Mr. Edison.

As others have noted, Edison's greatest gift to us was "the invention of invention," the gathering and leadership of what we now recognize as the world's first industrial research laboratory, which served as prototype for those which, at General Electric, IBM, Bell Telephone, Du Pont, RCA, Hewlett-Packard, Eli Lilly, Westinghouse and all the rest, have, in our own time, offered the veritable cornucopia of technology that has totally transformed the nature of daily life.

The image of Edison that has come down to us was seriously distorted, suggesting a diligent but dreamy putterer who, by trial and error, repeatedly found success. And yet, in fact, collectively the staff of his laboratory was extremely well versed in all of the science that could have been brought to bear on the problems which they chose to address. That trend — the marriage of the most advanced science to the development of new technologies — continues to our time, indeed it is a primary characteristic of this era.

Surely I need not enumerate the fruits of that enterprise. We eat them, cook with them, wear them, watch them, listen to them, ride in them, play with them; they have made our daily lives secure, pain-free, and rich in experience in a manner undreamed of, even by Mr. Edison.

American science is still at the forefront of all disciplines and it is prodigiously productive — but patently we shall soon have to look to our laurels. As each year we devote an ever-decreasing fraction of our GNP to research while other nations continue to develop their capabilities, I can too easily imagine a scenario in which we congratulate ourselves on our current crop of Nobel Prizes for *yesterday's* research while science elsewhere overtakes and surpasses ours.

Creativity is easily smothered by the niggling red tape in which American research endeavor is now enmeshed. The need to attend to the problems created by regulation diverts the attention and the resources of a given firm from those more creative endeavors which might have stimulated innovation, increased productivity and profitability and thereby generated employment while reducing our negative balance of payments.

However unfair, public disillusionment with revelations of unpredicted but genuine negative impacts of science-based technology has eroded public support for science and technology. Some of our brightest young people now believe that the unanticipated consequences of technology have *already* injected the seeds of inevitable disaster into human affairs. They look askance upon the introduction of any new technology and are fearful, therefore, of further scientific advance.

What we must recognize is that, whereas the evaluation of risk is a genuine scientific question, the acceptability of a given level of risk remains a political, not a scientific question. And when scientists fail to

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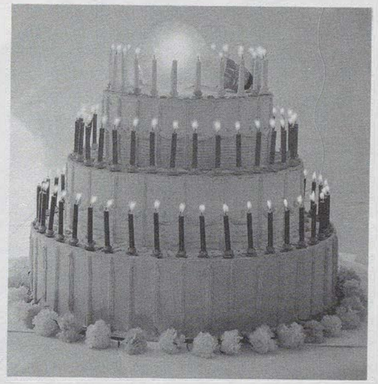
A birthday lamp for Edison's creation



This lamp — a simulated birthday cake "iced" in red, white and blue — was designed by Ingo Mauer, the innovative Munich-based lighting designer, as a personal tribute to Edison's achievement. "It's a bulb within a bulb," he said of the oversized fixture, which sits atop the candlelighted birthday cake. The lamp could also light a coffee table or just sit on the floor. A limited number of the European-made lamps are available at $115 each. Maurer says he has been "continuously fascinated with the light bulb...fragile, poetic, symbolic, yet technically developed and strong."

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recognize that boundary, unspoken ideological or political beliefs becloud seemingly scientific debate.

Science will retain its somewhat diminished place in public esteem only if we steadfastly admit the magnitude of our uncertainties and assert the need for further research. Scientists best serve public policy by living within the ethic of science, not that of politics; those who depart from the scientific ethic do disservice to the nation and to public esteem for science, and hence, to science itself. If the scientific community will not unfrock the charlatans, the public will not discern the difference and the nation and science will suffer.

For the last two centuries, (the challenge to our civilization) has been the scientific understanding of nature and the creation of an industrial society. For tomorrow, the challenge is to continue the latter tasks; to determine how mankind can live in harmony on this globe; to establish stable, permanent relationships to its finite shrinking resources as well as with infinite space; and to enable achievement of the individual potentials of human beings as we reduce the ravages of disease. To those ends we shall need all the science we can manage.

For myself, I share with Mr. Edison faith that science, which has revealed the most awesome and profound beauties we have yet beheld, is also the principal tool that our civilization has developed to mitigate the condition of man.

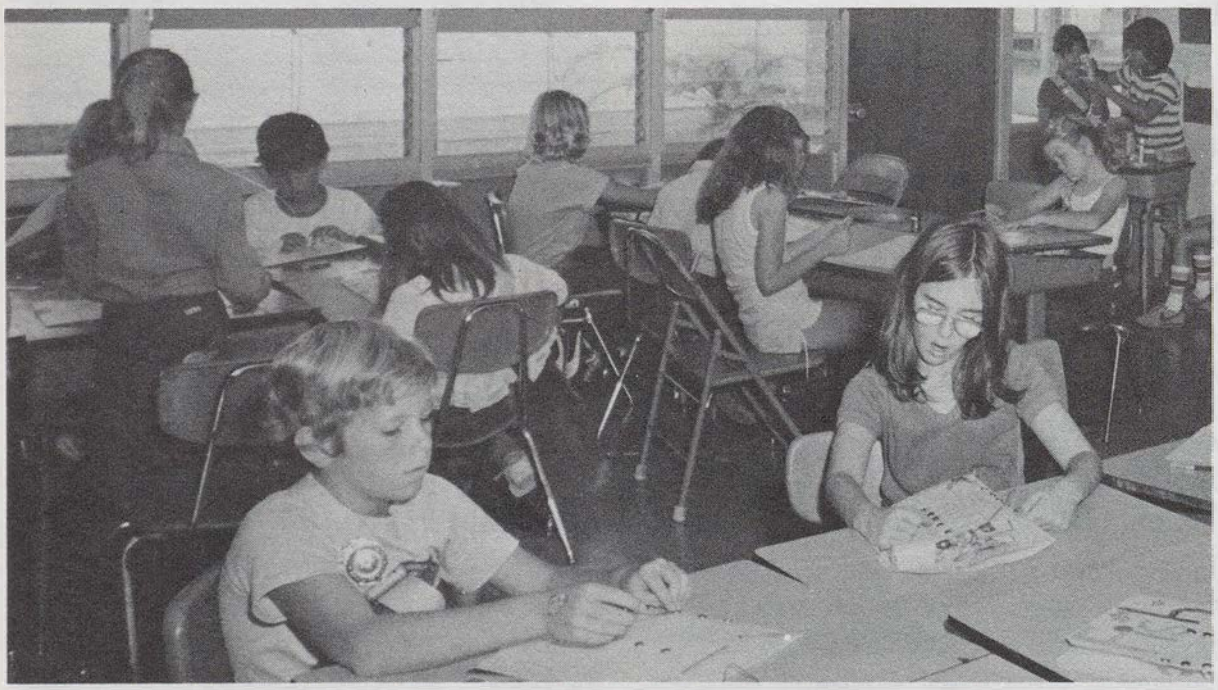
Glen T. Seaborg, Nobel Laureate in Chemistry: In paying tribute to Thomas Alva Edison, I would like to quote from an address that I made some years ago to a large gathering of young people interested in science. The occasion was an Annual Science Youth Day Dinner sponsored by the Thomas Alva Edison Foundation to commemorate Mr. Edison's birthday. On that occasion I said the following:

> ...Edison had a happy combination of the qualities that make a scientist and engineer...
>
> He had energy to work long, hard, and patiently, and to expect no success without effort.
>
> He had perseverance to keep trying — to overcome defeat and discouragement.
>
> He had vision to see the wonders of the future and to seek them out.
>
> He had faith that if one has the *will* to accomplish, he will find the *way* to accomplishment.
>
> If these great qualities of this great man inspire you, then you, too, can find success in one of his professions — as scientist or as engineer.



A reprint condensing the proceedings of last May's Edison Centennial Symposium was enclosed in a recent issue of Harper's Magazine. Additional copies of the entire proceedings may be obtained free by writing to: Symposium, EEI, 1111 19th Street, N.W., Washington, D.C. 20036.

Florida students perform Edison experiments



In Miami, science is a hands-on subject. Rose Kennedy's fifth grade students at Vineland Elementary School learn by doing with the help of "Century of Light" education kits and experiment booklets developed by the Thomas Alva Edison Foundation. The teaching tools were made available to area schools by Florida Power & Light Company as a part of its extensive Centennial of Light commemoration.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News is published by Reddy Communications Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George E. Shea
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Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Faye Karson, Marie Kenway

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

DECEMBER 1979 VOLUME 2 NUMBER 12

President Carter unveils program for stimulating industrial innovation

On Oct. 31, President Carter sent to the Congress his long-awaited message on industrial innovation initiatives. It was based on a domestic policy review, begun at his direction in April 1978, which saw the Administration consult with hundreds of groups and individuals from industry, labor, academia and public interest organizations.

In February 1979, representatives of the International Committee for the Centennial of Light met at the White House with Administration officials to discuss the policy review.

To the disappointment of many business leaders and economists, the President did not recommend any related tax code changes. Since "these changes should not be viewed in isolation from other aspects of our economy," he said, "I will therefore evaluate tax laws affecting innovation at the time I consider my fiscal policies for Fiscal Year 1981."

"While many Presidents have studied innovation," notes *National Journal* analyst Rochelle L. Stanfield, "Carter is the first to try to do something about it. The problem is one of style. After all the hoopla surrounding the policy's evolution, it's hard not to be disappointed by the program's reality."

She adds: "The proposals themselves are minimal: tinkering in a few federal problem areas and a mere $55 million in new spending for innovation...Carter's innovation program is anticlimactic."

Finding the President's prescriptions "modest but positive," *Science* publisher William D. Carey commented that "perhaps the clearest signal in the President's message is a recognition from Washington that the federal government plays a role in the process of industrial innovation (and) that alone goes far to justify the huge input of work which went into the Domestic Policy Review." Carey also heads the American Association for the Advancement of Science.

"One suspects that the caution reflected in the plan of action is not unrelated to the government's discomfiture in failing to write an effective prescription for inflation," Carey observed. "Although it hardly improves the near-term prospects for regenerating innovation in the national economy, it is credible as far as it goes. If the early skirmish prefigures an escalated campaign to come to grips with the questions, there will be no cause to complain."

Following are actions the President is setting into motion and a number of measures for which he seeks Congressional authority:

Enhancing the transfer of information. The National Technical Information Service (NTIS) will establish a new Center for the Utilization of Federal Technology to improve the transfer of knowledge from Federal laboratories and R&D centers and to inform industries of technological opportunities of which they might not otherwise be aware. The NTIS will add extensive foreign technical "intelligence" and translation to its present activities.

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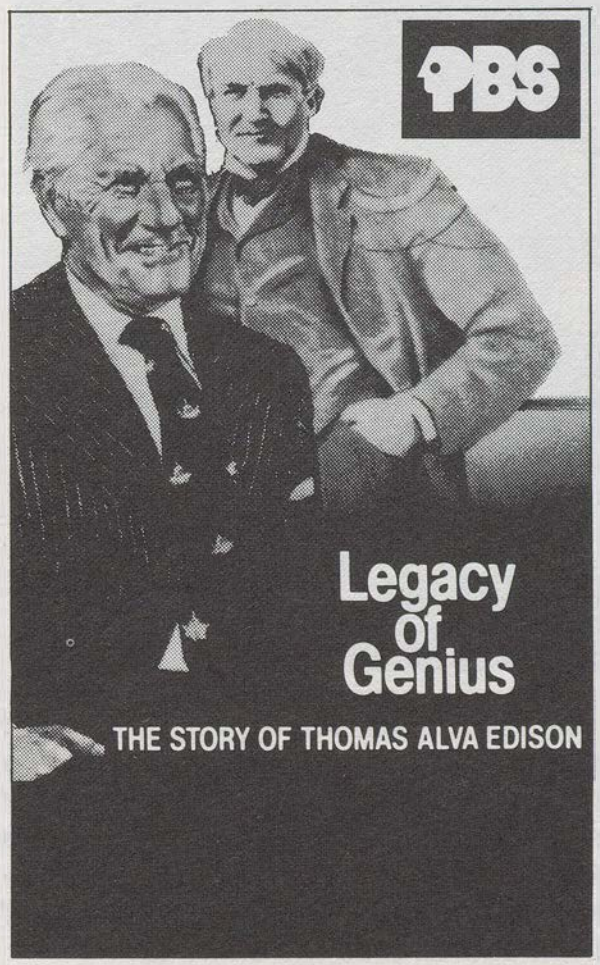


"Legacy of Genius: The Story of Thomas Alva Edison" will appear on most Public Broadcasting System stations on Saturday, December 29, at 8 p.m. However, viewers should check local listings since a number of stations have selected alternate dates and times during and after that week.

The one-hour telecast is hosted and narrated by Eric Sevareid, who interviews several guests in relating Edison's life and legacy of invention to the current "innovation recession," the need for more science education, and the search for new Edisons to improve today's quality of life.

Those interviewed include GE board chairman Reginald Jones; Charles Pillard, president of the International Brotherhood of Electrical Workers; Reese Jenkins, director, Edison Papers Project, Rutgers University; Dr. Bernard Finn, curator of electricity, Smithsonian Museum of History and Technology; and Dr. Philip Handler, president of the National Academy of Sciences.

"Legacy of Genius," produced by South Carolina Educational Television, is being made possible by grants from Amerada Hess Corp., Hoffmann-LaRoche, Inc., and the Thomas Alva Edison Foundation.

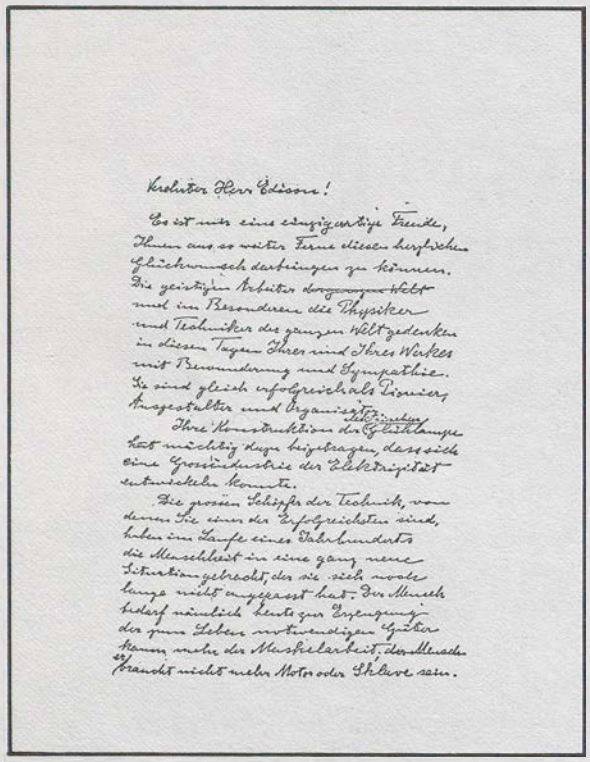
Einstein to Edison: Admiration and respect

On Oct. 21, 1929, one of the most intriguing congratulatory messages came from the most respected analytical genius of the century, Albert Einstein.

From Germany, Einstein, unable to make the voyage to Dearborn, Mich., for the opening of the Menlo Park Compound, broadcast these "birthday" wishes to Edison.

He toured the U.S. and stopped for a brief visit with Mr. Edison at "Glenmont," his home in Llewelyn Park, N.J.

We gratefully express our thanks to Einstein's executors for allowing us to reprint this historical document.

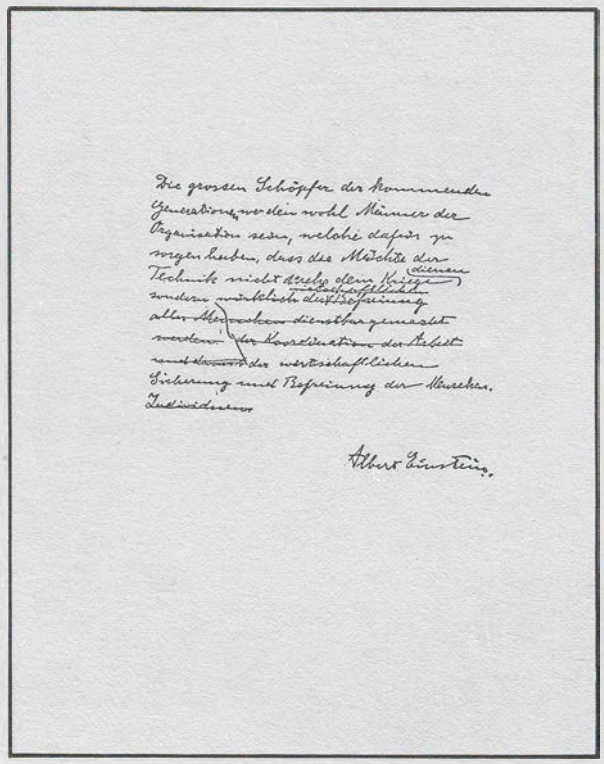


Verehrter Herr Edison!

Es ist mir eine einzigartige Freude, Ihnen aus so weiter Ferne diesen herzlichen Glückwunsch darbringen zu können. Die geistigen Arbeiter ~~der ganzen Welt~~ und im Besonderen die Physiker und Techniker der ganzen Welt gedenken in diesen Tagen Ihrer und Ihres Werkes mit Bewunderung und Sympathie. Sie sind gleich erfolgreich als Pionier, Ausgestalter und Organisator.

Ihre Konstruktion der Glühlampe hat mächtig dazu beigetragen, dass sich eine Grossindustrie der Elektrizität entwickeln konnte.

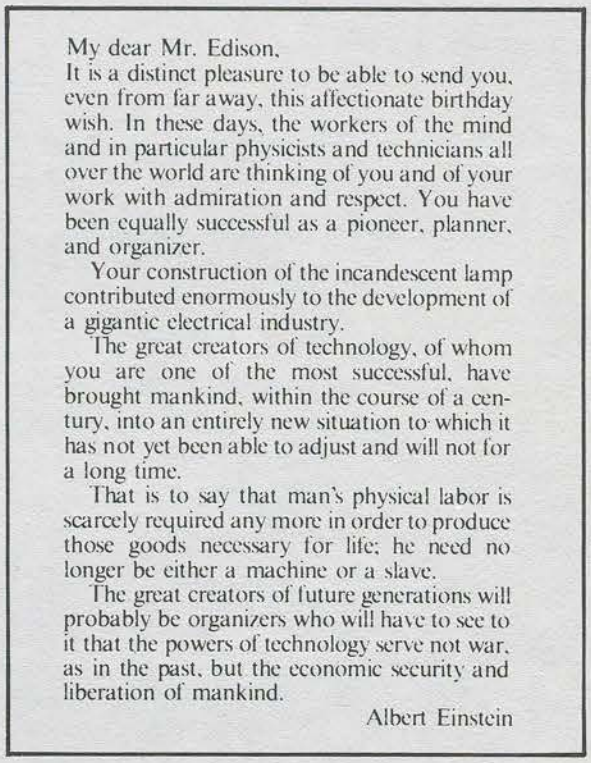
Die grossen Schöpfer der Technik, von denen Sie einer der Erfolgreichsten sind, haben im Laufe eines Jahrhunderts die Menschheit in eine ganz neue Situation gebracht, der sie sich noch lange nicht angepasst hat. Der Mensch bedarf nämlich heute zur Erzeugung der zum Leben notwendigen Güter kaum mehr der Muskelarbeit, der Mensch braucht nicht mehr Motor oder Sklave sein.



Die grossen Schöpfer der kommenden Generationen werden wohl Männer der Organisation sein, welche dafür zu sorgen haben, dass die Mächte der Technik nicht mehr dem Kriege dienen, sondern wirklich der Befreiung aller Menschen dienstbar gemacht werden, der Koordination der Arbeit und damit der wirtschaftlichen Sicherung und Befreiung der Menschen.

Individuen

Albert Einstein.



My dear Mr. Edison,

It is a distinct pleasure to be able to send you, even from far away, this affectionate birthday wish. In these days, the workers of the mind and in particular physicists and technicians all over the world are thinking of you and of your work with admiration and respect. You have been equally successful as a pioneer, planner, and organizer.

Your construction of the incandescent lamp contributed enormously to the development of a gigantic electrical industry.

The great creators of technology, of whom you are one of the most successful, have brought mankind, within the course of a century, into an entirely new situation to which it has not yet been able to adjust and will not for a long time.

That is to say that man's physical labor is scarcely required any more in order to produce those goods necessary for life; he need no longer be either a machine or a slave.

The great creators of future generations will probably be organizers who will have to see to it that the powers of technology serve not war, as in the past, but the economic security and liberation of mankind.

Albert Einstein

Football half-time salutes Centennial



Thanksgiving Day half-time festivities televised nationally during the Detroit Lions/Chicago Bears football game climaxed with this spectacular salute to the Centennial of Light. The 124-member Wayne State University Marching Band stepped lively to "You Light up My Life" as two electric cars (one vintage, one modern) rolled around Detroit's Silverdome. The program concluded with this band formation of "100" encircling the cars, one of which bears a replica of Edison's incandescent lamp. Detroit Edison coordinated the effort.

CIPSCO involves employees in Centennial

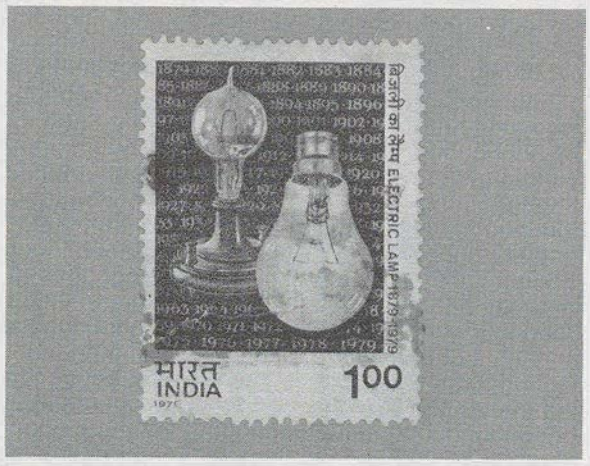
Thomas Edison and the Centennial of Light were key elements of employee information meetings this fall at Central Illinois Public Service Company.

At some 22 CIPSCO locations, "Update '79 series" presentations saluted Edison and summarized the utility's far-ranging Centennial of Light activities.

At a series kick-off meeting,CIPSCO President E.K. Bowen remarked: "The celebration of 100 years of electric light makes this a special year for all of us here...because there probably is no other group of people any more indebted to Thomas Edison...in a very real sense, we owe our livelihood to Edison and his determination to make electricity a practical servant for all."

As chairman of a two-county savings bond campaign, Bowen recently presented a replica of the original incandescent lamp to Steve Andersen, area manager of U.S. Savings Bonds Division of the Treasury Department, citing his perseverance and helpfulness, qualities which helped make Edison an achiever.

India issues Edison Centennial stamp



The Tata Electric Company of Bombay, India, organized functions celebrating the Centennial of Light on Oct. 21 during the national celebration of the Festival of Light, a Hindu religious holiday period.

According to G.P. Patil, engineer at the Tata Electric Company, "It was indeed a happy coincidence that Oct. 21 synchronized with the Diwali Festival which is celebrated with gaiety, fireworks and merrymaking for almost a week all over India."

Other centennial observances included issuance of an Edison stamp and various commemorative publications, exhibitions, and a film tribute to Edison.

Edison's light artist's delight

Minneapolis area artists reflected on the contributions of Thomas Edison recently by using electricity creatively to power various neon and fluorescent light, sound and air-kinetic devices.

Titled "Midwest Electric Art Remembers Edison: Honoring the 100th Anniversary of the Light Bulb," the special exhibition of creative electricity was presented at the Dolly Fiterman Gallery in Minneapolis and produced by Forecast Alternative Exhibitions, Nov. 28 through Dec. 20, 1979.

According to Jack Becker, project director for Forecast, "Electricity is all around — all the time — it's as natural as the earth, gravity, and apple pie. From the moment we're born we're subjected to switches, lights, mechanical sounds and that invisible surge of energy which lives behind wall sockets and light switches."

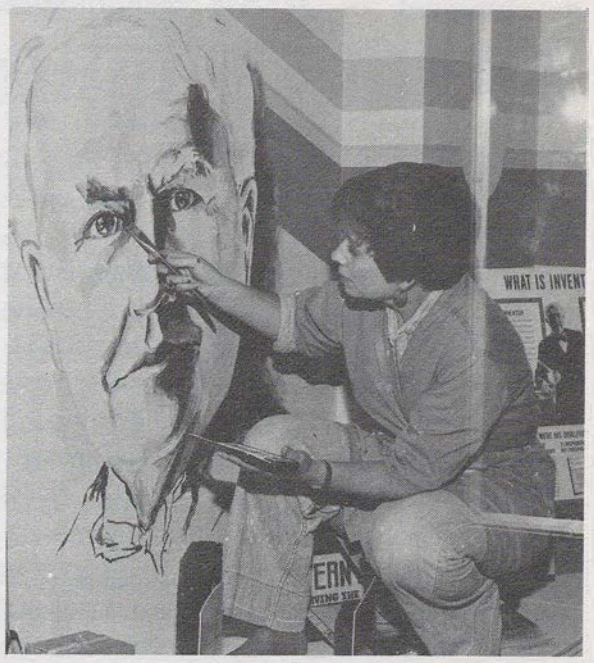
The five regional artists who participated were Norman Andersen, Brad Jirka, Katy Jones, Dave Linell, and by special invitation, Scott Coran. All use electricity in their work, which ranges from neon and fluorescent light sculptures, to electromechanical and magnetic sound devices. Many of them are "participatory" works activated by viewer-participants.

"Few individuals exploit the potential of (electricity), let alone consider it in their daily lives," Becker points out. "Yet it wasn't long after Franklin, Tesla and Edison that electricity changed the course of history. The incandescent light bulb was invented by Edison 100 years ago this year, and it is with honor, dignity and revelry that we are remembering him through art."



Public Service Electric and Gas Company of Newark, N.J., sold 9,500 replicas of the Edison lamp that it offered in a recent bill stuffer. PSE&G included with each a free copy of "Edison — the man who turned darkness into light," by James G. Cook, president of the Thomas Alva Edison Foundation. To date, more than 20,000 replicas have been sold nationally through the Foundation, sponsor of the Centennial.

Shreveport honors Edison Centennial



Edison-related artifacts and pictorials on loan from Southwestern Electric Power Company (SWEPCO) and private collections of its employees comprise a special Louisiana State display honoring the Centennial of Light.

In conjunction with the state exhibit building in Shreveport, SWEPCO opened the exhibit in October. The prominently featured Edison was painted by curator Jean Mason, who also designed the display.

Landon recalls observing Edison

Former Kansas Governor Alf M. Landon, the unsuccessful 1936 Republican Presidential candidate who later became one of the nation's most respected elder statesmen, remembers seeing Edison several days while they were both vacationing in upstate New York.

Now 92, Landon told Edison Centennial News: "My personal recollection of Mr. Edison is limited to one summer when he was spending a week or so with some of his relatives at a cottage on the assembly grounds of Lake Chautauqua, New York, known as the Edison college. I was spending some time in my father's cottage across the street as it were. So I saw Mr. Edison from that distance frequently on the porch, where he seemed completely relaxed as long as he did not have to talk to anyone."

continued from page 1

Increasing technical knowledge. Perceiving a Federal role in the development of generic technologies underlying various industrial sectors (e.g., automated assembly, corrosion prevention and control, etc.), the President will establish, at universities and other private sector sites, non-profit centers jointly financed by industry and government.

Strengthening the patent system. Since industry has been inhibited in using inventions arising from government-financed research, the President supports more uniform legislation providing exclusive licenses to contractors in specific fields of commercial use. An Office of Small Business Patent Counsel will be created within the Small Business Administration to provide necessary legal services, and similar facilities will be made available through the Office of Minority Business Enterprise. The President recommends a single court to deal with patent appeals. He will also submit legislation providing for voluntary reexamination of issued patents by the Patent and Trademark Office at the request of any person or the court.

Clarifying antitrust policy. The Department of Justice will be required to clarify its position on collaboration among firms in research and development.

Fostering the development of small innovative firms. The President would vastly expand the Small Business Innovation Research Program of the National Science Foundation. It provides funding to help small companies develop venture analyses for new projects and demonstrate technological feasibility.

To help small firms obtain start-up capital, two regional Corporations for Innovation Development will be launched through the Department of Commerce on a matching-funds basis.

Federal agencies contracting for R&D will be required to develop policies ensuring that small businesses are not unfairly excluded from contract competition.

Small business investment companies and private sector venture capital firms will be allowed to co-invest in small firms. ERISA pension funds will also be allowed to invest in small, innovative businesses.

Opening Federal procurement to innovations. Since — as the nation's largest single purchaser of goods and services — the Federal government can influence the rate at which innovative products enter the market, the Office of Federal Procurement Policy will remove barriers now inhibiting government purchase of such products.

Improving our regulatory system. Performance standards in environmental regulations will henceforth specify goals rather than means of achieving them. Environmental, health and safety regulatory agencies will prepare five-year forecasts of their priorities and concerns to give industry sufficient time to develop compliance technology. Agencies responsible for clearance of new products will be expected to expedite projects having a strong innovative impact or exceptional social benefit (e.g., new drugs).

Facilitating labor-management adjustment to technical change. A new Labor-Technology Forecasting System will provide advance warning of industrial changes requiring timely workforce adjustments.

Maintaining a supportive Federal climate. The National Productivity Council will monitor innovation and develop supportive policies. A Presidential award for technological innovation will be created to spotlight inventors and entrepreneurs. ❑



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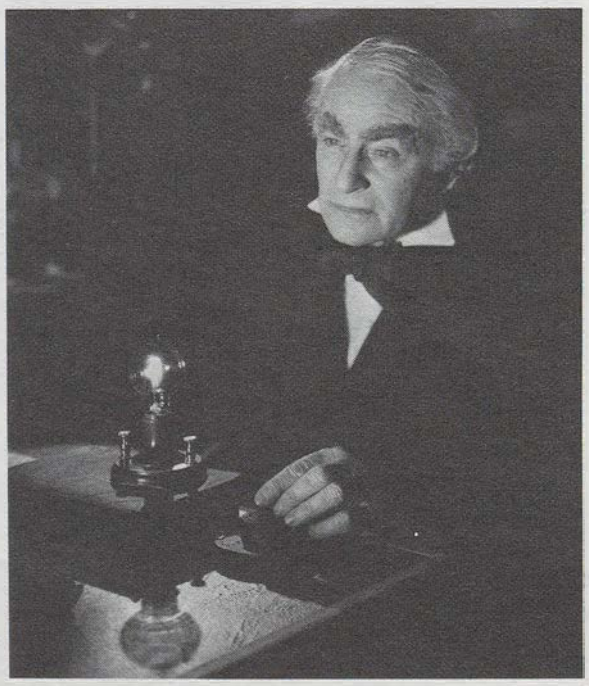
"It's German, made under license to the Japanese, by U.S. labor."

"Idea of Edison" televised over N.J. educational stations

New Jersey Public Television was treated this month to "The Idea of Edison," a one-man play written and adapted for television by Dr. Fred J. Abbate, public affairs specialist for Atlantic Electric Co. of Atlantic City.



Paul Tripp, the distinguished actor best known for TV's "Mr. I-magination," portrayed Thomas Edison on TV as he had in Dr. Abbate's play when it was toured locally by the utility during the Centennial year. The production was televised over four PBS stations on Dec. 9 and repeated on Dec. 23.

In both the state and television productions, Edison (in his seventies) reflects on the invention of the light bulb, education and experimentation, episodes from his life and his view of the future. "Edison talks to us in the present, although he is living in the past," Dr. Abbate explained.

In early 1980, Atlantic Electric will begin lending videocassettes of the show to teachers in its service territory.

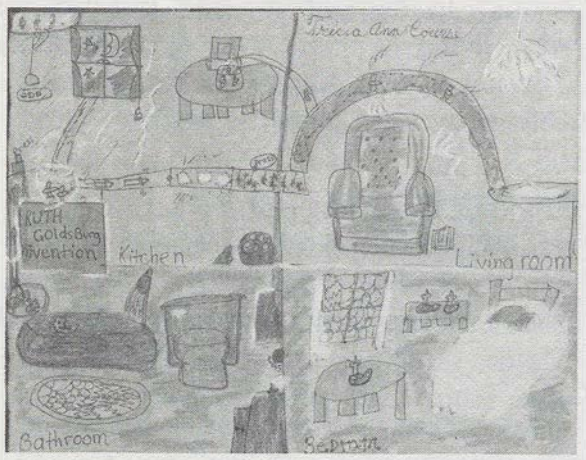
Meanwhile, the original playscript is available along with a set sketch and suggestion for production. It is largely based on Edison's notes and diaries.

For further information, contact Fred J. Abbate at Atlantic Electric, 1600 Pacific Ave., Atlantic City, N.J. 08404. ❑

Port Huron honors Centennial art

"Re-invent the Light Bulb" was the challenging theme of a student art contest sponsored this fall by the Museum of Arts and History, Port Huron, Mich.

Forty-nine students from elementary, intermediate and high school classes participated in the all-media art contest. Entries were judged on the basis of originality and craftmanship.



Museum director Stephen Williams said the contest's objective was "to encourage young people to follow in Edison's footsteps of experimentation and discovery by using their imagination and designing entirely new ways of making artificial light."

Prizes included commemorative T-shirts inscribed "Port Huron digs Edison," referring to the recent archeological excavations at the Edison boyhood homesite; biographies of Edison; and free tickets to a special showing of "Young Tom Edison." In addition, the Museum displayed the award-winning designs from Oct. 24 through Nov. 25.

Ohio girl wins national GE essay contest

Renae Lynn Ross, daughter of Mr. and Mrs. Richard E. Ross of Conneaut, Ohio, is the national winner of an essay contest sponsored by the General Electric Lighting Business Group.

As the national winner, Renae received $1,000, plus an all-expense-paid weekend trip this fall for herself and family to the famed Greenfield Village and Henry Ford Museum in Dearborn, Mich. The cash award is expected to go towards Renae's college expenses, according to the Ross family.

Edison Papers Project seeks new clues to inventor's genius

While much has been written about Edison and his scientific methods, much more remains to be uncovered in the vast number of documents Edison left behind upon his death in 1931.

At Rutgers University in New Jersey, Dr. Reese Jenkins, professor of history, heads a team of scholars assigned to collect, edit, and publish many of these letters, notebooks, reports, patents, and other materials.

His associates on The Edison Papers project include Dr. Leonard S. Reich, assistant professor in history of science and technology at Rutgers and the project's associate director; Dr. Thomas Jeffrey, American historian and microform editor; and Dr. Susan Schultz, historian of American science. Additional professional staff will be added over the coming year.

The project intends to publish about 7,000 carefully selected Edison-related documents in 15 volumes between 1983 and the end of the century. These will include documentary text along with introductory remarks and appropriate annotations to identify Edison's associates and his various undertakings, as well as to help readers understand Edison's problems, methods, and goals. Verbal documents will be integrated with photographs of sketches, illustrations and artifacts.

In addition, the Papers staff will make available microfilm copies of about 300 thousand pages of Edison materials for use by scholars concerned with American social, cultural, economic and business history, as well as the history of science and technology.

Publication of the Edison Papers should bring understanding and enjoyment to scholars and laymen alike, Jenkins says. A definite picture of Edison is not likely to emerge until early in the next century.

He adds: "The diversity of Edison's interests and capabilities and the quality of his work should become apparent, especially in material drawn from the thousands of laboratory notebooks. Filled with the rough sketches and drawings of Edison and his associates, the notebooks are perhaps comparable only to those of Leonardo Da Vinci."

Over two million pages of Edison materials are now housed in an underground vault, in the custody of the National Park Service, at Edison's West Orange laboratory. Nonetheless, the project staff is conducting a wide search outside for additional documents. "We know we have a tremendous number of papers already," Jenkins notes, "but we don't know if we have the most important ones."

Anyone who knows of the location of other Edison manuscripts is urged to write to The Papers of Thomas A. Edison, Rutgers University, New Brunswick, N.J. 08903.

Dutch seek best light sculpture as lasting Centennial monument

Organizers of "Light '79" in Eindhoven, The Netherlands, are coordinating an international contest to select the best design for a functional outdoor light sculpture to be erected as the city's lasting monument to the Edison's Centennial of Light.

Eindhoven, with a population of 200,000, is the home of the National University of Technology, sponsor of a yearlong Edison salute embracing more than 20 events (see Edison Centennial News, January 1979).

Artists from all over the world are invited to submit design entries. Construction is subject to the approval by the city council.

Each entry should briefly describe how the proposed design conforms to function and how the element of light fulfills the design, and provide an estimate of the costs of construction.

Deadline for entries is March 31, 1980. Entries will be exhibited from April 25, when winners cash awards are announced, through May 18. Requests for entry forms (including location sketches and photos) and further information should be directed to Mr. J.A.F. v.d. Eijnde, "Light '79," University of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands.

More perspectives on Edison and his Centennial of Light

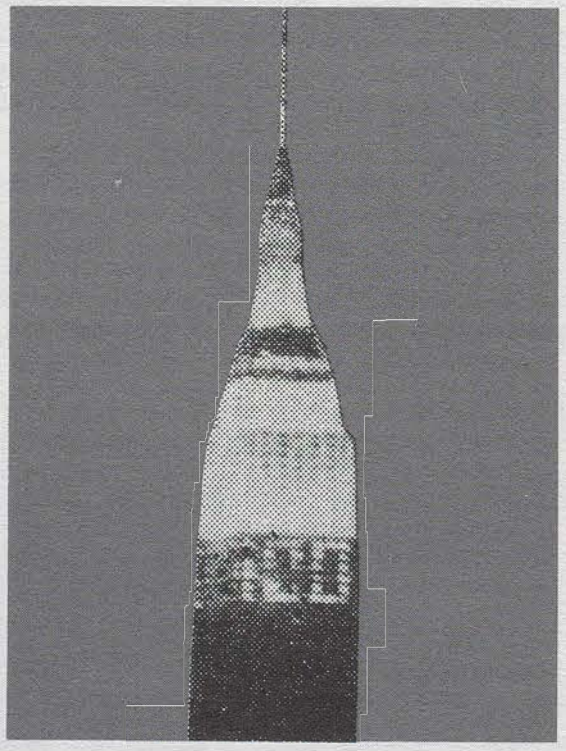
Carl Frey, executive director, Engineers Joint Council: At a banquet given in his honor, Thomas Edison provided a simple and yet tremendously forceful challenge for all Americans, but particularly for the engineering profession of the United States. He had that magnificent quality going beyond the nuts and bolts of technology to get at its ultimate link with the goals of humanity. His challenge is more true today than it was when he delivered it. It is a statement which the engineering community of the United States must take to heart if it considers the impact of its work on our culture:

> Earlier this evening I talked with two school children. Tomorrow the world will be theirs. It is a troubled world — full of doubt and uncertainty. You say we men of science have been helping it. Are those children and their children going to approve of what we have done? Or are they going to discover too late that science was trusted too much so that it has turned into a monster whose final triumph is man's own destruction? Some of us are beginning to feel that danger, but it can be avoided.
>
> I once had two dynamos. They needed regulating. It was a problem of balance and adjustment. And I feel that the confusion in the world today presents much the same problem. The dynamo of man's God-given ingenuity is running away with the dynamo of his equally God-given humanity. I am too old now to do much more than to say, "Put those dynamos in balance. Make them work in harmony as the great Designer intended they should. It can be done. What man's mind can conceive, man's character can control. Man must learn that, and then we needn't be afraid of tomorrow and man will go forward toward more light."

Ellsworth Bunker, U.S. Ambassador; retired business executive: Thomas A. Edison was, of course, one of the great inventive geniuses of our age. When I was born the change-over from gas to electric light was still under way. What a fantastic change Edison's inventions have brought to America and to the world at large in the intervening years. In serving in other parts of the world I have noted what a tremendous factor the bringing of electricity and the electric light have played in the development of the Third World. Mankind will continue to benefit through the ages from Edison's genius.

Dr. Richard C. Atkinson, director, National Science Foundation:

One hundred years after Edison, breakthroughs in scientific knowledge are occurring at increasing speed, especially in biochemistry and physics. The potential for rapid practical application of this new knowledge is great indeed — in better health, communications, food production, and much more. We cannot foresee exactly what rewards lie ahead. But we should be certain of the validity of scientific inquiry and endeavor, whose ultimate end is service to mankind. It deserves our enlightened support.



The Empire State Building, whose construction was started 50 years ago this year, honored Edison with an enormous "100" in lights at the spire's top. The "100" could be seen as far away as New Jersey and shone throughout Sunday evening, Oct. 21.

Dr. Edward L. Bernays, pioneer public relations counsel: When Napoleon Boynton of General Electric came to our office in New York over 50 years ago to engage our services in public relations counsel to help plan and promote Thomas A. Edison's 50th anniversary of his invention of electric light ("Light's Golden Jubilee"), we told him the people of the United States, and of the world, for that matter, lacked a scientific hero in the constellation of godhead symbols. George Washington, Thomas Jefferson were legitimate gods of our country in the political sense. But now we were living in a scientific age. Certainly Thomas A. Edison merited recognition as U.S. and world scientific hero.

Erwin D. Canham, editor emeritus, Christian Science Monitor: I am one of those who remember vividly how it was before electricity reached our home in rural Maine. Anybody who thought the kerosene lamps and lanterns were romantic never lived then. So I watched the linemen come down our road, setting up the poles, and stringing the wires, and ultimately bringing it into our house after it had been wired inside. That was a tremendous moment in a boy's life. Edison would have understood the difference. As one who lived the transition, I can only say: "Edison revolutionized our lives, and we knew it and were grateful."

John Glenn, U.S. Senator from Ohio: If Thomas Edison were here today, I am not altogether sure he would be pleased by the state of America's inventive and research environment.

Because so much of research does not result in success, companies have become increasingly reluctant in the present tax environment to invest risk capital in such basic research efforts. In short, we as a nation have not maintained the proper incentives for U.S. business to invest in basic research and development. R. & D. is beginning to atrophy in this country. Our best minds are not being used to maximum benefit.

Edison did not have to worry about such things, and perhaps his freedom to achieve was related to the environment of his day, an environment that encouraged creativity and development of uniquely American genius.

Encouraging research and development should be a major goal of any revisions of the tax code that are made in the near future.

As we honor Edison on the centennial of his remarkable feat, I think it affords us all the opportunity, and responsibility, to ponder the future as well as the past.

P. Lemaigre-Voreau, executive secretary, International Commission on Illumination, Paris (translated from French): One hundred years have flown by since Thomas A. Edison of the United States of America and Joseph Swan of England brought to fruition the first practical electric lamps. This was the beginning of the electrical era and at the same time was a profound transformation of our way of life. For the first time a person had at his disposal, along with natural light, a controlled, directed and commanded artificial light. Thereafter a second life became available after dark as useful and efficient for the requirements of production as our daylight life.

The technical revolution was magnificent, but the social revolution which came along with it was astonishing, even fantastic.

There are enough harmful revolutions; this one was nothing but beneficial.

John J. Rhodes, minority leader, U.S. House of Representatives: It is most fitting that today, one hundred years after Thomas Edison invented the light bulb, our nation is faced with another major technological challenge that will require inventive genius to solve.

The real value of Edison's work on the light bulb was not that he confirmed a theory, but that he made it work in such a way that it became available for widespread public use at a reasonable price.

In Edison's time the limitations of old forms of lighting held back progress. Today we are facing limitations of energy sources. We also have federal management of much of our economy.

The electric light is the glowing spirit of free enterprise that provides incentives to achieve. Let us be sure that we foster that spirit so future Americans may reap the benefits of scientific breakthroughs as monumental as Thomas Edison's bringing incandescent light into our lives.

Norman Cousins, author and publisher, *Saturday Review:* The light bulb symbolizes not only the incandescence of an idea but also the ingenuity of a people free to pursue ideas. We would pay no better tribute to Thomas Alva Edison on the 100th anniversary of his invention than to hail the future as a challenge and to recognize that ingenuity is still the American trademark.

S. Dillon Ripley, Secretary, Smithsonian Institution: In the era of specialization which has developed over the past decades, we would do well to reflect on the imaginative, persistent, and often highly practical nature of Edison's wide-ranging curiosity.

Edison and Joseph Henry, first Secretary of the Smithsonian and America's premier physicist and elder statesman of science, consulted each other and both recognized that science and invention were closely entwined. Neither could get along without the other.

Today you cannot take more than a few steps in the industrialized world without passing an object based directly upon an Edison invention. It is clear that our future advances in science and technology will falter if they are not infused with the same kind of innovative American spirit Edison epitomized.

Howard T. Markey, Chief Judge, U.S. Court of Customs and Patent Appeals: Our growth rate of productivity is virtually zero, producing a potentially fatal inflation. Problems of energy, pollution, and population stare us in the face, while cries of modern Luddites against all technology fill our ears.

If we are to revisit Edison, we should do so for a purpose beyond nostalgia. That purpose must be to see what might be done to *revive* Edison, to open doors now slammed against today's Edisons. For unless we find and encourage new Edisons, who can be sanguine about man's future on this planet of expanding population and finite resources?

There are new and wonderful worlds to conquer. And conquer we must. And conquer we can.

To do that, we need to revive Edison by reviving not his world but the things of this world that produced him. We must return our tax and judicial and regulatory environment to one of encouragement for inventors and investment. Above all, we must revive the hope, the curiosity, the faith in man and his future, the optimism, and especially, the incentives. We must turn the same deaf ear to our doomsayers that Edison literally turned to his. We must encourage our dreamers and ignore our cry-babies. We must, like Edison, view every failure as something learned. We must begin to view inventors once again, not as naughty "monopolists" but as the benefactors they are, and as more valuable to our children than sports stars and movie actors. We must, in essence, once again make dreaming and hoping popular. For all progress comes from hopes and dreams, and great hopes and great dreams are the uniforms of heroes.

If we do that, then 100 years from now our children's children will hold a gathering like this. They will be celebrating the 200th anniversary of Edison's light — and they will be celebrating our Edisons who gave them the cure for cancer; who gave them the total elimination of hunger from the world; who gave them abundant new forms of energy; who gave them a pollution-free productive planet; who gave them a world no longer needing to fight over food or riches; who gave them a world, finally at peace.

Dr. Roger T. Guthrie, president, Association of Research Directors: Like most scientists of my generation, I began to learn about the Wizard of Electricity while in grade school during the decade following his death. The first and most lasting lesson for me was his persistence in the face of disappointing experimental results during his search for the resistive element for use in the filaments of incandescent lights.

Edison's balanced perceptions of the work ethic, of technical feasibility, of developing human needs; his sense of urgency, and a little humility, continue their relevance today to inspire and guide the next generation of scientists.

"Not only will atomic power be released, but someday we will harness the rise and fall of the tides and imprison the rays of the sun." This last quotation was surely well-known to President Roosevelt and his advisors, and certainly influenced his prompt response to the fateful letter he received from Albert Einstein. Atomic power was indeed released. Now, the time has come to implement the balance of Edison's 1921 forecast.

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Dr. Melvin Kranzberg, president, Sigma Xi, scientific research society; professor, history of science and technology, Georgia Tech. (excerpted from American Scientist, October 1979): To (many scientists), science is "pure," unsullied by the commercialism that was the hallmark of Edison's career. Such an attitude betrays a misunderstanding of the relations between science and technology as well as an underestimation of Edison's direct and indirect contributions to science.

True, Edison was the prototype of the technologist-inventor, not of the basic researcher. The sole "scientific discovery" with which Edison is credited in the *Dictionary of Scientific Biography* is the discovery of the emission of electrons from a hot cathode, the "Edison effect," which was to be the basis for the modern science of electronics. Possessing a boundless curiosity, Edison was the great exponent of the "cut-and-try" method. Contemporary scientists who utilize computerized mathematical models might look down their noses at this crude research method. Yet if we call it by its correct scientific name — empiricism — it would be recognized as one of the major changes wrought by the Scientific Revolution, overtaking the vast speculative theses that had characterized the science of earlier times. In trying the hundreds of possibilities that might offer solutions to specific problems, Edison was carrying on in a grand scientific tradition which has not yet exhausted itself.

Edison's contributions to science were also indirect. At Menlo Park, New Jersey, Edison established the first industrial research laboratory in this country, pioneering what was later to become the characteristic instrument of scientific research and development in our own times. He also helped bring about the establishment of the Naval Research Laboratory, later one of the major supports for basic scientific research in this country. Furthermore, the applications of the electricity arising from Edison's work stimulated the whole field of physics to further study of the flow and behavior of electricity.

Despite these contributions to science — and to mankind — there was grumbling when Edison was elected to the national Academy of Sciences in 1927. Some Academy members thought that the election of someone so closely connected with the world of finance and industry somehow besmirched the "purity" of science. But the centennial of the electric light bulb should make us realize that Edison, more than anyone else, created our modern scientific and technological world and helped lay the foundations for much of the physical sciences of our times. Above all, we should ask ourselves if there is anything wrong with science being useful to mankind.

Dr. Donald N. Zwiep, president, The American Society of Mechanical Engineers; professor and head, Mechanical Engineering Dept., Worcester Polytechnic Institute: Edison lit the world, not only through his incandescent light bulb, but also through his genius. He was able to envision needs, then invent to fill the gaps. He was able to bring engineering from the art stage to application.

In my opinion the Centennial of Light has served to awaken people, to remind us all of what Edison's contributions have done to improve the quality of life around the world, and of what the dedicated perseverance of an individual can accomplish.

When the Centennial of Light is over on December 31, 1979, The American Society of Mechanical Engineers will be looking forward to picking up the torch and carrying it forward to celebrate its own 100th birthday, beginning January 1, 1980.



Thomas Edison, Ms. Electricity and several of their friends are visiting more than 140,000 students in 360 elementary schools throughout Minnesota, North Dakota and South Dakota this school year. They appear in "The Incredible Edison and His Electrical Etiquette," a free theatrical program sponsored by Northern States Power Co. (NSP). The show stresses electrical safety and the importance of innovation as illustrated by Edison's invention of the incandescent light bulb a century ago. Gordon Cronee and Ann Ganz, professional actors from the Small Change Original Theatre of Minneapolis, use simple but versatile costumes and props and encourage audience participation.

CENTENNIAL OF LIGHT 1879 1979 ™ Edison Centennial News

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Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Faye Karson, Marie Kenway

Sponsoring the Centennial of Light is the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It will be responsible for overall policy and coordination of the celebration.

Directing the Centennial's numerous activities is The International Committee for the Centennial of Light, which is made up of industrial leaders here and abroad. The Committee's chairman is Robert I. Smith.

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Inquiries or requests for additional information should be directed to The International Committee for the Centennial of Light, Thomas Alva Edison Foundation, P.O. Box 1310, Greenwich, CT 06830. Telephone: (800) 243-8561; or in Connecticut: (203) 661-4800.

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"ASK AT DESK" EDISON--CENTENNIAL

1980

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CENTENNIAL OF LIGHT
1879 1979

Edison Centennial News

JANUARY/FEBRUARY 1980 VOLUME 3 NUMBER 1

CENTENNIAL SUCCESS PAVES WAY FOR PROMISING SECOND CENTURY OF LIGHT

by Robert I. Smith
Chairman, International Committee for Centennial of Light and Chairman, Public Service Electric & Gas Company



Nearly two years of work went into organizing and planning the Centennial of Light, and into developing background papers, publications, graphic aids and a wide variety of projects for appropriate tie-ins by diverse individuals and organizations worldwide.

These efforts were funded through the International Committee for the Centennial of Light. Its prestigious members sought, in honoring Edison the man and the scientist, to regenerate enthusiasm for invention and innovation as means of improving the quality of life everywhere.

The officers and trustees of the Thomas Alva Edison Foundation, sponsor of the Centennial, wish to thank the members of the International Committee for their generous counsel and support.

As the Centennial of Light led into the Second Century of Light on January 1, 1980...

- Millions viewed the TV documentary on Edison's achievements and current relevance over 280 PBS stations.
- More than 1.2 million people had visited the Smithsonian Institution's National Museum of History and Technology since the "Edison: Lighting a Revolution" exhibit opened in October. Another 250,000 had already seen the Edison traveling exhibits, which are booked into 1981.
- 102 young men and women aiming for scientific careers were settled into college with help from Edison Centennial Scholarships.
- 75,000 teachers were using Centennial teaching aids to turn on student interest in science.
- 1,000 prints of the Screen News Digest's Centennial film ("The Endless Search") had reached at least 3.5 million students nationally. (SND rates it "the most popular film" in the firm's 22-year history.)
- Time, U.S. News & World Report and other major magazines and newspapers continued to warn that modern-day Edisons are being stifled by onerous regulations and

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Centennial report planned

The sponsor of the Centennial of Light, the Thomas Alva Edison Foundation, plans to issue a comprehensive report on the worldwide commemoration in the spring. Those now receiving Edison Centennial News will be notified then about the report's availability.

Many men and women generously contributed their talent, time, and effort to making the Centennial of Light the success it was. We want to know who they are so that we can appropriately recognize their achievements.

We ask readers of this publication to please send a complete list of names and addresses of everyone in their organization who contributed to Centennial of Light programs to the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075; (313) 559-1780.

Copies of articles, photos of displays, or other evidence of noteworthy Centennial of Light events and programs should accompany the list of names whenever possible.

Centennial education kits earn kudos

"Century of Light" education kits developed for the Centennial of Light continue to win applause from teachers and corporate executives. More than 75,000 kits have been purchased to date.

The teaching aids are tailored to grades K-3, 4-6, and 7-12. Each kit includes a colorful 17- x 22-inch wall poster, six spirit duplicating activity masters, and an illustrated file folder which includes a teacher's guide. The education materials have a lifespan of at least five years.

William M. Ellinghaus, president of American Telephone and Telegraph Company and a member of the International Committee for the Centennial of Light, has commented that the Centennial educational package is "an excellent job and I'm sure that teachers will find it very useful."

An educator agrees: "The secondary school materials are easily among the best supplemental educational materials I have seen...a remarkably imaginative approach to the problem of exciting and enthusing secondary school students. I am truly awed," writes John G. Truxal, professor, Department of Technology and Society, College of Engineering and Applied Sciences, State University of New York at Stony Brook.

Union Electric Company reports widespread educator support in the St. Louis area. Eddie G. Davis, UE's senior administrator of community affairs, effectively tied the "Century of Light" kits to local showings of the one-hour PBS-TV special, "Legacy of Genius: The Story of Thomas Alva Edison." UE also added a copy of *Edison — The Man Who Turned Darkness into Light* to each kit. Davis estimates that the utility has reached more than 190,000 students locally, adding: "The response to the kits has been tremendous; the teachers found the materials well-researched and helpful...a good addition to (our) total educational services package."

Word-of-mouth testimonials based on successful classroom usage have more than tripled the demand for kits distributed by Central Illinois Public Service Company, according to Reg Ankrom, public information supervisor. "Once we put the kits in the field, we were flooded with additional requests, especially for the two elementary school kits," he says.

Philip S. Huguenin, supervisor, corporate communications, Florida Power & Light Company, notes: "Schools throughout our service area are using 'Century of Light' materials. Thanks for providing meaningful educational tools that are giving us excellent exposure in the classroom."



Pembroke Lakes Academy students in Fort Lauderdale performing experiments described in Centennial Educations Kits provided by FP&L.

Priced at $2 each, plus shipping, "Century of Light" educational kits are available from: Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075; (313) 559-1780.

Edison Foundation offers two new science booklets

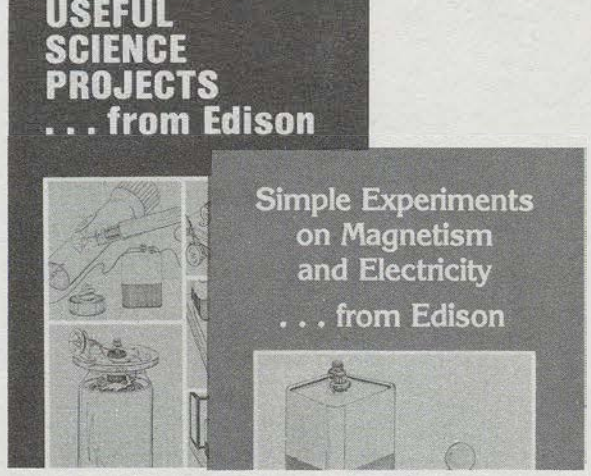
The Thomas Alva Edison Foundation has just released two additions to its series of educational booklets.

Simple Experiments on Magnetism and Electricity...from Edison starts elementary school students thinking about science by involving them in safe, inexpensive starter experiments which cover magnetism, static electricity and electrochemistry.

Geared to grades 7 through 12, *Useful Science Projects...from Edison* provides plans for making an electric marking pen, a buzzer for sending coded messages by wire, a crystal radio, and a cigar-box microphone, as well as for getting light from a "dead" battery. All are based on Edison research.

Both 32-page booklets are available from the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Mich. 48075; (313) 559-1780. Costs (add shipping): $23 per hundred for 1,000 copies or more; $25 per hundred for less than 1,000 copies.

More than 100,000 copies of *Edison — The Man Who Turned Darkness into Light,* by James G. Cook, were sold during the Centennial year. Now in its second printing, the 56-page biographical booklet also depicts what life was like prior to the invention of the electric light and relates how Edison and other inventors have dramatically improved the nation's standard of living over the past century. Copies are available from the Thomas Alva Edison Foundation at the above address. Costs (add shipping): $45 per hundred for 5,000 or more copies; $50 per hundred for 500-4,999 copies; $55 per hundred for less than 500 copies.



The booklet, emphasizing the vast improvement to our lives brought about through science and invention, provides a good rebuttal to anti-technologists. It is designed for use in history, social studies, government and other social science classrooms.

"Edison and the Electric Age: 100 Years"
MILLIONS VISIT SMITHSONIAN EDISON EXHIBITS

The permanent traveling Smithsonian exhibits continued to attract thousands of visitors to examine Edison's legacy to the nation and the world. The permanent exhibit in the Museum of History and Technology in Washington, D.C., has thus far had more than 1.2 million persons visit it. And, throughout the United States, at various utility companies and museums, millions more have viewed the traveling exhibits.

For those unable to view the permanent exhibit in Washington, we print here a listing of sites where the traveling exhibit will appear during the next two years:

Anyone interested in scheduling a visit by one of the traveling exhibits should contact Debbie Dawson, Coordinator, Smithsonian Institution Traveling Exhibits, Washington, D.C. 20560.

1980

California: Vintage Hall, St. Helena, Oct. 18 through Nov. 16

Canada: Centennial Planetarium, Calgary, Alberta, April 5 through May 4;

Colorado: IBM, Boulder, July 12 through Aug. 10

Florida: Brevard Museum, Feb 16 through March 16; Hillsborough County Museum, Tampa, July 12 through Sept. 28; Museum of Science, Miami, Oct. 18 through Nov. 16.

Indiana: Museum of Arts & Science, Evansville, February 16 through March 16.

Iowa: Putnam Museum, Davenport, April 5 through June 22.

Kentucky: Museum of Natural History & Science, Louisville, Feb. 16 through March 16.

Massachusetts: University of Massachusetts, Amherst, May 24 through June 22; Museum of Science, Springfield, Dec. 6 through Jan. 4.

New York: Sullivan County Community College, Sheldrake, April 5 through May 4.

North Carolina: Mint Museum, Charlotte, Feb. 16 through March 16.

South Carolina: Museum of Science, Columbia, Oct. 18 through Nov. 16.

Tennessee: Cumberland Museum & Science Center, Nashville, Aug. 30 through Sept. 28.

Wisconsin: Northern States Power Co., Eau Claire, April 5 through June 22.

1981

California: Historical Museum, San Jose, Jan 24 through April 22.

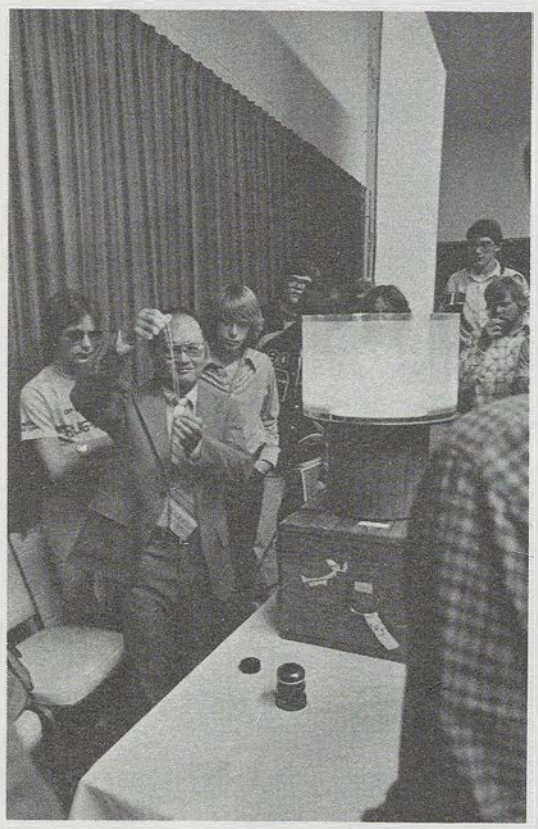
Canada: Nova Scotia, Museum, Halifax, Jan. 24 through Feb. 22.

Kansas: Dane G. Hansen Memorial Museum, Logan, March 14 through April 22.

Louisiana: Louisiana Arts & Science Center, Baton Rouge, Jan. 24 through Feb. 22.

Wisconsin: University of Wisconsin, Platteville, March 14 through April 22.

Kansas holds Centennial symposium



The Centennial of Light High School Symposium held Oct. 28-29 in Wichita, Kan. was sponsored by the Kansas Association of Teachers of Science, Greater Wichita Area Teachers of Science, Kansas Press Women, Wichita Press Women, Thomas Alva Edison Foundation and the Wichita Area Chamber of Commerce. More than 300 students from over 70 Kansas schools attended. Dr. Tung H. Jeong, chairman of the physics department at Lake Forest College (Ill.), demonstrated laser photography.

New Year's lighting recreated at Greenfield Village



On New Year's Eve, Greenfield Village at Dearborn, Mich., recreated the events of 100 years before, when Edison installed his newly invented incandescent lamps inside and outside his laboratory and the nearby Sarah Jordan Boarding House (shown here). Both the laboratory and Jordan residence were transplanted to Michigan by Henry Ford to honor Edison and preserve the flavor of the late-19th century way of life.

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Centennial success *continued from page 1*

tax policies and that science education must be expanded and upgraded.

Such results attest that the Centennial of Light was more than a lionization of Thomas Alva Edison for his invention of the electric light bulb on Oct. 21, 1879. The year-long celebration had indeed helped rally nationwide and international industry, government and labor support for a resurgence of inventiveness to improve our quality of life.

Early on, the International Committee for the Centennial of Light had established goals keyed to the *current relevance* of Edison's life and legacy:

- To rekindle in today's students Edison's enthusiasm for discovery.
- To encourage upgrading science education in schools.
- To promote a better environment for research and development in order to combat lagging productivity, create new jobs and reverse the "innovation recession."

This relevance attracted and enabled hundreds of companies, associations and unions to participate through local tie-ins, displays, internal and external publicity, speeches, testimonials, special events, community affairs projects, etc.

Hundreds of graphic and performing artists translated their appreciation of Edison's genius into imaginative posters, sculptures, "light shows," films and musical and dramatic productions.

Dozens of distinguished American and foreign leaders of industry, labor, government, the arts and the "hard" and "soft" sciences also shared their reminiscences and perceptions of Edison with readers of Edison Centennial News.

Shortly before his death, labor leader George Meany wrote: "We can't hope for many Edisons but we need to be alert to recognize and encourage them when they appear. And we need to maintain the kind of free and open society in which such persons can flourish."

Governors, senators, congressmen and other officials at all levels took note of the Centennial as a galvanizing force for the fight on inflation and lagging productivity.

In a special Centennial statement President Carter said: "I hope that the memory of Thomas Alva Edison will help us all to realize, as he did, that with perseverance, hard work, knowledge and imagination we can overcome adversity and achieve new advances from which all can benefit."

The fact that the full impact of the Centennial of Light will be realized during the Second Century of Light was aptly expressed by Leanne Tanouye, an Edison Centennial Scholar from Hawaii, to Eric Sevareid on the "Legacy of Genius" TV special:

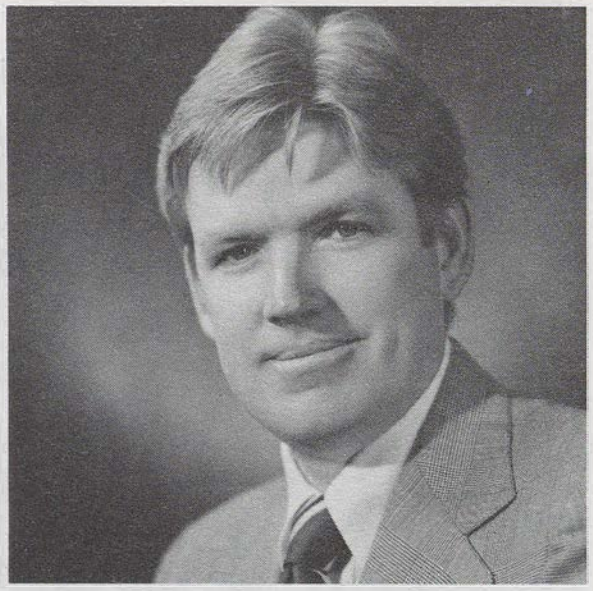
> When we [Edison Scholars] think of Thomas Edison, we see a man who took ideas, made them into things that were tangible and showed us that our dreams aren't as far-fetched as we believed them to be...Science means progress now. And we have to remember that we're going to be the leaders of tomorrow. And we're going to try to make things easier for people, more comfortable, and do things as maybe Thomas Edison would have done.

The Washington Post...then and now

January 1, 1880: "The record of the year 1879 is not so much a chronicle of distinct and striking events as of tendencies and movements broad in their scope and enduring in their results. The brilliant and unique event no doubt has taken place at Menlo Park. The discovery and perfection of the electric light is so important, so revolutionizing and so far-reaching in its effects that we need the perspective of time fully to realize the scientific situation. It is a matter of national pride that the first discoverer of the age is an American, and the constant chronicling of his progress by the daily press denotes an interest and gives a stimulus to scientific effort which promises much for the future of science in this country."

January 1, 1980: "The editorial that appeared in this space a century ago...seems to us a remarkably perceptive portrait, and one with which most modern historians would agree... "It saw, with great prescience, the immense importance of the light bulb that Thomas Edison had just demonstrated at Menlo Park, N.J. Surely no invention of the past century more profoundly changed daily life."

CIPSCO's Ankrom received award as "Communicator"



Reg Ankrom of Central Illinois Public Service Co. (Springfield) has received the "Communicator of the Year" award from the Central Illinois Chapter of the Public Relations Society of America. He was cited for his work as coordinator of CIPSCO's Centennial of Light activities, which were judged the most outstanding of all public relations program entries.

CENTENNIAL OF LIGHT 1879 1979 TM Edison Centennial News

Edison Centennial News has been published by Reddy Communications, Inc. to provide information on the Centennial of Light, an international celebration to commemorate the 100th anniversary of Thomas Alva Edison's invention of the incandescent lamp.

Editor: George Shea
Contributing Editors: Robert D. Walsh, Livvy Floren, Trina Lawson
Editorial Assistants: Kathleen D'Aloise, Swea Nightingale, Faye Karson, Marie Kenway

The Centennial of Light has been sponsored by the Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075. It has been responsible for overall policy and coordination of the celebration.

The Centennial's numerous activities have been directed by the International Committee for the Centennial of Light. The Committee's chairman is Robert I. Smith.

The official Centennial of Light emblem is the trademark of the Thomas Alva Edison Foundation and is to be used by permission only.

Inquiries or requests for additional information should be directed to the Centennial of Light, Thomas Alva Edison Foundation, 143 Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075.

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"ASK AT DESK" EDISON -- CENTENNIAL
1980

CENTENNIAL OF LIGHT
1879 1979

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Edison Centennial News

AUGUST 1980 VOLUMN 3 NUMBER 2

Centennial Report Now Available

Report Highlights

The International Centennial of Light Report, a comprehensive, 68-page review of year-long, worldwide programs of the International Centennial of Light, has been published by the Thomas Alva Edison Foundation.

The report describes and illustrates such major programs as:

The Edison Centennial Symposium

The theme of the symposium was: "Science, Technology, and the Human Prospect." Co-sponsored by the Electric Power Research Institute and the Thomas Alva Edison Foundation, an outstanding roster of speakers addressed an audience of more than 650 international leaders from industry, labor, government, academia, and science who met in San Francisco. In his keynote address, Chauncey Starr, symposium chairman and vice chairman of the Electric Power Research Institute, said: "The purpose of the meeting is to provide a forum for reassessing the past, present, and future role of science and technology in society." Workshops gave participants an opportunity to examine the effects of technology on specific aspects of life.

Dual Edison Birthday Celebrations

To add emphasis to the *international* aspects of the Centennial year, separate Edison Birthday Celebrations were held within three weeks of each other in the United States and in Germany. The substantially larger observance, featuring an extremely impressive cadre of speakers, attracted more than 400 students and teachers from Africa, Asia, Europe, South and North America to Orlando, Florida, Walt Disney World, and the campus of the University of Central Florida. The second part of the Edison Birthday Celebration was held in Munich, Germany. During the two-day program, science students, teachers, and business leaders from throughout West Germany listened to lectures, visited industrial laboratories, and viewed the electrical exhibit at the German National Museum.



The search for tomorrow's Edisons — the essence of the Centennial of Light.

White House Meeting

Key Administration officials representing President Carter, NASA, and the Departments of State, Commerce, and Energy met at the White House with members of the International Committee for the Centennial of Light. They exchanged views on how the government can cooperate with industry, labor, and academia to keep the United States in the forefront of scientific and technical progress. All agreed that the Centennial could serve as the rallying point to intensify the fight against inflation and lagging U.S. productivity.

Edison Centennial Scholars

The 102 Edison Centennial Scholars — a young man and a young woman from each state and the District of Columbia — were chosen by individual state selection panels. The honor was widely sought after; for example, there were 6,000 applications in Ohio alone. The scholars received special Centennial of Light certificates at a banquet. Individual $1,000 Edison Centennial Scholarship checks were presented, whenever possible, at the individual scholar's high school graduation ceremony, or at an honors assembly, so as to provide the scholar with as much recognition and visibility in his/her peer group as possible.

Reunion of Golden Jubilee Scholars

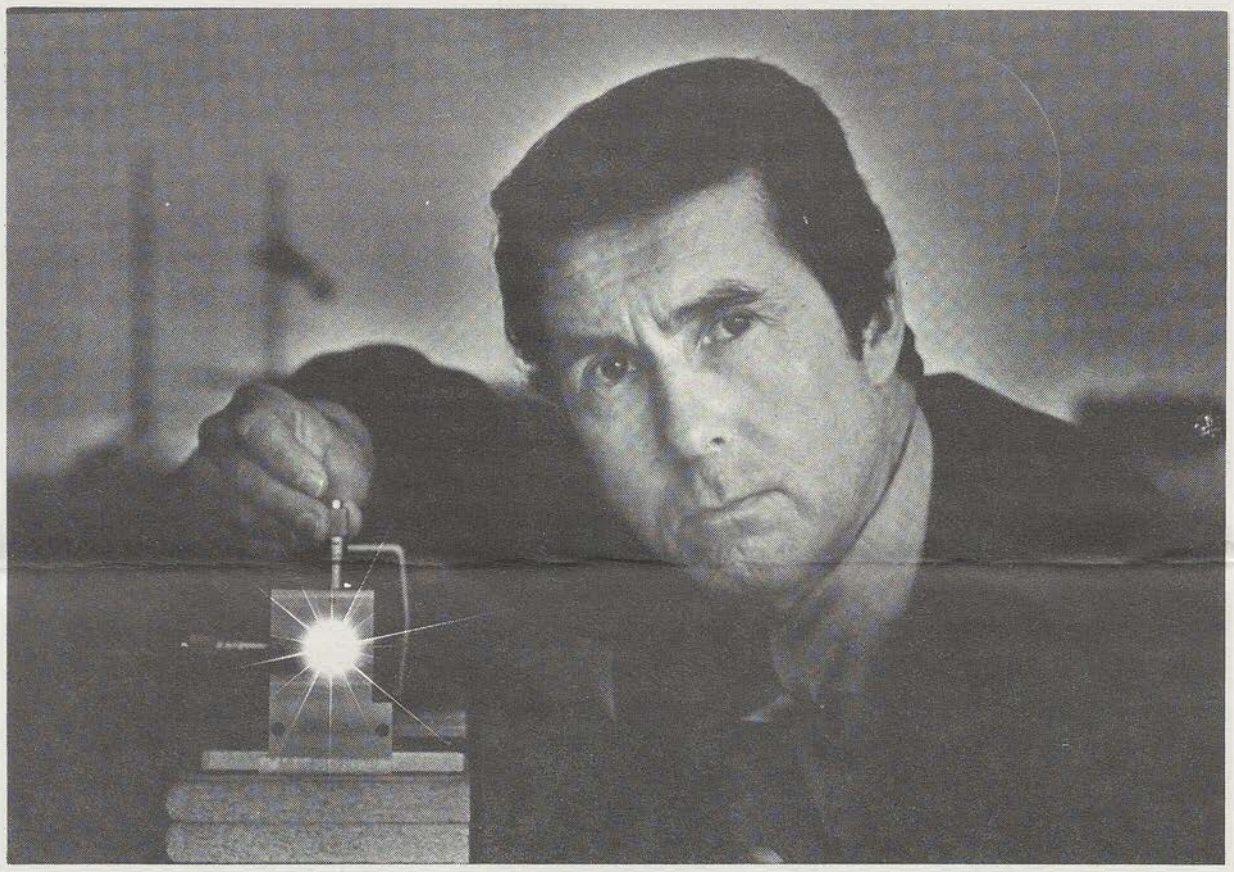
Nineteen of the 49 finalists in "Light's Golden Jubilee" scholarship program were reunited for the first time. They assembled for a two-day program at West Orange, New Jersey, where, in 1929, they competed in a test devised and given personally by Thomas Alva Edison. The Golden Jubilee

continued on page 4.

Cook's Innovation Recession Article Published by *Detroit News Magazine*

"The Innovation Recession," an article written by James G. Cook, president and chief operating officer of the Thomas Alva Edison Foundation, who also served as executive secretary of the International Committee for the Centennial of Light, was published in the May 4 edition of *The Detroit News Magazine.*

Cook's article, stemming from issues he raised in his many interviews with newspaper, magazine, and television reporters on behalf of the Centennial of Light, was featured in an edition which focused on the theme: "The Cutting Edge; Science on the Edge of Discovery." Cook pointed out that the innovation recession in this country not only is one of the main causes of inflation and other economic problems, it also threatens America's pre-eminent position in the world.



Major Causes

Among the major causes of our innovation recession, Cook wrote, are: "An anti-technology attitude, based on fear, that advocates a no-growth, no-risk society which is easily being overtaken by more competitive societies; a smothering of creativity through over-regulation of scientific research by governmental agencies, and a debilitating de-emphasis on science education in our elementary and secondary schools.

Citing figures showing alarming declines in: productivity, expenditures for research and development, technological innovations, and new patents issued to Americans, as well as a growing lack of interest by elementary and secondary school students in science subjects and a continuing lowering of educational standards in this country, Cook wrote: "We desperately need to find ways to regenerate enthusiasm for invention and innovation and respect for their contributions. There are technological solutions to today's problems, including the energy crisis, that only need to be sought and found.

"There are thousands of potential Edison's among us — in our schools, in government, in our industrial and university laboratories . . . They have tremendous curiosity and they have a strong desire to do something meaningful for other human beings.

Needless Obstacles

"But needless obstacles have been placed in the way of their work," Cook continued, "and it is up to all of us — as businessmen, parents, and taxpayers — to remove those impediments and help create an atmosphere in which new Edisons can flourish. These young Edisons will create new industries and jobs, increase our productivity, defeat inflation and unemployment, and continue to improve the quality of life."

Science Offers Solutions

Cook concluded: "Science offers the only possible solutions for a multitude of the problems confronting our society and mankind in general."

Reprints of the article were sent to members of the Board of Trustees of the Thomas Alva Edison Foundation, to contributors, and to others concerned with the malaise afflicting scientific enterprise in this country.

In a memorandum accompanying the reprints, Walker L. Cisler, chairman and chief executive officer of the Thomas Alva Edison Foundation, wrote: "The message in this article is one all of us associated with the Edison Foundation are anxious to bring to the attention of our fellow Americans."

The Detroit News has the largest daily circulation of any evening newspaper in America and has the sixth largest Sunday circulation.

Modesty Wins No Recognition

In the last edition of this publication, we asked for the names of the men and women who so generously contributed their time, talent, and effort to make the International Centennial of Light the outstanding success it was. We said we wanted names and addresses so that we could appropriately recognize individual achievements.

The response has been so limited that our plans must, perforce, be held in abeyance.

We can only guess that modesty prevented Centennial workers from responding to our request for names, addresses, and evidence (copies of articles, photos of displays, etc.) of noteworthy contributions.

If you can overcome your modesty — or get someone to submit your material for you — please write: The Thomas Alva Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Michgian 48075.

Edison Foundation Offers Education Kits, New Science Booklets, Edison Biography

Educational Aids

"Centennial of Light" education kits now are available for classroom use during the Second Century of Light.

Also, two additions to the Edison Foundation's series of experiment booklets recently have been published. And, a new Edison biography is in its second printing.

The "Century of Light" education kits are tailored for grades K-3, 4-6, and 7-12. Each kit includes a colorful 17x22-inch wall poster, six spirit duplicating masters, and an illustrated file folder which includes a teacher's guide. The education materials have a life-span of at least five years.

Tested and approved by teachers, the kits have been enthusiastically received by corporate executives who purchase them and donate them to local schools. Many companies place their company's name on the kits, either with a stamp or with a paste-on label.

Priced at $2 each, plus shipping charges, "Century of Light" education kits are available from: Thomas Alva Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, Michigan 48075 (313) 559-1780.

Experiment Booklets

The two new experiment booklets are: *Useful Science Projects...from Edison,* and *Simple Experiments on Magnetism and Electricity...from Edison.* Both contain 32 illustrated pages.

The first booklet features five projects with instructions on how to build and operate an electric marking pen, a buzzer for sending coded messages by wire, a crystal radio, and a cigar-box microphone, as well as how to obtain light from a dead battery.

The second booklet includes instructions on: how to build a galvanometer, a carbon transmitter, an electroscope, and electrophorous, and how to make a magnet, and an electromagnet with two coils. In addition, the variable conductivity of carbon, the carbon transmitter principle, magnetism and the compass, series and parallel circuits, and Faraday's "ice pail" experiment are explained in words and illustrations easily understood by youngsters interested in science at an early age.

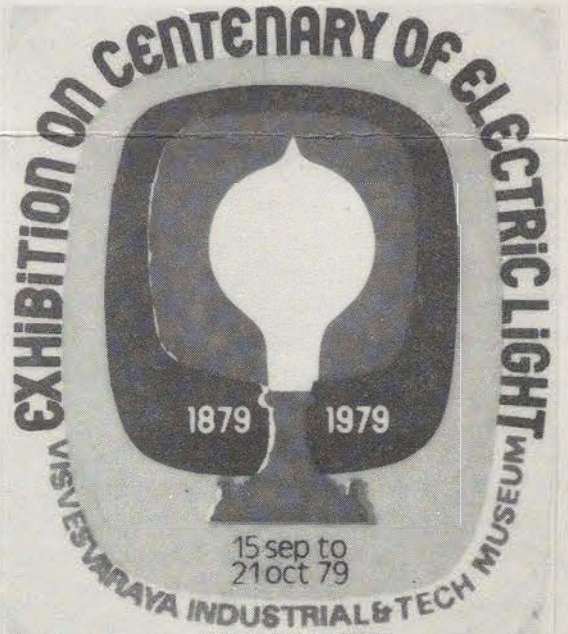
Copies are available at publication costs from the Edison Foundation at the above address. With additional shipping charges, the booklets are priced at $23 per hundred for 1,000 copies or more, and $25 per hundred for less than 1,000 copies.

More Than Biography

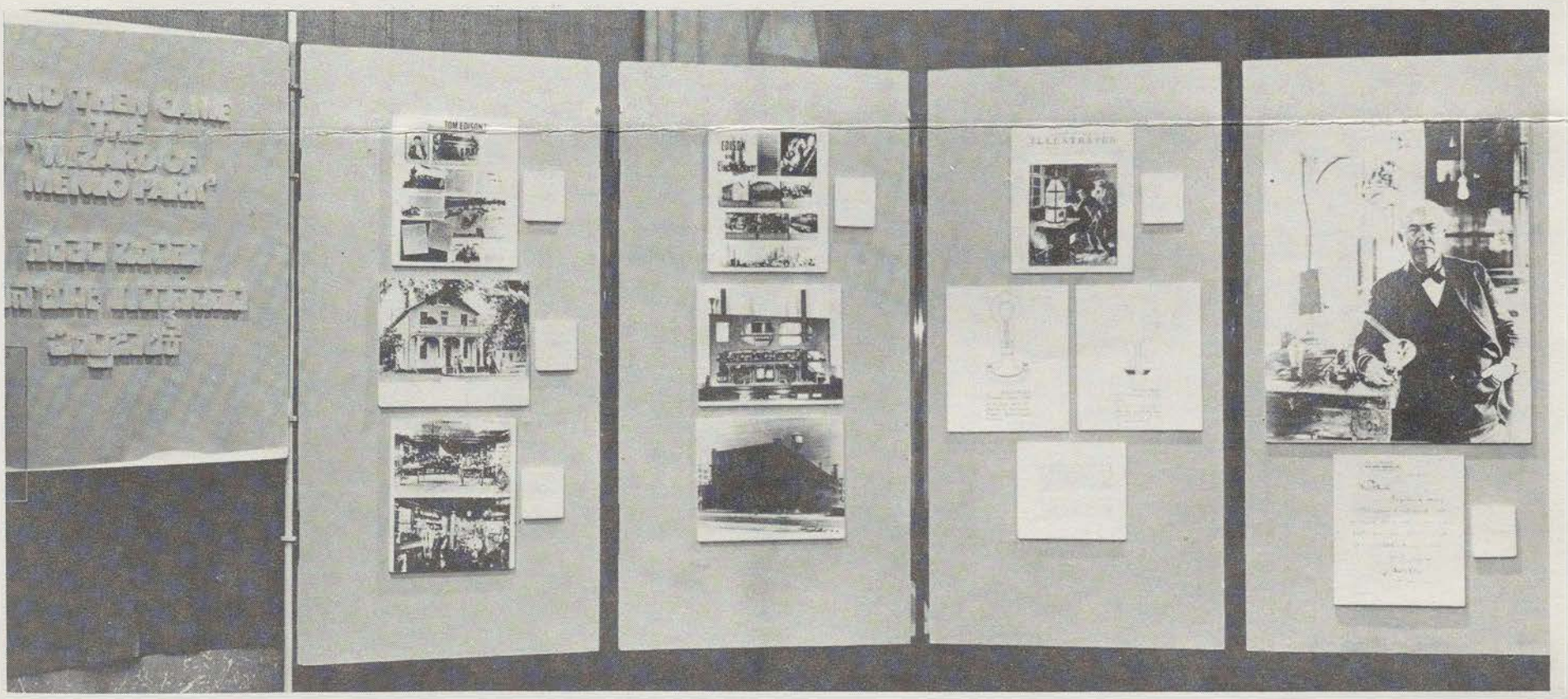
In addition, *Edison — the man who turned darkness into light,* by James G. Cook, is now in its second printing. More than 100,000 copies of the 56-page booklet have been sold.

More than a biography, it is a history of technical progress and how that has contributed to our quality of life. As such, it is a valuable teaching aid in history, social studies, and political science classes, as well as in the science classroom.

It is available, again at publication costs, from the Edison Foundation at the above address. With additional shipping charges, the booklet is priced at $45 per hundred for 5,000 or more copies; $50 for 500-4,999 copies; $55 per hundred for less than 500 copies.



This is a section of an "Exhibition on Centenary of Electric Light" at the National Council of Science Museum in Bangalore, India. The logo was used by the museum. Photo and logo courtesy of S.G.K. Murthy, the museum's documentation officer.



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Centennial Report

continued from page 1

Scholars applauded the Centennial Scholarship program as a "link with a tradition of scholastic excellence that Edison believed in and that all of us believe in."

Energy Technology Conference

More than 6,000 persons attended the Sixth Annual Energy Technology Conference in Washington, D.C. There were sessions on coal, oil, gas, and nuclear resources, and solar, thermal and other resource alternatives, as well as industrial energy management and conservation. The conference was jointly sponsored by the Thomas Alva Edison Foundation, the Electric Power Research Institute, the American Gas Association, and the Gas Research Institute.

Smithsonian Exhibits

A major new exhibit — "Edison: Lighting a Revolution" — is now being viewed by visitors to the Smithsonian Institution's National Museum of History and Technology in Washington, D.C. The 3,000 square foot exhibit is supported by grants from the International Committee for the Centennial of Light and the Lighting Business Group of the General Electric Company. The Smithsonian Institution also developed four major traveling exhibits on Edison, science, and technology. These exhibits, funded by the International Committee for the Centennial of Light, are traveling throughout the United States and Canada. They will be featured in museums, schools, corporate lobbies, and shopping malls well into 1981.

Edison Papers Project of Rutgers University

A $5 million, 20-year project in which Rutgers University will compile and publish the voluminous papers and notes written by Thomas Alva Edison is under way. Edison left more than 2,800 laboratory notebooks — estimated to contain two million pages — as well as about 10,000 artifacts and an equal number of glass plate photographic negatives. The material is comparable only to that left for posterity by Leonardo da Vinci, according to Dr. Reese Jenkins, professor of history at Rutgers, who is the director and editor of the Edison Papers Project.

Overseas Centennial Observances

During the International Centennial of Light, commemorative programs were held in many nations including Germany, India, The Netherlands, Japan, Spain, and Taiwan. There was a wide variety of programs but all of them clearly demonstrated the reverence with which many peoples regard Edison and his contributions to the quality of life worldwide.

Science Teacher Conferences

Each year the Thomas Alva Edison Foundation sponsors a number of science teacher conferences to provide new information which will enable science teachers to improve the quality of education so as to motivate young people to become scientists and engineers who will move forward the frontiers of technological innovation. Because of Centennial events, the conferences were limited to two in 1979: at Montana State University's campus in Bozeman, co-sponsored by the Montana Power Company, and at Louisiana State University's campus in Baton Rouge, co-sponsored by the Gulf States Utilities Company. A total of more than 700 elementary and secondary school teachers attended the two conferences and heard outstanding speakers on a wide variety of current scientific subjects. In addition, the Edison Foundation was co-sponsor of Science Spectrum '79, the 20th International Science Education Symposium, in Vancouver, British Columbia. Also, the Foundation provided assistance to The Centennial of Light High School Symposium in Wichita, Kansas, sponsored by the Kansas Gas and Electric Company.

Two Major Films

While there were other visual and audio tributes to Edison during the Centennial of Light, two are representative of the high quality of those creative arts: "Legacy of Genius: The Story of Thomas Alva Edison," and "The Endless Search."

"Legacy of Genius" was made possible by grants from Amerada Hess Corporation, Hoffman-Laroche, Inc., and the Thomas Alva Edison Foundation. First shown on Public Broadcasting Service stations across the nation on December 29, 1979, and shown several more times by many stations, "Legacy of Genius" is an hour-long documentary of Edison's life and inventions, narrated by Eric Sevareid, the noted news analyst. "The Endless Search" is a 26 minute educational film on Edison which is distributed to schools and civic groups by Screen News Digest.

Reenactment of Historic Event

To commemorate Thomas Alva Edison's invention of the first practical incandescent electric light bulb on October 21, 1879, a step-by-step reenactment occurred on October 21, 1979, in the same Menlo Park laboratory where one of the major events in man's history had taken place 100 years earlier. Madeleine Edison Sloane assumed the role of her great-grandfather in the reenactment of the lighting of the bulb. The scene was transmitted over closed-circuit television to 300 distinguished dinner guests at the Edison Institute (Greenfield Village and Henry Ford Museum) in Dearborn, Michigan, and to 2,000 guests of the General Electric Lighting Group who had gathered in Severance Hall in Cleveland to hear the Cleveland Orchestra present a concert: "Salute to 100 Years of Light."

Complete Report Available

Additional details of the programs described above, and many more held throughout the world in 1979, are described in *The International Centennial of Light Report*. As long as limited supplies last, copies of the report are available by writing to: The Thomas Alva Edison Foundation, Suite 143, Cambridge Office Plaza, 18280 West Ten Mile Road, Southfield, MI 48075.

CENTENNIAL OF LIGHT 1879 1979

TM Edison Centennial News

This final edition of *Edison Centennial News* is published by the Thomas Alva Edison Foundation to complete the informational activities of the Centennial of Light, a year-long international celebration in 1979 to commemorate the 100th anniversary of Thomas Alva Edison's invention of the first practical incandescent electric light bulb.

Editor: Frederick C. Tew
Staff Assistant: Nyla M. Crouch

The Thomas Alva Edison Foundation sponsored the International Centennial of Light. The International Committee for the Centennial of Light, a group of industrial leaders from this country and overseas, directed the Centennial's numerous activities.

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