Mueller Record

CHRISTMAS 1961

MUELLER RECORD

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CHRISTMAS • 1961

Published by
MUELLER CO.
512 W. Cerro Gordo Street
Decatur, Illinois

Member:
Central Illinois Industrial Editors Association
and
International Council of Industrial Editors

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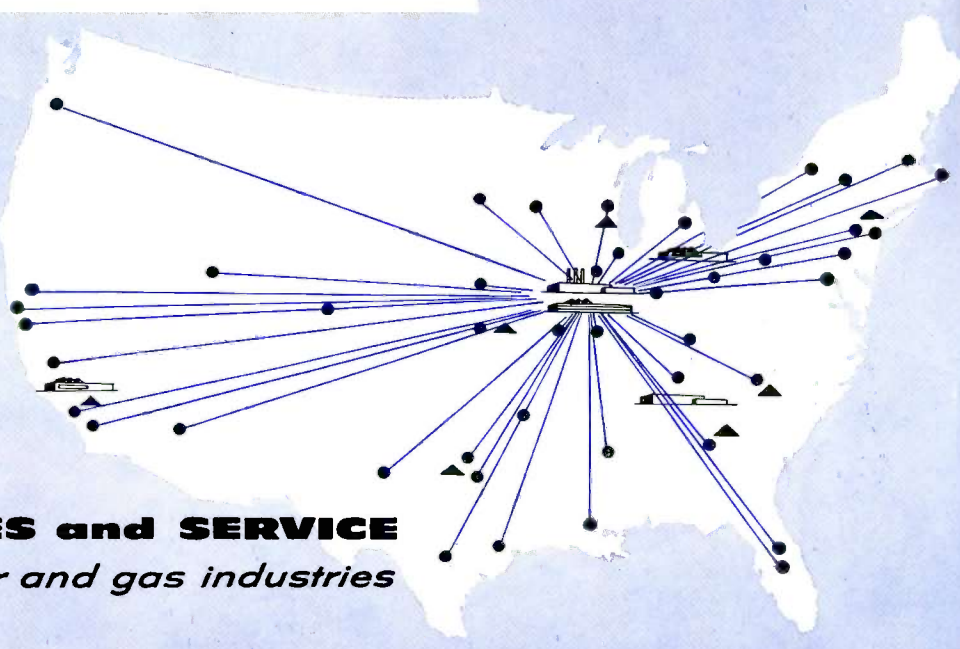


Washington Suburban Sanitary Commission's Motto:

"PLAN AHEAD"

All over our nation and throughout the world, water supply—or the lack of it—has become a serious concern for many communities. In fact, some experts estimate that, in American towns of more than 25,000 population, one in every five is deficient in water supply and two of every five are deficient in treatment capacity.

The picture is brighter in the Maryland suburban area (adjacent to the District of Columbia), where the Washington Suburban Sanitary Commission has made a successful

and continuing effort to adequately provide for the existing and future water supply needs of a booming population. The net result of WSSC foresight and hard work has been the production of an outstanding and most reliable distribution and treatment system in the nation.

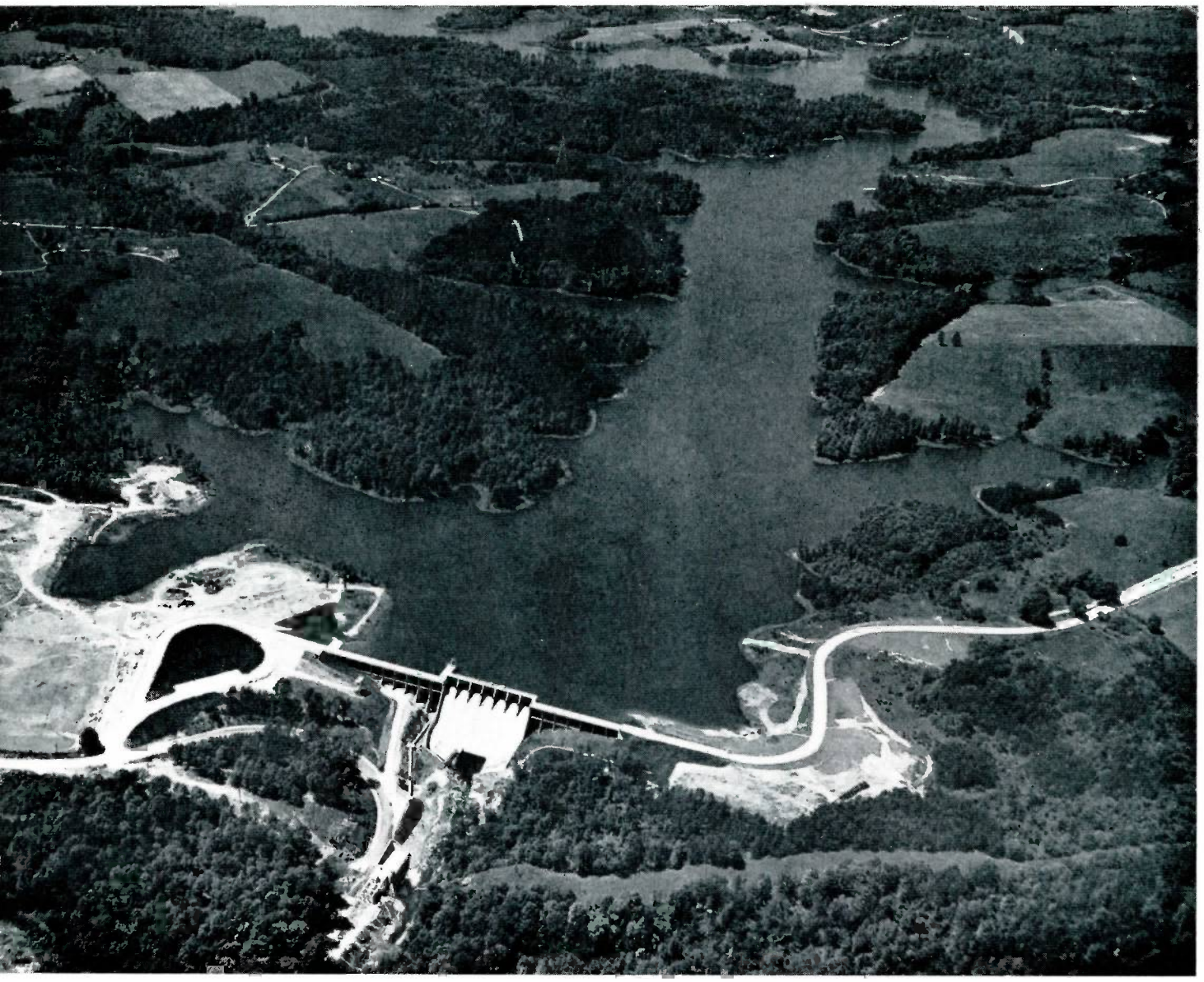
"Plan Ahead" has been the Commission policy ever since 1918 when the agency was created by the Maryland Legislature to provide water and sewer service to a 95-square-mile area with a population of 30,000. It just happens that the WSSC was destined to serve the developing areas of two of the nation's fastest growing communities—Montgomery and Prince George's Counties, Md.

Today, the Commission serves more than 600,000 persons in a bi-county service area which has been gradually expanded over the years to 475 square miles. Population guessers are now saying that the WSSC will probabaly be providing water for 1.5 million by 1980 and more than 2 million by the turn of the century.

One of the most important developments in the history of the WSSC system occurred this year when the $12.2 million first phase of the Commission's huge Potomac River Water Supply Project went into operation. The new plant and major supply lines provide suburban Maryland with a new source of water and have boosted the WSSC's filtered water production capacity by 30 million gallons a day.

For some time, the Commission's major source of raw water has been the Patuxent River, which is impounded by two dams with a total storage capacity of 14 billion gallons. Raw water is pumped through

Rocky Gorge Dam and Reservoir is one of two Washington Suburban Sanitary Commission impoundments on the Patuxent River, which has been an important source of Suburban Maryland water for many years. The two impoundments have a total raw water storage capacity of about 14 million gallons.

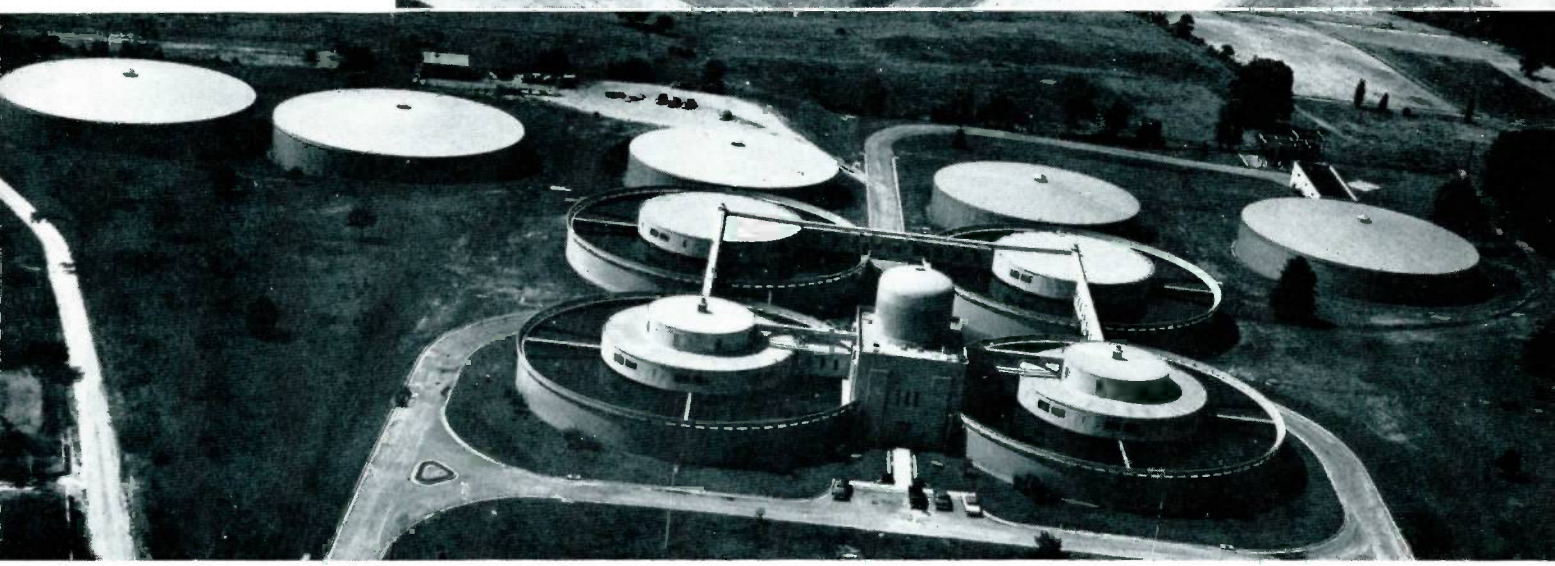


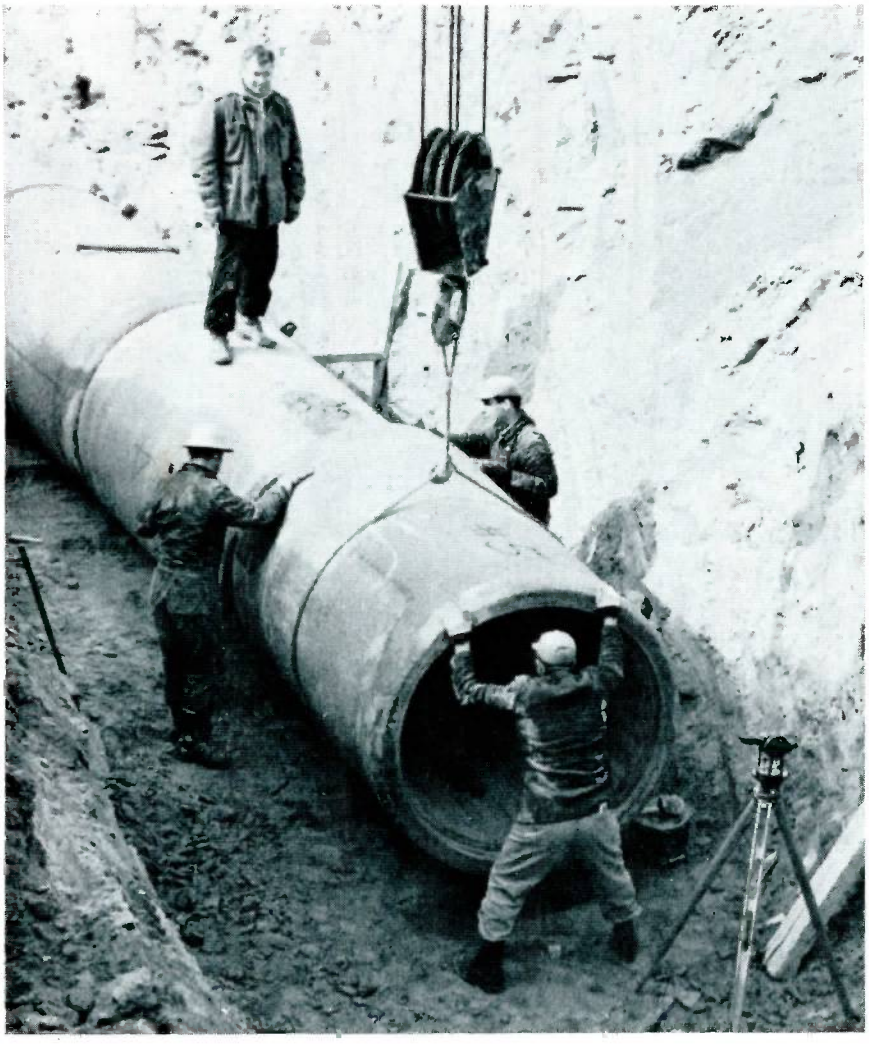
a force main from the Rocky Gorge Reservoir to the Patuxent Filtration Plant, where up to 65 million gallons of water can be processed in one day.

The Patuxent Plant, the Potomac Plant and other water producing facilities operated by the Commission will give the WSSC a total filtered water production capacity of more than 110 million gallons a day. Three additional 30-million-gallon units will be added to the Potomac Plant, as needed; so that its ultimate capacity will be at least 120 million gallons a day.

Thus, the WSSC expects to have a total production capacity of about

Native stone finish on many of the Potomac Plant buildings (above) blends attractively with the surrounding countryside. The recently completed Potomac River Filtration Plant is shown at the right while the Patuxent Filtration Plant is shown below. The two plants have a daily capacity of near 100 million gallons.





It takes about 1,800 miles of water main to serve the 600,000 residents in Montgomery and Prince George Counties.

200 million gallons a day by the year 2000.

Commission water flows through a network of more than 1,800 miles (the approximate distance between Washington, D. C. and the Mexican Border) of distribution lines to carry water to more than 140,000 separate connections for homes, apartments, business, schools and industry.

Located along the system at strategic points are 18 pumping stations and 32 storage tanks, with a total purified water storage capacity of 82.7 million gallons. These facilities, of course, are designed to maintain proper water pressures in the WSSC service area and provide reserve storage to meet supply needs during periods of peak consumption.

The WSSC's water network includes more than 20 miles of major supply lines being constructed in connection with the Potomac River Project. One of these, a 48-inch pipe connecting the Potomac Plant with the principal Montgomery County Distribution Center at Wheaton, Md., was completed last year and is in service. A 36-inch line, now under construction, will loop from the new plant into upper

The Washington Suburban Sanitary Commission is organized into four departments—Engineering, Secretary, Financial and Legal. These department heads translate the commission's policies and programs into effective action. Department heads are (left to right): Robert J. McLeod, Chief Engineer; John T. Bonifant, Secretary; James J. Lynch, Treasurer; and John B. Kenkel, General Counsel.

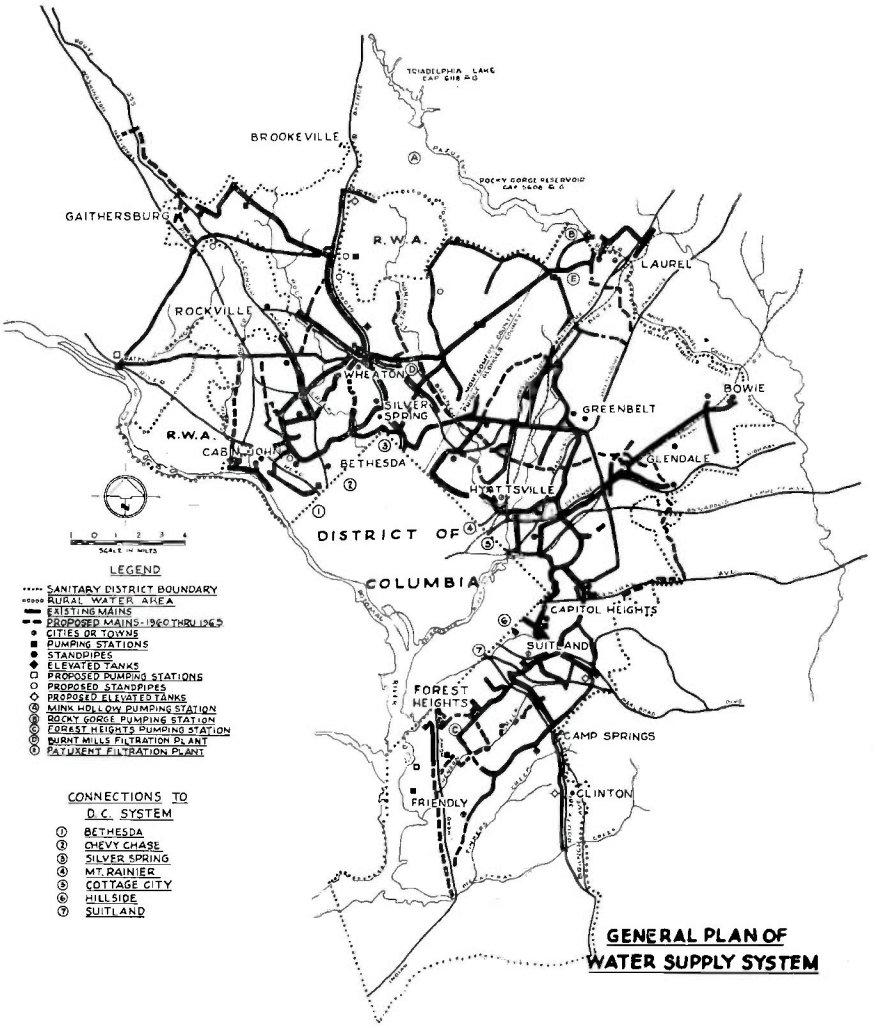
Montgomery County to serve a high zone, which is growing rapidly as the result of the location of Atomic Energy Commission and U. S. Bureau of Standards Headquarters near Gaithersburg, Md.

Like the WSSC's sewerage system, the water supply facilities are maintained on a round-the-clock basis by radio-controlled, mobile crews. Electronic equipment is used to keep a constant, graphic eye on the operation of every important point in the system.

When the Commission started operating in 1918, daily water consumption in its service area averaged about 250,000 gallons. In recent years, daily average consumption has reached close to the 50-million mark and peak days of more than 84 million gallons have been recorded. In 1960 water delivered to the WSSC system topped 18 billion gallons, a 7.1 per cent boost over 1959.

To meet this ever-increasing demand for service, the WSSC annually produces a Five-Year Program of major projects which will be needed in coming years as population and per capita consumption continue to rise.

Of course, expansion, reinforcement and maintenance of this system cost money; but the task has been accomplished efficiently, effectively and economically.



GENERAL PLAN OF WATER SUPPLY SYSTEM

These six men are the members of the commission which sets the policies and considers the programs to make WSSC tick. They are (left to right): Morris V. Spicci, James B. Bland, and Chairman Blair H. Smith, representatives of Prince George's County; and Vice Chairman Willard A. Morris, William B. Wheeler, and William C. Austin, representatives of Montgomery County.

Miami, Fla.

⅓ Size Ambassador

Miniature Fire Engine Travels United States Promoting Safety

The switch to "compacts" in the automotive industry seems to have spread to fire fighting equipment—at least in Miami, Fla.

Off duty firemen there built a one-third size model of a 100-foot aerial ladder truck used by the department, complete with rear tiller steering, hydraulically raised extension ladders, emergency generator and power brakes.

The idea for the miniature ambassador began as a method for promoting fire safety and prevention and after 8,600 man-hours of labor, donations, inventive genius, imagination and improvisation, the truck was built.

When the firemen of Station #9 demonstrated their scale model to the school children of Miami area, it was such a hit with the young people and adults that a tour for it was arranged.

The tour through 19 states covered 7,800 miles and included stops in 31 cities where an estimated 350,000 persons viewed the model truck, displays, demonstrations and fire-fighting equipment.

The 30-day trip for the fire engine went from Miami through Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona and to Las Vegas, Nevada where it was the hit of the conference of the International Association of Fire Chiefs.

It returned through Arizona, New Mexico, Oklahoma, Kansas, Missouri, Illinois, Indiana, Ohio, West Virginia, Virginia, North and South Carolina and Georgia.

The firemen of Miami's Station #9 conceived the idea and began work with their own funds on New Year's Eve of 1959 and completed the job in time for the Second Annual Pyroantics Show held Oct. 15, 1960 as part of the Miami celebration of Fire Prevention Week.

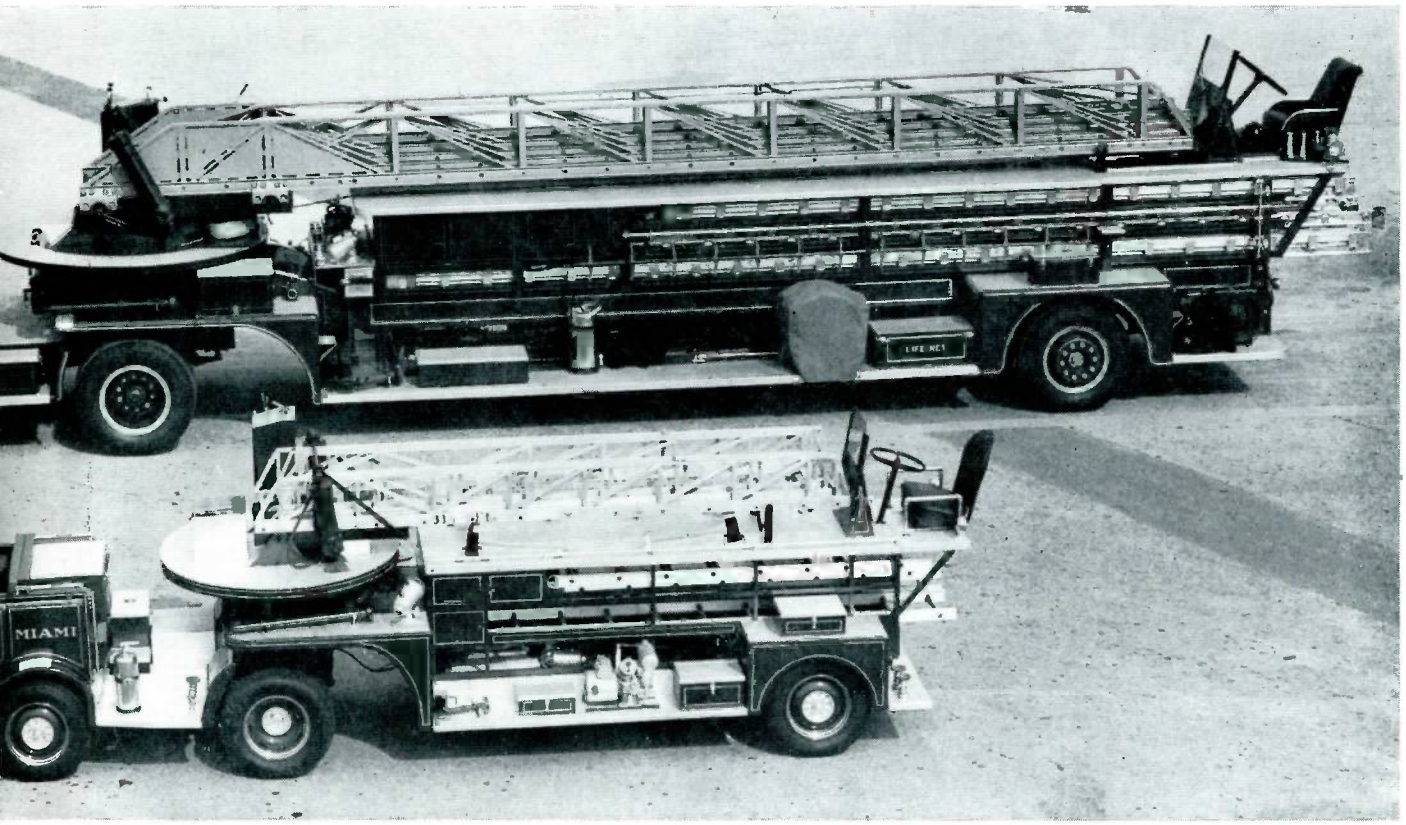
Examining a miniature size model of a Mueller Improved Fire Hydrant are Capt. C. H. McGraw, Sr. of the Miami (Fla.) Fire Department and Chief Byrd L. Davis of the Decatur Department. The small hydrant will travel with Ladder One-Third as part of its equipment display.

According to Fire Chief N. L. Wheeler the firemen were unable to complete the 23-foot-long apparatus with their own funds so the city helped out financially, while the local merchants and manufacturers helped them with equipment and material.

The firemen also used $1,500 of their own money to buy tools with which to work. Miami Local #587 of the International Association of Fire Fighters also contributed to the entire project.

An example of the ingenuity of of the builders is the system for the aerial extension ladders. The hydraulic pumps came from the landing gear of a C-46 transport plane and the ring gear for the turntable is from a jet aircraft engine overhaul stand.

The eagle emblem on the exship's bell is from an old sports trophy.



Ladder One-Third, which took about 8,600 man-hours to complete, was patterned after Ladder Truck No. 1 and was built to proportion from its two-way radio to its portable generator. (Photo courtesy of Miami-Metro News Bureau.)

Similar ingenuity went into the fabrication of many other parts, and often the men worked until two or three o'clock in the morning to complete a particular part or section. A part might be made of discarded pieces from an airplane, boat or automobile or specially machined or fabricated to keep the truck proportionate in size in every detail.

Ladder One-Third is 62 inches wide, 96 inches high and weighs 7,360 pounds. The truck is powered by a standard four-cylinder Jeep engine and travels from 20 to 25 miles per hour.

During its tour Ladder One-Third was carried from town to town on a semi-trailer truck. When they came to a town where a demonstration was scheduled it would be unloaded and driven from the City limits.

The truck also carried the equipment for demonstrations and other fire fighting apparatus. Included in

The little people were interested in the little truck, but the well-traveled ambassador's message relating to fire prevention was important to every one of the estimated 350,000 persons who saw the truck and its displays during its 7,800 miles around the country.

the display was a one-third size Mueller Improved Fire Hydrant which was given to the firemen during their stop in Decatur. The miniature hydrant is a cut-away model carried by Mueller Co. salesmen.

The model truck is as fully equipped as its big brother with the following:

Portable generator for delivering up to 300 watts of electricity for floodlights and spotlights.

Three fire extinguishers.

Two-way radio on Miami Fire Department frequency.

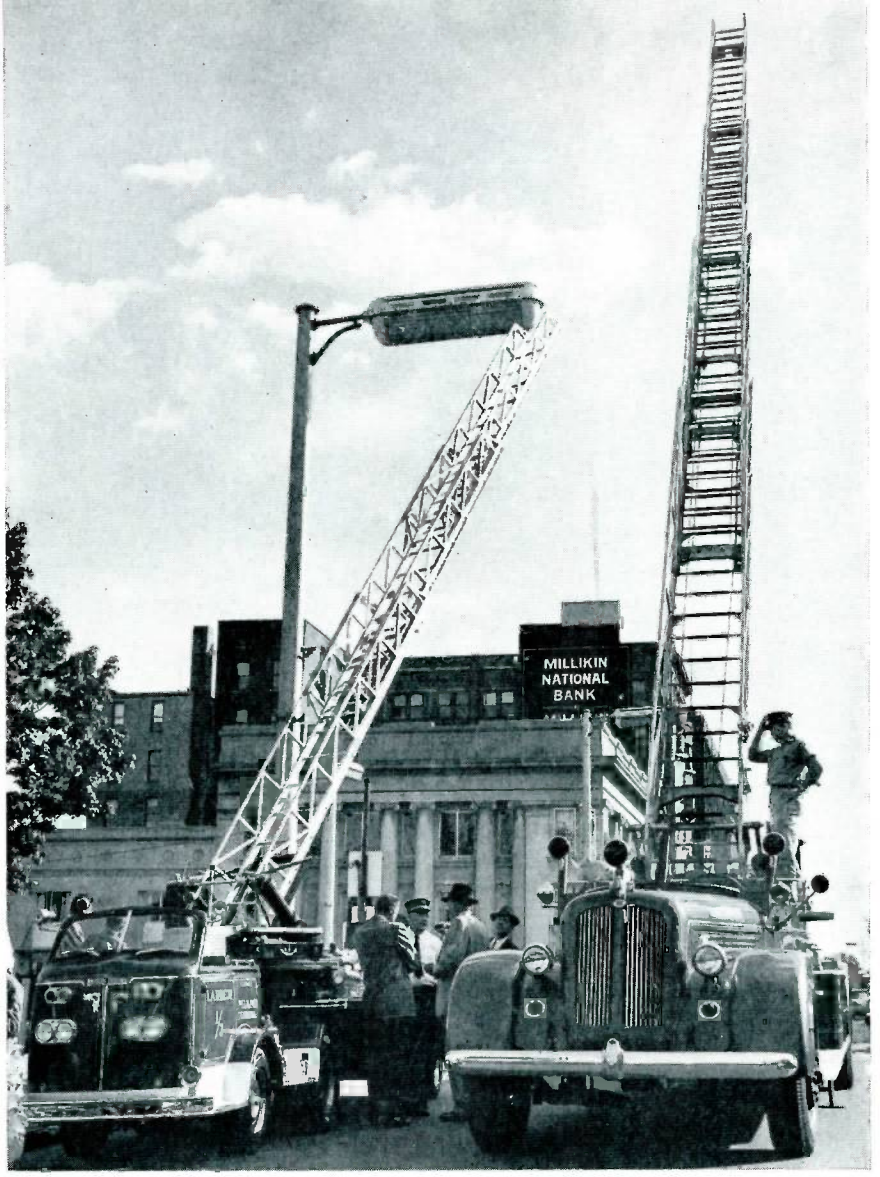
Two axes and two pike axes.

First aid kit.

An aerial ladder that extends to 33⅓ feet.

One hundred feet of 1½-inch hose. This can be hooked to any municipal fire hydrant, and using the pressure from the hydrant, can be used to fight a fire.

All of the City of Miami Departments and Divisions who were asked to help were more than willing to contribute their time and talents, Chief Wheeler said. The Chief, however, did single out Captain C. H. McGraw, Sr., First Class Firemen Charles A. Hawkins, Jack W. McCollum, R. E. Clasby, E. J. Tomasch, Jr., George W. Hooper, H. W. Hughes, T. C. Adams and J. B. L. Vickers, as those who actually built the truck.



In the upper photo a Decatur fireman scratches his head in bewilderment as Ladder One-Third extends its aerial ladder to its full 33⅓ feet. In the lower photo Jack W. McCollum of Miami (left) and Chief Davis check over a model of the Mueller hydrant which was presented to the Miami Department by Mueller Co.'s Vice President and General Sales Manager Dan R. Gannon (center).

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ORISEAL® VALVES NOW RATED AT 175 P.S.I. AND 180° F.

The more positive seal provided by the Mueller Oriseal Valve has resulted in both the maximum water working pressure and test pressure being raised 40% . . . to 175 p.s.i. At the same time, maximum water temperature ratings have been boosted 20% to 180° F. Offering advantages found in no other curb stop, the Oriseal has a "Teflon"* coated, balanced plug that requires no lubrication or maintenance, yet turns freely even after many thousands of operating cycles.

New . . . Oriseal with Minneapolis Pattern!

Mueller Oriseal Curb Valves in the ¾" and 1" sizes available with Minneapolis threads and matching curb boxes.

*DuPont Company registered trademark

New Oriseal Curb Valve Specifications

- Full Round Way Opening
- Solid Tee Head with ¼" rod hole
- Quarter Turn with Check
- 175 p.s.i. Water Working Pressure
- 175 p.s.i. Test Pressure (Every Oriseal Valve is tested with 175 p.s.i. air pressure under water in both open and closed positions—a much more exacting test than hydrostatic testing)
- 180°F. Maximum Water Temperature
- Sizes: ¾", 1", 1¼", 1½", 2" (¾" and 1" also offered with Minneapolis Pattern)
- Inlet and/or Outlet available with Inside I.P. Thread, Mueller Copper Service Pipe Connection

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Blue Flame Whispers

Air Walls Planned For Fair Exhibit

The gas industry has moved a step closer to its spectacular six million dollar exhibit for the 1964-65 New York World's Fair with the approval of plans for its building and completion of a detailed scale model.

One of the dramatic departures from convention in the building is the use of air walls. This is achieved by shooting a stream of air between ceiling and floor. This continuous flow of air will keep out breezes, rain and insects and barely will be felt by exhibit visitors.

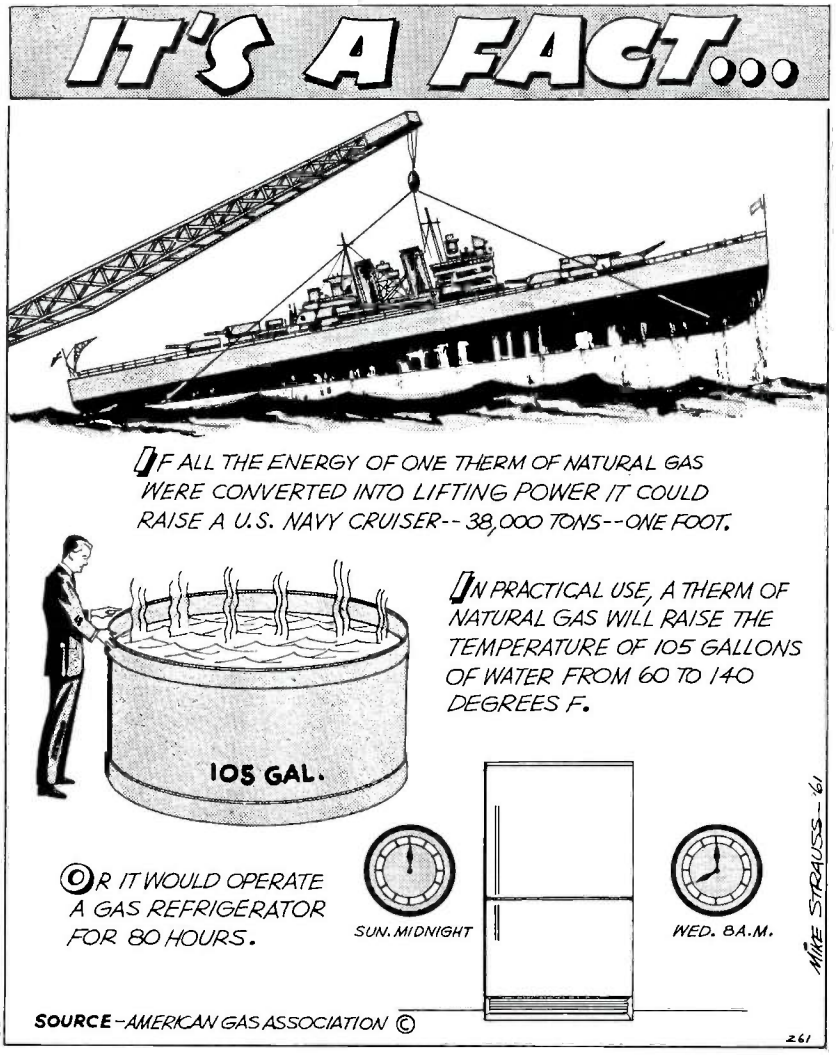
A 200-seat restaurant in the gas building will come close to being an open-air cafe—but with none of the undesirable features which usually accompany outdoor dining. The restaurant will provide a relaxed, quiet atmosphere unusual in a public dining room. Sound will pass right through the air walls.

A small waterfall will ring the three exterior walls of the restaurant, falling into a pool dotted with floating flowers. The fourth, or interior, wall of the restaurant will be of glass. Behind it, and partially visible to diners, will be a gas exhibit kitchen.

Another feature of the main exhibit area will be a four-minute preview of the exhibits. From a 110-foot ring rotating 10 feet above the floor, the visitors can see gas appliances and equipment at a glance before taking a close-up look.

Among the displays will be the gas "weather-making" equipment which will be actually in use keeping the building cool or warm despite outdoor temperatures and the fact that many of the walls will be of air.

In addition to the exhibit area and restaurant, the 40,000 square-foot building will contain offices of the Gas Inc. staff and facilities for industry executives and the press.



Arkla's President Cited by A.G.A.

M. R. Stephens, chairman of the board and president of Arkansas Louisiana Gas Co., Little Rock, Ark., has been named the recipient of the gas industry's highest honor, the Distinguished Service Award of the American Gas Association.

Mr. Stephens was cited as the industry's pioneer in the resurgence of gas air conditioning and gas lighting.

The Distinguished Service Award was established in 1929 and is presented annually by A. G. A. to the individual "who has recently made the most outstanding contribution to the general interest of the gas industry."

The 1961 Award winner has been chairman of Arkansas Louisiana Gas since early 1957 and president since early 1958.

Gas Clock To Mark Hours With Flame

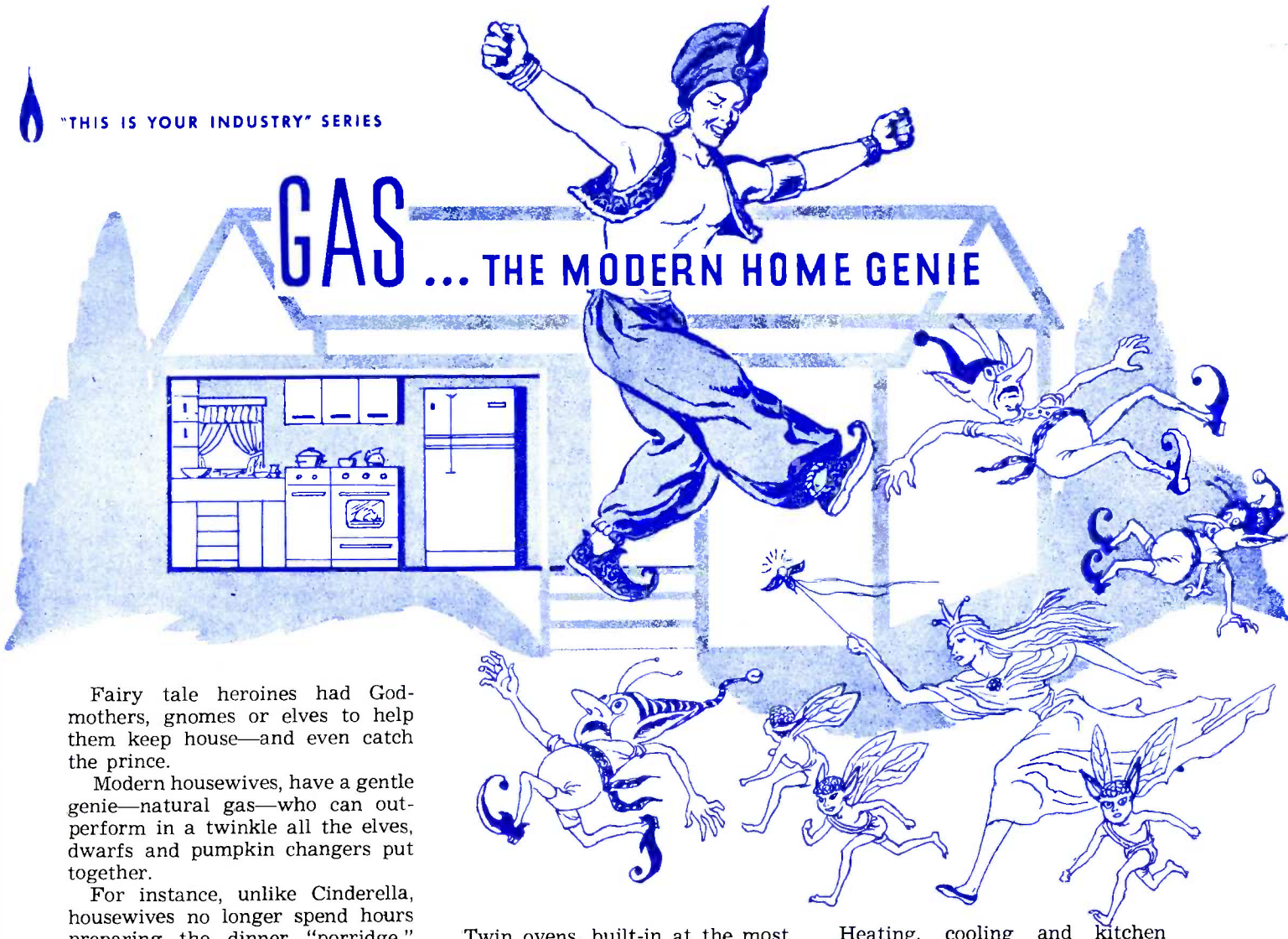
A gas clock which "strikes" the hours with bursts of flame will top the gas industry's building at the 1962 Seattle World's Fair.

The clock will be a tower rising from the center of the circular building. From the tower will radiate 12 big spokes, representing the hours of the day.

Time will be indicated by the number of spokes which are lighted. The hours will be "struck" by bursts of flame from a central column rising higher than the other spokes.

"THIS IS YOUR INDUSTRY" SERIES

GAS ... THE MODERN HOME GENIE



Fairy tale heroines had Godmothers, gnomes or elves to help them keep house—and even catch the prince.

Modern housewives, have a gentle genie—natural gas—who can outperform in a twinkle all the elves, dwarfs and pumpkin changers put together.

For instance, unlike Cinderella, housewives no longer spend hours preparing the dinner "porridge." Today's genie cooks dinner, breakfast and lunch, with a minimum of supervision. He keeps perishable foods fresh, heats the house in winter and cools it in summer, elminates garbage and trash, provides hot water and dries clothes—all automaticlly.

He does it without overflowing drip-pans, baskets of damp clothes, buckets on the stove, garbage cans, coal shovels or fuel storage tanks.

Like the Godmother's wand, revolutionary gas appliances, through which the genie performs his miracles of convenience, are bringing greater leisure time for the "Castle Ball."

The "burner with a brain" made every kitchen utensil an automatic appliance. An improved companion turns the oven on, attains the proper temperature, holds heat level constant, then shuts off at a preset time to provide perfect baking and roasting.

Twin ovens, built-in at the most convenient height for the individual, feature separate control and burner for broiler cooking. Amazing new infra-red burners cut cooking time in half, reduce spatter to a minimum and seal in natural juices. An eight-pound roast can be cooked to perfection in just 28 minutes with infra-red heat.

The genie's tools are not as small as the Godmother's wand. However, engineers and scientists have created space-saving combinations.

One new range performs all cooking functions and furnishes ample supplies of hot water—without an increase in present size. Another range has a giant burner which can be used simultaneously for room heating, baking and surface cooking.

Thermostats which regulate winter heat, now control summer cooling. No adjustments, no manual direction, no supervision is ever required for perfect year-round climate control.

Heating, cooling and kitchen duties are less than half the genie's household chores.

In home utility rooms, new gas clothes dryers operate unattended. They detect the amount of moisture remaining in the load and automatically shut off the dryer when a desired degree of dryness is attained. A new gas water heater can be increased from 30 to 50-gallon capacity simply by turning a dial.

Among the most startling developments soon to appear on the market are gas appliances which generate their own electricity. They will operate completely independent of outside sources of electricity—and manual control.

Already, a gas wall heater using this unique principle produces its own electricity to power a circulating fan.

Thus, the gentle genie of gas has replaced the magic wand and is making every housewife a fairy tale princess.

New Orleans, La.

Service Center in Spotlight

Gas Lighting Upstaged Actors In Early Days

This story is about new buildings and facilities which were made necessary because of steady gas system growth in New Orleans in recent years. To best understand this need, a brief history of the growth of the gas system will be related.

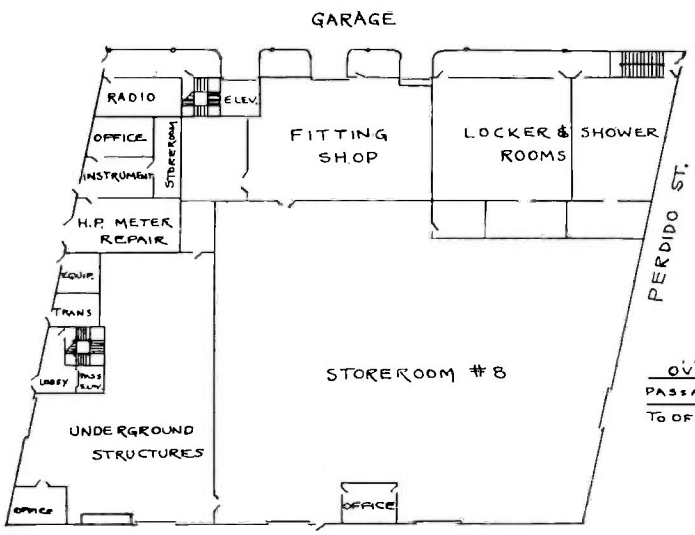
New Orleans was one of the first cities in the United States to use gas largely through the efforts of one man, James H. Caldwell. This individual was an English actor who opened his American theatre in New Orleans on January 1, 1824 and being a born showman, when the first show was produced, he advertised neither the play nor the players—but the premiere of gas lighting. Caldwell bought the equipment for making the coal gas from England and also brought an expert to operate his plant.

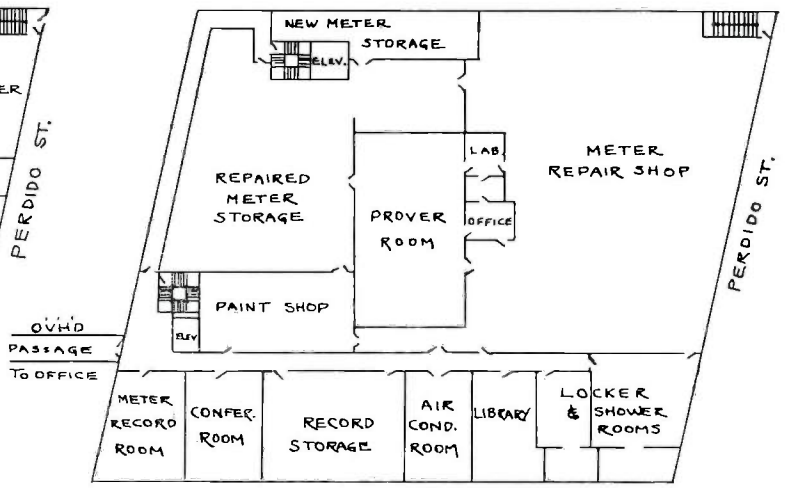
Five years after the opening of the theatre in 1829, Caldwell tried to organize a company to bring the benefits of this new type of illumination to the city. Failing to attract investors to this new and untried business, Caldwell decided to go it alone, and on February 19, 1834, he broke ground for his new plant on Magnolia Street, one block away from the present location of the new Gas Service Center. On August 6, 1834, Caldwell's plant first began to make gas.

For the nearly two score years which intervened, the New Orleans Gas Light Company was an expanding business. In 1840, it boasted two holders and 14 miles of main to serve about 3500 gas lights. By 1845, it had five holders but it was found necessary to begin a $150,000 expansion program to keep pace with the city's growth. By 1850, the production capacity of the plant had risen to 300,000 cubic feet per day, and a sixth holder was being built, with a capacity of 240,000 cubic feet.

In 1861 came the Civil War, and in 1862 the city, a prime Union objective, fell to the Federal fleet of Admiral Farragut and was occupied by General Butler's men.

Even the black days of war and reconstruction failed to halt the growth of the gas business. In 1873 a peak annual usage of 250 million cubic feet was reached, as compared with 31.3 million cubic feet in 1846.





The new New Orleans Gas Service Center is located on the fringes of the business district where the two-story building is centrally located for greater efficiency in its use as a storage and repair facility.

But 1873 was the peak year of the use of gas in the old days. Financial troubles, brought on by unsound mergers forced by the "Carpetbaggery" of the times, beset the gas company. Then electricity entered New Orleans in 1880. From its high of 250 million cubic feet in 1873, gas production dropped to 200 million in 1901.

The growing city continued to demand a growing supply of gas, which was now being used for several residential and commercial purposes By 1917 the system had extended to 437 miles of main to serve 48,063 customers. That year the company sold 1.4 billion cubic feet of gas.

On August 22, 1928, Public Service brought natural gas into the city, bringing a new phase in the growth of the gas industry in New Orleans The changeover of some 300,000 appliances, owned by 70,000 customers was done in the record time of 15½ days by some 300 men without interruption of service and without a single major accident!

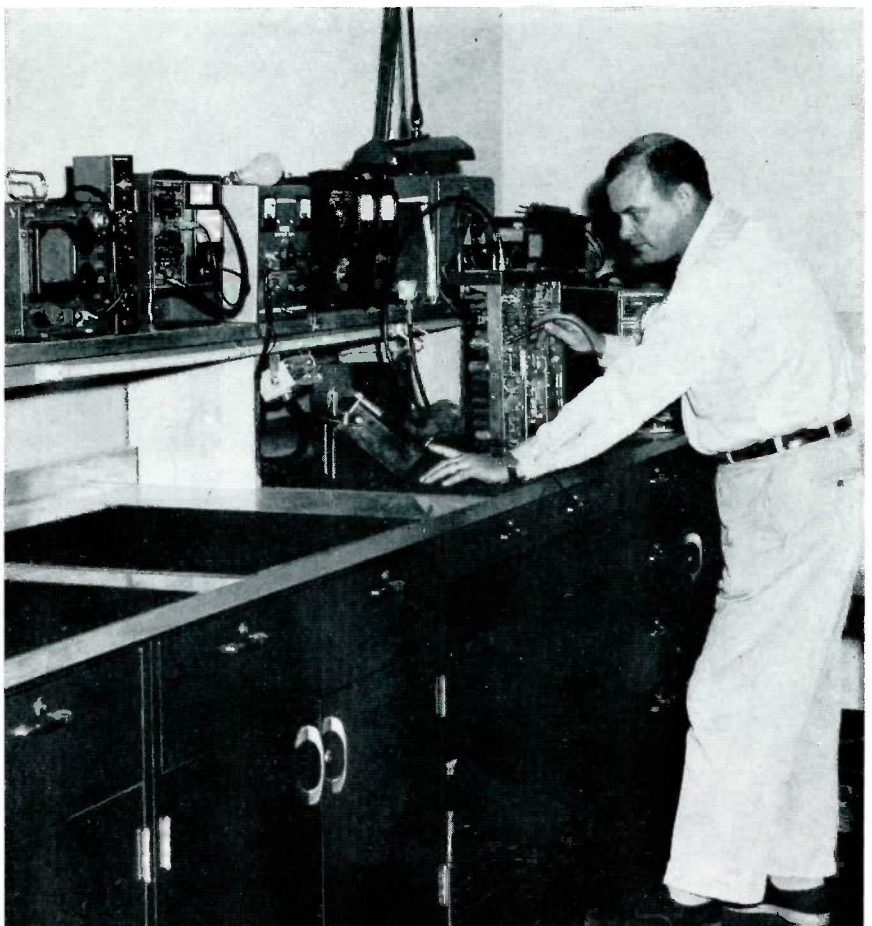
The flames in the gas-making plant finally died on September 8, 1928 after 94 years. But the plant was not abandoned. Between 1933 and 1935 all operating equipment was completely converted to the manufacture of high B. T. U. oil gas, and in 1937 and 1938 the process was further improved, increasing the capacity.

The growth and development which has characterized our Gas Department since the advent of natural gas is very clearly reflected in these brief statistics. The gas usage, including electric power plant requirements, has grown from 4 billion cubic feet in 1928 to 13½ billion by 1930, 19 billion in 1940, and approximately static at 39 billion from 1950 through 1956. From 1956 through 1960 the usage increased again from nearly 40 billion to nearly 51 billion.

With all of this system growth taking place it is reasonable to assume that the need for allied facilities to make all of these changes possible would increase rapidly, also. For instance, as a result of continued system growth, required by new gas customers in New Orleans, there was an increased demand for gas meter and regulator testing, adjusting and repairing. This need naturally caused existing meter repair shop facilities to become outmoded because of limited space and obsolescence of meter testing and repairing machinery. This same situation also caused shortcomings in other facilities such as storerooms, miscellaneous repair shops, and those conveniences normally provided for the personal use of employees.

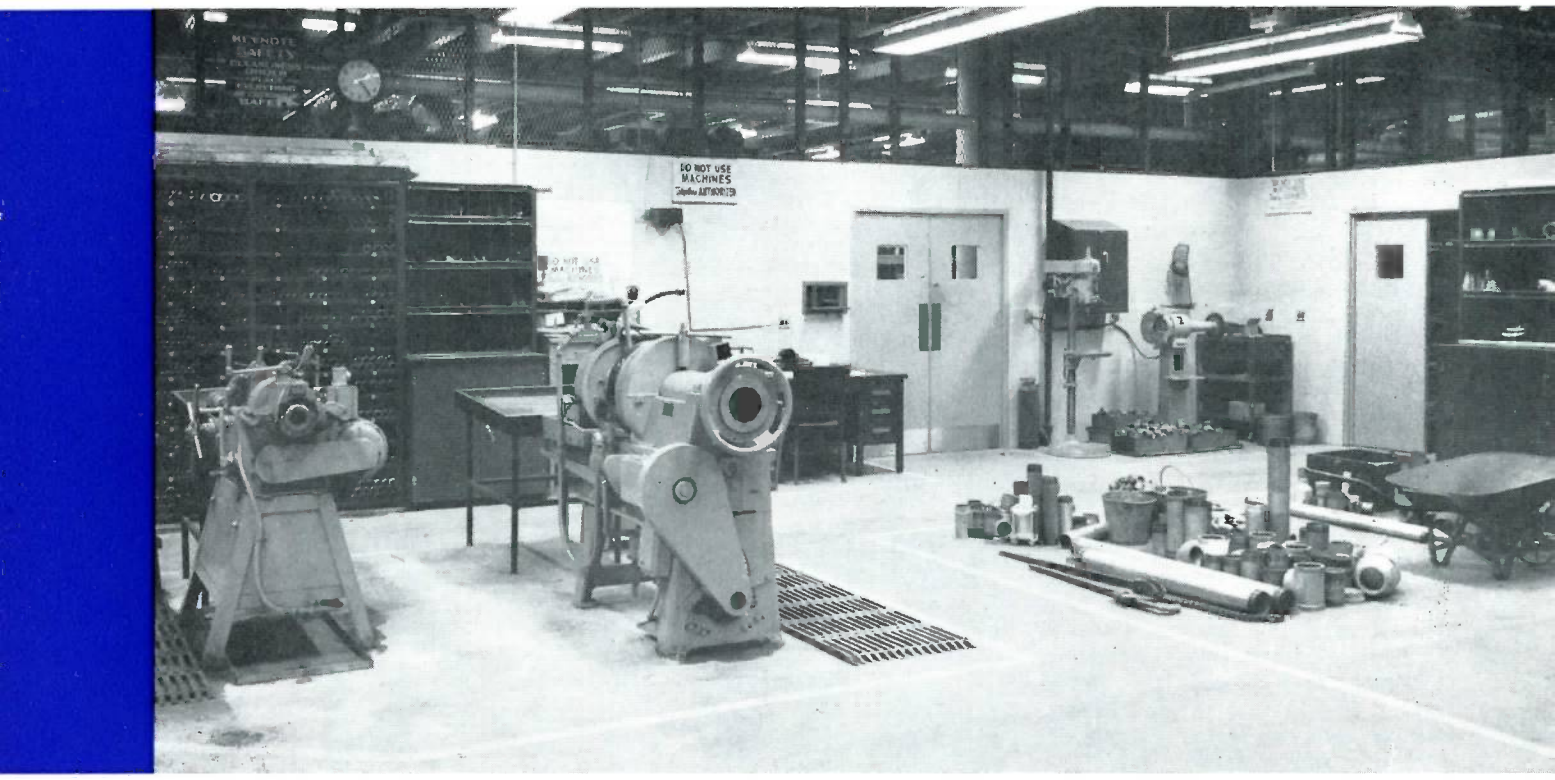
The most recent answer to this countinuing problem of growth in New Orleans was provided by a new Gas Service Center Building, located conveniently on the fringes of the business district, bounded by Poydras, Magnolia, Perdido and Clara Streets. Enlarged stores and repair facilities are housed in a new two-story building which is pictured and shown in two accompanying sketches, indicating the general layout of the floors. To the rear of the Service Center a ground floor covered garage building was also provided.

The radio repair shop, a part of the Measurement Section, is equipped with many specialized instruments which are needed in the routine maintenance and repair of electronic equipment.



This view of the underground storeroom shows facilities that have been provided in order to store fittings and equipment in an orderly manner.

The Customer Service Section's fitting shop is well lighted, clean and orderly. There is ample space for the salvage and storage of fittings and for fabrication of utilization pressure meter sets.



After final spraying a conveyor carries the newly painted meters into the storage area where they are kept in stock. The conveyor runs between the spray room and the storage area so that the meters aren't handled until they are dry and ready for storage.

This is the large tin meter area of the Measurement Section's meter repair shop.

Repaired meters are loaded on the conveyor which takes them through a degreasing unit (center) to a paint booth (right) where they are sprayed. Each meter makes three trips around the conveyor, the first two for coats of zinc chromate iron oxide primer and the last for a coat of aluminum.

Strictly *Off the Record*

The baby sardine saw its first submarine, and went swimming in terror to its mother. "Don't be frightened, darling," she reassured him, "It's only a can of people."

Two Americans were cast away on a desert island in the middle of the Pacific for some three years. One day they stepped to the shores of the island and stood gazing out onto the horizon. Suddenly, one spotted a bottle being washed ashore. He raced out into the surf and pulled it in. It was one of those new king-sized Coca-Cola bottles. He looked at it; then suddenly, a frightening realization crossed his mind, "Joe," he shrieked, "we've shrunk!"

There are more important things in life than money—but they won't go out with you if you're broke.

Two little flies were strolling along the ceiling of a New York penthouse apartment. "You know," remarked the first little fly, "human beings are so silly."

"People are silly?" replied the second fly. "How do you figure that?"

The first little fly shrugged his wings. "Just take a good look," he chirped. "They spend good money building a nice high ceiling, and then what do they do, but walk on the floor."

Two men were traveling on a motorcycle on a windy, winter day. When it became too breezy for one, he stopped and put his overcoat on backwards to keep the wind from ballooning it away from him. A few miles farther on, the motorcycle hit a tree, killing the driver and stunning the fellow with the reversed coat. Later, when the coroner visited the scene, he asked a rookie policeman standing nearby: "What happened?" "Well," the officer replied, "one of them was dead when I got here, and by the time I got the head of the other one straightened around, he was dead, too."

"Darling, Isn't It Thrilling! 104¼ Miles Per Hour!"

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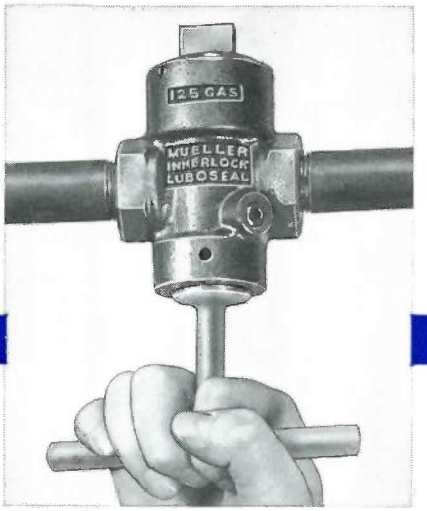
INNERLOCK LubOseal® gas stop

...for positive, safe shut-off and control!



Anybody turns it off...

... quickly and easily with a common wrench. To avoid creating a dangerous situation, this stop can not be turned on with any tool normally found in the home.

Service man turns it on...

... with a twist of a special wrench available only to authorized personnel. Service is quickly restored when it is safe to do so and stop is automatically reset for future shut-off use.

Mueller is first with a brand-new Innerlock LubOseal gas stop that gives you *positive control of service turn-ons.*

The customer or occupant can quickly and easily turn the stop "off" with a common wrench. But a special wrench, available only to an authorized person or the L.P.G. Dealer, must be used to turn the stop to the "on" position.

This unique design simply and effectively prevents the occupant from unauthorized use of gas. After turning off the gas to install an appliance, for occupant moving or in an emergency, the occupant must call the authorized person or service company to have the gas turned on again.

The Innerlock LubOseal stop assures complete control for single or multiple services and eliminates unauthorized "turn on".

The Innerlock LubOseal is quickly and easily adapted to copper pipe.

Please send more information on the Innerlock LubOseal safety stop.

Name_____

Company_____

Address_____

City_____ Zone____ State____

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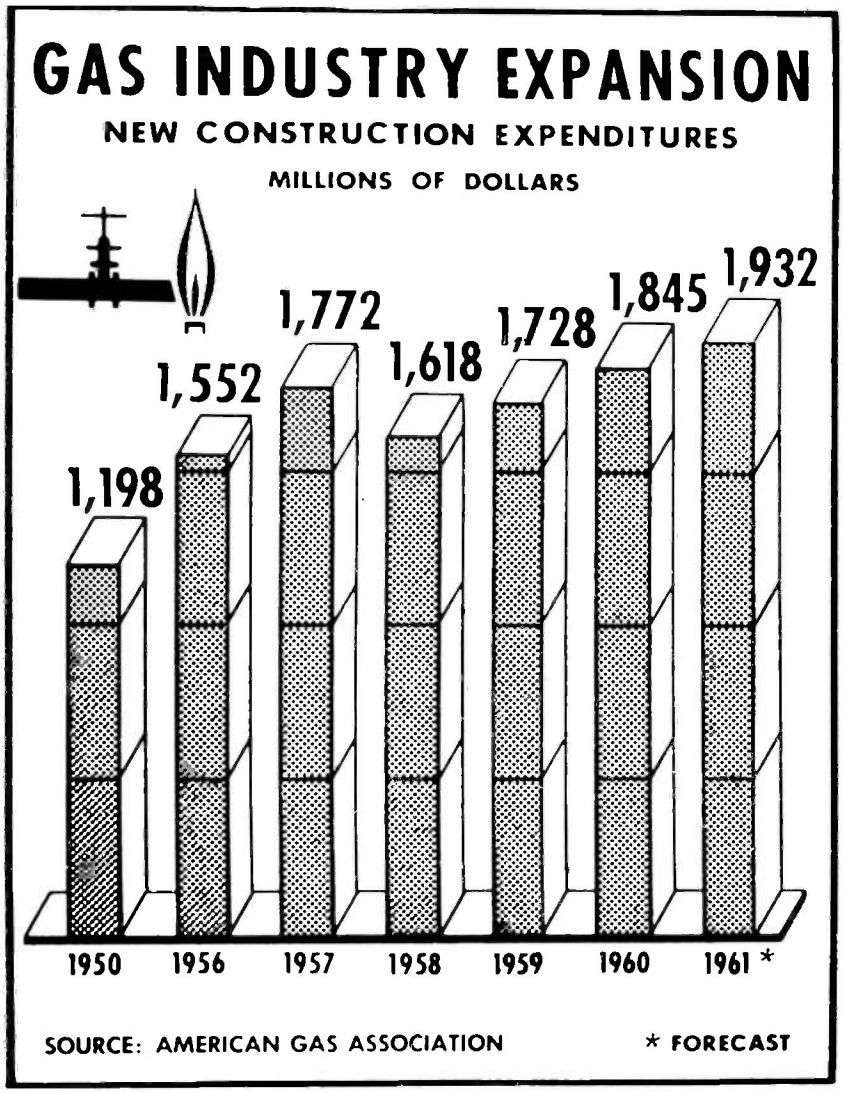

The gas utility industry, including natural gas pipelines, will spend a record $1.9 billion for expansion of transmission, distribution and storage facilities in 1961. Record outlays of $1.8 billion in 1960 were 50 percent higher than construction expenditures in 1950.