MUELLER Record

JANUARY • 1958

"Our General Sales Manager" . . . See Page 13

Mueller Record

January 1958

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

Editor: JIM M. MILLIGAN
Member Industrial Editors Association of Chicago
and International Council of Industrial Editors

FACTORIES
Decatur, Ill. Chattanooga, Tenn. Los Angeles, Calif. Sarnia, Ont., Canada

SALES OFFICES
New York San Francisco

Recording Our Thoughts

We would like to direct your attention to the letter from Clare H. Zachry on the back cover of this issue. We think it is an excellent and inspirational piece of correspondence, and it gives us a great deal of pleasure to re-print it here. Next month, the back cover will contain a letter from Mr. Fred Merryfield, President of the American Water Works Association. Thanks, gentlemen!

We hope you find the story on the Memphis, Tennessee, Gas Division enjoyable; this writer spent two extremely pleasant and profitable days visiting the utility division some months ago.

We certainly owe a great deal of thanks to three men of the Memphis Light, Gas and Water Division. They are: Eugene H. Wood, Chief Engineer of the Gas Division; C. W. May, Superintendent of Gas Operations; and Dewey C. Benson, Superintendent of the Distribution Department.

Eugene H. Wood is a native of Tennessee. He received a B.S. degree in Mechanical Engineering from the University of Tennessee in 1935. Most of his experience has been with the Memphis Light, Gas and Water Division. During the Second World War he was employed by E. I. DuPont in a munitions plant. After the war, he returned to the Memphis utility, and held the positions of Assistant Superintendent of Gas Operations, Assistant Chief Engineer of the Gas Division, and, finally, Chief Engineer of the Gas Division.

C. W. May was born in Memphis, and received his education in local schools. He joined the Memphis Power & Light Company (predecessor of the Memphis Light, Gas and Water Division) in 1934; previously he was with the U. S. Engineers District. He has served in various capacities in the Gas Operations Department, and became Supervisor of the Gas Service Department in 1948. He remained in this capacity until 1954, when he assumed his present role—Superintendent of the Gas Operations Department.

Dewey C. "Doc" Benson is a native Hoosier; he was born near Owensville, Indiana, and was educated in the school system there. From 1917-19, he served with the armed forces in France. After his discharge, he worked for the Texas & Pacific Oil Co., Ranger, Texas; Chestnut & Smith Corp., Ranger, Texas; Sun Oil Co., also in Ranger; White Motor Co., in Indianapolis and Memphis; and Tropical Oil Co., Columbia, South America. He took employment with the Memphis Light, Gas and Water Division in 1936.

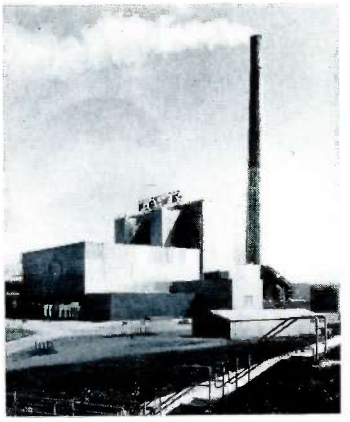
Throughout his working career, he has held the positions of: mechanic, service representative, draftsman, structural designer, superintendent of transportation, construction foreman, shop foreman, and numerous others.

Before becoming Superintendent of Gas Distribution, he saw service in the Water and Electric Divisions of the Memphis Light, Gas and Water Division, from which he has gained a broad perspective of the many services rendered by his present employer. A colorful figure and excellent artist, his fine spirit of co-operation has gained him many friends.

From these three men have come most of the information contained within the story. We also owe a debt of gratitude to a man who, due to the very nature of his job, is frequently overlooked. That man is Lewis H. Heyman, Public Relations Director of the Memphis Light, Gas and Water Division. Without his fine co-operation, it would have been impossible to bring you such a comprehensive picture of the Gas Division.

Wonder how you'll ever make it through a busy day? Try these tips: (1) Conduct as many short conferences as possible while standing. You are more likely to be concise and less time-consuming; (2) conduct as much business over the telephone as possible, thus eliminating needless personal conversations; (3) start your work day a little later, and stay for about one hour after everyone has gone home. You'll be amazed at the amount of work you can accomplish in a single, uninterrupted hour. ('Course, we'd be more than pleased if you used that hour for reading your latest issue of the **MUELLER RECORD!**)

Our Cover this month is the Morro Bay Power Plant of Pacific Gas and Electric, site of salt water conversion. For details, see page 20.



Contents

Preview

The February issue of the RECORD is power-packed with the kind of human drama that makes you sit up and take notice. Read the true, heart-warming account of a visit to the Georgia Warm Springs Foundation, and learn the important part water has played in combating the dread poliomyelitis. We guarantee it's a story you'll want to re-read, and then pass on to your friends. AND, we'll venture a guess that the annual MARCH OF DIMES drive will receive some extra attention from those of you who number it among your charities.


HEAT
WITH
NATURAL
GAS

Q U I E T

The Torch of Progress Burns Brightly

This is a view of the new Gas Service Center of the Memphis Light, Gas and Water Division. When construction is completed in 1958, it will be among the finest such installations in the country. The buildings are housed on a 44-acre section, and a modern pipe-coating and wrapping plant was built in 1953.

MEMPHIS, TENNESSEE

City Of The South

BEAUTIFUL MEMPHIS SNUGGLES against the mighty Mississippi as it winds its way through Tennessee to the Gulf. It is a quiet city with abundant churches, public recreational facilities and a fine zoo. It is inhabited by friendly people who have a stake in the city's growth.

Many of the local industries have a stake in the future of Memphis, also; but, perhaps no single company has a greater interest in the welfare of the city and its potential than the Memphis Light, Gas & Water Division—the city's publicly-owned utility that has accomplished so much through its foresight.

It would take many issues of this magazine to cover the amazing perception and growth of each of the divisions of this utility, so we will confine our report to the Gas Division.

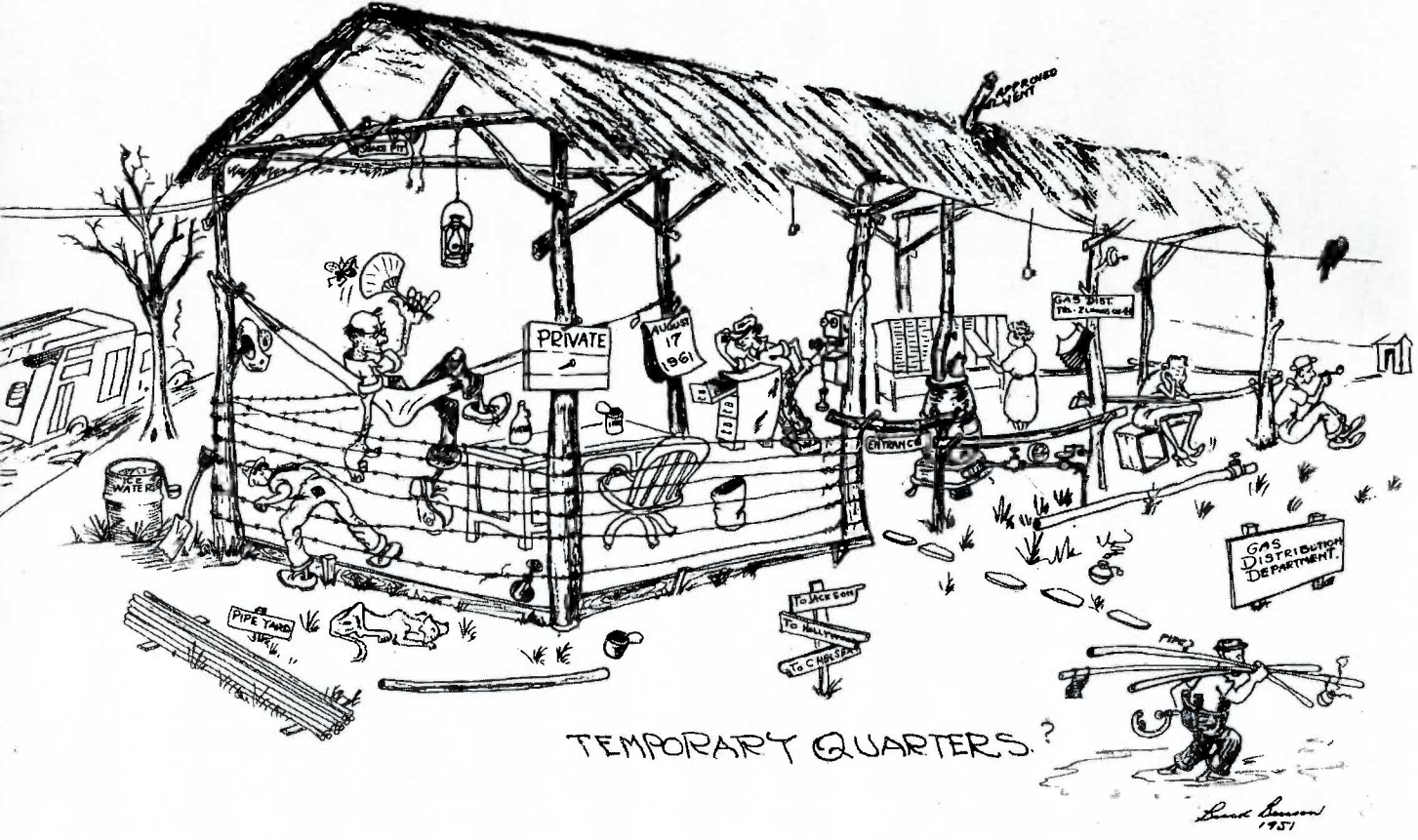
The 1850 census credited Memphis with a population of almost 9,000. The following year, The Memphis Gas Light Company was incorporated. The first plant was constructed near Gayoso Bayou in 1852, and river boats unloaded coal at the bayou dock. It might be pointed out that the city of Chicago instituted its first gas service in 1850, which placed Memphis only two years behind that metropolis of 23,047 people.

In 1868, the Memphis Gayoso Gas Company was formed, and its plant was built at Fort Pickering. Three years later, Chicago suffered its great fire. Memphis, however, suffered its epidemics of yellow fever from 1873 through 1879. The population found itself in a disastrous financial and psychological condition. The charter of the city itself was dissolved in 1879 and not restored until 1893. During those bleak years, it looked as if the city might become a ghost town.

The Equitable Gaslight Company, a Tennessee corporation, was chartered in 1886; soon its stockholders gained controlling interest in the Memphis Gas Light Company, and in 1892 changed the latter's name to New Memphis Gas Light Company. Both companies then operated as separate entities until December 29, 1898, when a city ordinance authorized consolidation as the Equitable Gas Light Company.

In early 1887, the Memphis Light & Power Company was incorporated, and secured a charter to supply ". . . electric lights, power, heating and all other purposes to which electricity might be applied . . . ."

The gas company and the electric company became competitors for



When Dewey "Doc" Benson, Superintendent of Gas Distribution, was asked for his opinion on temporary quarters while the new Gas Service Center was under construction, he jokingly portrayed his ideas in the above drawing. Although this "art" is on the light side, we were privileged to see two of Mr. Benson's excellent paintings, and insist that he cannot justifiably be called an amateur.

home and street lighting; to consolidate their affairs would eliminate this competition and reduce operational costs under a single management. In hopes of gaining lower rates, the city passed an ordinance in 1898 authorizing the consolidation of the two utilities.

The utility business was in an even greater state of flux for the next five years, with new companies being formed and being dissolved at a rapid rate. Then, in 1903, the City of Memphis acquired existing water properties. In 1935, electric distribution was included in municipal ownership, and natural gas was added in 1939.

Natural gas replaced manufactured gas in Memphis in 1929, coming to the City through a single 18-inch pipeline from Monroe, La. Since then, another 18-inch line and two 26-inch lines have been added. All transmission lines are owned by Texas Gas Transmission Corporation, which now brings gas from Louisiana and Texas fields.

GAS OPERATIONS DEPARTMENT

The Gas Operations Department, to keep abreast of a rapidly expanding gas system, has been almost constantly involved with changes in method and procedure for the past fifteen years.

Although many accomplishments were recorded during this period of time, two have been recognized as outstanding, and have drawn praise from gas companies throughout the country. These two are the Gas Dispatching System and the Servicemen's School of Instruction.

By 1944, Memphis' distribution system had expanded and gas demand had increased to such an extent that methods used for pressure control were inadequate for the 1100 miles of gas mains. There was no continuous record of pressure throughout the system, and considerable delay in discovering low pressure areas was frequent. This brought about many customer complaints, resulting in additional work for the servicemen and inconvenience to the customers.

The institution of the gas dispatching department was the first in a series of improvements designed to correct these undesireable conditions and to coordinate efforts with the pipeline company supplying natural gas to Memphis. The Gas Department planned a long-range program of telemetering and remote pressure control instruments. From a modest beginning with twelve telemetering transmitters and receivers to provide continuous indication and record of pressures at vital locations in the system, the program has gradually expanded until there are now 198 telemeter installations in service. In addition, there are 72 district pressure regulators remotely controlled from the dispatching office. The dispatcher has constantly before him these indications and recordings of the gas pressures in the system, and around-the-clock, finger-tip control of these pressures.

The gas dispatching department has relieved the service department of unnecessary, costly operations. Pressure troubles in main line distribution have been reduced to a minimum. Furthermore, daily information obtained by the dispatching department has been of vital assistance to the engineering

department in locating areas which need additional gas pressure. Such progressive thinking and decisive action have resulted in lower operating costs, smoother service operation, better customer relations and many other benefits which more than justify the expenditure involved.

All service and distribution trucks have two-way radio communication with the gas dispatcher and central control room. This expedites normal and emergency service.

The end of World War II brought with it another problem—a shortage of servicemen in the customer gas service department. The demands upon the department, increased by rapid addition of customers, required putting men in the field without desirable training. However, this was necessary to avoid impairment of customer service.

As a result of discussion and study, a training laboratory was installed to supplement the training program.

Representative gas appliances, which incorporated every basic principle of gas appliance operation, were installed in this laboratory. The equipment was installed to be operated under similar conditions found on customers' premises.

Trainees are instructed through the lecture medium and actual installations. After being shown how, they are allowed to do the work themselves.

The latest methods of testing appliances for trouble are used during the training sessions. The trainees learn to locate the trouble and correct it. They are taught the proper use of tools and instruments. Too, they receive a detailed explanation of natural gas from the gas wells to ultimate consumption. They are required to learn the controls of appliances, large or small.

Trainees receive initial laboratory courses of 120 hours of detailed study. They are then sent into a field training course for another 120 hours—then back to the school for a review course of 40 hours.

The school is operated only during the summer months; after two summers of operation, the increase in the efficiency of the service group was astounding. From careful checking and observation, it has been learned that the inauguration of this special training has created a highly-trained and efficient group of servicemen.

Other important phases of the Gas Operations activity are not to be overlooked.

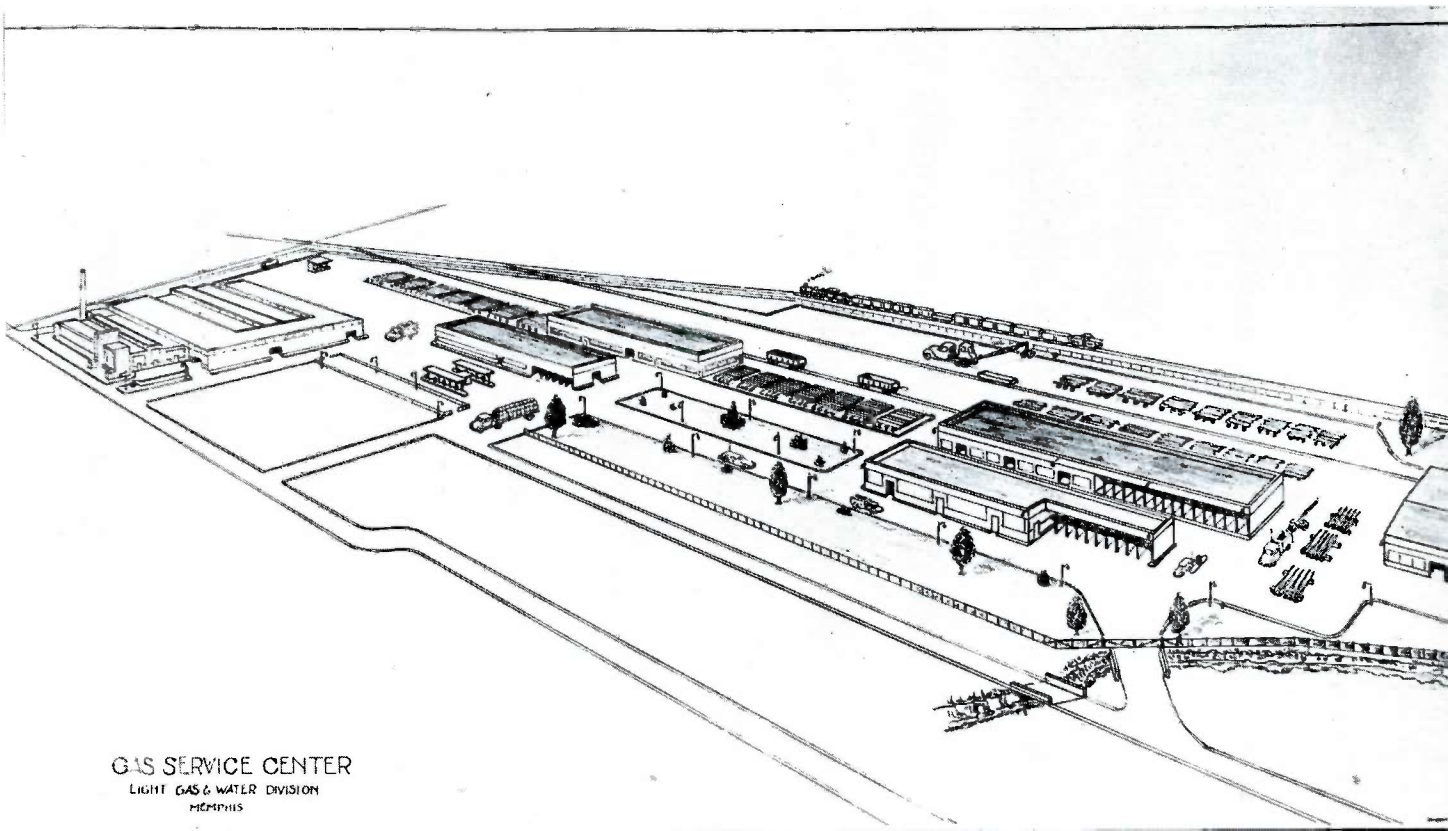
The gas meter shop consists of a supervisor, a foreman, twenty meter repairmen, two shop helpers, an instrument repairman, one orifice meter maintenance man, and two clerk-typists. This department has the responsibility for repairing and testing all domestic and industrial positive displacement meters, orifice meters, pressure-recording instruments and service regulators, and keeping meter records. In addition, the department must stock fitters' trucks with meters before work-time each day.

During the last twelve months the shop has repaired 14,118 meters, tested 6,795 new meters, repaired 2,102 service regulators and tested and set outlet pressure on 3,395 new service regulators.

Even with this tremendous work load, the safety record of the meter shop is outstanding. In October, 1957, about 358,000 man-hours had elapsed without a single lost-time accident.

Working closely with the shop is the chart room, composed of eight employees, who annually compute over 32,000 positive displacement and orifice meter charts.

This is an artist's conception of the completed Gas Service Center. Most of the buildings pictured here are already finished. The long, low building in the approximate center of the photograph is the modern pipe-coating and wrapping plant.



The Gas Dispatcher's Office is a busy and efficient place. This is a partial view showing some of the 198 telemetering devices in operation. In addition, there are 72 district pressure regulators remotely-controlled from this office.

The gas plant section is responsible for the maintenance and repair of emergency standby equipment consisting of the boiler plant, compressors, propane-air plant, and gas holder. The propane-air plant consists of fifteen 30,000 gallon propane tanks, containing a normal storage capacity of 375,000 gallons of propane. The capacity output is 750,000 cubic feet per hour (1,000 B.T.U. propane-air gas).

The pressure regulation section is responsible for the maintenance, repair, adjustment and operation of all main line and large industrial regulator installations. Three radio-equipped regulator trucks are on constant call for any of the 201 district regulator installations where trouble is indicated.

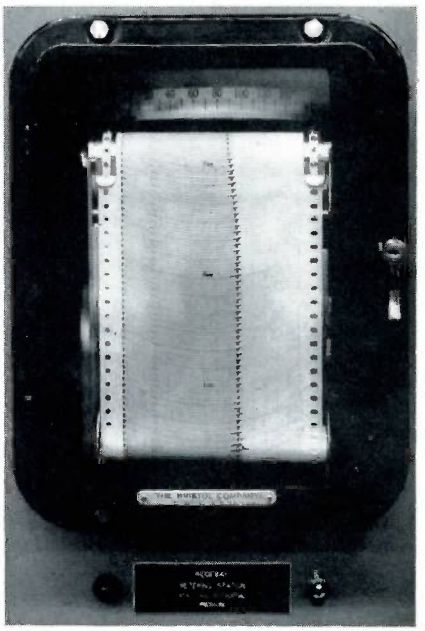
In addition, this group is charged with the periodic inspection, maintenance and repair of the odorizers in the distribution system, the grounds at the above-ground installations, and regulator and valve vaults.

The personnel in this section consists of: one supervisor, three foremen, seven regulator repairmen, eight regulator attendants, two chart changers and two laborers. This group of skilled men keeps constant watch over two important functions in the distribution of natural gas—pressure and odorization.

GAS ENGINEERING DEPARTMENT

The gas engineering department was formed soon after the gas properties were purchased in 1939, and vested with the responsibility of designing the facilities which were to become the distribution system of today, and preparing and maintaining a permanent record of all property additions.

In order to carry out this assignment, the Engineering Department initially called on the parent company's electric engineering department for a basic set of maps on a scale of one inch to one hundred feet. In 1939, "Operation Oil Cloth" was begun—the accumulation of important data from personnel and from an antiquated, one-set mapping system drawn on an oil cloth. In addition to this data, a "main laid" record was available in a card system, and some underground fitting locations were available, arranged in chronological order as installed. Vital service information and locations were often secured from the memories of personnel.



Each of the 198 instruments is sensitive to the pressure maintained in the district it controls. A red light flashes when pressure varies greatly.

A grid system of mapping was

established to show all gas mains in the distribution system, and important fittings and valves accompanying these installations and their locations were listed. Now, the distribution department is furnished with a foreman card showing locality and nature of the installation on one side; the reverse side is detailed information on fittings and their location, depth, etc. When the foreman completes the card, it is forwarded to the engineering department, where the information is transferred to mapping and statistical records. After data is placed in all pertinent records, the foreman card is placed in a filing system for ready reference and verification of mapping. Intricate but efficient filing systems are also provided for customer requests, and valve locations and conditions.

The Gas Engineering Department has had the responsibility of facility designing since its inception. District regulators increased from 90 in 1944 to 201 in 1957. The majority of these installations are accessible and well-located to serve the needs of the system. Each has been equipped with adequate relief facilities, and many are remotely-controlled from the gas dispatcher's office. This system of remote-controlled pressures, recording pressures, and recording city gate metering has been engineered in the Gas Engineering Department, with the capable assistance of equipment manufacturers. Improvements are being made continually.

The most recent project of the Gas Engineering Department was the design of a new city gate station and a new central odorization station. This included six miles of 16-inch steel transmission line of 1000 psi design, and eight and one-half miles of 22-inch steel transmission line of 500 psi design. These new additions will provide the entire distribution system with an additional source of supply, and provide facilities to supply the Thos. H. Allen Electric Generating Station with off-peak gas during summer months.

The twelve years between 1944 and 1956 brought increased need for the adequate system of records established by the gas engineering department. In 1956, customers numbered 147,694—a 180 per cent increase over 1944.

It is the obligation of the Gas Engineering Department to provide adequate facilities for a continued high standard of service to all customers and to provide a complete record of the distribution system which may be used to advantage for many years in the future.

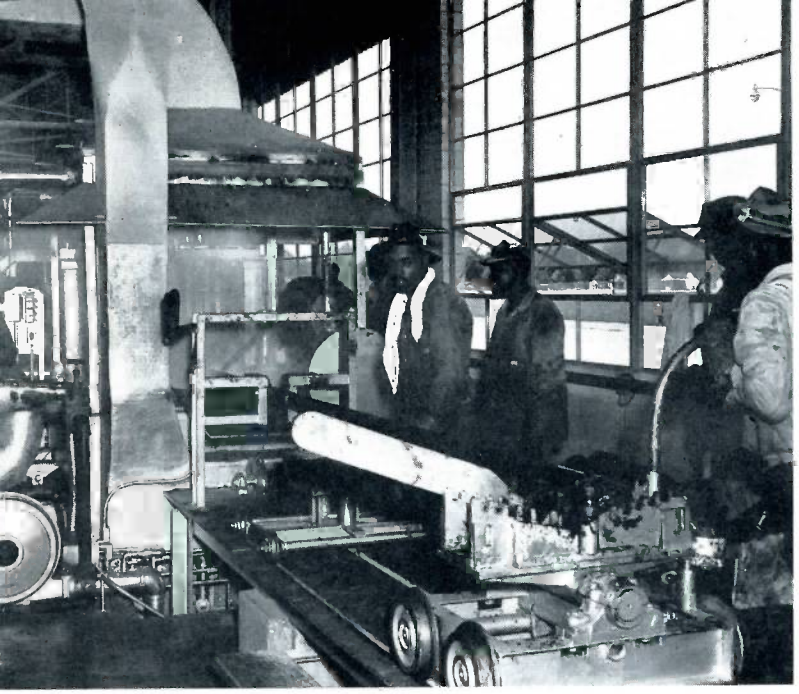
GAS DISTRIBUTION DEPARTMENT

In 1946, the City of Memphis started building at an unprecedented rate. In January, the gas division had 62,553 customers. The gas send-out for the month was 2,521,476 cubic feet through 3,789,000 feet of mains of all sizes. By January of 1957, the number of customers had increased to 148,490, the gas send-out to 6,741,151 cubic feet through 8,282,465 feet of mains of all sizes. The increasing demands of rapidly-developed subdivisions, together with industrial and commercial expansion, threw an added burden on the Gas Distribution Department.

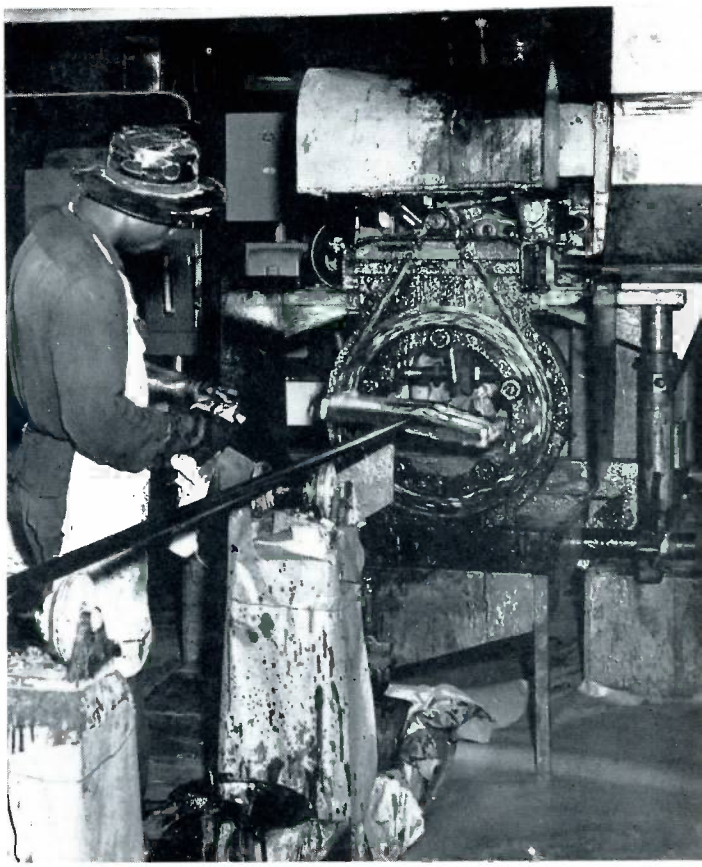
To meet this condition, it became necessary to enlarge the department. Additional equipment, such as trenchers, welding tools, bulldozers, backfillers, crane trucks, line trucks and dump trucks, was purchased. With each newly-equipped truck came the need for an experienced crew; but, experience was hard to come by. Often, the foreman in charge of a crew lacked experience, which added to the responsibilities of the supervisor. Experienced laborers from trained crews were transferred to newer ones. Requests for new services and main extensions were received at such a rapid rate that more crews were formed, new methods were employed, more equipment was purchased—until the department was able to handle the additional load. Throughout this expansion period, it was extremely difficult to purchase enough pipe of required size.

In January, 1946, the office work was adequately handled by one secretary, one timekeeper and a material clerk. The field work was handled by a superintendent, four supervisors, eight foremen, two apprentice foremen, and a labor force of sixty-seven. In January, 1957, the work required an office manager, a secretary, two timekeepers and four clerk-typists. The remainder of the department consisted of a superintendent, assistant superintendent, six supervisors, forty-one foremen (three of whom are combination welders), seventeen machine operators, five com-

These two gentlemen are: left, Mr. C. S. Beatus, Director of Purchases, Stores and Supplies; and right, Mr. Henry S. Jones, Director of the Gas Division. Years of experience have enabled them to lead the Gas Division to successful operation and efficient managment.

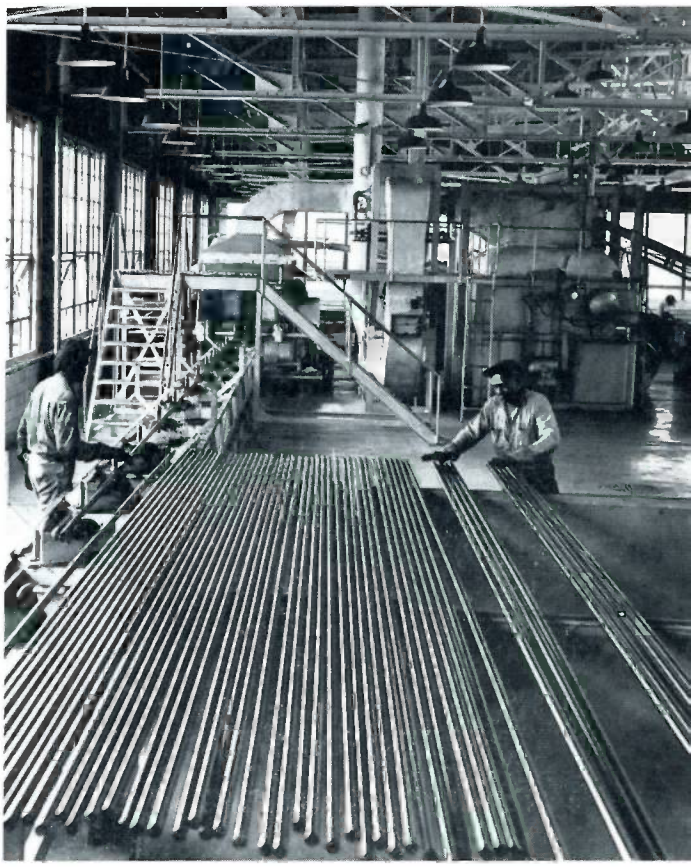


The photos on this page were taken in the pipe-coating and wrapping plant. Here you see small pipe being coated and wrapped for protection.

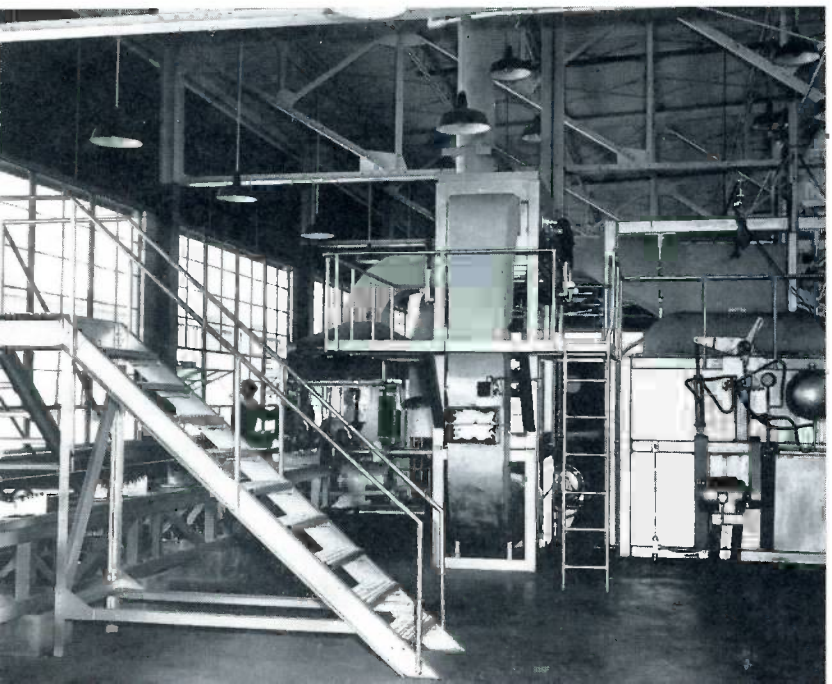


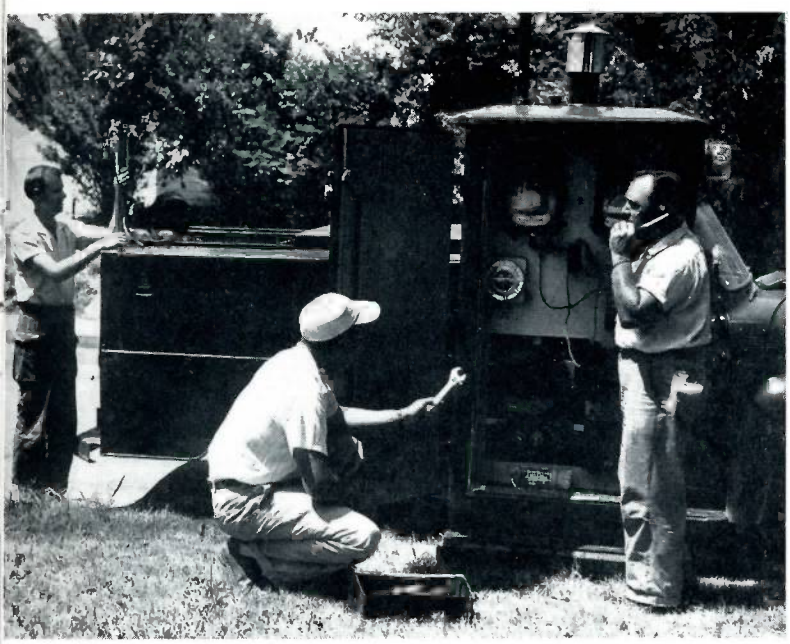
The priming coat is being applied prior to wrapping and coating.

This small pipe is shown after priming. It is ready to enter the enameling and wrapping machine. Everything in the plant has been designed for ease of handling.



This is a view of the coating and wrapping equipment. Note the cleanliness of the interior. This is indicative of the efficiency of the over-all operation of the plant.





Here a maintenance crew carefully checks out a remote-control regulator station.

This crew is lowering a coated and wrapped 22-inch pipe into a new trench. The pipe was designed for 500 psi.

Preparations are made for the application of bell joint clamps. All crews have been trained in street repair.

This photo shows a crew installing a coated and wrapped 22-inch pipe for an orifice meter at the Weaver Road Station.

bination welders, six leak surveyors, one tool-room attendant, and 376 laborers.

Since the Memphis gas system extends to other incorporated towns within Shelby County, travel time to and from the jobs is of considerable importance. The whole territory was divided into six sections, and one supervisor put in charge of each. Sections were outlined so that each group would have, as nearly as possible, the same amount of work requiring the same number of crews. Each crew has been trained to handle any type of work which it might encounter, including street and sidewalk repair. They do a neat and orderly job, which results in better public relations.

A training program has been in effect for several years. A leak surveyor can be promoted to machine operator, and while on that job can learn to weld and manage a crew. As he gains sufficient experience, he is eligible for a beginner's foreman rating when an opening develops. All foremen and supervisors have progressed through the different jobs, and have a thorough knowledge of construction and maintenance methods.

The department has a safety committee on which the members rotate in order to give each foreman experience and stimulate interest in safety. A member of this committee is also a member of the General Safety Committee of the parent company. Management's opinion is that the best way to build safety is to use proper equipment and safety methods in all phases of the work.

The recently established Gas Service Center occupies 44 acres. A most modern pipe coating and wrapping plant was constructed here in 1953. All mains and customer services are now coated with a coal-tar base enamel and wrapped with felt. The plant is designed to eliminate extra handling of the pipe which ranges in size from one inch to thirty inches in diameter. Wherever possible, the pipe is handled mechanically.

The old gas distribution system was designed for saturated manufactured gas and consisted of many miles of cast iron pipe with lead or cement joints. Dry natural gas introduced in 1929 acted unfavorably on this type of construction. A continuing program was established to install bell joint clamps. After 1929 welded steel lines were installed. None of this old construction was protected against electrolysis. Some of the old mains and most new coated and wrapped mains now have cathodic protection to assure them trouble-free, long life. All meters, set or changed since 1952, have been equipped with insulators. Eventually, the entire gas system will be cathodically protected.

A building is planned to accomodate the distribution and operations departments at the Gas Service Center; when completed, the structure will assure Memphis of one of the most efficient and practical layouts.

The Distribution Department is a wonderful group of well-organized employees, vitally interested in the work they are contributing toward the development of an even bigger and better City of Memphis.

IN SUMMARY

Memphis has many valuable assets—transportation, labor, good schools and universities, parks and playgrounds, fine hospitals, clean streets, trees, flowers, and beautiful homes. It is a city of many churches, good government and low taxes. It is, indeed, a quiet city, for an ordinance exists which prohibits the sounding of automobile horns except in cases of emergency.

But, underneath this quiet exterior is a bubbling cauldron of vitality — individual, commercial and industrial. Memphis has had its share of problems, but it has conquered them with a zeal which will continue to manifest itself in the future. The wheel of progress turns, and one of its most important spokes is the Memphis Light, Gas and Water Division, creating a good climate for new industry with its publicly-owned electric, gas and water utility services.

D. C. BENSON
Superintendent of Gas Distribution

E. H. WOOD
Chief Engineer, Gas Division

C. W. MAY
Superintendent of Gas Operations

MUELLER TOPICS

DAN R. GANNON

Dan Gannon Becomes General Sales Manager On November 29, 1957

We are proud to introduce our new General Sales Manager—Dan R. Gannon. Dan achieved his new post on November 29, 1957, after years of diligence and experience in his chosen field, and he stands ready to maintain our firm's excellent sales and service record.

Many of you have met Dan, for he has always traveled a great deal for the company. Last year, his trips mounted to nearly 50,000 miles, and took him to all parts of the country. Of course, with urgent matters here in Decatur to occupy his thoughts, he estimates that his travel during 1958 will be about half last year's total.

In his college days, Dan called the University of Montana his alma mater, and the football field was his second home. A big man—six-foot-four and 225 pounds—Dan played football for two years.

The year 1929 was somewhat eventful for Dan. He joined the sales force of Mueller Co.; and, on April 2, in Oakland, California, he was married. Then, in 1937, another banner event—the birth of Dan, Jr.

In 1953, Dan was appointed Southwest Sales Manager, with headquarters in Dallas. Here he attained an outstanding record in sales and sales management; two years later, he became Sales Manager of the vital Western section, with headquarters in Los Angeles.

The year—1955. Dan Jr. enters the University of Southern California, designates industrial psychology as his major, and throws himself into a series of campus activities.

Then Betty Gannon learns that the mother of a college student can enter a variety of activities which enrich family life. She joins Ebell of Los Angeles, a national women's club, and participates in Town and Gown, a theatrical group. She is elected to the chair of hospitality chairman of the Interfraternity Mothers Club, and becomes treasurer of the Chi Phi Mothers Club. Just prior to Dan's transfer to Decatur, Mrs. Gannon becomes president-elect of the Chi Phi Mothers Club.

Meanwhile, Dan, Jr. is trying to keep up with his mother. Interested in television, he takes various positions with USC's closed-circuit television station. As a junior, he is now part-time program director. In his spare time (if it can be called such) he is secretary of his social fraternity, Chi Phi, and manages the studio of a commercial photographer.

Dan, meanwhile, spends his leisure time at his favorite hobby—woodworking. Of course, he devotes as much time as possible to outdoor sports, placing fishing at the top of this list.

Then, in March of 1957, Dan moves to headquarters in Decatur and assumes the duties of Field Sales Manager. An active life, and a full one, characterize our new General Sales Manager.

When we asked him to render his feelings about and attitude toward the sales organization of this company, he answered, "Unless you have a firm foundation, the walls will crumble. This company was built on a firm foundation. The essence of salsemanship is the maintenance of the integrity of the company, and maintenance of the heritage which the founder handed down to us one hundred years ago. The human element is, of course, all important in this business. It is essential to cultivate individual initiative and stamina toward the goal of continued success of the company.

"For one hundred years, Mueller Co. has utilized all its resources to progress. It is my job—and the the task of everyone here—to continue to strive for progress."

As Dan wades into his mountains of paper work and important decisions, he will be capably assisted by A. D. "Del" Parks, Assistant Field Sales Manager, and J. Frank Kellett, Assistant to the General Sales Manager. The road to successful sales management is not an easy one, but Dan R. Gannon is qualified to travel it with confidence.

NIPSCO Announces

LINDEMAN

RETIRES

After Forty-Five Years of Service

Arthur F. Lindeman, purchasing agent of Northern Indiana Public Service Company, Hammond, Indiana, retired November 1, 1957, after 45 years of service with the utility.

Dean H. Mitchell NIPSCO president, states: "Arthur Lindeman has had a splendid record of service with our company. He has always been faithful, conscientious and efficient in performing his duties. He has our very best wishes for continued health and happiness in the years ahead."

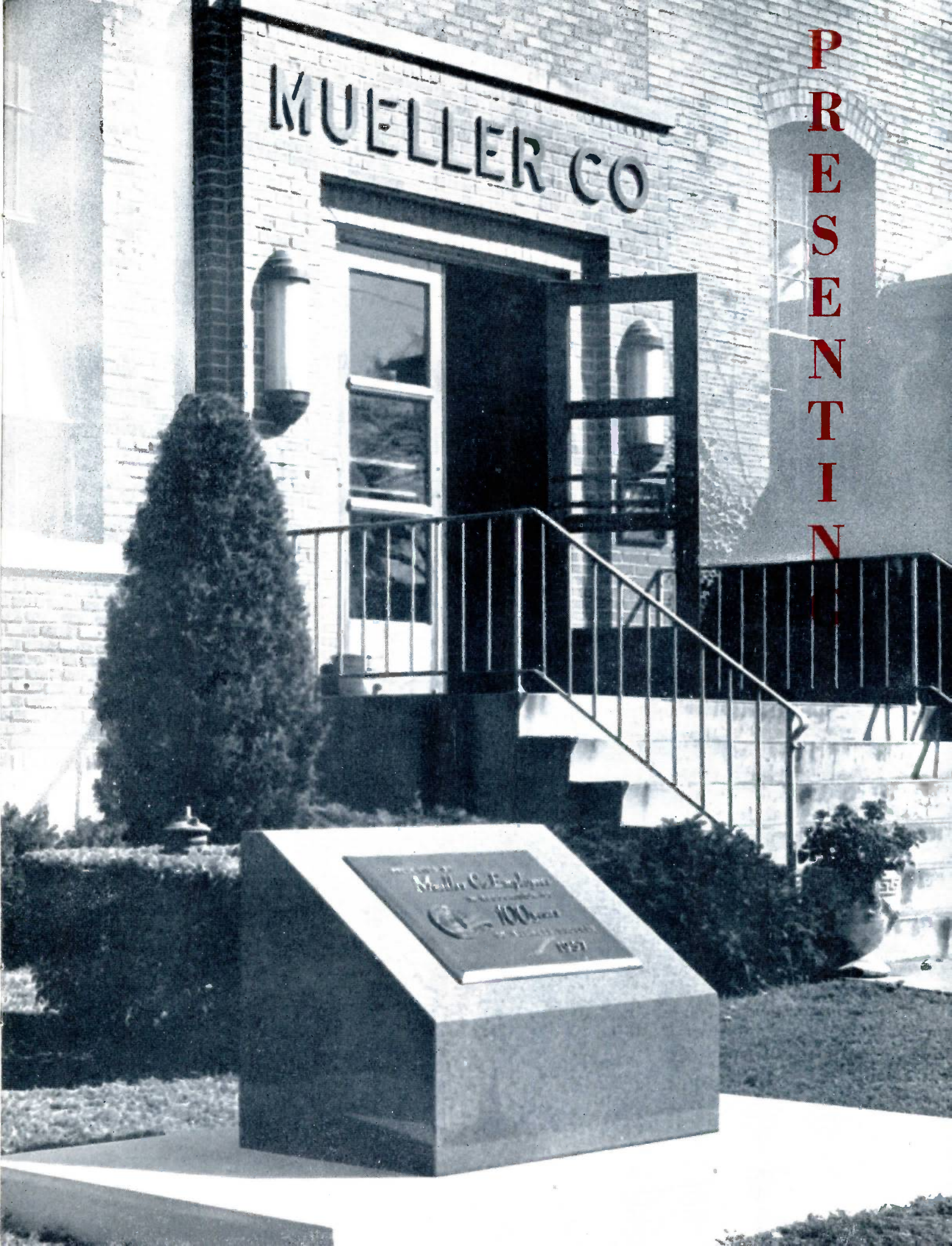
Lindeman joined NIPSCO in 1912 as a distribution clerk in Michigan City, Indiana, after spending several years with manufacturing concerns in that city.

In 1924 he was named chief clerk of the utility's purchasing department. Two years later, Lindeman was promoted to assistant purchasing agent. In 1938 he assumed the post of purchasing agent—the position he held until his retirement.

A native of Chesterton, Indiana, Lindeman attended schools in Michigan City, including the Michigan City Business College. He has been an active Mason for 45 years, and has held important posts in his Lodge. His professional memberships include the Chicago Purchasing Agent's Association and the National Association of Purchasing Agents.

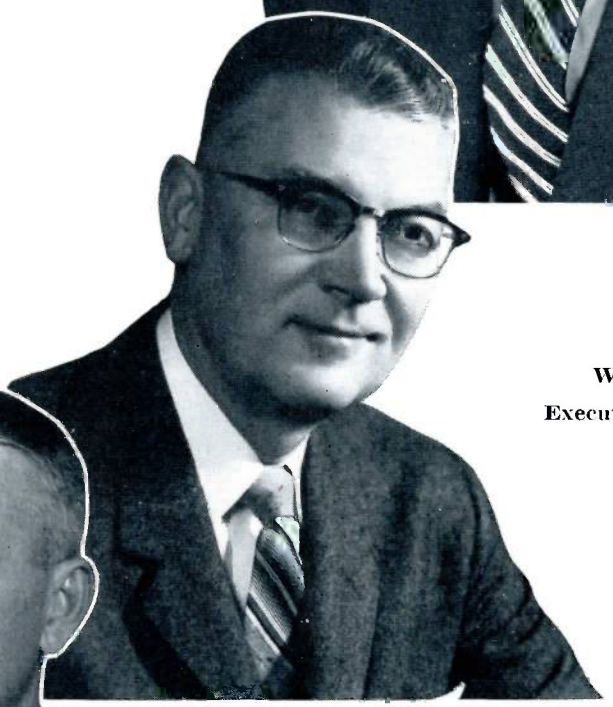
Lindeman and his wife, Ellen, live on their own farm east of Michigan City. He has commuted from NIPSCO headquarters in Hammond daily for the past ten years. Their immediate retirement plans indicated that their Michigan City home will simply be used as a base for many auto trips they have scheduled throughout the country. Their first stop this winter will be Miami. In between jaunts to the South, the Northwest and Canada, Lindeman plans frequent rounds of golf and many fishing trips.

The Lindemans have two children: John, who is employed by the Graybar Electric Company in Hammond, and Mrs. Virginia Hunn of Miami, Florida, a former captain in the Army Nurse Corps during World War II.


MUELLER CO
PRESENTING

Our Officers

ALBERT G. WEBBER, JR.
President and
Treasurer



W. H. HIPSHER
Executive Vice-President

LEO O. WIANT
Administrative
Vice-President

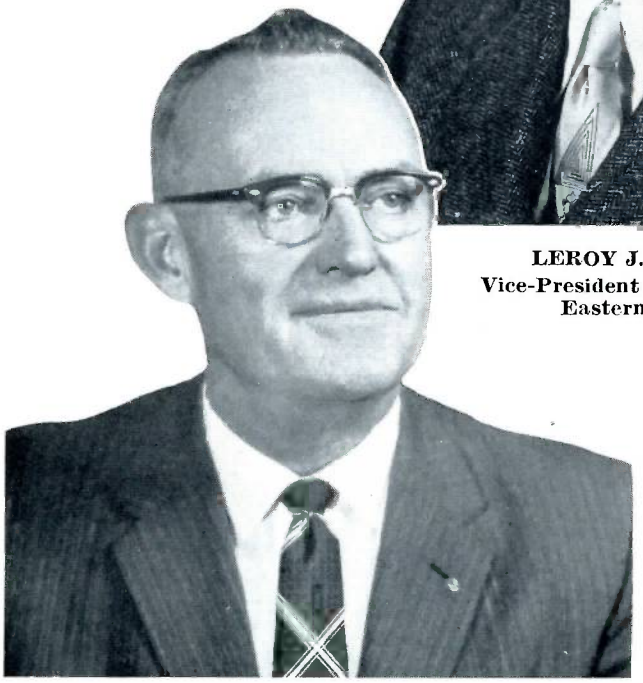
LYLE R. HUFF
Vice-President and
General Controller

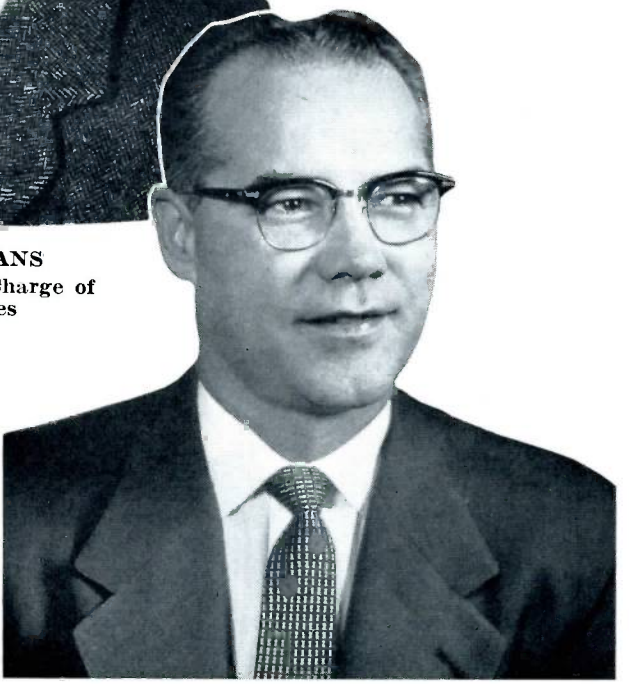
FRANK H. MUELLER
Vice-President and
Director of Engineering

O. E. WALKER
Vice-President and
Works Manager

C. HARRY MARTIN
Secretary

LEROY J. EVANS
Vice-President in Charge of
Eastern Sales





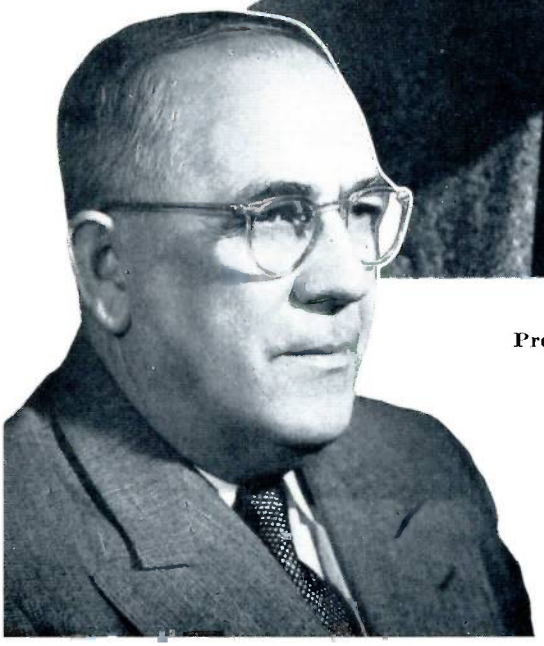
Mueller, Ltd.

R. M. NICOLSON
Vice-President and
General Sales Manager

R. J. SKIPPON
Vice-President and
Factory Manager

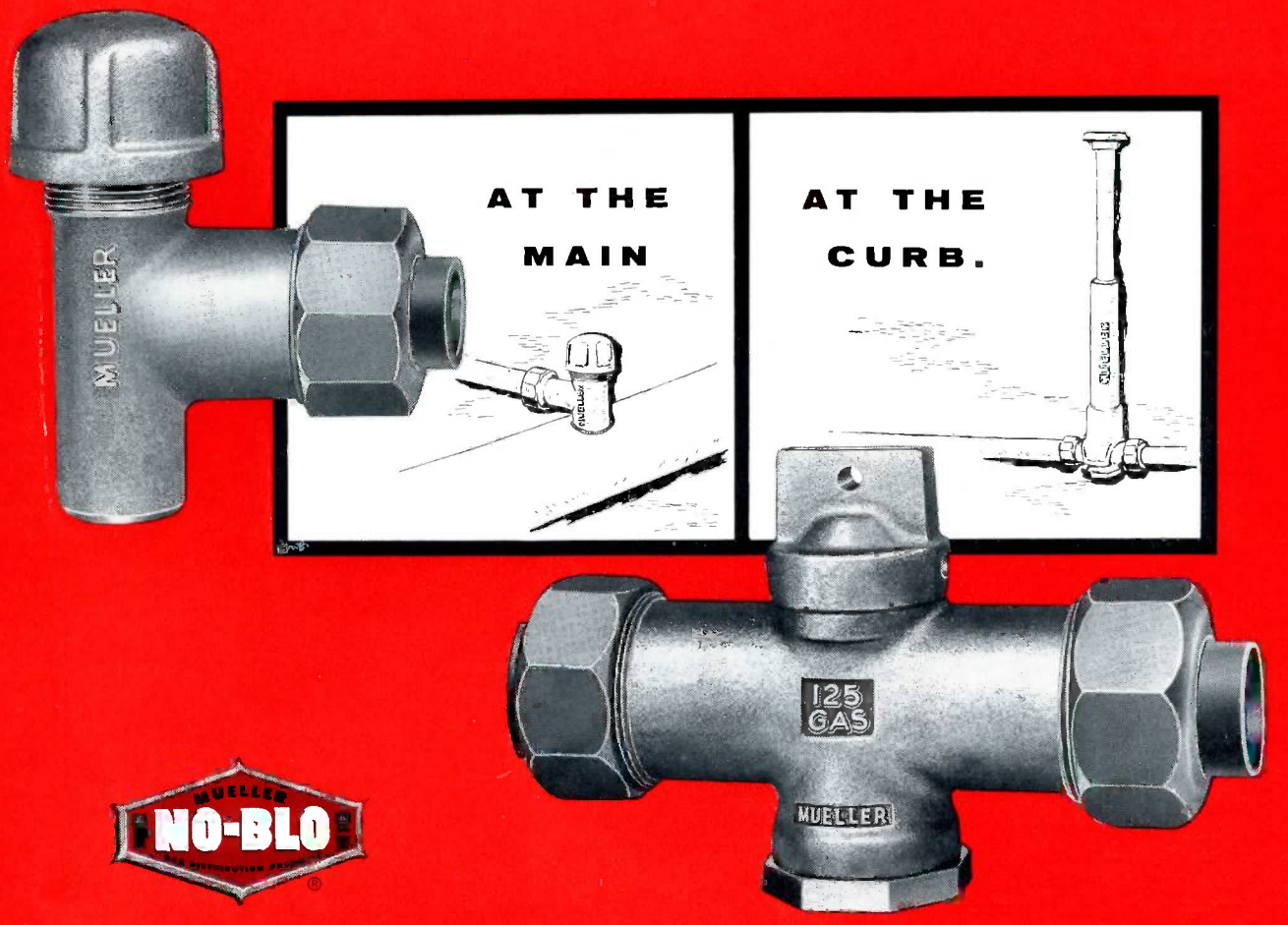
G. W. PARKER
President and Treasurer

J. MILNE
Secretary



C. S. BROWETT
Plant Controller and
Assistant Secretary

Control Corrosion



You can control corrosion at the main or at the curb with Mueller® Tees or Curb Stops with insulating coupling. This coupling completely insulates the service pipe from the tee or stop, breaking the galvanic circuit.

Corrosion can be controlled at the main with Mueller Service Tees, Service Valve Tees or Curb Valve Tees that incorporate the insulating coupling outlet to fit steel or Type "K" copper pipe.

Or you can control corrosion at the curb with Mueller Curb Stops with insulating coupling in either or both inlet and outlet to fit Type "K" copper pipe or steel pipe.

If you have Mueller Service Tees or Curb Stops with Dresser Couplings for steel pipe, they can be converted to Insulating Couplings for type "K" copper pipe by using the Mueller H11499 Insulating Adapter Gasket. Contact your Mueller Representative or write direct for complete information.

MUELLER CO.
DECATUR, ILL.

Factories at: Decatur, Chattanooga, Los Angeles;
In Canada: Mueller, Limited, Sarnia, Ontario

MUELLER CO. Since 1857 SERVING the Water and Gas Industries QUALITY

P.G.&E. Converts Salt Water

Pacific Gas and Electric Company reports that its ocean water distillation procedures have been highly successful thus far. The installation is located at the company's steam-electric generating plant at Morro Bay, San Luis Obispo County, California.

The evaporating system to produce fresh water from sea water was designed by P G & E engineers and engineers of the Bechtel Corporation, contractor for the Morro Bay plant.

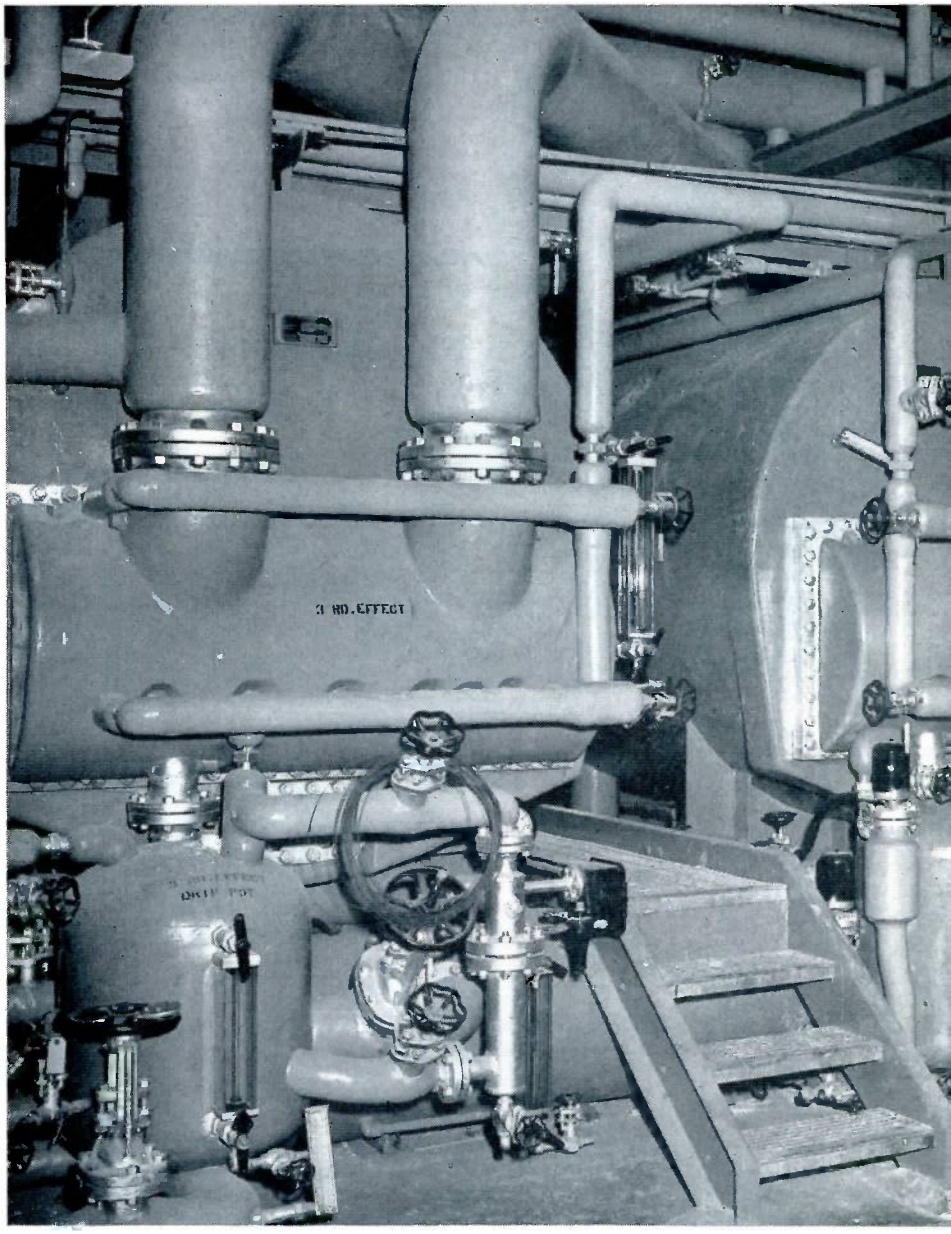
While this distillation process has been common aboard ships for years, the P G & E process is believed to be the first industrial application in this country.

Two sets of the sea water evaporators have been installed—one for each of two giant boilers in the power plant. Each set has a production capacity of fifty gallons of fresh water per minute, or 72,000 gallons per day.

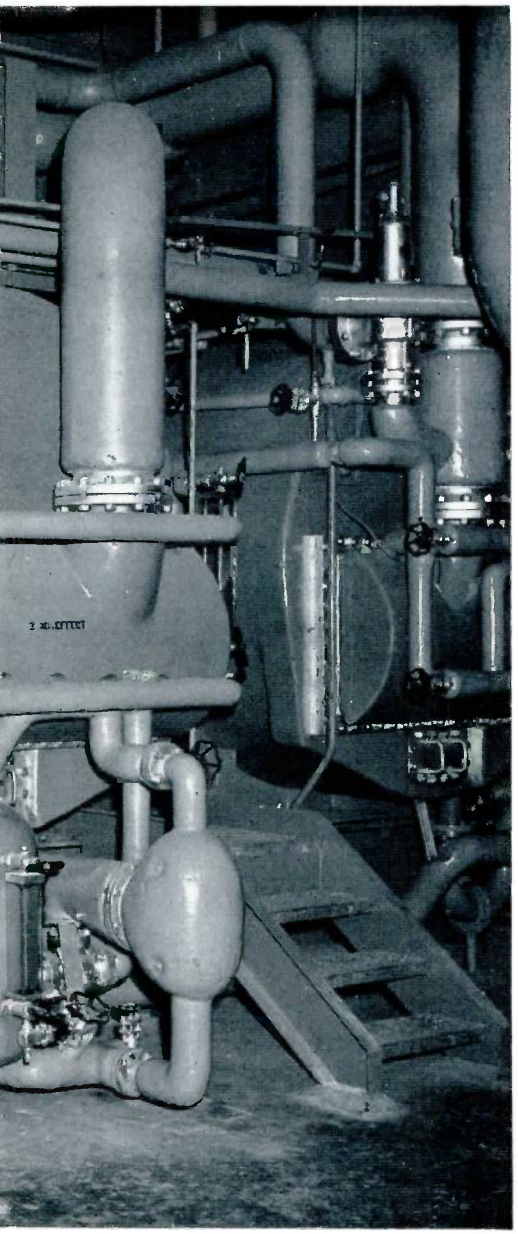
According to Norman R. Sutherland, P G & E Vice-President and General Manager, the decision to design salt water evaporators was reached after exhaustive inquiries into the availability of fresh water from other sources in the area. "We will have two wells on the property for auxiliary use," Sutherland said, "but in order to assure dependability and to conserve the local fresh water supply, we decided on the evaporation of sea water as the most advantageous of all the sources considered."

Each set of evaporators consists of three cylindrical tanks, horizontally mounted, 17 feet long and six feet in diameter. The lower half of each tank contains 290 one-inch tubes, set seven-eighths of an inch apart. Steam from the turbines is used to heat these tubes, and raw sea water flows over them. In the boiling process thus created, steam from the salt water is drawn from the top of the evaporator unit and is condensed into fresh water for use in the plant.

Brine formed in the boiling process is drawn off continuously at the bottom of the tank. The fresh water is purified further before being injected into the main boiler feed-water system. Meters with audible warning devices keep a check on the saline content of the sea water as it is expelled from the tanks, to guard against the formation of salt crusts around the steam tubes and tank interiors. Special alloys were used to fabricate the tanks and tubes, and the raw sea water is treated with starch and boiler compound before it enters the evaporator units to minimize the crusting of salts.



These three-stage evaporators at Morro Bay Power Plant convert salt water from the Pacific Ocean into slightly brackish fresh water, pure enough to introduce into the customary station evaporator of a steam power plant for purification for boiler-feed water. The evaporators use residual heat in the exhausted steam from the plant's two turbines.



The Federal Power Commission has postponed until January 28 the resumption of hearings on two applications by **El Paso Natural Gas Company,** of El Paso, Texas, to construct and operate new pipeline facilities to enable it to deliver additional natural gas to new customers in Arizona and California.

The FPC has issued a certificate to **New York State Natural Gas Corporation,** of Pittsburgh, Pa., authorizing the construction and operation of natural gas pipeline facilities, estimated to cost $1,211,000 in New York State.

AGA Announces Safety Drive, Gives Gas Fire Statistics

A safety crusade described as "the most ambitious employee accident prevention program ever undertaken in the United States by an entire industry" will be launched by the American Gas Association in 20 or more cities during early 1958. This announcement was made by J. Theodore Wolfe, president of Baltimore Gas and Electric Co.

Mr. Wolfe, second vice-president of A.G.A. and chairman of its Executive Safety Committee, said two-day courses for effective accident prevention and control will be held in states which have not kept pace with the industry in reduction of employee accidents in the past three years. The industry as a whole, he pointed out, has improved its safety record for nine consecutive years to an all-time low of 8.68 disabling injuries per million man-hours in 1956.

Success in these courses covering the essentials of a day-to-day company safety program will result, Mr. Wolfe said, in (1) the annual rate of insurance for gas companies should be lowered in the next three years, with resulting savings of thousands of dollars on insurance, both for individual companies and the gas industry collectively; (2) millions of dollars now being spent for compensation costs, resulting from disabling injuries, will be saved; and (3) most important of all, he said, the industry's employees and their families will be spared the hardships and suffering that are the products of accidents.

Less than three percent of U .S. building fires during 1956 were attributed to gas and gas appliances, according to a study made by the American Gas Association after reviewing annual estimates of the National Fire Protection Association. Statistics for 1957 are now being compiled. The nation's building fires mounted to a total of 824,400, with gas as the listed cause of only 21,000.

The NFPA, a non-profit voluntary membership fire safety organization, compiles estimates from reports submitted by Federal, state and local fire authorities.

Losses in building fires were estimated at over one billion dollars; gas fires accounted for an estimated $24.5 million.

Defective or overheated heating and cooking equipment of all types caused an estimated 108,500 building fires with losses of more than $92 million. Gas-fired equipment was charged with only 9,800 such fires and $12.8 million in losses. Building fires due to gas and gas appliances, including gas explosions were estimated at 11,200 with losses of $11.7 million.

The A.G.A. pointed out that lighting alone was reported as having caused more than twice as many building fires as gas. In the NFPA list of 24 causes of building fires, "smoking and matches" led the list with 127,000 fires. At the bottom of the list was "thawing pipes," with 2,900 fires.

The Wall Street Journal reports that a company decided to tear down an unused smokestack built in 1921. The original cost of the structure was $8,740—but it cost $13,470 to dismantle it.

STRICTLY
Off The Record!

They say that the best things in life are free, but you need imagination and good legs to find them.

You can completely eliminate your enemies by making them your friends.

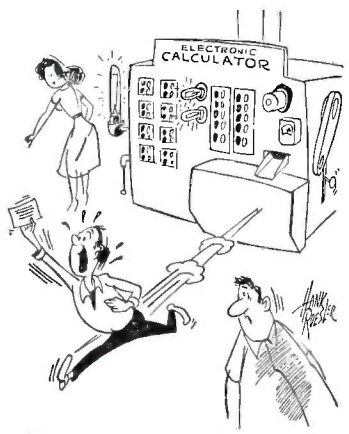
Exclamation point: a period that has blown its top.

People will believe anything—if you whisper it.

Gossip: saying nothing in a way that leaves nothing unsaid.

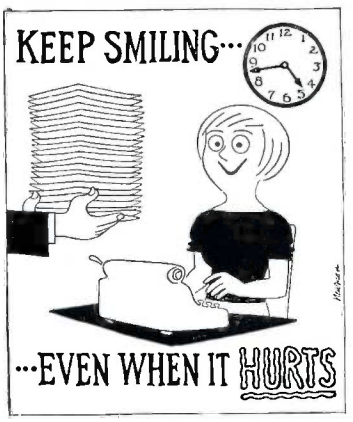
Looking for an inexpensive Christmas gift for a business associate, a tightwad entered a gift shop, but found everything too expensive. Pricing a glass vase that had been broken, he found he could buy it for almost nothing. He asked the store to send it, hoping his friend would think it had been broken in transit. In due time he received an acknowledgement:

"Thanks for the vase," it read, "and it was so thoughtful of you to wrap each piece separately."



"It's going to be a BOY!"

Marriage brings music into a man's life. He learns to play second fiddle at home.



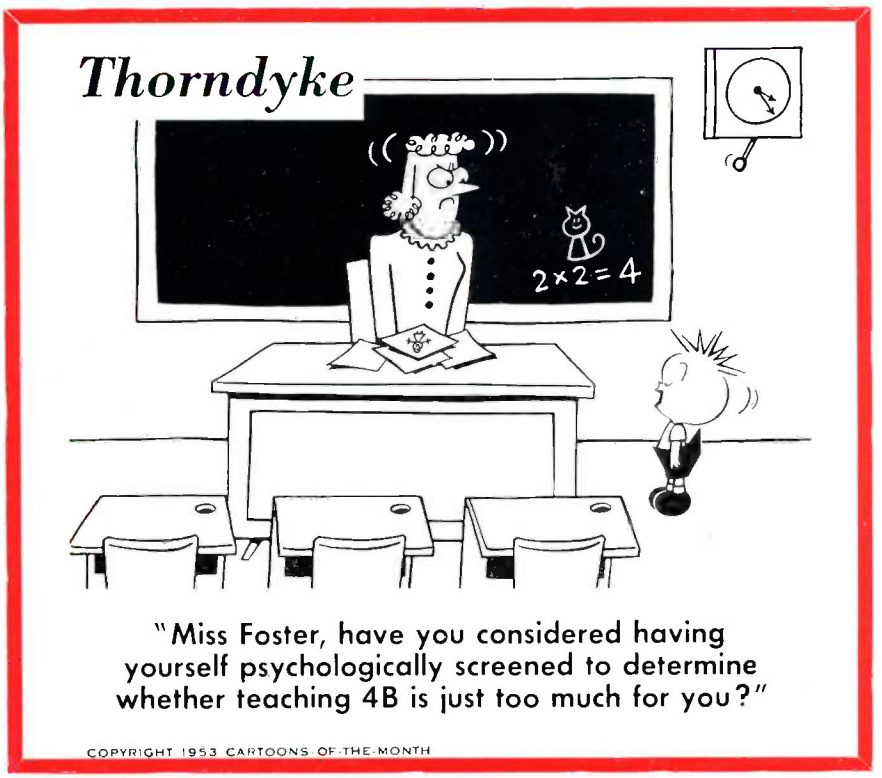
Many a woman who can't add can certainly distract!

Prejudice: being down on the thing you are not up on.

Problems our forefathers never dreamed of will face posterity, such as how to crowd two coffee breaks, lunch, a meeting of the bowling league and a bridal shower for one of the stenographers into a three-hour working day.

Poverty is cruel, but it has its compensations. Among other things, it deprives many people of things they are better off without.

"Acme Robot Agency,
"Gentlemen: I am returning your robot-secretary. I have decided the human—er—touch is indispensable. . . ."



LOOKING BACKWARD

Although this bit of advice from the MUELLER RECORD of February, 1922, is somewhat tongue-twisting, it has an excellent thought behind it:

"Man, friend of mine, there is only today. Don't mistake that. Yesterday was; tomorrow may not be. Tomorrow, today will be yesterday—yesterday, today was tomorrow. You can't recall yesterday and you can't anticipate tomorrow. Put hay in your barn, but concern yourself chiefly with today. Live it, love it, embrace it; get the most there is out of it, and put the most of you into it. Regret nothing in the past, and fear nothing in the future. The worst that can happen to you is better than the best that has happened to someone else. Shape your course today, friend of mine. Tomorrow is not yet born, and yesterday is under the roses."

In modern industry, with its three shifts, people on different shifts are often unable to get to know one another. A unique attempt to overcome this handicap is recalled in the February issue of 1922:

"One Friday morning early in February, a group of handsome, well-dressed young men appeared at the Employment Office and asked for passes to visit the plant. As they walked through the plant, there was some speculation as to their identity. Some ventured that they were visiting Rotarians, some guessed them students from the University of Illinois, and some were certain they were politicians from Springfield. Actually, they were all from the night shift, and just wanted to see what the plant looked like in the daylight!"

Printers in 1922 apparently suffered much the same business pains as they do in 1958, as evidenced by this item from the MUELLER RECORD in April, 1922:

"A printer was somewhat peeved the other day when he received a request from a doctor for a bid on 2000 letterheads, with a request to keep the type standing so as to save composition on a re-order. The printer took his typewriter in hand and produced the following:

" 'Am in the market for bids on one operation for appendicitis. One, two or five-inch incision—with or without ether—also with or without nurse. If appendix is found to be sound, want quotations to include putting same back and cancelling order. If removed, sucessful bidder is expected to hold incision open for about sixty days, as I expect to be in the market for an operation for gallstones at that time and want to save the extra cost of cutting.' "

(Wonder if the printer got that order?)

Have you ever tried to find an apartment where children are acceptable to the landlord? This writer understood that such was impossible, until he ran across this true bit of information in the RECORD for June, 1922:

"A Los Angeles man named Bordsky has built a large apartment house and rents only to families with children. When a child is born to one of the renters, the rent is cut five dollars per month. Newly-married couples receive an apartment rent-free for one month; if there is no baby at the end of a year, the couple must move. There are special play rooms and playgrounds for children, and a small motion picture hall. The landlord provides a trained nurse, free of charge, to the tenants. She also doubles as a babysitter in the evening when parents want to go out. This is a very popular apartment building, and is said to be a profitable investment."

First and foremost in the mind of every RECORD editor is the question: "Do people read this magazine?" The December, 1922, issue took pride in the following item, and certainly made one editor happy:

"In sending Mueller Records to the bindery, it was discovered that we were short the 1915 Christmas number. A little notice to this effect was inserted in the November issue, and in a few days the much-desired copy reached our desk. Three other persons were also prepared to supply this missing copy. It has thus been demonstrated that some employees and other readers save their copy of the Record, and also that the little monthly publication is read."

Shades of the missile-age! Read this item from the issue of March, 1923:

"With submarines, wireless telegraphy, air ships, electric lights, automobiles, telephones and other revolutionary wonders of the modern world, it does not require a very elastic imagination to picture the safe navigation of the air by big balloons of the Zeppelin type within the next few years.

"As a matter of fact, a recent issue of the **New York Times** contains an extended article on this subject, giving a prospectus of the American Investigation Corporation, which is backing the project of passenger balloon service between New York and Chicago. The company has the backing of substantial men of wealth. Now the fastest time by train between these two cities is twenty hours. The big passenger balloons are expected to slice this in half. Naturally enough the question arises—will the three-mile limit apply to these ships of the air?"

If you enjoy reading this feature each month, how about dropping us a line? Lots of interesting things can happen in a hundred years, and lots of humorous ones, too. If any of these items are familiar to you, or if you can add to any of them, let's hear from you!

American Gas Association

420 Lexington Avenue · New York 17, N. Y.
MUrray Hill 3-8200

C. H. ZACHRY
President

October 5, 1957

Mr. A. G. Webber, Jr.
President
Mueller Company
Decatur, Illinois

Dear Mr. Webber:

On behalf of the American Gas Association it is my pleasure to extend sincere congratulations on the 100th Anniversary of the Mueller Company. I know that I express the sentiments of the gas industry in wishing for your company many more happy years of service to your many customers.

No business can remain on the competitive American scene for a full century without a good product, farsighted management and devoted employees. In respect to all of these, you are to be highly commended.

The gas industry today has reached a new plateau in its long march forward to serve the needs of a growing country. We are now ranked as the fifth largest industry in the nation, with a capital investment of more than $19 billion. As a whole, the gas industry today is serving some 39 million customers and adding another million each year. More than 30 million of these customers are receiving gas service through utility lines all over the United States.

The future looks bright. Gas reserves continue to increase faster than they are being consumed, despite the fact that we are setting new sales records each year. Throughout America the public has come to recognize the many advantages of natural gas. The industry's responsibility is to provide the best possible equipment and the finest service.

As our industry grows and prospers it is my sincere hope that the Mueller Company will continue to share in the rewarding job that lies ahead.

Sincerely yours,

Clare Zachry