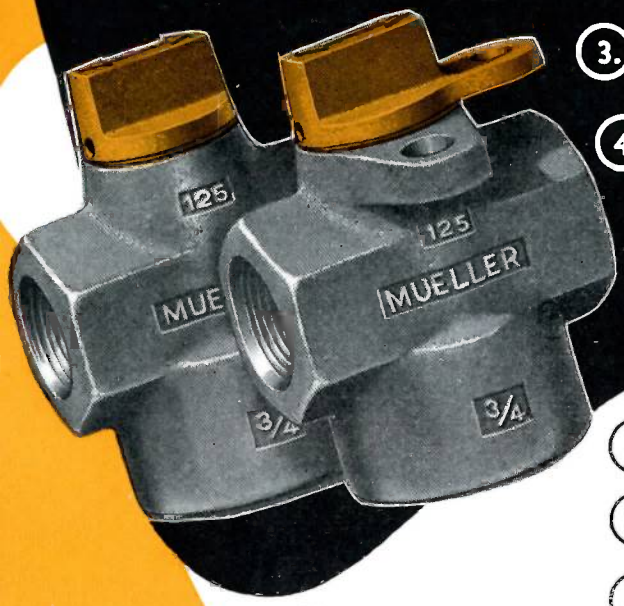
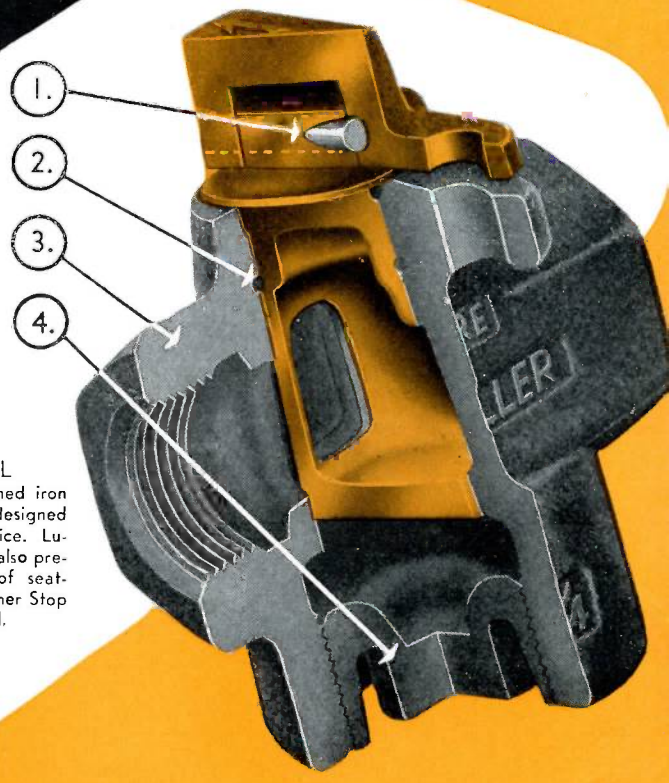
# MUELLER RECORD

JANUARY • 1949 • FEBRUARY

# THEY'RE

1. ABSOLUTELY SAFE
2. EASY TO OPERATE
3. ECONOMICAL
4. TAMPER-PROOF




**1. SAFE**
Head is permanently blind pinned to the inverted bronze key and is impossible to remove. Key cannot fall or blow out and allow gas to escape.

**2. EASY TO TURN**
Four vertical grooves and one circular groove in the body carry ample lubricant for complete seal and insures easy turning of the accurately machined and ground bronze key.

**3. ECONOMICAL**
Tough, close-grained iron body is ruggedly designed for enduring service. Lubricating feature also prevents corrosion of seating surfaces whether Stop is open or closed.

**4. TAMPER-PROOF**
Lubricating plug has recessed pentagon head that is very difficult to remove except with a special wrench. Special construction prevents removal or loosening of the key even if the lubricating plug is removed.

Mueller Lubricated Meter Stops are available with Flat Head or Flat Head with Lock-wing in ¾" and 1" sizes for pressures up to 125 pounds. For detailed information, write for Bulletin 8737.

These outstanding features, found only on Mueller Lubricated Meter Stops, provide an extra safety factor to your meter installations. The key cannot be removed without destroying the Stop. No amount of "tinkering with," or even complete removal of the lubricating plug will cause the gas to leak. The inverted key will not be loosened, fall out, or be blown out. Both vertical and annular grease channels in the rugged body carry sufficient lubricant to provide a leak-proof seal with the heavy bronze key that is accurately machined and ground into the body.

DEPENDABLE SINCE 1857 FULLY WARRANTED OUR 92nd YEAR

# MUELLER CO.

MAIN OFFICE AND FACTORY.....DECATUR, ILLINOIS
OTHER FACTORIES: *Los Angeles, Cal.; Chattanooga, Tenn.; Sarnia, Ont. Canada*

# MUELLER RECORD

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**MUELLER CO.**

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COLUMBIAN IRON WORKS
(Hydrant and Valve Division)
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GENE J. KUHN, Editor


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COVER
Gustav Anderson
Amityville, New York

## MOSTLY PERSONAL

ONE OF THE MOST interesting books we've ever seen on the beginning of the oil industry is *Early Days of Oil,* a pictorial history, by Paul H. Giddens, curator of the Drake Museum, Titusville, Pennsylvania, and chairman of the history department at Allegheny College.

Mr. Giddens, fortunately, was able to draw upon some 3,000 negatives of oil field scenes which were made by John A. Mather, whose lens left a graphic chronicle of the first hectic years of the industry. More than 16,000 of Mather's negatives were lost during the flood and fire in Titusville in 1892, Mr. Giddens relates. Mr. Giddens has done a fine job in selecting the photographs used in his book, and he rounds out the story of the pioneer days of oil with drawings and photographs from other sources. He is also the author of *Birth of the Oil Industry.*

If your library doesn't have a copy of Mr. Giddens' pictorial history, try your bookseller. The book is published by Princeton University Press.

We are indebted to Mr. Giddens and the Drake Museum for the Mather photographs used to illustrate the article, *Drake's Folly,* on page 9.

*(Continued on page 19)*

# Island-Hopping Pipe Line

THREE MILLION GALLONS of fresh water pour into Key West each day to be split between the city and the Navy through an island-hopping, ocean-going pipe line, which originates on the mainland at Florida City and snakes over and under ground and water and along the bridges of the Overseas Highway for some 130 miles.

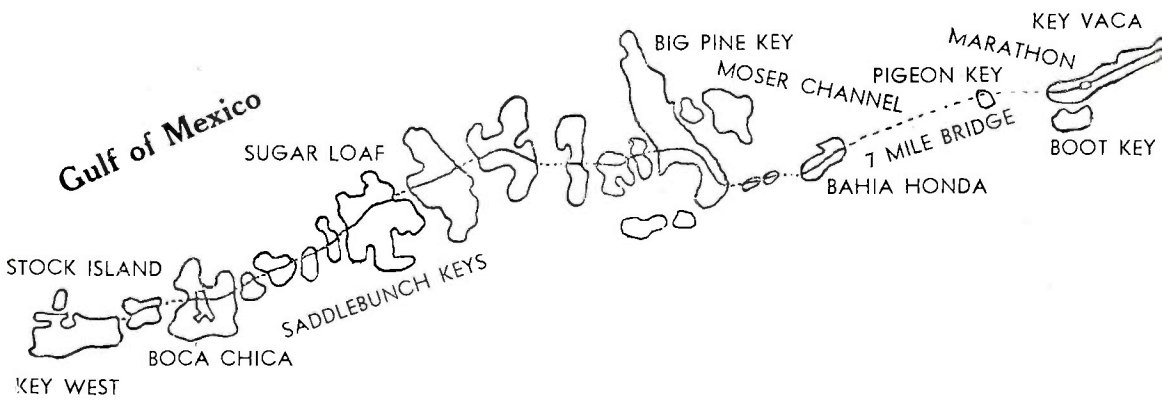
The 18-inch pipe line, a joint venture of the Navy and the Florida Keys Aqueduct Commission, was of inestimable value during the war as the Navy greatly expanded its Key West establishment and the civilian population of the city correspondingly increased. Its importance has not diminished now that the war is over in supplying residents of the key, both military and civilian, with filtered and softened fresh water.

Prior to the completion of the pipe line in the late summer of 1942, the Navy had two primary sources of fresh water: shipment by water barges and tankers and catchment of rain water. Distillation of sea water was used to some extent. The civilian population relied on cisterns, the method handed down through the years since the key was first settled by pirates, supplementing the supply by purchasing some of its drinking water in five-gallon bottles.

In March, 1941, the Navy and the newly-organized Florida Keys Aqueduct Commission entered into an agreement to bring water to the keys. An adequate supply was found at Florida City, the Navy purchased a 350-acre tract there, and four wells were sunk—two of them being 64 feet deep, one 52 feet, the other 43 feet deep.

Some snags were encountered in the planning stages, but with the advent of Pearl Harbor the pipe line became militarily important and work on it was given high priority. Construction was rushed by five crews working simultaneously on five sections of the line. Many open stretches of water had to be crossed, and in the original construction there were five underwater crossings. Since then, some of these have been brought up and carried above water while other above water crossings have been placed under water. There are now four underwater crossings between Key West and Florida City.

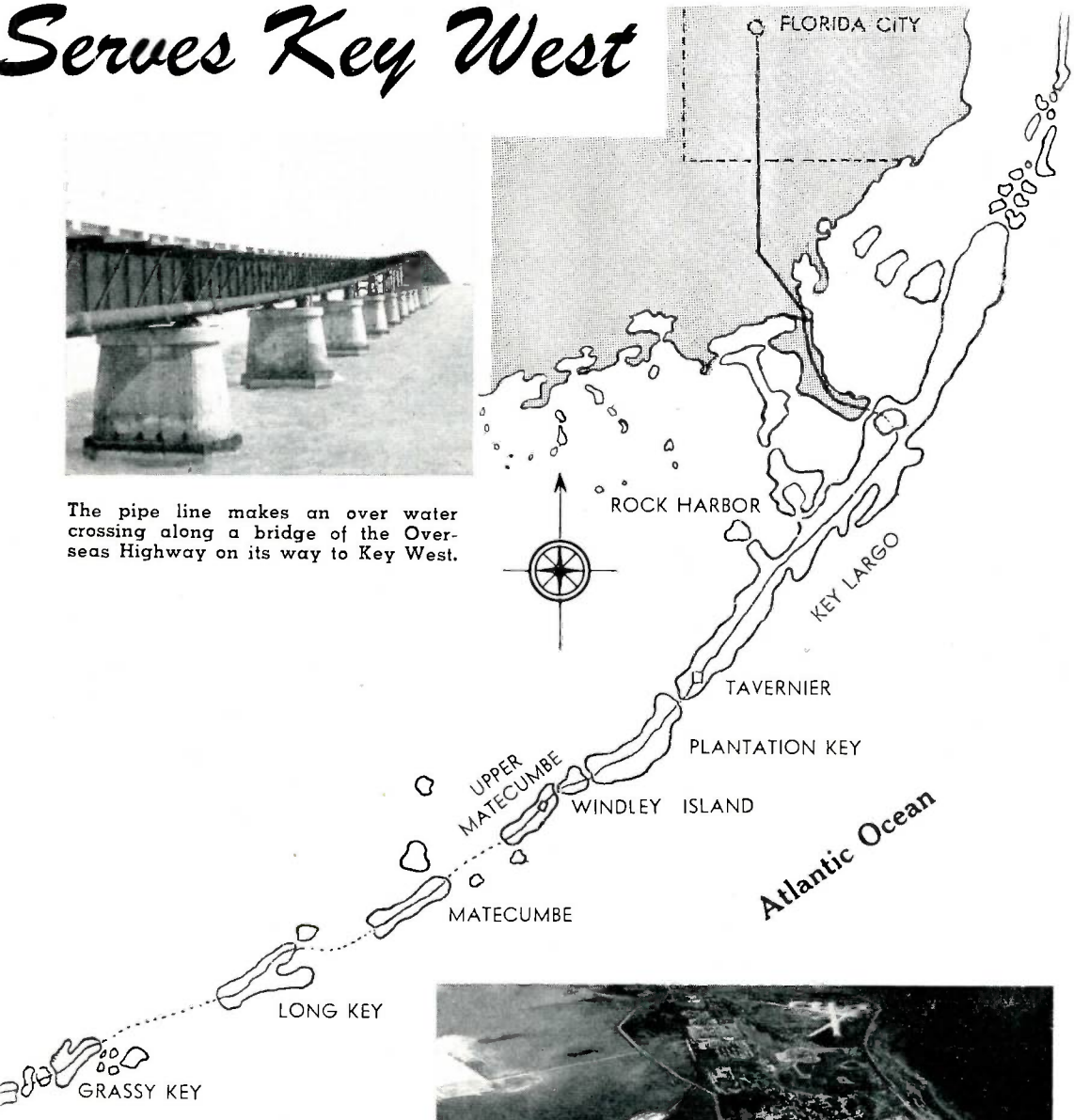
In practice, the Florida Keys Aqueduct Commission purchases water from the Navy and sells it to civilian consumers through a regular distribution system. In time of military necessity, of course, the Navy would have first call on the water. This, perhaps, is one of the main reasons few householders who have pre-war cisterns, with their capacities of from five to fifteen thousand gallons, have gone to the trouble of having them filled in. Key West is a Navy town, and the civilian population feels that the cisterns may offer a comfortable reserve should an emergency occur.



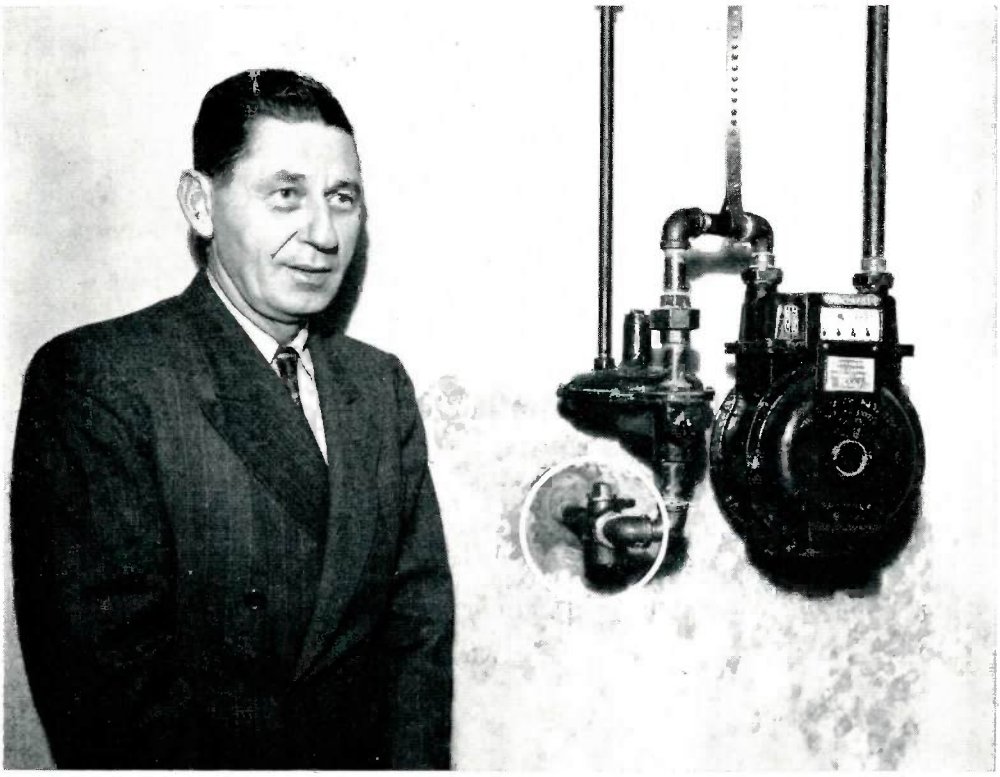
# Serves Key West



The pipe line makes an over water crossing along a bridge of the Overseas Highway on its way to Key West.




This is an aerial view of Key West, the southernmost point in the United States. The Navy base has been active since Commodore Porter used it in driving pirates from the Caribbean in 1822.
U. S. Navy Photo



Charles L. Nehring, service supervisor at Royal Oak, Michigan, is shown beside a typical service setting. Circle shows position of Mueller H-11112 inverted key lubricated gas meter stop.

# Mueller Meter Stop Does Man-Sized Job

## Safety features of H-11112 account for adoption by Consumer's Power Company, large Michigan utility.

CONSUMER'S POWER COMPANY, a utility serving a number of Michigan communities, doesn't believe in sending a boy on a man's errand.

This, in brief, is the reason they install Mueller inverted key lubricated meter stops on all domestic services where the gas at the main exceeds 10-inch water column pressure.

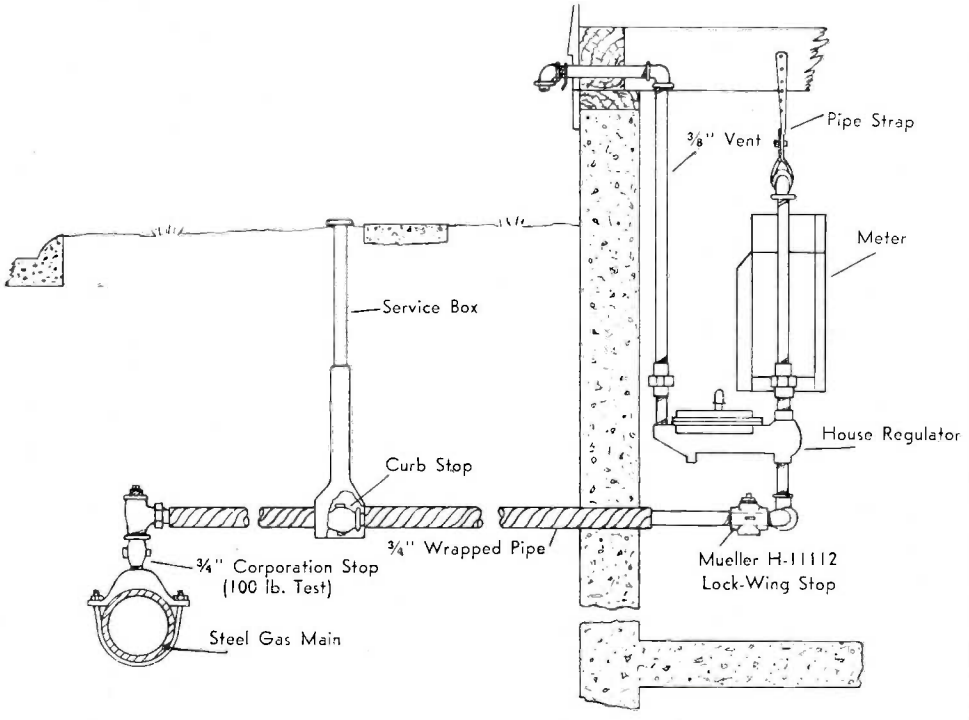
This heavy-duty stop, with its rugged iron body and inverted bronze key, is the first fitting inside the wall of a residential service. Its primary function is that of a service stop, to provide a safe, positive shut-off when changing meters, servicing appliances, or making changes or repairs in the house piping.

F. H. Bunnell, gas distribution supervisor, has outlined the thinking back of the adoption of the Mueller stop by Consumer's Power Company, which serves Alma, Bay City, Flint, Jackson, Kalamazoo, Lansing, Manistee, Marshall, Owosso, Pontiac, Royal Oak, Saginaw, and a multitude of other communities, totaling 243 cities, towns and villages in all.

With the trend to higher pressures in the street mains, it becomes vitally important to put into the service line a stop which is fully adequate to withstand the hazards of *both* external tampering and internal pressures.

To control the internal pressures, a service stop must be of sufficient strength and of proper design to stay gas tight under the maximum pressures to which it may be subjected. The Mueller lubricated stop, engineered to operate safely at working pressures of 125 P.S.I., as-

SIDE VIEW STANDARD GAS SERVICE
AND METER INSTALLATION




MEDIUM HIGH PRESSURE
10-50 LBS.

CONSUMERS POWER CO.

sures a comfortable margin of safety on all domestic installations.

The conventional gas stop provides a challenge and an invitation to people who own monkey wrenches and are inclined to tinker. While mishaps from such tampering are fortunately infrequent, they can be thoroughly disastrous. With higher pressures now being carried in the mains, it is all the more important to discourage and prevent tampering. The rugged Mueller lubricated stop is virtually immune to disassembly or damage from the unauthorized use of household tools.

The higher pressures now being carried in the mains makes all the more important the discouragement and prevention of such tampering. The rugged Mueller inverted key stop is virtually immune to disassembly or damage from the unauthorized user of household tools.

Consumer's Power Company adopted the Mueller lubricated stop shortly after its introduction to the trade, and has reported its satisfaction with the complete protection the stop provides against tampering and its ability to withstand high pressures.

Mueller inverted key lubricated meter stops are made in two models: H-11110, a plain stop; and H-11112, a lock-wing stop. Both models are identical internally. They are made in three-quarter and 1-inch sizes.

# Canadian Gas Company Has Its Problems, Too

## Concentrates on serving present customers while seeking an answer to its long-term supply question.

*By J. A. Fleming*

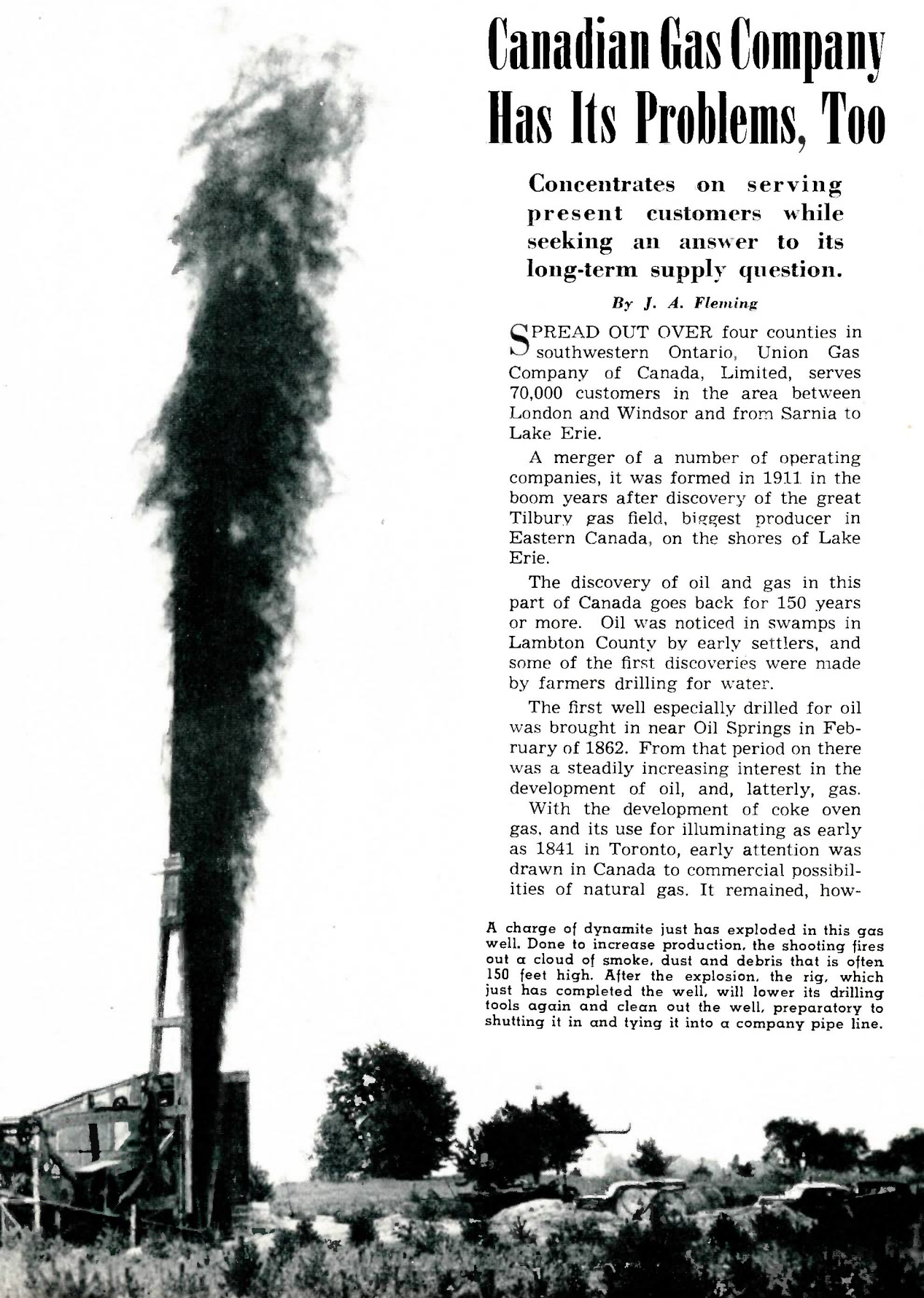
SPREAD OUT OVER four counties in southwestern Ontario, Union Gas Company of Canada, Limited, serves 70,000 customers in the area between London and Windsor and from Sarnia to Lake Erie.

A merger of a number of operating companies, it was formed in 1911 in the boom years after discovery of the great Tilbury gas field, biggest producer in Eastern Canada, on the shores of Lake Erie.

The discovery of oil and gas in this part of Canada goes back for 150 years or more. Oil was noticed in swamps in Lambton County by early settlers, and some of the first discoveries were made by farmers drilling for water.

The first well especially drilled for oil was brought in near Oil Springs in February of 1862. From that period on there was a steadily increasing interest in the development of oil, and, latterly, gas.

With the development of coke oven gas, and its use for illuminating as early as 1841 in Toronto, early attention was drawn in Canada to commercial possibilities of natural gas. It remained, how-



A charge of dynamite just has exploded in this gas well. Done to increase production, the shooting fires out a cloud of smoke, dust and debris that is often 150 feet high. After the explosion, the rig, which just has completed the well, will lower its drilling tools again and clean out the well, preparatory to shutting it in and tying it into a company pipe line.

ever, for Eugene Coste, one of the founders of Union Gas Company, to bring in the first commercial gas field on January 23, 1889. This was in Gosfield township, Essex County, and production of 10,000,000 cubic feet was found at 1,031 feet.

Spurred by this discovery, a large number of operators poured into the area and development came quickly. Lines were laid to Windsor and Detroit, and even Toledo, Ohio, was served with Ontario gas through an old line that linked that city with Detroit.

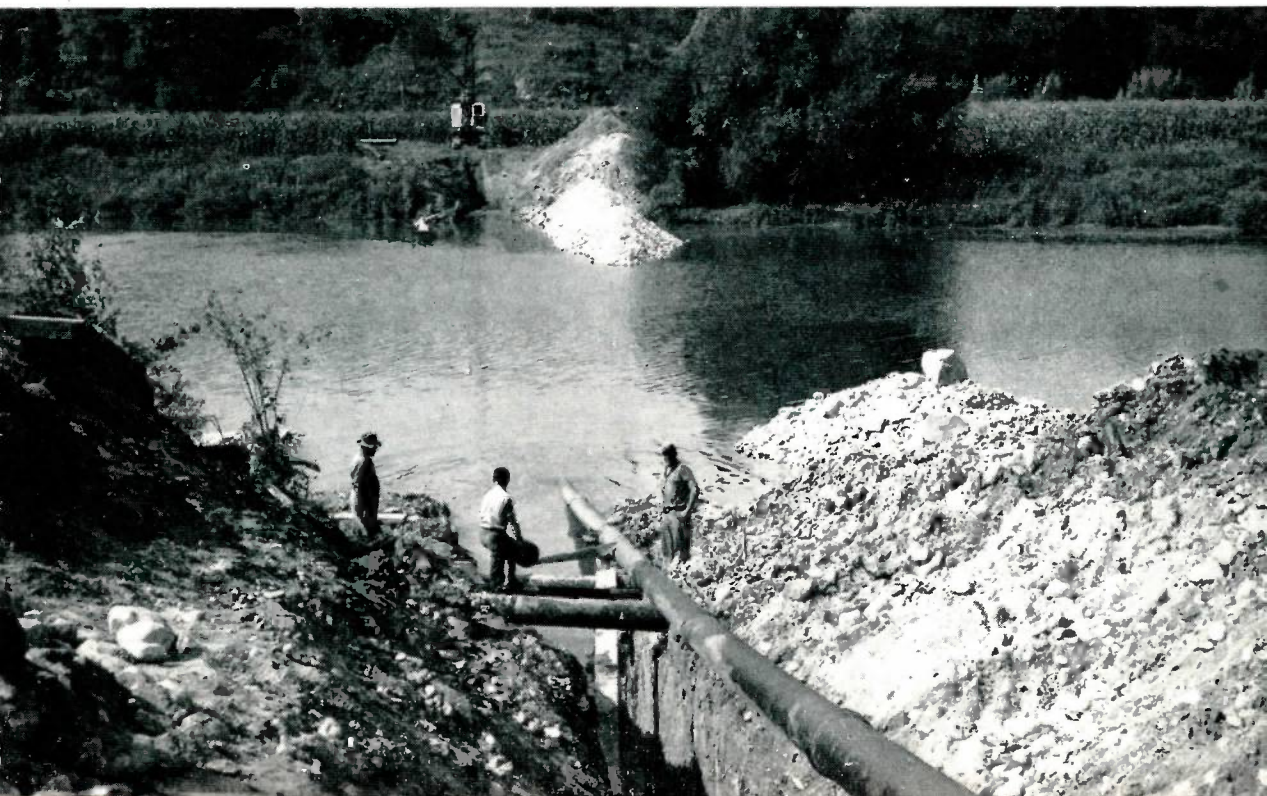
Further interest developed when on September 16, 1906, a 6,000,000 cubic foot well was brought in near the village of Fletcher by a syndicate headed by Eugene Coste and his brother, D. A. Coste. The brothers then formed Volcanic Oil and Gas Company, which held a majority interest in the merger of a number of companies into Union Gas Company in 1911. While this well was not in what is known as the Tilbury field, it brought much attention to that area and it was not long before many wells were brought in what is known today as the Tilbury field.

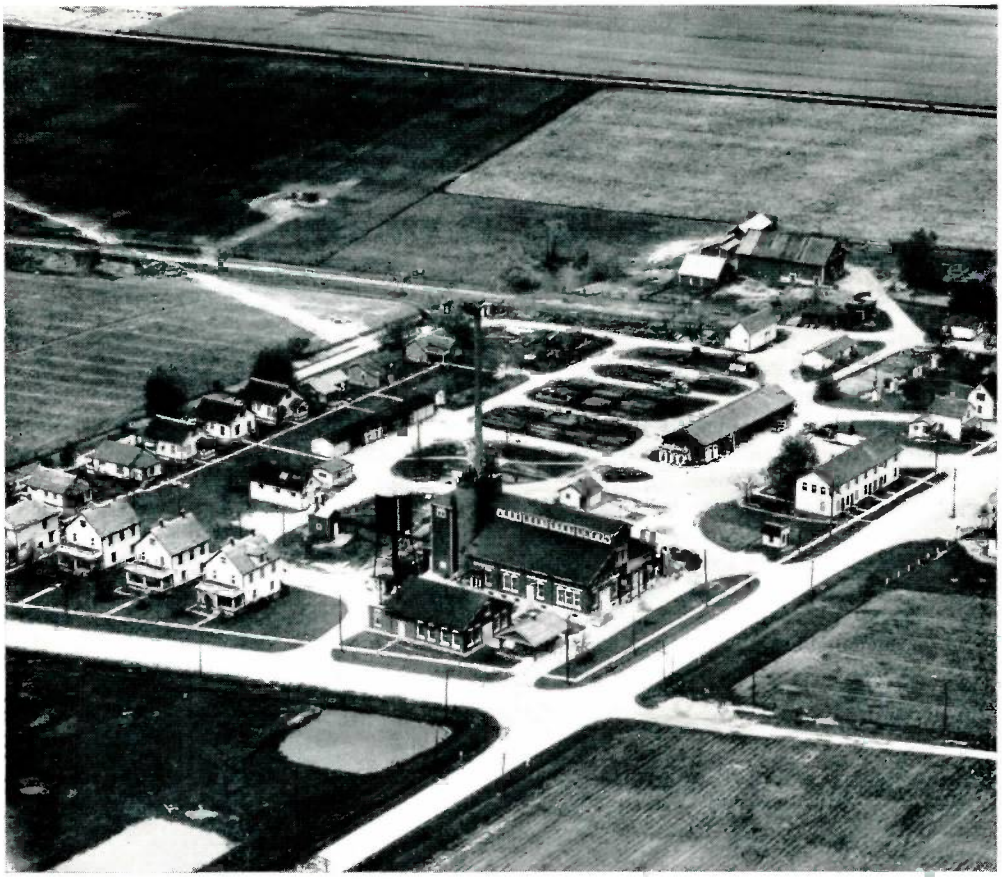
The Tilbury field, covering an area of 18,300 acres, has been the chief producer of natural gas for this part of Ontario for more than 30 years, and even today 144 wells produce a huge volume of gas. From its discovery until the end of 1947 the field has produced 212 billion cubic feet.

However, the field in recent years has been declining. While new wells and some small fields are discovered each year, their production has not come anywhere near replacing the decline. This decrease in production has forced Union Gas Company to turn to other sources of supply. The year 1940 was the last in which 100 per cent natural gas was served to consumers. In 1942 the company's plant at Sarnia, which purifies and reforms refinery by-product still gas from Imperial Oil Limited's nearby refinery, was placed in operation. Today this plant produces about 30 per cent of total annual production.

Built in Windsor as a standby plant only in 1929, an oil gas plant, complete with a 1,000,000-foot holder, was placed in operation in March, 1941, and has run continuously each winter since then. Propane facilities were installed in 1941 to enrich the low heat-content oil gas. In 1948 propane storage capacity was increased from 125,000 to 625,000 U. S. gallons.

This photograph shows a river crossing for a new 10-inch line for the City of London. Coated and wrapped pipe is being hauled across by a wire cable attached to a power shovel on the other side of the river. The 4-foot trench was dug in the bed of the river to hold the pipe securely in place.





This is an aerial view of the Port Alma plant of Union Gas Co. of Canada Ltd. The plant purifies the gas from 144 wells in the Tilbury field and then transmits it to various markets.

The company is earnestly seeking an answer to the long-term supply question. In 1944 it contracted with Panhandle Eastern Pipe Line Company for five and a half billion cubic feet of Texas gas annually, but shortages in the United States have prevented delivery. However, company officials feel confident that ultimately gas will be received from Texas when Panhandle completes its program of enlarging its pipe lines, now underway.

Today Union Gas Company is operating on a policy of strict economy. To meet terrific winter peaks it has built up reserves in its underground storage area in the Dawn gas field in Lambton County. Compressor facilities were built at Dawn to handle the Texas gas, but while no Texas gas is being received, these facilities are being used to the full as the company stores gas in the summer by drawing off natural gas beyond daily requirements from scattered wells and by similarly storing still gas reformed at its Sarnia plant.

As a result of the shortage of gas, Union Gas Company is laying no new mains; has taken 10,500 convertible house-heating units out; and has cut its industrial load from one and a half billion to one billion cubic feet a year. It is actively exploring the 180,000 acres it has under lease for new gas fields, and is investigating every possible source of other supplies.

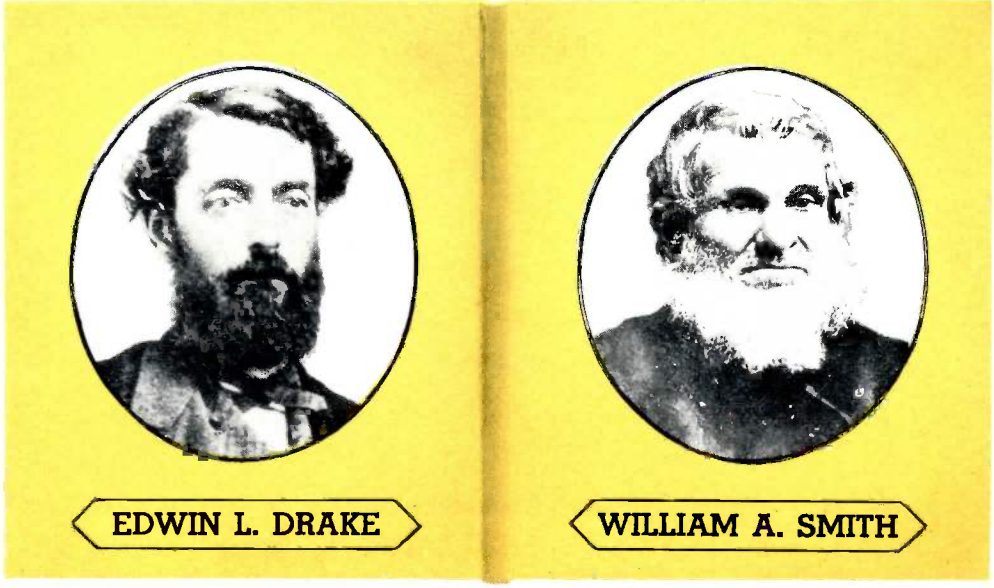
Until new and permanent gas supplies are available and it can expand with the community, its aim is service to the consumers now on its lines. To that end its trucks travel 1,100,000 miles a year to see that these consumers receive the gas they need.

# DRAKE'S FOLLY
## or,
# The First Oil Well

THE CIRCUMSTANCE of the right man being at the right place at the right time often results in the making of history. So it was with Colonel Edwin L. Drake, who put down the first successful oil well in 1859, thus laying the foundation for today's petroleum industry.

Col. Drake was a conductor for the New York and New Haven Railroad for several years before illness forced him to relinquish his position, his rank being of the honorary type that is retained to this day by auctioneers. Col. Drake's introduction to the petroleum industry, then in the speculative and promotional phase, came about through his chats with James A. Townsend, a New Haven capitalist, with whom he became acquainted while convalescing at the Tontine Hotel in New Haven.

Townsend and a group of other New Haven men had a falling out with the New York stockholders of the Pennsylvania Rock Oil Company of Connecticut, which had been formed in 1855, and in March, 1858, they organized the Seneca Oil Company. The Seneca Oil Company then leased the Hibbard farm near Titusville, Pennsylvania, which had been purchased for $5,000 in 1854 by George H. Bissell and Jonathan G. Eveleth, who




COURTESY OF DRAKE MUSEUM

Col. Edwin L. Drake (in stovepipe hat), general agent of the Seneca Oil Co., is standing in front of his well with Peter Wilson, Titusville druggist. The photograph was made in 1861 by John A. Mather.

COURTESY OF DRAKE MUSEUM

**This is the boomtown of Pioneer, located at the junction of Pioneer Run and Oil Creek, one of several communities that served as headquarters for oil men. John A. Mather photographed the scene in 1865.**

were instrumental in forming the Pennsylvania Rock Oil Company.

The conversations between Drake and Townsend had these results: (1) Townsend sold Drake $200 worth of stock in the Seneca Oil Company; and (2) Drake was elected general agent of the company at a salary of $1,000 a year and was sent to Titusville in 1858 to put down a well.

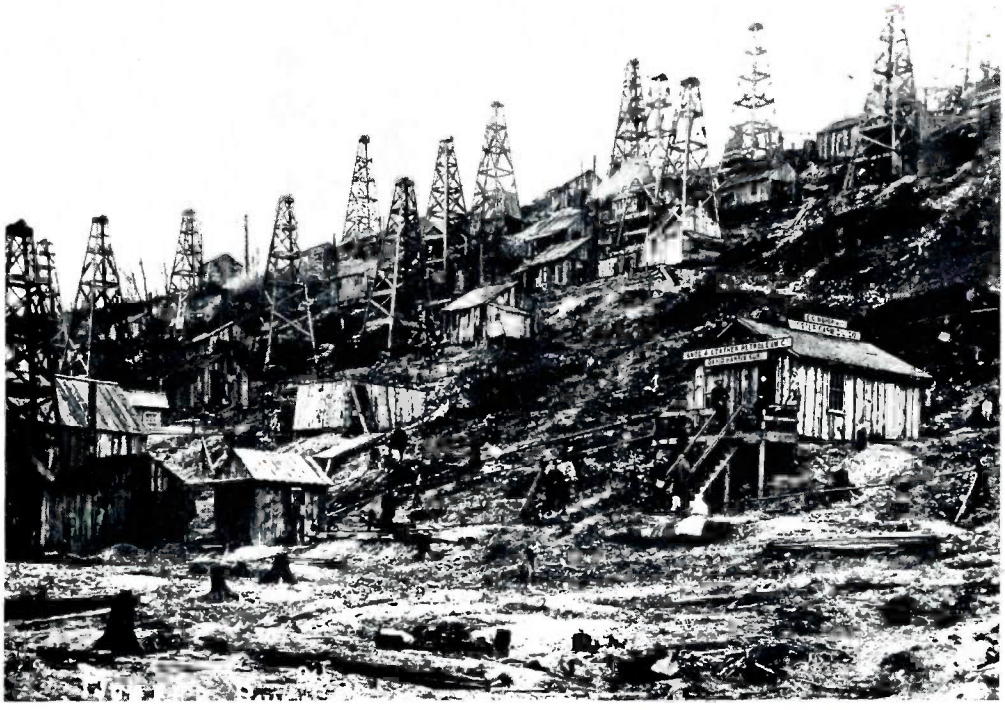
Drake was pioneering in a new field, and it also seems logical to assume that he knew very little about his new duties. He selected a site at the principal spring on the Hibbard farm and began digging a well. This was abandoned when after several weeks the workmen struck a vein of water that forced them out of the well.

Deciding that it would be cheaper to drill, Drake went to Tarentum, Pennsylvania, where he studied the methods used there to drill salt wells. He also engaged a driller.

Upon his return to Titusville, Drake ordered a steam engine and boiler, built an engine house and derrick, and by late summer he was ready to tackle the job again. However, the driller failed to make an appearance, and Drake suspended operations for the winter.

Drake and his well gave the townspeople a fresh topic of conversation. They had not forgotten the incident of the flooded well on his first attempt, and made all manner of jokes about Drake and the well. Drake was regarded by some of the less charitable inhabitants of Titusville as "crazy", and his well was called "Drake's Folly".

The following spring, a year after he had first been engaged by the Seneca Oil Company, Drake found a driller in the person of William A. Smith, whose experience included work on the salt wells at Tarentum. Smith was hired for $2.50 a day, and for that wage "threw in" the services of his 15-year-old boy. He made



COURTESY OF DRAKE MUSEUM

**Following Drake's discovery, the search for oil spread out along Oil Creek. These wells were put down in the side hills near Pioneer Run, a tributary of Oil Creek. Photograph made in 1865.**

the drilling tools used at the well, fashioned after those at Tarentum.

Drake had obtained some cast iron pipe, which was in ten-foot sections, and it was driven down to bedrock, encountered at a depth of 32 feet. Then, about the middle of August drilling was begun and averaged about three feet a day.

Smith was getting ready to quit work for the day on Saturday, August 27, when the drill dropped into a crevice at a depth of 69 feet and slipped down about six inches. The tools were pulled out, and the men went home, intending to continue the search for oil on Monday.

On Sunday afternoon Uncle Billy Smith returned to the well and saw a dark liquid floating on top of the water in the pipe, a few feet from the floor.

Oil had been struck at the Drake well.

The success of the Drake well precipitated a stampede along Oil Creek. There was a scramble for leases, and shack towns rose overnight. Using Drake's technique, drillers put down one well after another, often without thought of providing any sort of storage, and the surface of Oil Creek became thick with rich crude.

Fortunes were made and lost in the space of a few days, sometimes in a matter of hours. The boomtown shacks housed rich and poor alike. And often those on the periphery—the blacksmiths, bakers, owners of boarding houses and shopkeepers—did better than those who were so intent on converting the spurting black oil into a stream of gold.

Drake's role was all but forgotten in the rush. Paul H. Giddens, curator of the Drake Museum, built years later to commemorate the man who had such an important but short-lived part in founding the industry, states that Drake served as a justice of the peace and bought oil for New York merchants before leaving Titusville in 1863. He soon lost everything he had saved by speculating in oil stocks. Drake was stricken with a neuralgic affliction, and was confined to an invalid chair the rest of his life.

The Pennsylvania legislature in 1873 recognized his contribution to the industry and provided him with an annual income of $1,500 until he died in 1880. The pension then went to his widow for her lifetime.

DON KROGH FROM P.G.&E.

Pacific Gas and Electric Company is bringing more natural gas to San Francisco. The last link of a new 50-mile, 30-24-inch transmission line is being completed from the Milpitas metering station near San Jose, where it connects with big main from Kettleman Hills oil and gas fields 200 miles south.

# P. G. and E. In Vast Expansion Program

## Current expenditures of West Coast company for new facilities at rate of $12.5 million a month.

IN CALIFORNIA, where population has surged upward to a point nearly 50 per cent higher than its level in 1940, post-war construction continues at an unprecedented rate.

Topping the expansion program of any gas and electric system in the United States is that of Pacific Gas and Electric Company, which serves nearly all the central and northern sections of the state. Current expenditures of the company for new facilities are at the rate of $400,000 a day or $12,500,000 per month.

Since the end of the war, when the lifting of restrictions upon the use of materials and the manufacture of equipment permitted the resumption of system expansion, P. G. and E. has spent upwards of $300,000,000 upon additional power-houses, transmission lines, gas mains and extensions and other facilities. It is expected the total will be well above $500,000,000 by 1951, when the present program is scheduled for completion. At that time nearly 2,000,000 horsepower will have been added to electric system generator capacity since 1945 and normal reserve capacity will have been restored. New plants with aggregate capacity of 553,000 horsepower have been placed in operation since May, 1948.

Major new electric plants completed since 1945 or now building include five hydroelectric stations with an installed capacity of nearly 500,000 horsepower and four steam-operated powerhouses with an aggregate capacity of 1,337,000 horsepower capacity. Two of the new steam-operated plants will have an installed capacity of 402,000 horsepower each. Preliminary construction of both has been started, one at Moss Landing in Monterey County and one on the San Joaquin River in Contra Costa County.

DON KROGH FROM P.G.&E.

Some rough going in hilly country was encountered on the new line, the third major supply line to be built from Miltipas to San Francisco. The new transmission line will increase Pacific Gas and Electric Company's daily delivery to the San Francisco area by 89 million cubic feet.

Costing $51,500,000 each and equipped with high-pressure, high temperature turbo-generators of latest design, the big plants will be the largest in the P. G. and E. system.

Expansion of the P. G. and E. gas system has gone hand in hand with electrical development. Gathering lines have been extended into new natural gas fields as rapidly as they were developed. The company now purchases gas from 27 producers for delivery into its transmission network. It operates, in addition, nine gas generating plants for emergency standby purposes and to assist in meeting peak demands.

When the war ended, the company was confronted with a large accumulation of orders for both gas and electric service which had not been filled because of restrictions upon the use of materials. Requests for gas service depended upon hard-to-get pipe, which continues to be in short supply. Since January 1, 1946,

nearly 1,800 miles of transmission and distribution mains have been laid. In 1948 alone more than 800 miles of pipe were laid to bring the system total to 11,500 miles of which 1,600 miles are in transmission lines and 9,900 miles for distribution purposes.

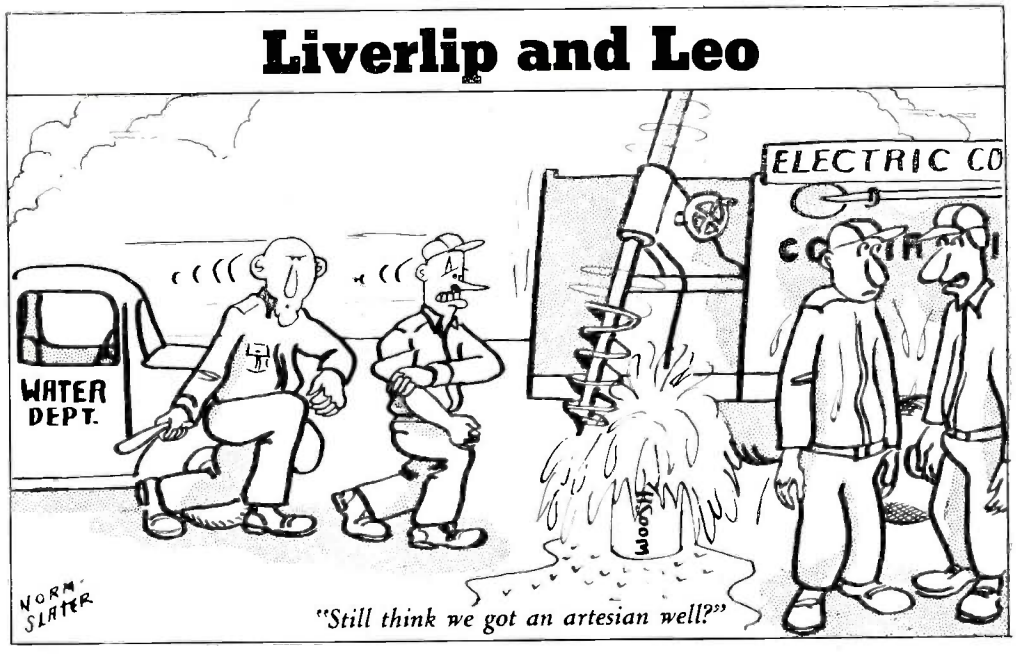
Major gas transmission projects include 44 miles of 8-inch pipe line, nine miles of 24-inch and 38 miles of 30-inch pipe to serve local areas.

Largest of the contemplated projects is a 510-mile line from a point on the California border near Topock, Arizona, northward to Milpitas near San Jose in Santa Clara County to transmit gas from fields in New Mexico and Texas. Application for authorization of the development and approval of a purchase contract with the El Paso Natural Gas Company is pending before the Federal Power Commission and the California Public Utilities Commission. The proposal provides for the delivery of 150,000,000 cubic feet of gas daily in 1951 and progressive increases in the supply up to a maximum of 450,000,000 to 500,000,000 cubic feet in 1955. It will involve the expenditure of about $60,000,000 by the P. G. and E. for the California end of the transmission line.

Two gas storage holders each with 17,000,000 cubic feet capacity will be built by the company, one in San Francisco and the other in Richmond on the eastern shore of San Francisco Bay. The cost of each will be approximately $5,000,000. The additional holders will increase by 34,000,000 cubic feet the system's storage reserve to satisfy peak demand which during a cold wave early in January reached a new high estimated at more than one billion cubic feet for 24 hours supply.

Plans for the holders include construction of a 4,000,000 cubic foot compressor station at each site with cooling tower, gas coolers, water coolers, pumps, meters, piping and other equipment. To connect the Richmond holder with the distribution networks, 32,400 feet of 24-inch and 9,600 feet of 20-inch mains will be installed as a 60-pound feeder line to the Berkeley area and 24,500 feet of 16-inch and 20-inch pipe will be laid for 30-pound distribution to the Richmond system. The Richmond holder is scheduled for completion next fall.

Demand in Northern California for gas and electric service still is increasing. In 1948 P. G. and E. added more than 125,000 customers to its two systems. At the turn of the year it was serving electricity to 1,200,000 and gas to 920,000 users of all classes.



# Off the . . Record . .

A woman at a style show was attracted by an evening gown worn by a curvaceous model. "That would look nice at our party next Saturday," she hinted to her husband.

"Sure would. Why not invite her?"

* * *

Customer: "Your dog seems fond of watching you cut hair."

Barber: "It isn't that. Sometimes I snip off a piece of ear."

* * *

An Indian named Joe was wowing all the summer inhabitants of a Canadian fishing resort with his uncanny way of predicting changes in the weather. Time after time he predicted the weather accurately from one to two days in advance. On one particularly rainy, windy and generally uncomfortable day, one of the visitors asked: "Joe, when will all this clear away—when will we have nice weather?"

The Indian shrugged, "Dunno," he said, "radio, he broke."

* * *

"My wife is scared to death someone will steal her clothes."

"Why don't you insure 'em?"

"Oh, the wife has a better idea. She has some guy stay in the closet and watch 'em. I found him there last night!"

A pink elephant, a green rat and a yellow snake strolled into a bar.

"You're a little early, boys," said the bartender. "He ain't here yet."

* * *

A pair of newlyweds had tipped the porter generously on boarding a train to keep that fact a secret. The next morning, noticing the many knowing looks cast in their direction, the angry groom called the porter to account for his treachery.

"Lordy, boss," he replied, "I didn't tell 'em. They asked me if you was just married, and I said, 'No, they is just very good friends.' "

* * *

A man with a black eye and several other injuries was checking out of a hospital. The attendant began to fill out the regular form.

"Married?" the attendant asked.

"No," was the answer. "Automobile accident."

* * *

Father: "Your mother and I won't be here tonight, Johnny. Do you want to sleep alone or with nursie?"

Junior (after some deliberation): "What would you do, daddy?"

* * *

She: "If wishes came true, what would you wish for?"

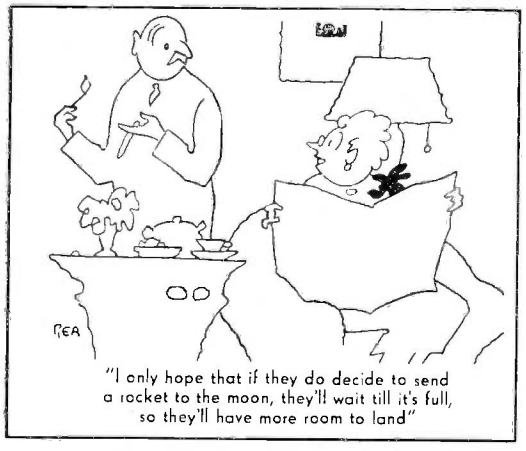
He: "Gosh, I'm afraid to tell you."

She: "Go ahead! What do you think I brought up this wishing business for?"

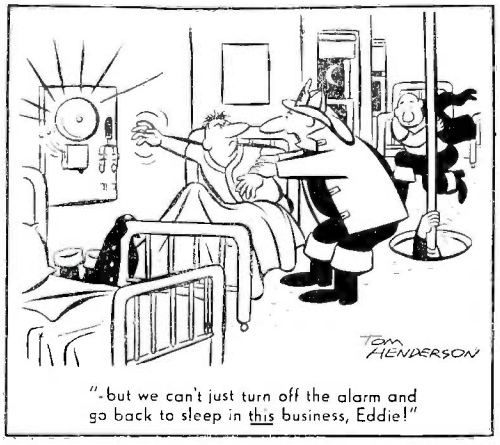
* * *

Job applicant: "I'm Gladys Zell."

Personnel manager: "I'm pretty happy myself. Have a seat."



"I only hope that if they do decide to send a rocket to the moon, they'll wait till it's full, so they'll have more room to land"




"-but we can't just turn off the alarm and go back to sleep in this business, Eddie!"

The preacher, making his round of calls Sunday afternoon, stopped at the home of one of his members. Junior answered the door bell. "Pa ain't home," he advised the minister. "He went over to the golf club."

The minister's brow darkened.

"Oh, he ain't playing golf, not on Sunday. He just went over for a few highballs and a little stud poker."

* * *

"Since I got my new automobile I don't have to walk to the bank with my deposits."

"That's nice. Drive your car over now, eh?"

"No. I just don't make any."

* * *

Judge: "On what grounds do you want your marriage annulled?"

Applicant: "I have proof, your honor, that her father had no license for that gun."

* * *

"Is Mr. Smith in?" asked a lady of the office boy.

"No, madam," replied the well-trained boy, "he's gone to lunch with his wife."

"Oh, really?" snorted the lady. "Well, when he comes back just tell him that his stenographer called."

* * *

The doctor was questioning the new nurse about a patient.

"Have you kept a chart on his progress?"

"No," replied the blushing girl, "but I can show you my diary."

"There I was, forced down on a desert island with a lovely blonde," the flier related.

"What did you do for food?" his friend inquired.

"Darned if I can remember."

* * *

The rich old gentleman was sitting in his wheelchair beside an open window as a slick chick walked by, displaying a comely figure.

"Quick, Jenkins," called the old gentleman to his valet, "bring me my teeth. I want to whistle."

* * *

A wire fell across Main Street during a storm. People were afraid to touch it. The city editor assigned two reporters to the story.

"One to touch the wire," he directed, "and the other to write the story."

* * *

A guard from the lunatic asylum rushed up to a farmer and said, "I'm looking for an escaped lunatic. Did he pass this way?"

"What did he look like?"

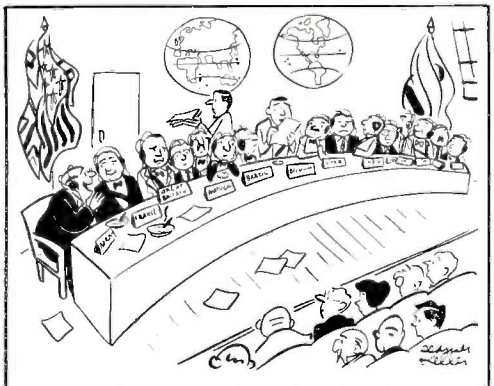
"He was a short, thin man, weighing 350 pounds."

The farmer looked at him in amazement. "How can he be short and thin and weigh 350 pounds?"

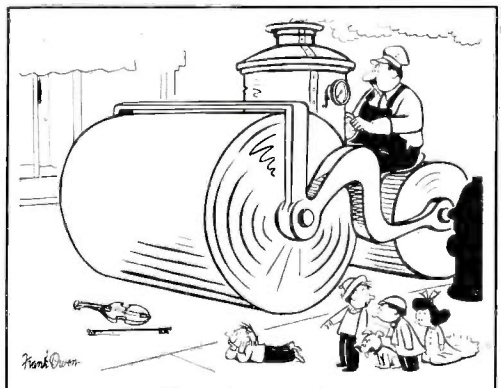
"Don't be silly," retorted the guard. "I told you he was crazy, didn't I?"

* * *

Hear about the fellow who called his girl melancholy baby? She had a head like a melon and a face like a collie.



"I'm listening to 'John's Other Wife'. What are you listening to?"



"Juniper's giving up his musical career!"

# Mueller Co. Surveying Gas and Oil Industries as Basis for New Products

**T. A. (Al) Larry, engineering consultant, investigating trends and future needs of fields served by company.**

A SURVEY to determine present trends and future needs of the oil and gas industries is currently being made for Mueller Co. by T. A. (Al) Larry, engineering consultant, who has been actively engaged in these fields for the past 30 years.

The survey is being made as part of Mueller Co.'s policy to keep in close touch with developments in the fields it serves. Data obtained and interpretation of trends in the two industries, such as the use of higher pressures in products and gas pipe lines and gas distribution systems, will be used as a basis for the development of new products by the company.

Mr. Larry's experience in these fields has included both transmission and distribution divisions and research and development of equipment and tools for pipe line and service installations.

His association with the gas industry particularly fits him for his present duties with Mueller Co. He was with Pacific Gas and Electric Company from 1925 to 1928, and served from then until 1935 with the old Los Angeles Gas and Electric Company before its merger with Southern California Gas Company. He was associated with Mueller Co. from 1935 to 1938 in the commercial development of the company's line stopper equipment for gas and oil transmission and distribution systems. Later, he was a district foreman for Southern California Gas Company of Los Angeles until 1944. Following that, he was successfully engaged in his own pipe line contracting business, which served to round out his experience and enables him to interpret new product developments for the industries from a practical as well as an economic standpoint.

Most recently Mr. Larry has been traveling in the south and southwest, renewing acquaintances made earlier in the industries when he pioneered the commercial introduction of line stopper equipment and fittings during his former association with Mueller Co.

T. A. (Al) Larry

It is planned that Mr. Larry will cover the entire country in the course of the survey.

■ ■ ■

## Mueller Co. Issues New Meter Setting Catalog

CATALOG H-12, which describes Mueller Co. water meter setting equipment, just has been issued to the water works trade. The catalog fully describes the entire Mueller line of copper meter yokes, iron bar meter yokes, meter stops, couplings and meter box covers.

If your catalog has not been received, see your Mueller representative or write Mueller Co., Decatur, Illinois.

## Mostly Personal

*(Continued from page 1)*

No doubt many of our friends in the water works field have wondered now and then at our interest in oil. Well, it's like this: Mueller Co. has long been a leading manufacturer of water works products—and it is justifiably proud of this long association with the industry. It was only natural, however, that its manufacture of ground key products should lead to the gas industry, and, later, that the idea it pioneered in the use of a drilling machine to drill and tap mains and insert corporation stops in water mains under pressure should lead to the manufacture of drilling machines and line stopper equipment for gas and products pipe lines. So we try to devote as much space as possible to all three: water, gas and oil.

* * *

We are reproducing herewith a cartoon forwarded to us by LeRoy J. Evans, manager of Mueller Co.'s New York branch, who obtained the original for our use through the courtesy of Carlton E. Davis, general manager of the Philadelphia Suburban Water Company, and W. A. Walker, photographic editor of *The*


*Voice*, the company's quarterly publication. The center of attraction is obviously a Mueller hydrant. Mr. Walker ran the cartoon under the appropriate caption, "Anxious Moments." Anyway, it's the *preferred* fire hydrant around the Philadelphia Suburban Water Company.

* * *

It was with sincere regret that we learned of the death on December 30 of William E. Vest, 82, who had been superintendent of the Charlotte, North Carolina, water department from 1910 to his retirement in 1946, when he was named consultant for the department's expansion program. A native of North Carolina, Mr. Vest attended civil engineering courses at the University of Kentucky and was on the engineering staff of the Southern Railway for 21 years before joining the Charlotte water department. The *Mueller Record* carried an article on Mr. Vest just a year ago in its January-February, 1948, issue.

W. E. Vest

* * *

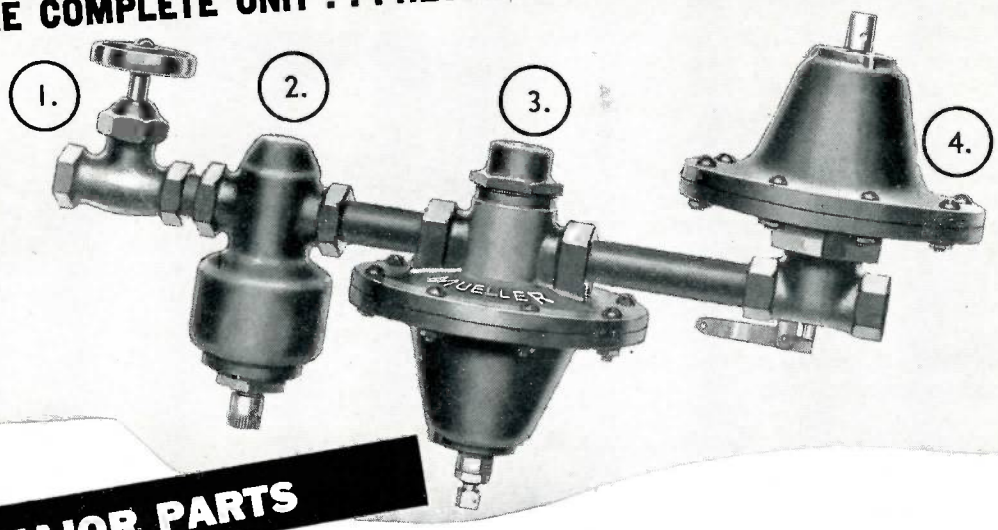
This month's cover constitutes a repeat performance for Gustav Anderson, the Amityville, New York, photographer. It's a scene that is quite familiar to New Englanders, many of whom no doubt will recall sugaring days of the past when they were permitted to ladle out some of the syrup to harden in the snow for candy.

* * *

By the way, space limitations last month prevented us from mentioning that the oldest fire engine in the United States is on display in Bethlehem, Pennsylvania, and we hope Ario Wear, Bethlehem's director of parks and public property, will forgive us. The engine received its first trial in Bethlehem on November 22, 1763, and was able to throw a stream of water over a building 75 feet high. Even in those days the boys were trying for bigger and better pressures, and ten years later the engine was able to put up a stream 100 feet high. The flow was 78 gallons a minute.

# MUELLER H-9500 SYSTEM OF HOT WATER HEAT CONTROL

## ONE COMPLETE UNIT . . PRECISELY BUILT FOR PRECISE CONTROL

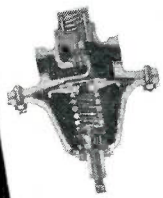



## MAJOR PARTS

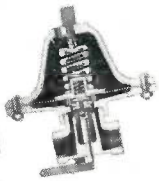
1. Stop and check valve of rugged construction is designed to give full flow, or positive shut off, and prevent back flow of water into the supply line.

2. Reliable strainer with large screen area and large sediment chamber, cuts down maintenance costs, and pays for itself by protecting the entire system.

3. Pressure reducing valve, because of extra large diaphragm area, maintains accurate constant setting.



4. Dependable relief valve because of extra large diaphragm is extremely sensitive, and is equipped with a test lever for testing or flushing.



The MUELLER H-9500 system of hot water heat control is your assurance of customer satisfaction. One complete unit expressly designed to give an automatic supply of water, and automatic relief of pressure year, after year, after year, all without attention or adjustment. Long-lasting operation because all working parts are made of bronze. The extra large diaphragms are extremely sensitive and the positive valves assure absolute safety.

It is more profitable for you to install the MUELLER system and give your customers dependable, trouble-free operation.

DEPENDABLE SINCE 1857 FULLY WARRANTED OUR 92nd YEAR

# MUELLER CO.

MAIN OFFICE AND FACTORY.....DECATUR, ILLINOIS

OTHER FACTORIES: *Los Angeles, Cal.; Chattanooga, Tenn.; Sarnia, Ont. Canada*

# PLANNING AHEAD!


Alert Water Works men are planning ahead for tomorrow—for next year—yes, for the next several decades and they realize how much it means to make the *right* selection of products and equipment *NOW!!!* That's why so many of them are insisting upon MUELLER Gate Valves *today*. They know that the Double-Disc, Parallel Seat Design — the exclusive 4 Point Wedging Principle — the Non-Scraping of Discs — the easy Opening and Closing — the Leak-proof Tightness and many other features mean years and years of trouble-free operation and minimum maintenance expense. Their fore-sightedness not only pays off *today*, but continues for *YEARS!!!*

**Before you replace old valves or install new ones, be sure you are fully acquainted with all the superior features of the MUELLER Gate Valve. Write us for full information.**

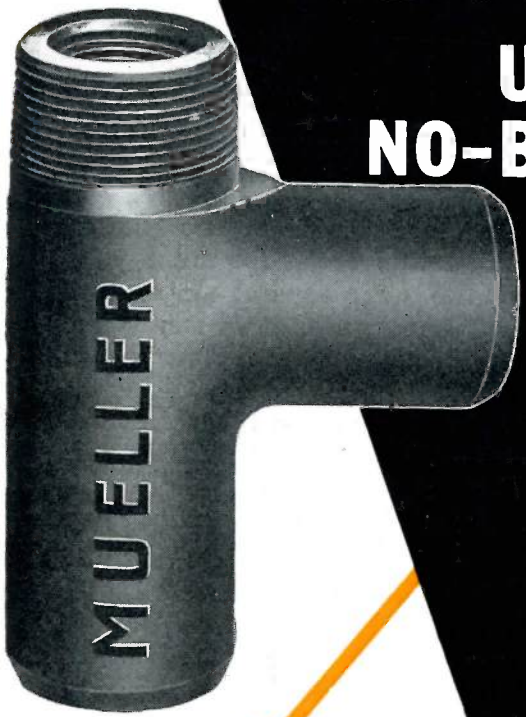

# MUELLER CO.

FACTORY: *Chattanooga, Tenn.* MAIN OFFICE AND FACTORY: *Decatur, Ill.*
OTHER FACTORIES: *Los Angeles, Cal.* * * * * *Sarnia, Ont. Canada*

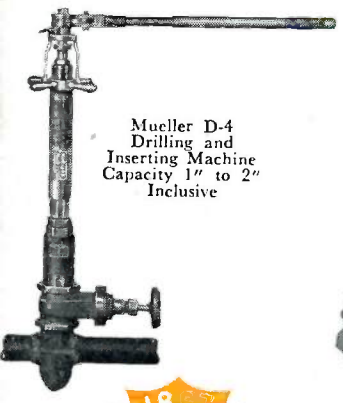
# FOR THAT EXTRA MARGIN OF

# SAFETY

## USE MUELLER NO-BLO SERVICE TEE 10410




Mueller H-10410 Welding Tee



Mueller D-4 Drilling and Inserting Machine Capacity 1″ to 2″ Inclusive

Mueller E-4 Drilling and Inserting Machine Capacity $\frac{7}{8}$″ to 1″ Inclusive

There's an *EXTRA* margin of safety when you use Mueller H-10410 NO-BLO Service Tees because they eliminate any necessity of the gas blowing or escaping when used with the Mueller E-4 or D-4 Drilling and Inserting Machine. These Tees have both an INSIDE and an OUTSIDE thread at the top. The Tee is first welded to the main and the service line completed. A Valve and the Drilling Machine are screwed on to the OUTSIDE thread of the Tee, the main drilled through the Tee and then a plug inserted into the INSIDE thread. The Machine and Valve are removed and a cap put on the OUTSIDE thread to effect a double, leak-proof seal. In these Tees, a machine-inserted rubber shut-off tool may be placed, stopping off the service under pressure with complete safety. The work is all done with the line under pressure and with complete control at all stages of the operation.

Mueller Welding Tees will handle Low, Medium or High Pressures and are made in sizes $\frac{3}{4}$″ to 2″ inclusive. Be sure to specify size and type of inlet and outlet connections when ordering.

DEPENDABLE SINCE 18[illegible] FULLY WARRANTED OUR 92nd YEAR

# MUELLER CO.

MAIN OFFICE AND FACTORY.....DECATUR, ILLINOIS

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