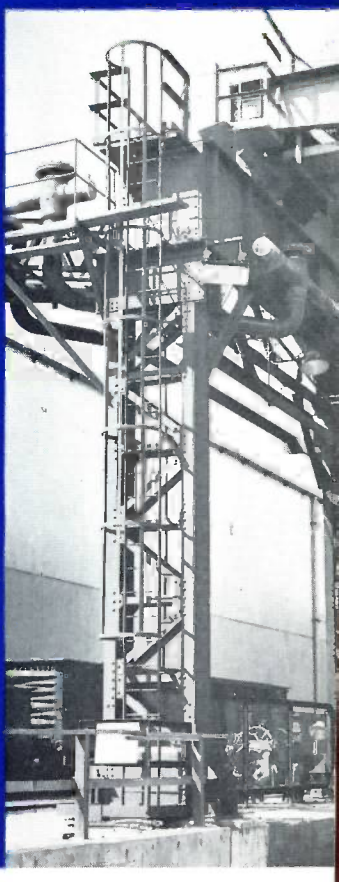
MUELLER
Record
FEBRUARY • 1961



From Hole To Heights

Recording Our Thoughts

As a new year begins it might be well to look into the crystal ball provided by the American Gas Association to see what the outlook for 1961 might be and also reflect a little on 1960.

1960 was a year of disappointments for the U. S. economy as a whole as business slumped from early predictions. An upturn in general business is expected by mid-year with a strengthening of the economy seen.

In spite of the business fluctuations around the nation, progress in the gas industry has been steady —steadily upward.

According to the AGA, 1960 was a record year for expansion in the nation's gas utility and pipeline industry—and prospects for 1961 are even better.

Currently serving more than 33½ million customers and growing at an annual rate of about one million customers, the gas industry has spent an estimated $1,890,000,000 for new facilities in 1960. This is 6.7 per cent more than the previous record of $1,772,000,000 set in 1957 and 9.4 per cent ahead of 1959 outlays of $1,728,000,000.

The forecast for 1961 construction is $2,219,000,000, representing a one-year jump of 17.4 per cent.

Summarizing a new survey of gas industry expansion plans, A. G. A.'s Bureau of Statistics points out that the $6,182,000,000 the industry will invest in new facilities in 1960, '61 and '62 will be 21 per cent higher than spent the previous years.

The Bureau also notes that while 1960 outlays are $343,000,000 below the level anticipated earlier this year, expenditures next year will exceed previous estimates by $301,000,000.

The shift from 1960 to 1961 is attributed primarily to construction deferrals by many leading gas pipeline companies as a result of the regulatory lag in obtaining certification for new projects. The A.G.A. study shows no evidence that any of the major projects originally scheduled for 1960 were cancelled.

Transmission company construction, which cost an estimated $891,000,000 and set an all-time record in 1960, is expected to reach a new peak of $1,060,000,000 next year. During 1960-62, pipeline expansions programs will also increase compared with the previous three years.

Construction of distribution facilities to link more residential, commercial and industrial customers will reach a record peak also.

The growing importance of underground natural gas storage in helping to meet peak customer demands in cold weather also is reflected in the new A.G.A. forecast. An estimated $292,000,000 will be invested to expand the industry's underground storage facilities in 1960-62, up $70,000,000 from the previous three years.

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Jim M. Milligan

Assistant Editor
Joe Penne

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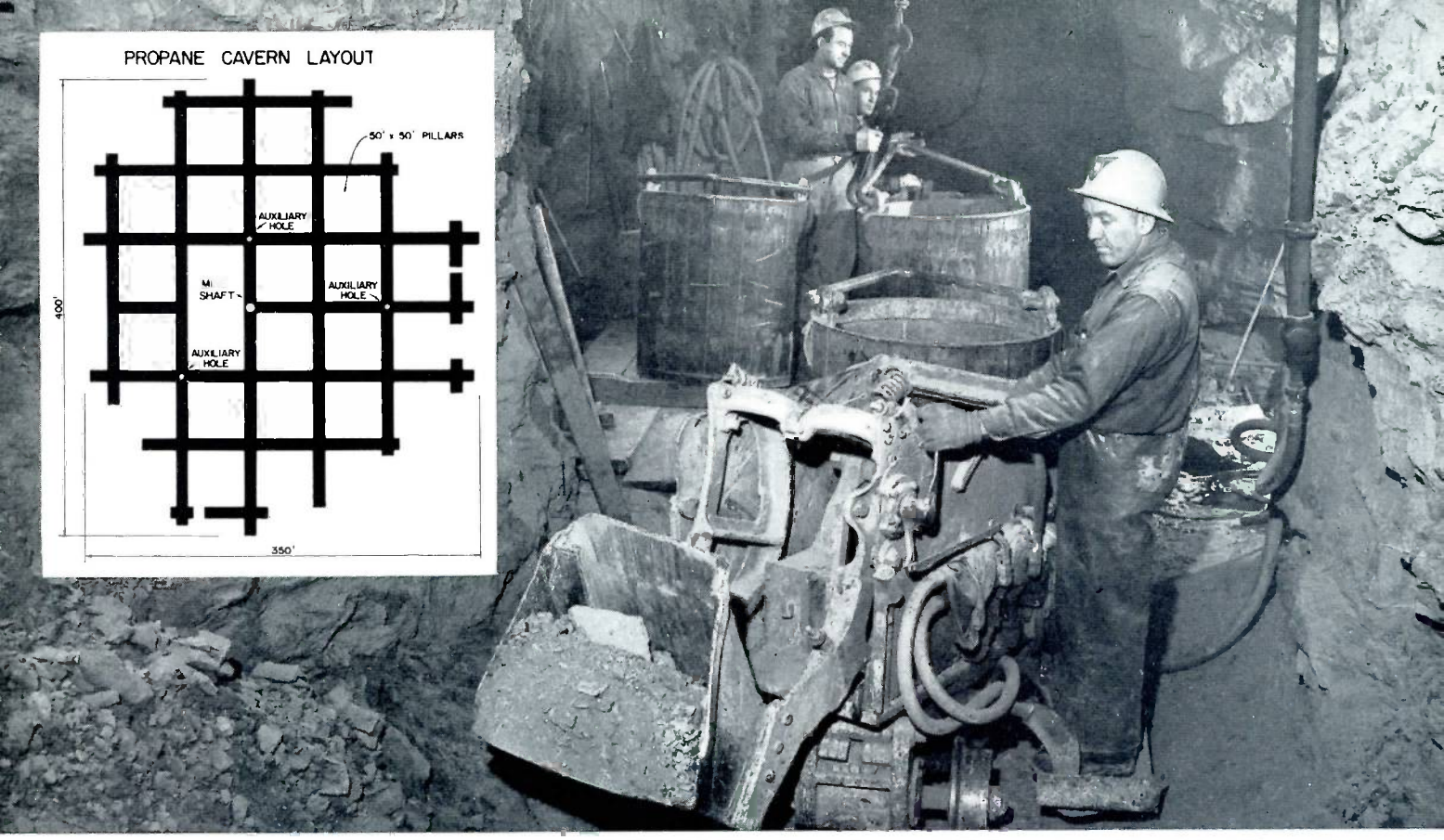


Mining operations for a cavern to hold 6,000,000 gallons of propane were carried on through a 42-inch hole to the storage area 300 feet underground. Equipment and machines were broken down, put through the opening and re-assembled for use in the mining. The machine in the foreground digs and deposits the material in the buckets in the background and then are hauled to the surface.

Omaha, Nebraska

42-Inch Hole Used For Huge Mining Operation At MUD

Instead of taking gas from the ground as is the usual case, Metropolitan Utilities District of Omaha, Neb. is putting gas into the ground.

This reversed procedure comes about because MUD has just completed a gigantic mining operation 300 feet under-ground which will allow them to store 6,000,000 gallons of propane in a network of man-made caverns.

Photos Courtesy
Of
Metropolitan Utilities
District,
Omaha, Nebraska

The new storage area is part of a $1,500,000 expansion program at the company which includes a new plant for the manufacturing of gas.

The plant will have a capacity of 30 million cubic feet per day and will more than double the District's manufacturing capacity. The gas produced will be used to supplement the natural gas supply on the colder days during the winter; and when required, the liquid propane will be pumped from storage, vaporized, mixed with air to the proper heating value, and put into the distribution system with the natural gas.

This new plant will permit the District to meet Omaha's growing gas requirement at the lowest possible cost, officials say.

But the unusual storage area is the interesting feature of the project. The entire 6,000,000 gallons will be stored in a network of mined tunnels.

These tunnels are approximately 10 feet wide and 20 feet high, and are separated by pillars 50 feet square which are left in place for support.

The $800,000 storage area covers an area approximately 350 feet by 400 feet, with less than 30 per cent of this total area actually mined.

In the mining of the cavern, a shaft 50 inches in diameter was drilled to the desired depth. A 42-inch steel casing was inserted in the shaft and cemented into

place, and it was through this 42-inch casing that the entire mining operation took place.

This included lowering equipment as big as tractors piece by piece into the cavern and then assembling them underground. Normally, in mining, a much larger shaft is used. In this case, however, the shaft must be sealed to contain the pressure of the propane—approximately 100 pounds per square inch—which will be stored inside. It has been found that it is easier to mine through the smaller shaft than seal a larger shaft against this pressure.

In addition to the main shaft, three smaller holes were drilled and lined with casing 12 inches in diameter. These smaller holes were used for ventilation during construction and on completion of the cavern will house the pumps for withdrawing the propane from storage.

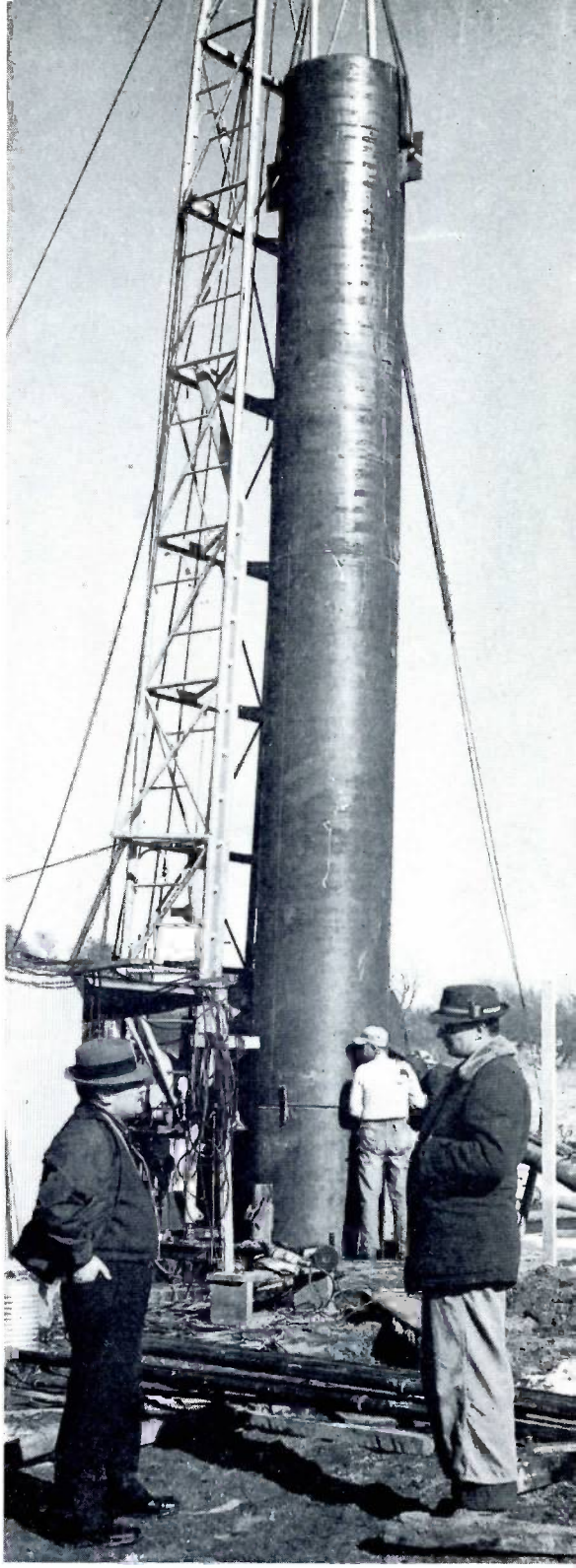
A mined cavern for the storage of propane offers a number of advantages over conventional storage methods on the surface. The cost of an equivalent volume of storage using standard propane storage tanks would be in excess of $4,000,000. In addition, the cavern is constructed at such a depth that the pressures surrounding the cavern are greater than the pressure of the propane in storage. If a leak was to develop, it would be a matter of the ground water leaking into the cavern rather than propane leaking out. Facilities will be provided to remove any water which may enter the cavern.

There are 29 of these caverns now in operation or under construction, primarily in the Southern and Eastern parts of the United States. This, however, is the first installation of its type in the Midwest. In addition, the District is the first gas distribution company to contract for the construction of a cavern for its own use, and join two gas distributors who purchased completed caverns last year in being the first to utilize this type of storage in connection with gas production.

When the mining was completed, all equipment was disassembled and removed from the cavern, and the pumps installed in the 12-inch holes. A 42-inch steel cap was welded to the top of the casing and this, together with the connecting piping, is all that is visible on the surface.

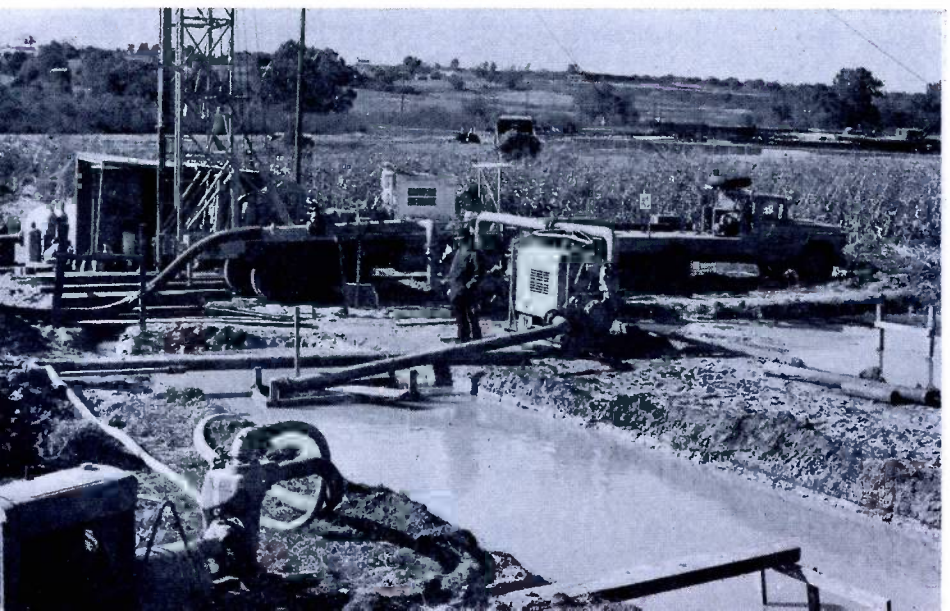
Piping extends from the shaft to the unloading siding where the propane is received in railroad tank cars. Approximately 700 tank cars and three months' time will be required for the initial fill.

A second pipeline will be built from the cavern to the North side of the construction center to three buildings which will house the vaporizers, air compressors, and mixing equipment.

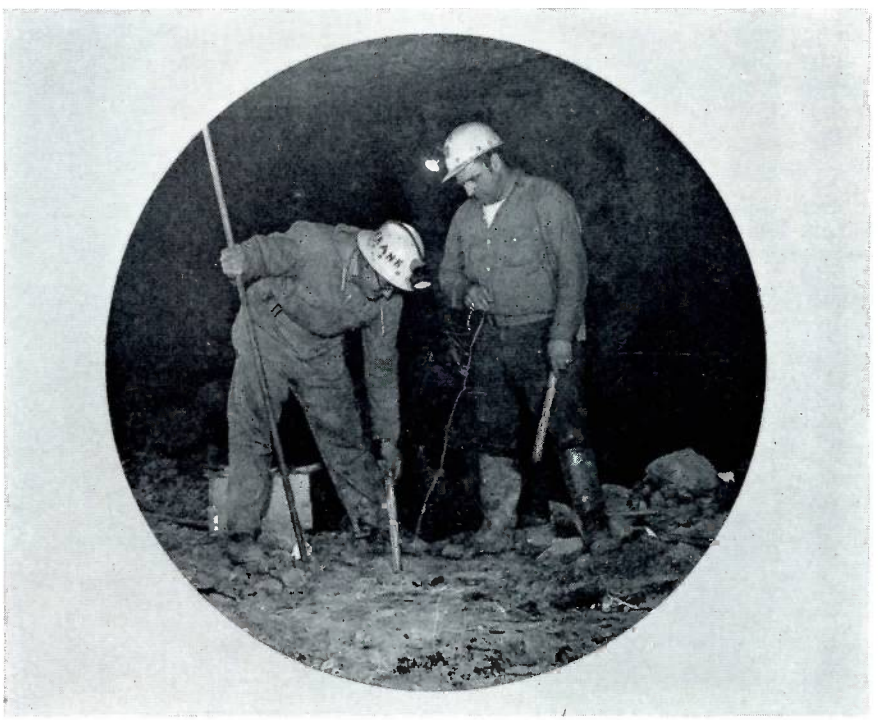


After drilling, a 42-inch steel pipe with a ⅝-inch wall was lowered into the shaft. About 1,200 sacks of cement were poured around the casing to seal it in place.

The equipment used to drill the 50-inch hole is similar to that used in an oil field. The pits in the foreground contain the drilling mud which is circulated through the hole and floats the cuttings to the surface.



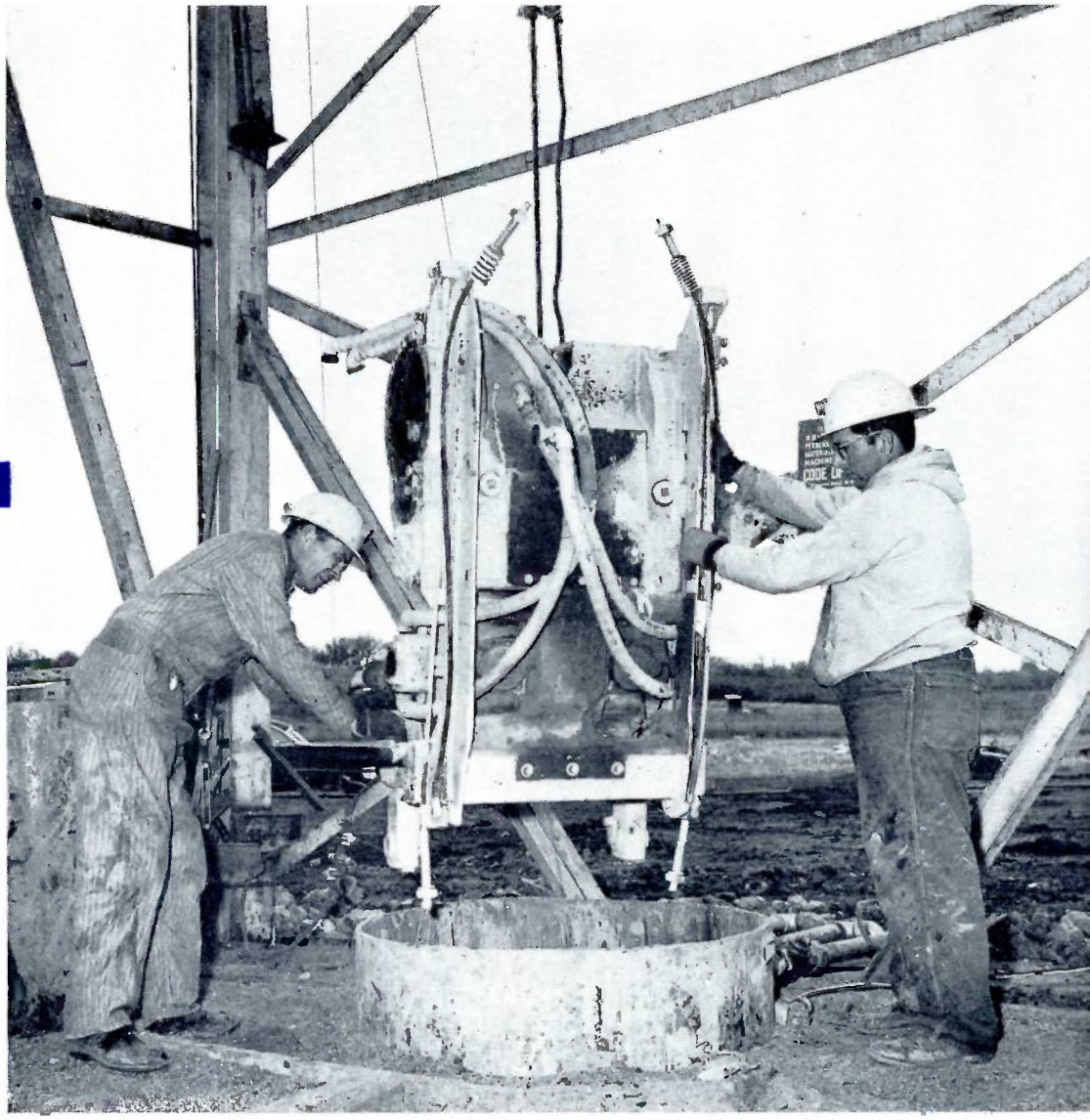
The drill consists of a series of cutters mounted around a rotating shaft. The cutters were mounted on frames ranging in size from 16 inches in diameter at the tip to 50 inches. A 16-inch pilot hole was first drilled and after eight weeks of drilling the shaft hole was complete.



Air-drilled holes are packed with dynamite and the blasts set off during the lunch hours or between shift changes when everyone is out of the mine. This time lapse allows the dust to settle and the gases to be removed before work resumes.

A tipple was constructed over the shaft with the enclosed portion housing the hoisting equipment. During peak mining, buckets filled with material were raised to the surface and dumped every 40 to 50 seconds.

Buckets are also used to take workmen back and forth from the surface to the work area. When the mining operation began one or two men started digging by hand and as the cavern grew in size larger crews were needed. The mining was carried on 24 hours a day, six days a week.

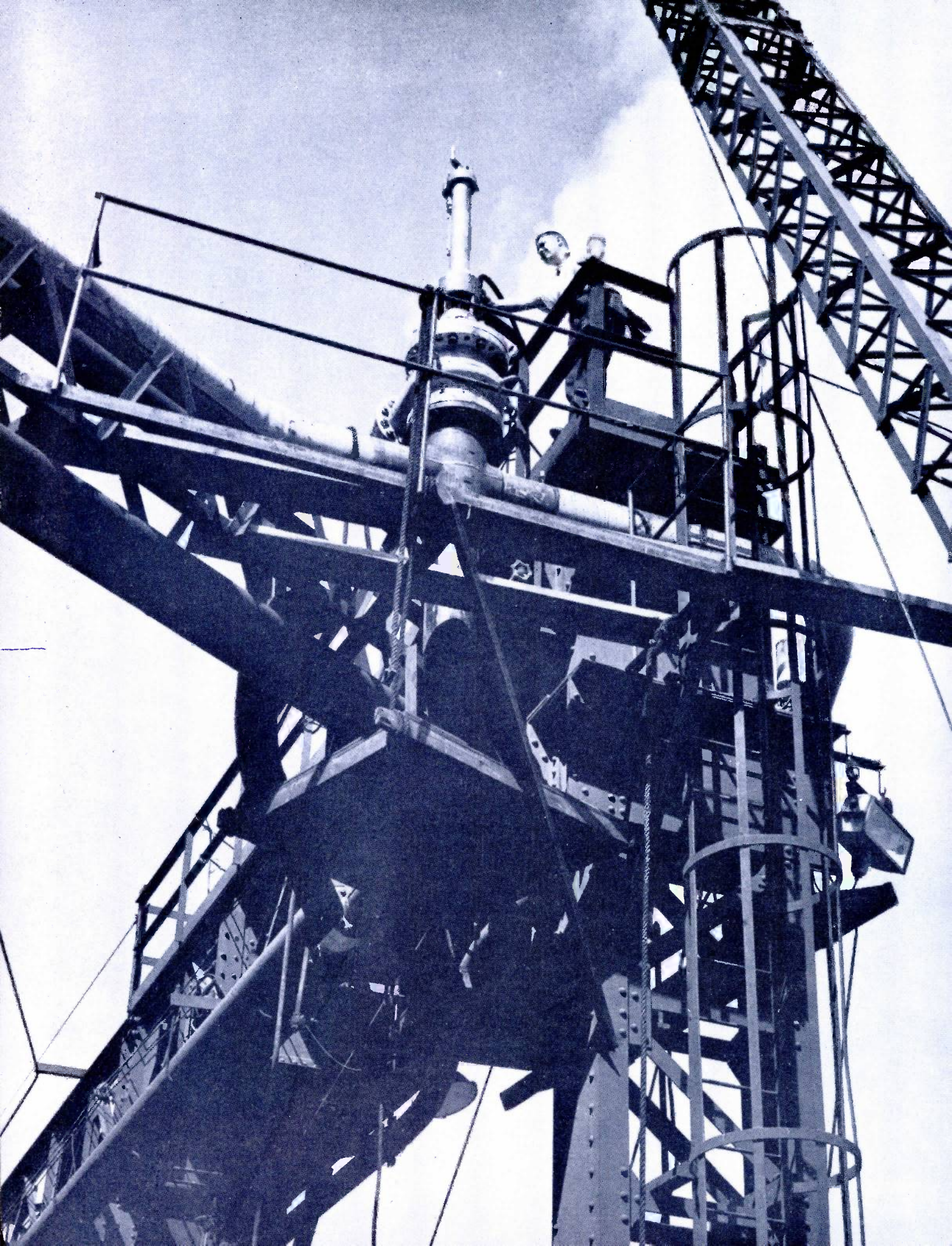


When sufficient area was mined, air operated loaders were lowered into the hole to fill the mine buckets. Here a part of a loader is being lowered to be re-assembled and a track laid on the floor.

How do you slip a tractor through a 42-inch hole?

As the mined area extended farther from the shaft, heavy big tractors were lowered piece-by-piece into the cavern. The motor of the tractor can be seen just as it emerges from the end of the shaft.

The tractors were used to haul the material from the blast area to the shaft where the air operated loaders filled the mine buckets. The mine shaft is near the center of the mined area which is 350 feet by 400 feet.



Fairfield, Alabama

From Hole To Heights; Machines Take To The Air

Mueller Co. drilling and line-stopping equipment are normally found in a ditch; but in one instance recently, the machines had to be used on a gas line 30 feet in the air.

At the Tennessee Coal & Iron Division of the United States Steel Corp. in Fairfield, Ala., a 10-inch gas line had to be rerouted, and to do the job the workmen operated from atop a crane runway and scaffolds above railroad cars and loading areas.

The 10-inch line was feeding the huge tin mill, supplying gas to their annealing furnaces and other processes, and couldn't be shut down without great difficulty.

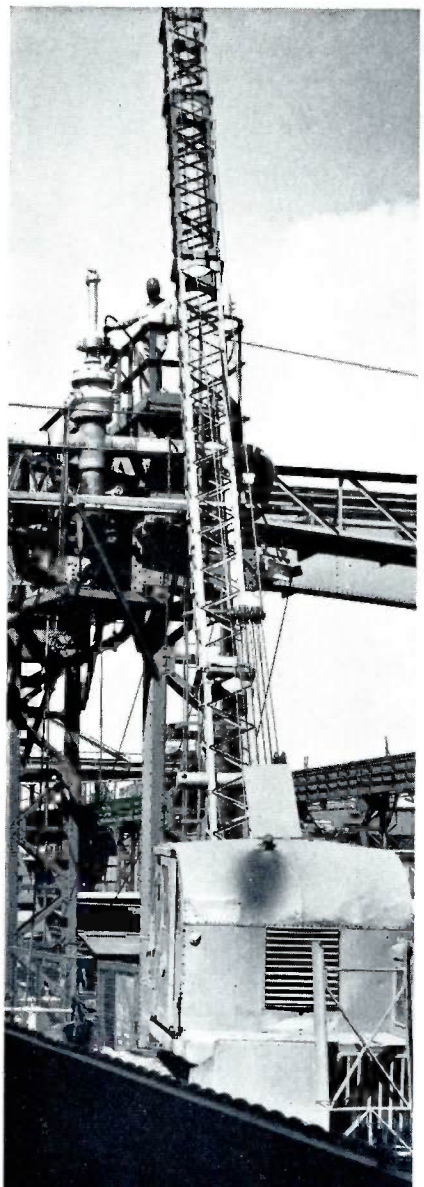
The gas line originally ran down the inside of a crane runway and around the end of the beam, and then at a 45 degree angle, went on into the tin mill about 50 yards away.

The crane runway served as one track for an overhead magnetic crane which was used to load steel plates into railroad cars. The steel company wanted to extend its loading facilities, but this couldn't be done until part of the line was moved. After this was done, the beam and track then could be extended.

Using Mueller 10-inch fittings, an elbow was welded to each fitting and the line run beneath the crane runway rather than around the end.

After the fittings were in place and the new line completed, the Mueller drilling machine made the cut through the fittings to put new line in use.

Equipment had to be hoisted to the top of an "I" beam which served as a track for a loading crane for railroad cars.



The new line acted as a permanent part of the installation and also as a bypass line, while the old line was stopped off, cut and capped so the beam was free to be extended to the desired location.

This dual use of the new line did away with any possible problems related to the use of a by-pass line.

Because of the high flow and high pressure of the regular line, the use of a smaller by-pass line was impractical. In most cases, a smaller temporary line is used in a similar operation.

Mueller line stopper fittings and equipment used on the Fairfield job may be used on lines up to 12 inches in size at pressures as high as 500 p.s.i. on most models and temperatures to 250 degrees Fahrenheit.

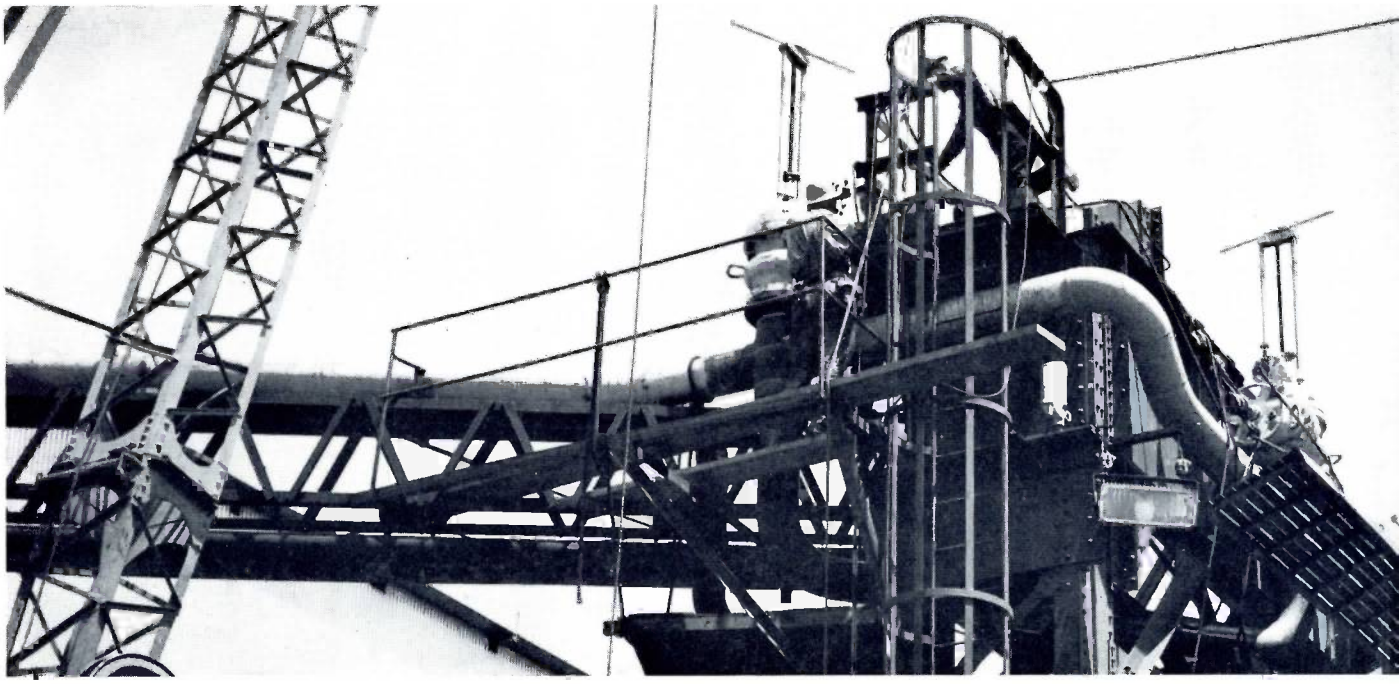
The project took two days. Norman Wilcox, Test Lab Lead Man and special Mueller Co. representative from Decatur, was on hand to supervise the use of Mueller equipment. Maintenance men from the steel company did the work. Robert J. Ott, Mueller Sales Representative in the territory at the time and now section sales manager in the area, was also on hand.

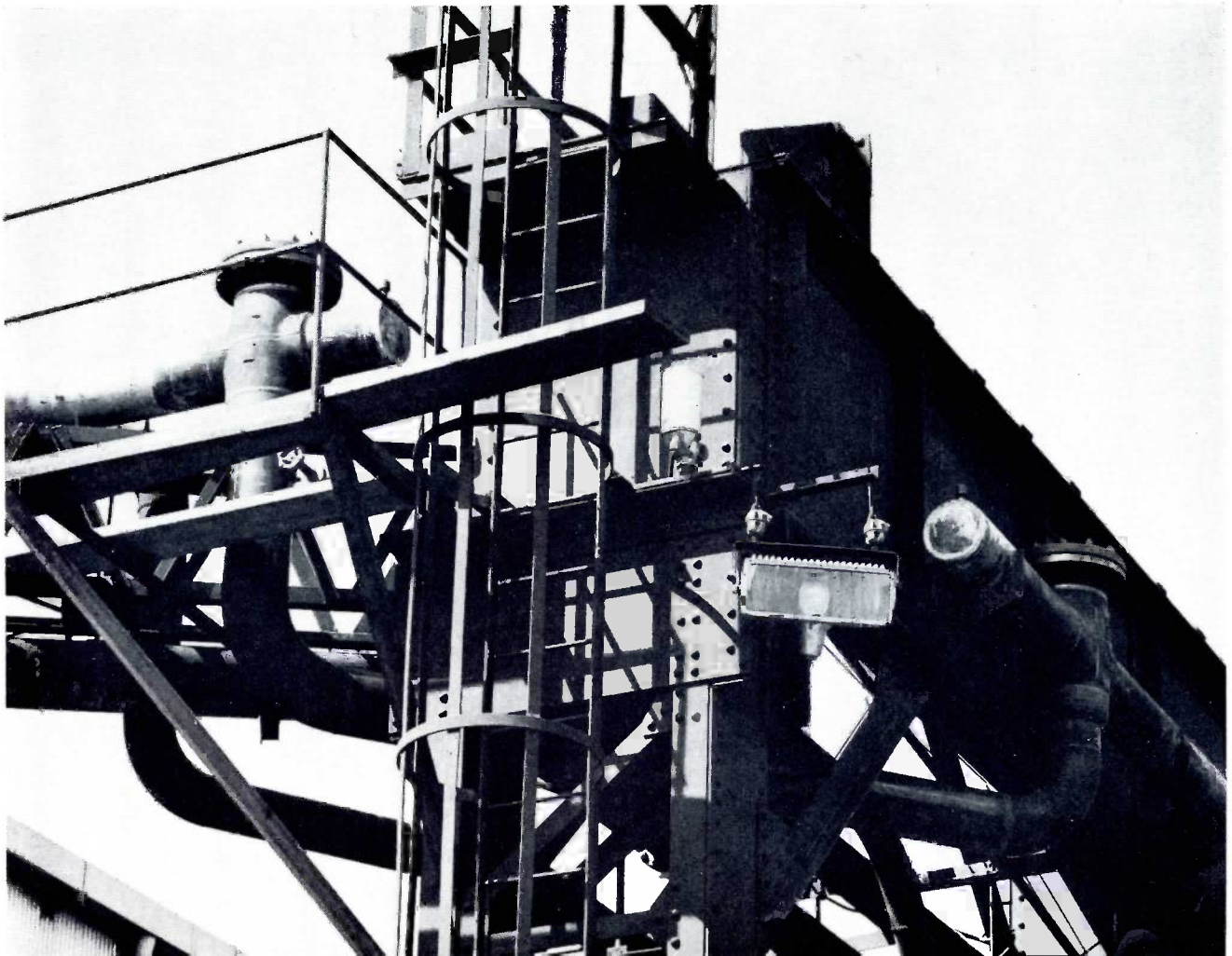
The Tennessee Coal & Iron Division of United States Steel is one of the south's largest industries.

Fairfield is located near Birmingham in north central Alabama.

An unusual application for some Mueller Co. equipment was found recently at Fairfield, Ala. at a United States Steel Corporation division there. Instead of working in a ditch the machines were used 30 feet in the air in an operation to change the location of a gas line.

PHOTOS COURTESY OF UNITED STATES STEEL CORPORATION





After the 10-inch line was drilled, a stop-off was made and the flow of gas was diverted to the new line which also served the same purpose as a by-pass line.

With the new line in operation, the old line was cut and sealed, the stopping machines were removed and completion plugs were inserted into the fittings.

The job was completed in two days without interruption in the gas service which was necessary in the huge tin mill. The beam is now ready to be extended.

Folly Turns Into Fortune

The whistle shrieked and the train lurched forward.

As it picked up speed through Stamford, Connecticut, the man settled back in his seat. Titusville, Pennsylvania was a long way off.

Nothing about Edwin L. Drake attracted attention. Almost middle-aged, he had the nondescript look of a man used to living with illness—and failure. Even his fare wasn't paid for; he used the old railroad pass issued when he had been a conductor.

Yet Drake—unknown to his fellow passengers and himself—was riding with fate, keeping a rendezvous with fame. His destiny: To change the course of civilization—through petroleum!

The time was Spring, 1858, and industry was in turmoil. Science was battering down technical barriers, shattering the limits of knowledge at a dizzying pace.

America was becoming a mighty nation as pioneers pushed westward against the sprawling frontier. Spurred by inventions like the steam engine, industries expanded, struggled to supply the ever-increasing markets.

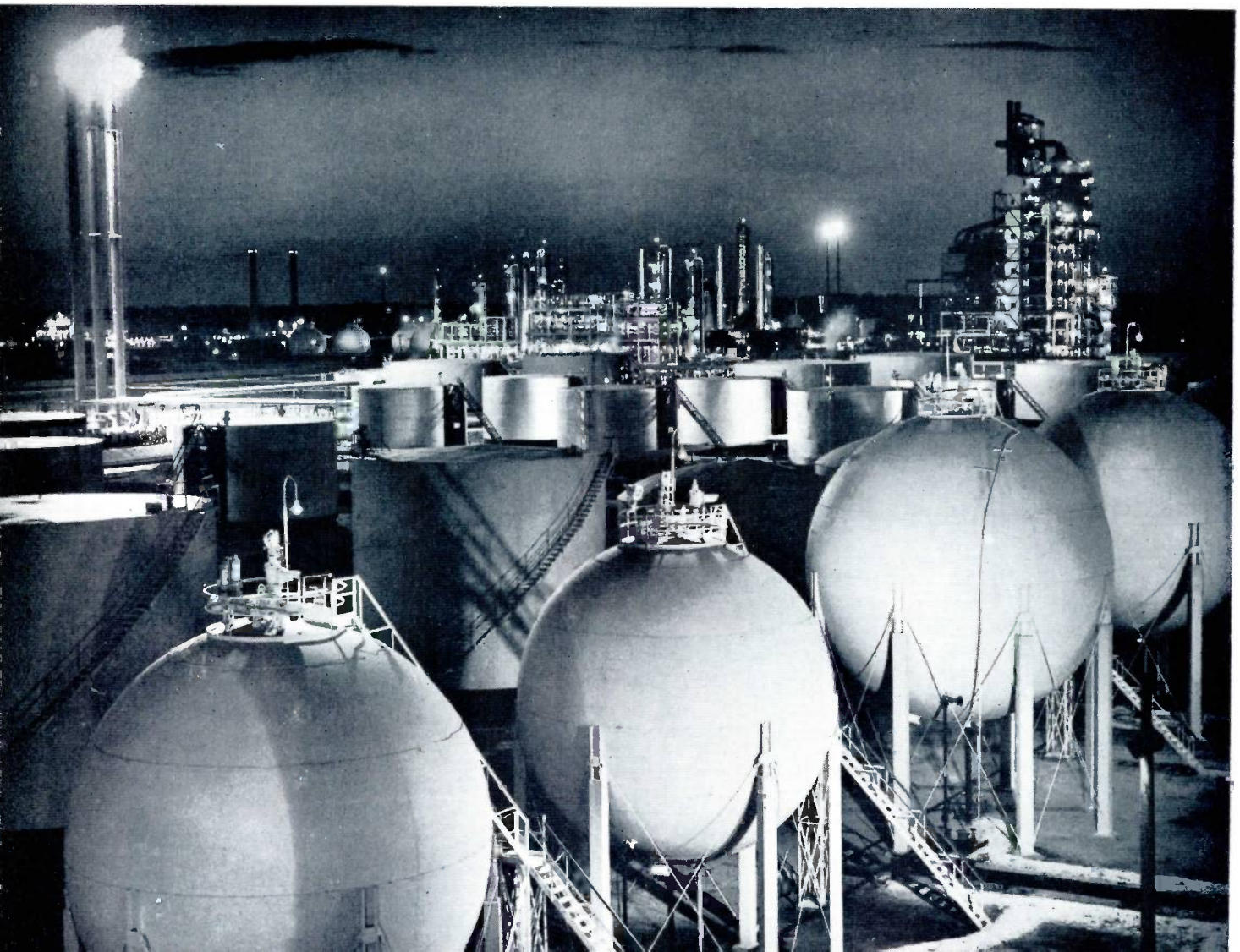
There was a draw-back, though. Industrial machines needed better lubricants. Oils for lighting, too, were becoming scarce.

Lighting needs had been filled with animal oils and fat—especially whale oil. But now demand outstripped supplies. Fleet after fleet returned to the New England docks, sold their sperm oil in minutes and often sailed right out again to hunt the dwindling whales.

The industrial machines? Using poor quality lubricants, they often ran at quarter speed.

Tallow and animal fats were about all there was. Some people tried **camphene**—a mixture of turpentine and alcohol. But large-scale use was impossible; it produced a poisonous gas.

Some saw possibilities in petro-



leum but couldn't do much about it. Then only way known to collect oil was to find where it mixed with water and literally skim it off the top. A hard day's work produced only three to six gallons. The cost was prohibitive.

The stage was set for a revolution—and Edwin Drake!

Drake came to Titusville as an agent of the Seneca Oil Company, formerly the Pennsylvania Rock Oil Company—one of the first oil ventures organized. Its founders had almost given up hope and sent Drake as a last resort to see if production could be increased.

Drake plunged into the work, ordered reconstruction of the entire site—new channels, troughs, skimmers. He improvised better skimming methods. Result: **Failure!** By summer, the output didn't pass 10 gallons a day.

Suddenly it hit him: They had to get closer to the oil.

He urged the workmen to dig straight down—and he became the laughing stock of Titusville. Townsfolk flocked around in growing numbers to laugh and jeer at the "madman." They named the project "Drake's Folly." It seemed they were right. Just when they actually struck a flow of oil the nearby river waters came pouring in—and almost drowned the workmen.

There was one way left: **Drill** for the oil like they drilled for salt.

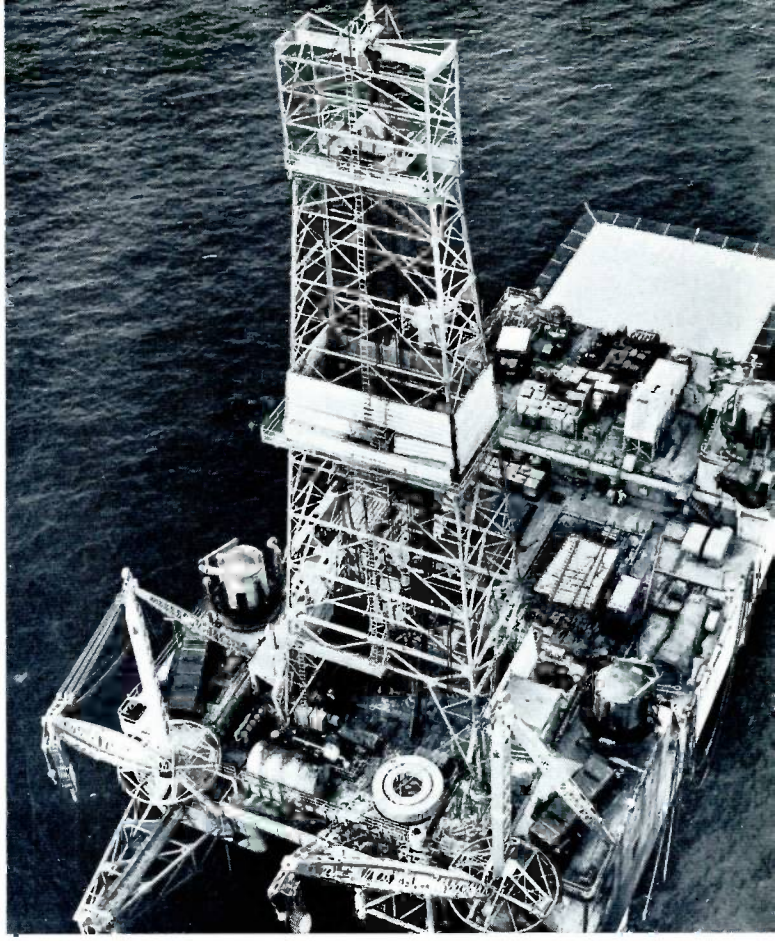
His request for more money went unanswered, but he decided to go ahead anyway. In 1859, with a borrowed $500, an old salt driller and his two sons, a steam engine, hemp rope, home-made bit and crude wooden windlass, he began again.

Slowly, they built a crude derrick and a shaft for the engine. They started digging. Bad luck persisted. All attempts were once more defeated by the incoming river water.

Then he got the most revolutionary idea of all: Why not encase the shaft with steel piping?

They hammered the pipe casing down to the bed rock with a crude battering ram and started drilling. The water stayed out!

Now they were really making progress: 25...40...69 feet. Drake was near the end of his struggle—



A giant portable rig drills for oil in 137 feet of water in the Gulf of Mexico.

almost. But the finale could convince anyone that Destiny was by his shoulder. At about the same time, the drilling hit another snag when the bit broke off and a letter from the Company ordered him to stop operations—but he found his oil!

The pipe filled with the dark green bubbling liquid!

The news electrified the country. "Black gold" . . . "liquid gold" could be pumped out of the ground like water! The effect rivaled the California Gold Rush.

Within 5 years, the petroleum industry was a major force in America's life. Apart from the needs it met in lighting and manufacturing, the industry itself created other new industries.

Oil transportation, for example, started with crude barrels and storage "dug-outs" and progressed to tank cars and ships, pipelines. It employed thousands.

Because of better lubrication, railroads began criss-crossing the entire nation; steamship lines flourished.

The facts speak for themselves. The relatively brief, 100-year history of America's oil coincides exactly with the greatest social, economic growth the world has known.

Today, the United States depends on oil for all its lubrication, and major portion of its highway surface. With 6 per cent of the world's population, it has 40 per cent of the world's total power output!

The emphasis on science is also the reason why petroleum by-products also help make life easier and richer in the U. S. By finding ways to harness the great supplies of natural gas that was once burned off, they added another resource to the nation's list.

Discoveries in petrochemistry have added over 7,500 useful products to our way of life. They include synthetic rubber, plastics, fabrics, solvents, detergents, fertilizers, insecticides, weed killers and medicines.

The list grows longer each day as the cycle of new uses—new needs—continues. By 1967, petroleum consumption will rise by 2 billion barrels a year. By 1965, the total output of petrochemicals will total 85 billion pounds a year!

For "Drake's Folly," the end is nowhere in sight!

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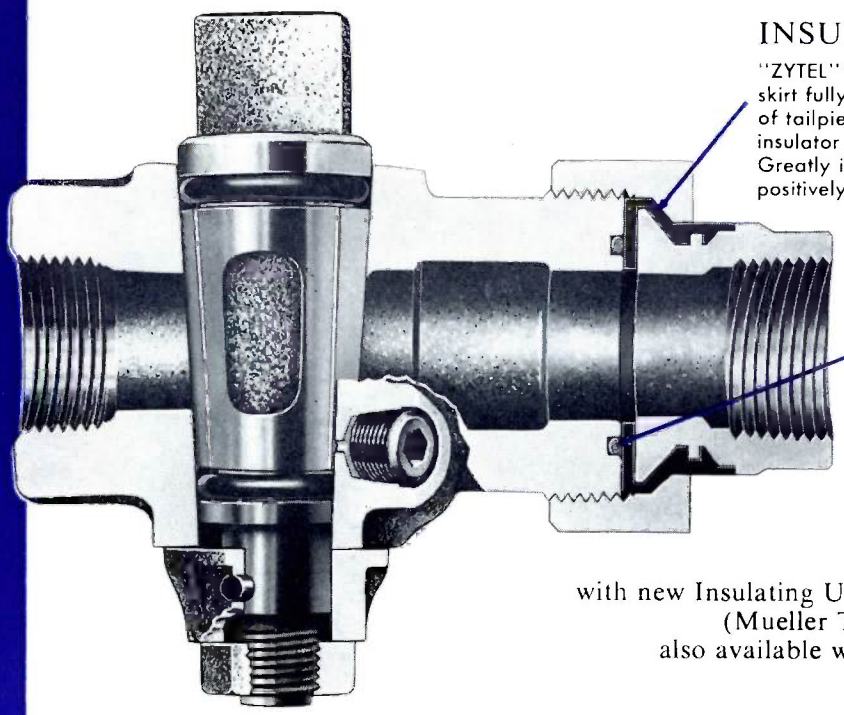

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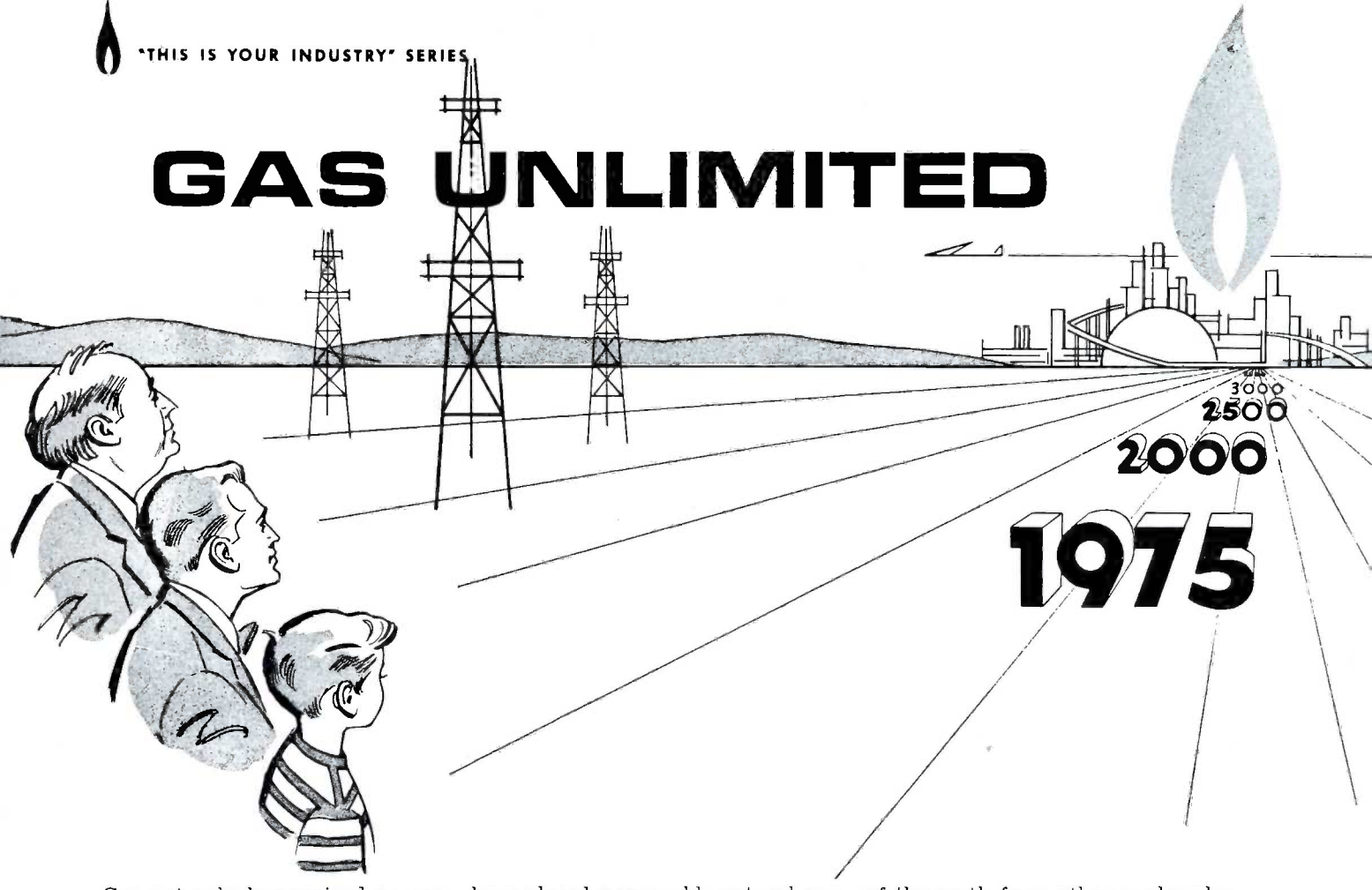


Gas not only has arrived as one of America's largest industries—it is here to stay.

Looking far into the future, the giant gas industry is confidently building still more capacity, with which to serve the ever-mounting energy needs of more and more millions of customers each year.

The industry is investing in growth at a rate which is now near $2 billion a year, and is rising. Enlarged facilities will enable it to deliver to America's homes and industries nearly twice as much gas as at present by 1975, and approximately three times as much by the year 2000.

Keeping tomorrow's expanded network of mains and pipelines constantly filled will, of course, require huge future supplies of gas.

Fortunately, the gas industry possesses plentiful reserves, proven or potential, with which to meet all foreseeable needs.

To begin with, vast deposits of natural gas are known to exist underground, in reservoirs already tapped or accessible to future drilling.

Recent authoritative estimates have placed recoverable natural gas reserves in the U. S. at a minimum of 1,200 trillion cubic feet. With present production running less than 12 trillion cubic feet yearly, this reserve obviously is enough to supply U. S. gas needs for many decades to come. This will still be true even if gas use doubles or triples as expected.

To brighten the natural gas reserve picture still further, there are immense deposits in Canada and Mexico upon which the U. S. may draw extensively in the future.

Importation of liquefied natural gas by ocean-going tanker from other gas-rich areas of the globe may play a part in future operations.

Perhaps still more important, present estimates of reserves, like all past estimates, may be revised sharply upward in the light of new knowledge and experience.

For instance, it is believed that the "Mohole" project to drill an exploratory hole through the earth's crust may change many of our ideas about geology—and about possible sites of natural gas deposits. Scientists approaching study of the earth from other angles also are evolving new theories.

Such new light on the earth's depths may lead to gas discoveries in places hitherto quite overlooked.

With such tremendous natural gas reserves, the U. S. has a "bank account" of gas which should last for generations.

But these reserves are not the only—or even, perhaps, the most important—source of future gas abundance. Other—and far richer—bank accounts of gas exist in the form of vast deposits of coal and oil shale. From these, at moderate cost and by methods already tried and proven, can be made high-quality synthetic gas in unlimited quantities.

The synthetic gas of the future, unlike much of the manufactured coal gas and oil gas of the past, will be practically indistinguishable from natural gas.

Most of the familiar "manufactured" gas, used in many places before the advent of pipelines and still very useful for peak load shaving, is a somewhat variable mixture of methane and other gases. It generally contains less heat

value, or Btu's per cubic foot than natural gas, which is nearly all methane.

By contrast, the synthetic gas made from coal or oil shale by the new processes is, like natural gas, nearly straight methane. Therefore, like natural gas, it is "high Btu" (around 1000 Btu per cubic foot), is non-toxic, lighter than air, and has all the other desirable characteristics which make natural gas the ideal fuel.

For this reason, it often is referred to as "synthetic **natural** gas."

The processes for making synthetic gas improve on the older methods of gas manufacture principally by adding important steps for converting more of the raw material into methane.

A "synthesis gas-methanation" process, for example, employs catalytic agents to recombine hydrogen and carbon monoxide from coal gas into additional methane (plus carbon dioxide, which is removed).

A "hydrogenation" process employs a high-temperature direct reaction of oil shale or coal with added quantities of hydrogen, to produce a straight-methane synthetic gas.

Again in contrast to the older manufactured gas, most of which was made in small local plants, synthetic gas will be made in large-scale works, on the order of giant refineries, located at the deposit sites. Like huge supplemental gas fields, they will be able to fill the long-distance pipelines with practically any desired quantity of gas. The main difference will be that instead of drilling wells, synthetic producers will be "mining" for gas!

An idea of the magnitude of potential synthetic gas reserves may be gained from the fact that one oil shale deposit alone, in the Green River area of Colorado, could yield more than 10 times as much gas as all the presently estimated natural gas reserves in the United States!

Though this is the largest, other rich deposits are scattered widely throughout the country.

Coal—which would probably first come into use as a synthetic gas source—exists in even more inexhaustible quantities than oil shale.

Blue Flame Whispers

The gas industry, which last year became the first entire industry to annouce participation in the 1964-65 New York World's Fair, has named Walter Dorwin Teague Associates to design the $5,500,000 exhibit at the Fair.

The appointment was announced jointly by Chester S. Stackpole, Managinging Director of the American Gas Association, and Harold Massey, Managing Director of the Gas Appliance Manufacturers Association.

The exhibit will occupy three-fifths of the 50,000 square feet leased by the gas industry at the Fair site.

John E. Heyke, President of the Brooklyn Union Gas Co. and President of Gas, Inc., an organization established earlier this year to plan and operate the industry's building, said there are more than 3,000 products made of natural gas today that did not exist five years ago.

The gas industry's exhibit, according to Mr. Heyke, will account for much of this growth in the petrochemical field as well as depict the progress of gas as a residential, commercial and industrial fuel.

Teague Associates will cooperate in "translating the industry's achievements and prospects into one of the Fair's outstanding industrial exhibits," the Stackpole-Massey statement said.

* * * *

Gas lights have come on again around the United States.

Today, estimates of the total number of gas lights in service run as high as three-quarters of a million. The number used outdoors far exceeds the record set in the peak gas lighting year of 1914, when some 300,000 gas burners illuminated the streets of America's cities and villages.

One of the first of the new wave of street light installations was made in 1958 when 64 gas lamps replaced electric lights around the plaza in the heart of Albuquerque's historic Old Town.

The most recent installation took place in Cape May, N. J. on the tree-lined streets of the state's southernmost city.

So great is the demand for gas street lamps that several manufacturers have turned to producing replicas of the old fringe-top lights known as "boulevard" models.

At least 19 other manufacturers are making gas lamps for street and private use.

A significant sign of the growing market for gas lights appeared early last year when America's pioneer manufacturers of gas lights —the 83-year-old Welsbach Corp. of Philadelphia—returned to production after 25 years.

Today's largest producer of gas lights for both street and residential-commercial use is the Arkla Gaslite Division, part of the huge Shreveport-based Arkansas Louisiana Gas Co. This complex of aggressive companies not only distributes natural gas but manufactures such diverse products as gas air conditioners, rocking chairs, cement, chemicals and horse-drawn buggies.

* * * *

Only 3.5 per cent of all building fires in the United States during 1959 were attributed to gas and gas appliances, according to a study by the AGA. Fires totaled 883,300, with gas as the listed cause of 31,600.

Gas fueled equipment was charged with only 19,800 of the 202,000 fires caused by defective or overheated cooking and heating equipment of all types.

Losses in 1959 in building fires were estimated at $1,083,000,000 with gas fires charged with only 2.6 per cent or $28,500,000.

Two New Directors Elected To Mueller Co. Board

Two new members were elected to the Board of Directors of Mueller Co. at the annual two-day shareholders and board meeting which opened in Decatur December 1.

Elected to the Board were John A. Schluter and Jackson Kemper. All other company officers and board members were re-elected.

Mr. Schluter succeeds his mother, Mrs. Charlotte Mueller Schluter, who resigned from the board.

Mr. Kemper, Executive Vice-President of Mueller Co., was elected to fill the vacancy created by the resignation of W. H. Hipsher.

Mr. Kemper, formerly Vice President and General Manager of the Forge and Fittings Division of the H. K. Porter Co., Inc., joined Mueller Co. July 18 after Mr. Hipsher resigned due to ill health.

Mr. Schluter lives in New York City, is married and has one son. He is a 1951 graduate of Williams in Williamstown, Mass., and served three years in the U. S. Navy as an officer.

He is a member of the Sales Division of International Business Machines, Inc., in New York.

RE-ELECTED COMPANY OFFICERS WERE:

A. G. WEBBER, JR. ..... President and Chairman of the Board
JACKSON KEMPER ..... Executive Vice-President
LEO WIANT ..... Administrative Vice-President
FRANK H. MUELLER ..... Vice-President and Director of Engineering
DAN R. GANNON ..... Vice-President and General Sales Manager
LEROY J. EVANS ..... Vice-President in Charge of Eastern Sales
LYLE R. HUFF ..... Secretary-Treasurer

RE-ELECTED TO THE BOARD WERE:

JOE H. GARDNER
EBERT B. MUELLER
FRANK H. MUELLER
MRS. PAULINE V. MUELLER
MRS. LENORE MUELLER SCHMICK
FRANKLIN B. SCHMICK
HAROLD M. SHERMAN, JR.
ALBERT G. WEBBER, JR.
LEO WIANT

JACKSON KEMPER
Executive Vice-President

ALBERT G. WEBBER, JR.
President and Chairman of the Board

LEO WIANT
Administrative Vice-President

FRANK H. MUELLER
Vice-President and Director of Engineering

DAN R. GANNON
Vice-President and General Sales Manager

LYLE R. HUFF
Secretary-Treasurer

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

Strictly Off the Record

The senior girl sniffed disdainfully as the pink-cheeked freshman boy cut in. "Why did you have to cut in when I was dancing?"

"Sorry," the freshman answered, hanging his head in humility. "I'm working my way through college, and your partner was waving a $5 bill at me.

Office Manager (to new employe): "You should have been here at nine o'clock."

New employe: "Why, what happened?"

Little Bobby ran to his mother sobbing as though his heart would break.

"What's the matter, Bobby?" she asked.

"Daddy was hanging up a picture and dropped it on his toe."

"Why, that's nothing to cry about; you should laugh at that."

"I did," sobbed Bobby.

A woman who ran a boarding house would get her knives sharpened several times a week. When the knife sharpener asked why she had her knives sharpened so often, the woman whispered, "Well, it's cheaper than buying tender meat."

"How did you make your neighbor keep his hens in his own yard?

"One night I hid half a dozen eggs under a bush in my garden, and next day I let him see me gather them."

Somebody told us about a little boy and an old man who had lost ten dollars. After listening to the oldsters's story, the kid, who had found the money, decided it must be his, and handed it over.

"Hey," says the old gent, "you're an honest boy, but what I lost was a $10 bill, and you've given me ten ones."

"That's right," says the boy. "Last time I found one, the man didn't have any change."

Warden: "I've been in charge of this prison for 20 years and that calls for a celebration. What kind of party would you boys suggest?"

Prisoners: "Open house!"

The boy looked at the prices of the menu at the drive-in, then turned to his date and said, "What will you have, my plump little doll?"

Customer: "Hey, waiter, this steak is burnt black."

Waiter: "Yes, sir; it's a mark of respect. Our head waiter died this morning."

Jim: "Why did you break your engagement?"

John: "She wanted to get married."

The Smiths were on the balcony and could hear the young couple in the garden below. Mrs. Smith nudged her husband and whispered, "I think he wants to propose. We ought not to listen, Whistle at him."

"Why should I?" her husband asked. "Nobody whistled at me."

He: "Please, darling, whisper those three little words that will make me walk on air. "

She: "Go hang yourself."

Hank: "You used to say there was something about me you couldn't help loving."

Claire: "But it's all spent now."

Strange Game

In Sacramento it is required that hunters who shoot other hunters file a report with the Fish and Game Department within 48 hours.

— :: —

A local business man had hired a new messenger.

Instructing him on picking up certain items, the boss said, "And if they can't give you these things, be sure to phone me. Just dial CApital 7-5526."

The boy stood thoughtfully, making no move to get started.

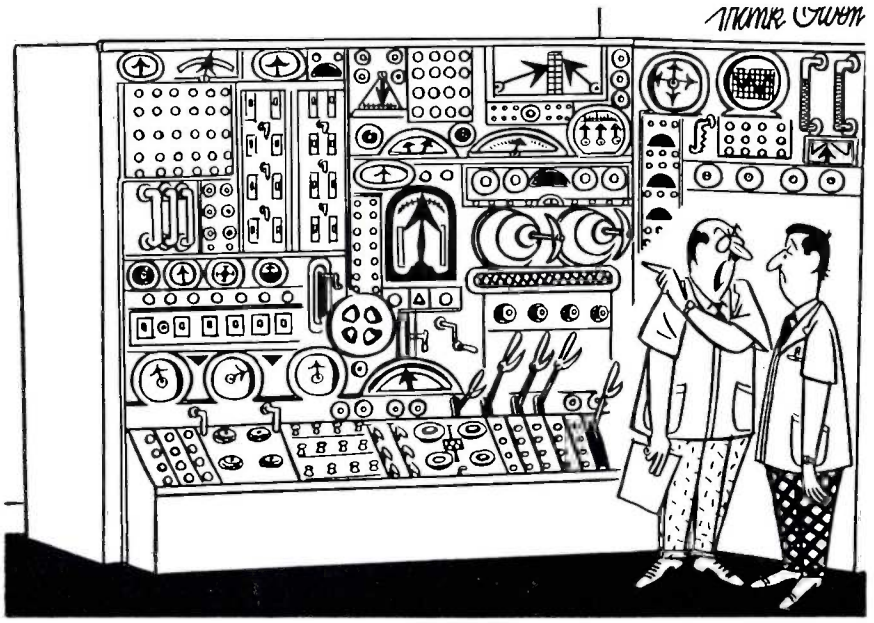
"What's wrong?" asked the boss.

"Oh, nothing's wrong. But I just don't know how to dial a capital seven."

— :: —

The hillbilly signed the hotel register with an X. Then he drew a circle around the X. The clerk, watching him, said, "A lot of people sign with an X, but that's the first time I've ever seen it circled."

"Tain't nothing so dad-burned odd about it," retorted the hillbilly. "When I'm out for a wild time, I just don't use my right name."



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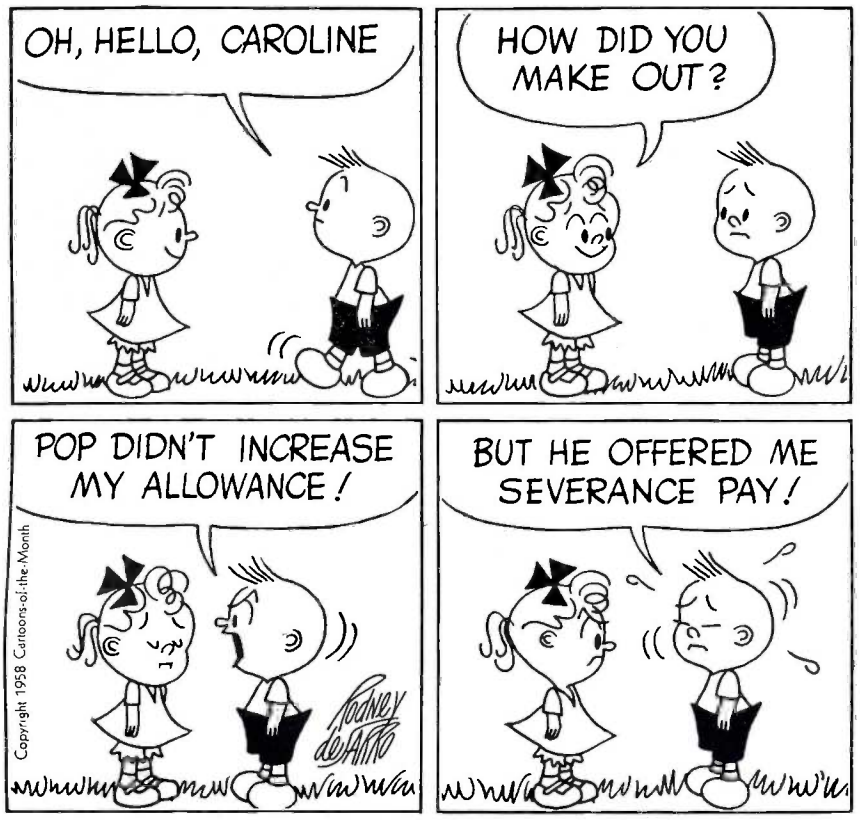
"I'm going to explain all this to you only once, so listen carefully...!"

small shots



Tommy looked up from his book and asked, "Pop, is it true that a man is known by the company he keeps?"

"Yes, son, and always remember that."

"Well, Pop," asked Tommy, "what I still can't understand is this: If a good man keeps company with a bad man, is the good man bad because he keeps company with a bad man, or is the bad man good because he keeps company with the good man?"

— :: —

The salesman was getting disgusted with his relations with the front office, so he sent the following wire to the boss: "Must have raise at office or count me out."

He received the following reply: "one, two, three, four, five, six, seven, eight, nine, ten."

— :: —

"Nope," argued Uncle Ezry, "I don't like this improvin' of our livin' standards."

"But why, Uncle Ezry? Hasn't everyone a right to a decent living?"

"Well, now, mebbe they has, but where we gonna git our great men with humble beginnins?"

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What lies ahead for these care-free youngsters? Their parents can help plan for the children's welfare and the future of the nation by investing wisely in United States Savings Bonds.