



Metropolitan Utilities District of OMAHA_____

In the Heart of the
Nation's Breadbasket

see Page 4

Blue Flame Whispers



When this writer goes traveling to gather the material which you read in the *RECORD*, he meets with some fine co-operation. Such was the case during a recent visit to Omaha to do a story on Metropolitan Utilities District. We owe a great deal of thanks to several members of that progressive organization, but we want to issue a special 'thank you' to a Miss Betty Page. Miss Page is secretary to Mr. Harold Roll, who provided us with a great deal of information and photographs, some of which appear in this issue. To Miss Page was left the 'busy work' of digging out photos and having reprints made for us. She did a fine job, and we offer to her our sincere appreciation.

We are saddened to learn of the death of two men well-known in West Coast gas operations — Mr. John P. Coughland and Mr. Allen L. Chickering.

Mr. Coughlin, a life member of the Pacific Coast Gas Association, was a retired vice-president and assistant to the president of the Pacific Gas and Electric Company. He joined the company as an attorney in 1906, and retired in 1954, but served on the board of directors for two more years. He was a P.C.G.A. director in 1943-44.

Mr. Chickering was vice-president of the San Diego Gas and Electric Co. for thirty-six years, and member of the company's board of directors from 1922 to 1956. According to San Diego President E. D. Sherwin, Chickering's abilities contributed immeasurably to the growth and progress of the company.

The May issue of *GAS* carried two interesting items to which we would like to call your attention.

The first concerns damage to gas mains by street improvement and construction crews. Southern California Gas Co. has set up a program whereby city engineers notify the gas company of any proposed street construction work, regardless of size. Southern Cal then sends a field inspector to the site, and he properly marks the location of the mains. If the main must be re-located, the gas company supervises the work — preventing damage to the mains by working with the contractors doing the street work. Sam Sokolow of Southern California Gas describes the program in an interesting *GAS* article.

The second article states that Metropolitan New York used 332,585 MMcf/day of natural gas during the past winter heating season. To provide Gotham's millions with this gas, the services of three major pipeline systems and four distribution companies are required. Gas is brought from the production fields of the Southwest by Transcontinental Gas Pipe Line Corp., Texas Eastern Transmission Corp., and Tennessee Gas Transmission Company. Distribution companies serving the area are Consolidated Edison Co., Brooklyn Union Gas Co., Brooklyn Borough Gas Co., and Long Island Lighting Co. A fascinating account of these tremendous operations is given in the feature, "Gas for Gotham," in the May *GAS*.

Remember that your wife still enjoys candy and flowers. Let her know that you remember by speaking of them occasionally.

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Quality Products for the
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Industries



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trademark of Mueller Co.

Our Cover this month is an obvious departure from the standard photograph which you see on it each month. In an attempt to keep the RECORD'S improvement in a steady climb, we will, from time to time, try several new ideas. We would sincerely appreciate your appraisal.

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- 23 LOOKING BACKWARD . . .** *our current dip into the pages of history.*

Preview

In the next issue, we bring you Part II of the story on Metropolitan Utilities District of Omaha. The issue you now hold tells of the gas operations of this utility; the next RECORD will bring you a detailed account of its water operations.

You'll also read of the East St. Louis and Interurban Water Co. of East St. Louis, Illinois. This company draws its water from the "Mighty Miss." During each 24 hours, when the river is at zero stage, sufficient water flows under the East St. Louis Veterans' Memorial Bridge to provide 210 gallons of water to 160 million people.

Omaha, Nebraska

Major Utility Continues To Meet Demands

*Serves Over
81,000 Customers*

An aerial view of downtown Omaha, the largest city in Nebraska. The city itself comprises fifty square miles, while the metropolitan area extends in a twenty-five mile radius from the downtown section.



Omaha, Nebraska, located in the heart of a rich and resourceful region — the bread-basket of America — is also virtually the geographical center of the United States. The nation's major transportation and communication lines cross in Omaha, making it one of the most important transportation centers of the country.

Because of its fortunate location with relation to the east and west coasts, the city occupies a strategic position with respect to manufacturing and distribution.

Omaha comprises 50 square miles of active, enterprising urban community. It is the largest city in Nebraska and, according to the 1950 census, had a population of 251,117. In 1954, the Omaha City

Planning Commission estimate placed this figure at 270,650. The metropolitan area, which lies within a radius of twenty-five miles of downtown Omaha, contains approximately 390,000 people.

The city has many claims to fame. It ranks as one of the nation's largest grain markets; it is the world's largest cattle market; and it is fast becoming a ranking chemurgy and chemistry center. Food processing is Omaha's largest industry, accounting for approximately 70 per cent of the value of Omaha's manufactured products, and employing 50 per cent of the people engaged in manufacturing. In the food processing field, the meat-packing industry is the largest operation in dollar volume and employment. Seventeen meat-packing plants annually slaughter over four million head of livestock.

Omaha is the home of 38 insurance companies with total employment of over 4,500 people and a combined payroll of over \$16,000,000. The city ranks second in health and accident insurance.

Because of its geographic location at the "Crossroads of the Nation," Omaha is an important point on the air maps. The major airlines serving the city are United and Braniff International. Daily scheduled service totals 42 flights. The city is the fourth largest rail center in the nation, and is served by ten major railroads with a combined operating mileage of approximately 70,000 miles.

Omaha today maintains its importance as a center of activity for the Armed Forces. Most important of its military establishments is the Strategic Air Command, located ten miles south of Omaha at Offutt Air Force Base. Nerve center of global bombing operations of the United States Air Force, the Command has been called the most effective instrument for the maintenance of world peace, and the most potent factor in national defense. A vital element in Omaha's economy, S.A.C. pours over \$35 million annually into the city's business life through military and civilian payrolls, local purchases, and public works expenditures. Approximately 5,000 air personnel and 1,000 civilians are attached to the headquarters. In addition, some 6,200

dependents of military personnel reside in the Omaha area.

An integral part of Omaha's past growth and potential development is the Metropolitan Utilities District, which supplies both gas and water to the city and environs.

The history of the events leading to the formation of M.U.D. is long and interesting. A brief background of the evolution of both the gas and water operations is necessary to fully understand the scope of the utility.

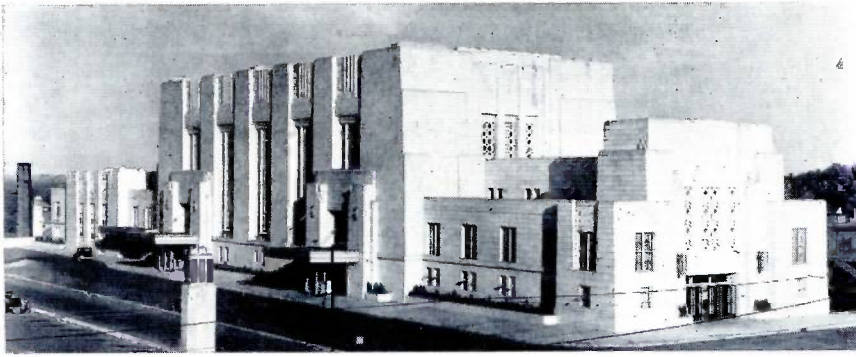
In the spring of 1869, the first gas plant was put into operation at a cost of \$150,000. It was privately-owned. At the end of the first year, there were only 198 customers; gas was a luxury in those days, and was used only by well-to-do citizens. Eleven years later, Omaha's population reached 30,000, and it became necessary to enlarge the gas plant. In 1884, a new gas works was built at the location of the first one.

In 1897, the interests of the Omaha Gas Manufacturing Company were purchased by the United Gas Improvement Company of Philadelphia, and the plant was thereafter known as the Omaha Gas Company. At that time, increasing consumption of gas taxed the plant's capacity, and plans were drawn up for the erection of a new gas works. The new and modern plant became a reality in 1898 — one of the model plants of the parent gas system. When the city of Omaha purchased the plant in 1920, it became the largest municipally-owned gas plant in the country.

It seems incredible to us today that in 1879, Omaha's citizens were drawing water from wells for domestic use, and that water for fire protection was stored in cisterns located beneath the streets. In that same year, however, a disastrous fire destroyed the new Central Hotel and killed five firemen. Steps were immediately taken by city officials to secure an additional water supply for fire protection and domestic use.

A company was formed by Omaha businessmen, and was known as the City Water Works Company. A pumping station, sewers for washing the basins, and intake pipes from the river were constructed. Land was also purchased





Omaha, fourth largest rail center in the nation, boasts one of the country's most modern union stations.

for construction of three settling basins and one 10,000 gallon clear water reservoir. The first system of mains delivered water to the people of Omaha on August 1, 1882.

In May of 1886, the City Water Works Company sold its holdings to the American Water Works Company, and plans were made for an entirely new water plant. A site was acquired six miles north of the existing plant, and the new construction was underway. The new facilities included a stone pump house building, sedimentation basins, pumps, boilers, intake cribs, pipe systems, sewer systems and settling basins. The formal opening took place on August 1, 1889, but all was not well with the stock and bond holders. Fearing financial repercussions from over-expansion of facilities, the water works was placed in the hands of receivers until 1896, when it was sold at auction to a group of Omaha businessmen for \$4,900,500.

On July 1, 1912, the water plant was taken over by the Metropolitan Water District of Omaha from the former Omaha Water Board, which received its authority from the state legislature. It thus became municipally-owned, and the Water Board was granted authority to furnish water outside the city limits.

The gas plant was acquired in 1920, and in 1922, by act of the state legislature, the entire operation was placed in the Metropolitan Utilities District, a municipal corporation. The present operation is the same, and is in no way connected with the city government.

The Gas Operation Department of Metropolitan Utilities District of

Omaha serves over 81,000 customers with natural gas. The Department is made up of five divisions: the Gas Production Division, the Gas Dispatching Division, the Gas Distribution Division, the Mechanical Service Division and the Gas and Water Meter Shop. These five divisions are responsible for the purchase, production and conditioning of gas; the flow, distribution and control of the gas load; and maintenance of measuring equipment and the servicing of the customers' appliances. These divisions actually exercise control over the gas from the time it is purchased or produced until it is consumed on the customer's premises.

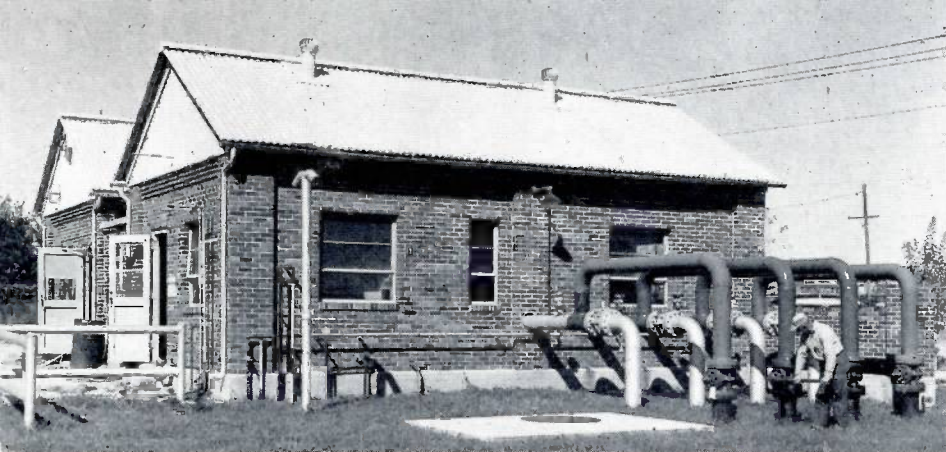
Omaha is operating headquarters of Northern Natural Gas Company. M.U.D. receives its gas from two metering stations. The District had as of January 1, 1958, 909 miles of gas mains in its distribution system. Nearly thirty-three miles of mains were laid last year. Gas is odorized at a much higher rate in Omaha than in many localities; the odorization is done at both town border stations and at the Gas Plant. Oil fog and steam are added to the gas for conditioning purposes at the regulator stations throughout the city, of which stations there are twenty-nine above ground and sixty-three underground.

The Construction Department of M.U.D. handles all service connections, although domestic meter installation is handled by the Mechanical Service Division of the Gas Operation Department. In 1957, the Construction Department installed 2,605 gas services, using approximately 196,660 feet of pipe.

For public protection, the Mechanical Service Division makes regular gas leak tests in all large buildings, including schools and churches. More than 6,000 manholes are tested for gas leaks every month by the Gas Distribution Division. A vegetation survey is made once a year throughout the city,

Panoramic view of Omaha's livestock industry.

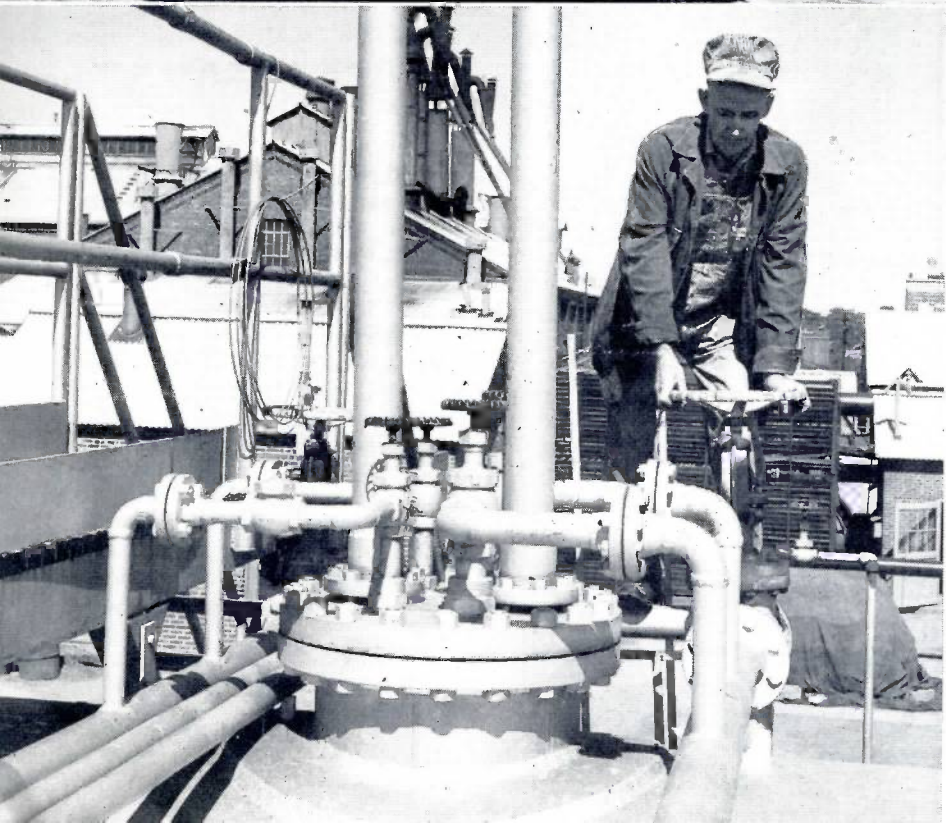




Tony Jershin, Border Station Operator, is shown working around the gas header at the 84th and Center Town Border Station, where the District receives gas from Northern Natural Gas Company.

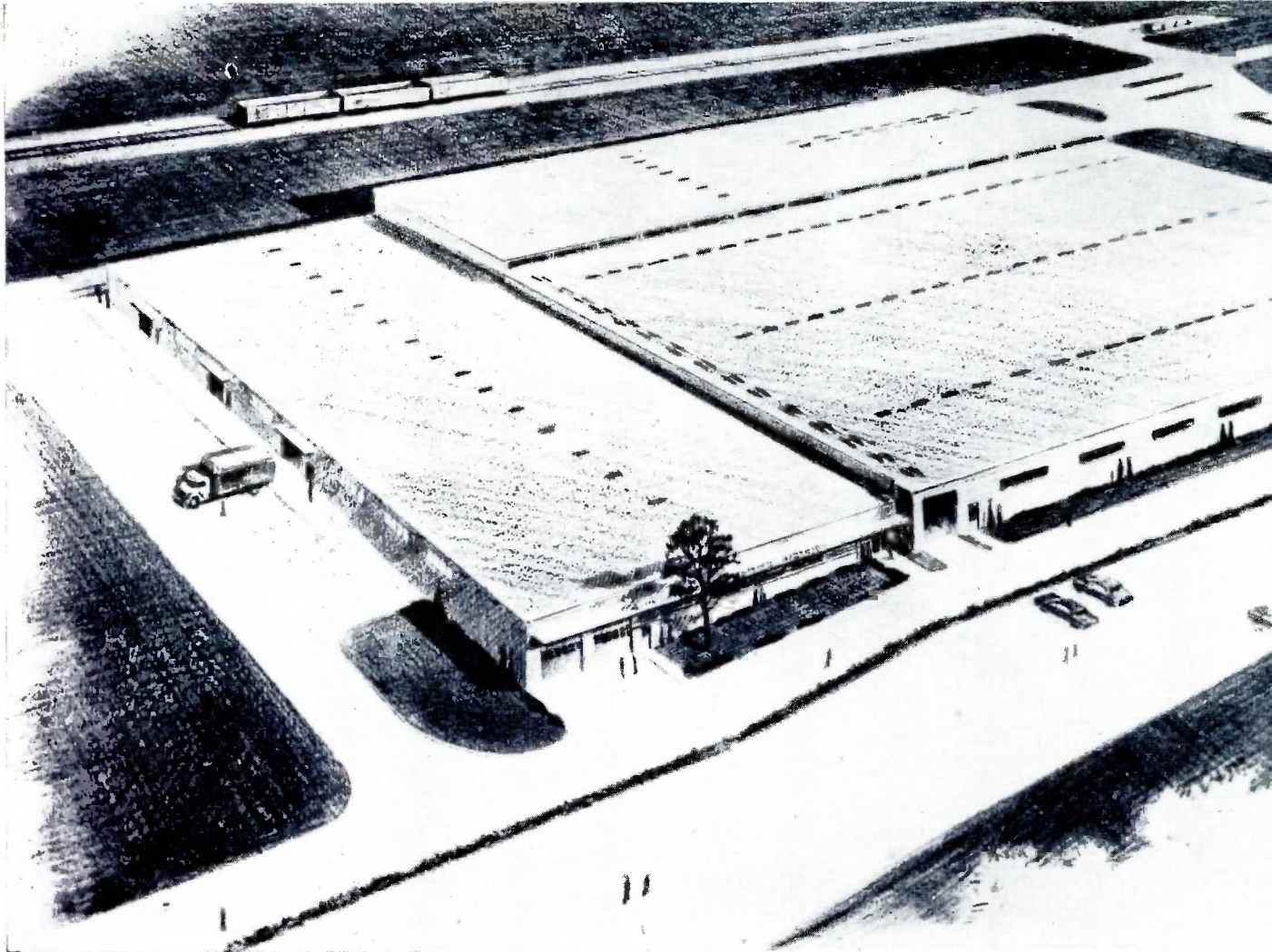


Ernie Ustohal, Appliance Delivery Man, and Frank Hazuka, Senior Mechanic, deliver a new gas range. Gas utilities throughout the country have recognized that one of their most effective advertising media is the company equipment which is seen by thousands of people every day.



Clifford Buckingham, Pump House and Propane Gas Operator, is opening the liquid valve on the Gas Plant propane tanks which feed the propane vaporizer.

TO MEET A CITY'S GROWTH - - - - -



This is Metropolitan Utilities District's new, \$1,600,000 Construction Center, which is located near what is expected to be the center of the city's growth.

and all leaks found on mains or services are repaired by the Construction Department.

Gas sold in 1955 was 26,295,500,000 cubic feet. In 1957, that figure had swelled to 32,019,880,000 — a new record. This figure represents an increase of 852.7 percent over 1947! The peak month for sales last year was February, with 3,735,534,000 cubic feet used. The maximum daily sendout of 138,312,000 was recorded on December 10, 1957.

Last year, 254,490 service calls were made — 5,982 less than in 1956. Although there had been an increase in the number of custom-

ers using gas, the saving was made possible by the use of skilled mechanics, a perpetual training program, the use of scientific tools and testing equipment, and better supervision.

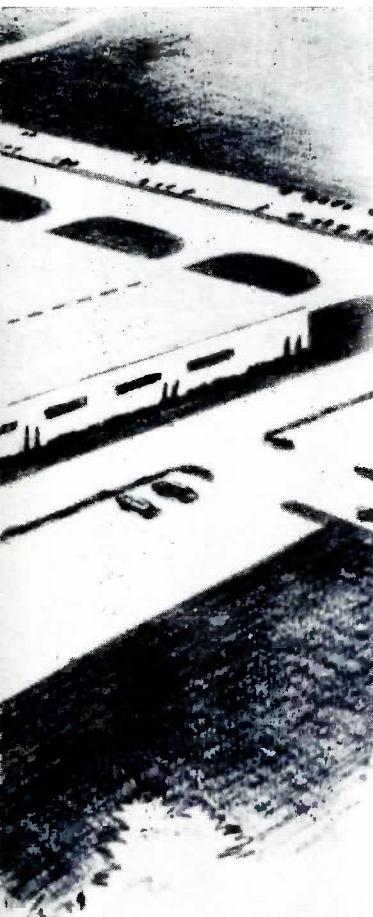
The gas system in Omaha contains: 111 pressure recording terminals, 27 flow measurement locations, and 25 humidity and oil fogging points that require 836 weekly chart changes. Thirty-nine emergency-stop valves are now in operation in the low pressure system.

Rate problems often confront gas utilities, and M.U.D. is no exception. The problem has been eased somewhat, though, by an increase

in peak shaving facilities. Present oil, gas and propane capacity is 25 million cubic feet daily, and a one million cubic foot refrigerated propane air plant is in the planning stage.

The District's present major gas construction program is now nearing completion with the occupancy of the new Construction Center. This \$1,600,000 plant, located near what is expected to be the center of Omaha's future growth, will put in one location Construction headquarters, including storage for construction equipment and supplies, and complete, modern garage repair facilities.

Around The Gas Industry



The American Gas Association has announced that all gas ranges must be completely equipped with automatic ignition in order to apply for the A.G.A. seal of approval after January 1, 1959. Automatic ignition for top burners has previously been required for gas ranges bearing the seal. Approximately twenty-three percent of all gas ranges sold in 1957 included automatic ignition.

1,305-Mile Pipeline

Transwestern Pipeline Co. of Houston has filed application with the FPC to build a \$193 million 1,305-mile pipeline from West Texas and the Panhandle to the California-Arizona border. The project is designed to deliver 350 MMcf per day to Pacific Lighting Gas Supply Co. which, in turn, will deliver it to Southern California and Southern Counties Gas companies. Pipeline officials hope to begin deliveries by mid-1959. The pipeline will include 670 miles of 30-inch line and 635 miles of 24-inch line.

Awards Made

Eleven chairmen of the A.G.A. Operating Section committees were presented service awards at the Blue Flame Luncheon, highlight of a week-long conference in New York's Hotel Roosevelt in May.

Receiving awards were: Herbert S. Blanding, Consumers Power Co., Jackson, Michigan; A. L. Bristow, Northern Natural Gas Co., Omaha; William F. Burke, Lone Star Gas Co., Dallas; Hugh F. Stein, El Paso Natural Gas Co., El Paso; and Charles E. Terrell, Southern Natural Gas Co., Birmingham, Ala.

Also honored were: Edwin F. Trunk, Laclede Gas Co., St. Louis; Chester E. Upson, Texas Illinois Natural Gas Pipeline Co., Chicago; J. G. Voelker, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.; O. W. Wade, Transcontinental Gas Pipe Line Corp., Houston; Donald L. White, Washington Gas

Light Co., Washington, D.C.; and D. K. Wilson, Niagara Mohawk Power Corp., Syracuse, N. Y.

A.G.A. Appointment

Robert B. Smith, formerly coordinator of research for the Columbia Gas System Service Corp., has been named assistant director of research for the American Gas Association. The appointment was announced by C. S. Stackpole, A.G.A. managing director.

Through the co-operation of the Columbia Gas System, Mr. Smith has been on temporary assignment to the A.G.A. for the past year. In his new capacity, he will work with T. L. Robey, A.G.A. director of research.

Mr. Smith joined the Columbia Gas System at Columbus, Ohio, as a junior engineer in 1948. He was transferred to New York as engineer in 1951, and was named coordinator of research in 1956.

No Recession!

The recession certainly hasn't dimmed the bright outlook for the natural gas industry. The A.G.A. Bureau of Statistics reports that the gas utility and pipeline industry will spend more than \$36 billion for construction between now and 1970. The Bureau estimates that the number of gas customers will increase by nearly 45 per cent over the 30.3 million served in 1957. The report also predicts that industrial sales will lag slightly behind residential and commercial sales.

By 1970, the industry will be operating 858,000 miles of mains, compared with an estimated 543,000 miles in use at the end of 1957. Projecting the industry's manpower requirements, A.G.A. forecasts that employment will reach 266,000 by 1970, with a payroll of \$2.6 billion that year. Approximately 205,000 employees shared payrolls totaling \$1.1 billion last year.

The Gas Operation Department of Metropolitan Utilities District, under the expert supervision of Mr. Frank Reynolds, General Superintendent of Gas Operation, is continually growing to meet the needs of a progressive city. There will be problems, to be sure. One of the major ones facing the entire District will be the relocation of gas and water mains to make way for Omaha's portion of the Federal Interstate Highway Program. Relocation costs have been estimated at \$1,550,564. But, history has shown that M.U.D. can meet the challenge with experience and confidence.



Gas goes by **UNDERGROUND EXPRESS**

Fifty years ago, a strange sight met the eyes of travelers through the petroleum fields. Plumes of orange flames, like torches high in the air, lit up the sky day and night—natural gas flares from a thousand wells. Today, that colorful but wasteful spectacle has been transformed in a far more satisfying sight. The torches which lit the oil fields have been turned into millions of tiny blue flames, burning in homes and factories throughout the land.

The amazing productivity of natural gas in the modern world was made possible chiefly by one great achievement — the building of America's long-distance natural gas pipeline system.

The first pipelines were generally made of wood, or of hollowed-out logs laid end-to-end. In 1870, a pipeline made of white pine logs with holes bored through the centers was laid from West Bloomfield to

Rochester, New York. The distance, a far piece for that time, was 25 miles. Built at a cost of \$1,500,000, the project was abandoned as a failure after only two years. In 1872, a two-inch line of iron pipe was laid a distance of five and one-half miles in Pennsylvania. It delivered four million cubic feet of gas a day to about 250 customers.

In 1891, a giant step forward was the construction of a high-pressure pipeline. A 120-mile line of eight inch pipe, from Northern Indiana to Chicago, it carried natural gas at a pressure of 525 pounds per square inch.

Around the turn of the century, following the opening of the rich Gulf Coast and Oklahoma gas fields, pipelines up to 16 inches and 300 miles in length were built to connect the new fields with major Midwestern markets.

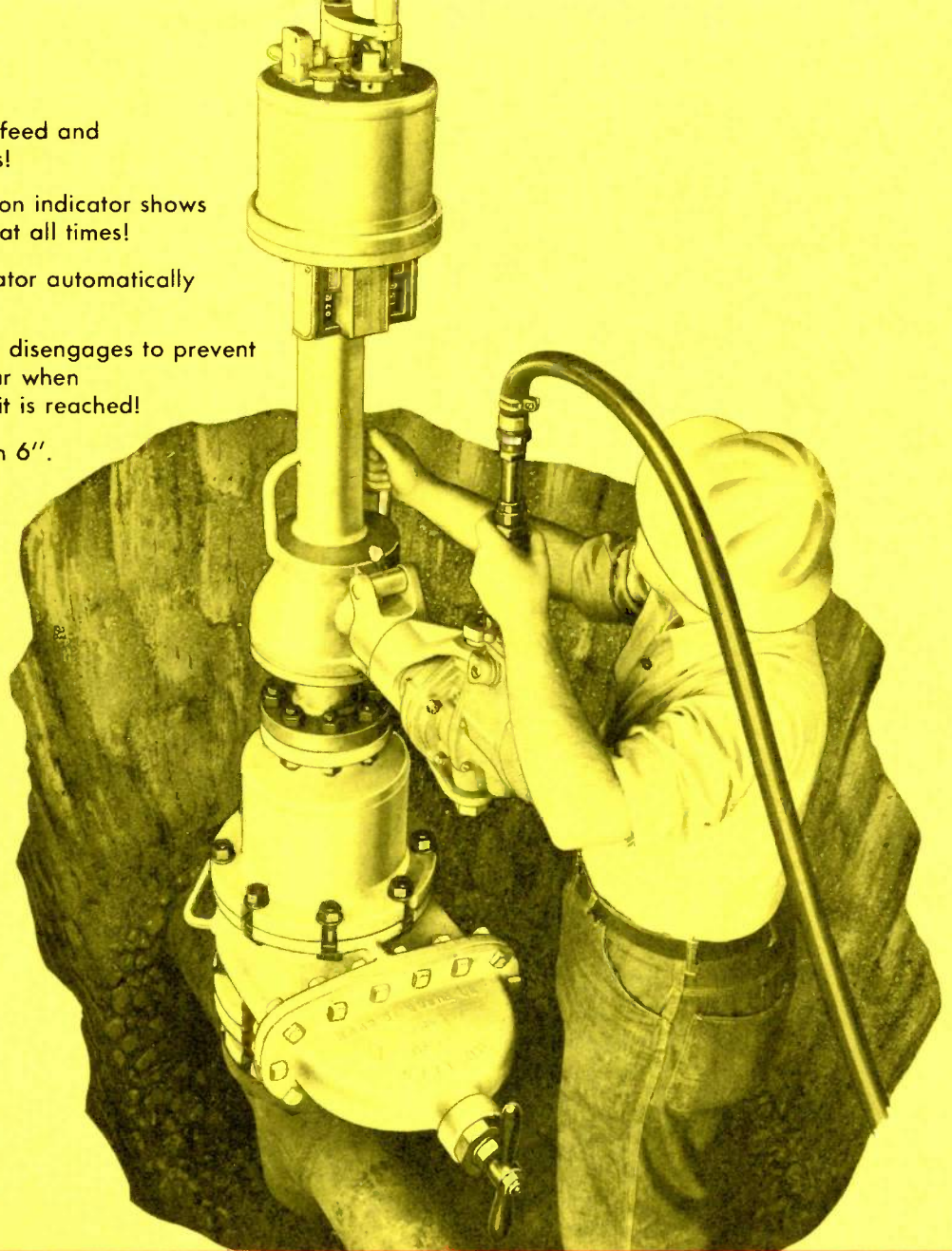
The rest is recorded history. The

Big Inch and Little Inch lines, built between 1942 and 1944—the Biggest Inch in 1947, the first 30-inch pipeline, supplying Texas gas to Southern California — the Super Inch, in 1949, 34-inch steel pipe linking Northern and Central California to a 1,600-mile system carrying gas from New Mexico and Texas — and, in 1950, the opening of the world's longest pipeline, a 1,840-mile line from Hidalgo County, Texas, to New York City.

With the opening in 1956 of the Scenic Inch, which linked the San Juan gas fields of Colorado and New Mexico to the Pacific Northwest, and the launching of pipeline plans from Louisiana down the Florida peninsula, a huge continental gas transmission system has become an accomplished fact.

Today the gas fields of the nation are as near to the average American as the valve tap on his modern gas appliance.

- Direct-reading feed and position indicators!
- Full-time position indicator shows boring bar position at all times!
- Easily-set feed indicator automatically shows depth of cut!
- Feed automatically disengages to prevent overtravel of boring bar when travel limit is reached!
- Cuts from 2" through 6".



Now! *automatic* cuts under pressure
up to 1440 p.s.i. with the
NEW MUELLER® CH-6
Machine!

New design and new features give automatic operation for faster, safer cuts; more strength for reduced maintenance; simplified operation for use by inexperienced personnel; more compact for easier handling; and standardized tools for simpler tool selection.



MUELLER CO.
DECATUR, ILL.

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

NEW *self-adjusting boring bar packing*

High temperature chevron packing is spring-loaded to insure positive, leakproof sealing without packing adjustments. Line pressure does not enter case.

NEW *rugged all-steel construction*

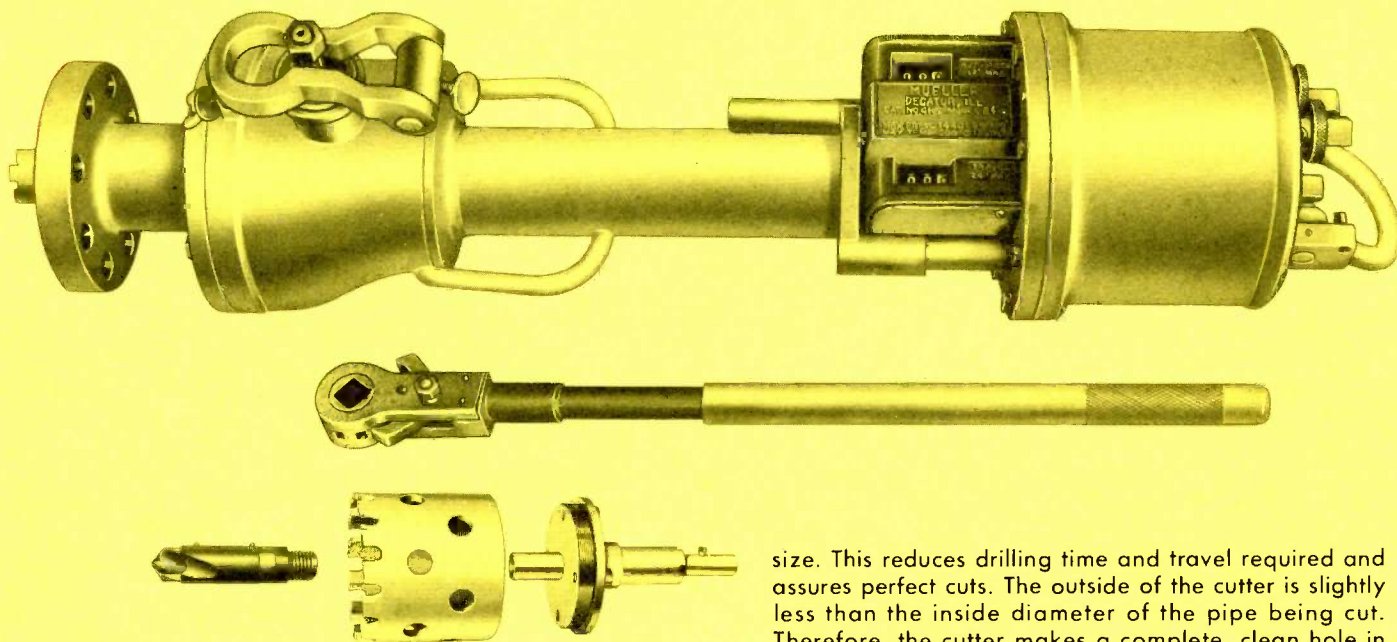
All working parts are totally enclosed in a galvanized steel case to permit complete lubrication and to prevent damage from dirt or other foreign matter and from rough handling. Lubricant is sealed in with "O" rings. Large bearing surfaces assure boring bar rigidity.

NEW *power or hand operation*

May be hand operated with ratchet handle or power operated with Mueller H-601 Air Motor or Mueller H-602 Gasoline Engine Drive Unit. No changes are required in the machine to use hand or power operation.

NEW *handling ease*

Telescopic design reduces over-all length and weight. Conveniently placed handles and lifting yokes permit easy handling of machine—manually or with hoisting equipment. Front lifting yoke may also be used to lock the boring bar while attaching or removing tools.



NEW *standardized tools*

Tungsten carbide tipped shell cutters are designed for cutting any type pipe. Tool selection and inventory are greatly reduced. Each shell cutter used for lateral connections is specifically designed $\frac{1}{2}$ " under the nominal

size. This reduces drilling time and travel required and assures perfect cuts. The outside of the cutter is slightly less than the inside diameter of the pipe being cut. Therefore, the cutter makes a complete, clean hole in the pipe when making cuts that are the same size as the pipe. Cutter arbors for the larger shell cutters are of the "E-Z-Release" type. All pilot drills screw into the cutter arbor to give greater rigidity and perfect centering. Pilot drill contains a mechanical coupon retaining device. The cutter, arbor, pilot drill and coupon can be removed as a unit without first removing coupon.

NEW CH-6 FEATURES

... designed to reduce your cutting time!

*Now! a new, automatic, high pressure drilling machine
for 2" through 6" cuts under pressure in any type of pipe.*

NEW *automatic tool position indicator*

Direct-reading indicator shows—at all times—the position of the pilot drill and shell cutter in relation to their fully-retracted or rearmost position. Large numerals read in inches and tenths of an inch and automatically add as the tool is advanced and subtract as the tool is retracted. Eliminates tool position guesswork.

NEW *automatic overtravel protection*

Tool feed is automatically disengaged when the maximum 24" travel of the machine is reached. Damage to the machine is prevented—even when the automatic feed has been set for travel beyond the maximum travel of the machine.

NEW *automatic feed-setting*

The amount of travel required in automatic feed can be quickly and accurately set in inches and tenths of an inch. This amount is clearly shown on the automatic feed travel indicator to insure accurate settings every time.

NEW *automatic feed travel indicator*

As the cut progresses, the direct reading indicator automatically subtracts—always showing the amount of travel remaining in automatic feed. You always know just how much of the cut remains to be made.

NEW *two-speed rapid hand travel*

When not cutting, the boring bar may be quickly and easily advanced or retracted by hand. The direct rapid travel shaft is used when working with normal pressures. The geared shaft is used when working with high pressures. Rapid advancement and retraction of the boring bar reduces time of operation.

NEW *automatic feed disengagement*

When the preset travel in automatic feed is completed and the indicator reads zero, the tool feed is automatically disengaged to prevent damage and loss of time.

Check with your Mueller Representative for complete details.

MUELLER CO. DECATUR, ILL.

specifications

MUELLER **CH-6** *drilling machine*

Capacity and Use

The CH-6 Machine makes cuts from 2" through 6" inclusive in any type of pipe. It is used with tapping sleeves and valves, standard gate valves, extension stoppers and flanged tees to make lateral connections up to 6"; line stopper fittings to make

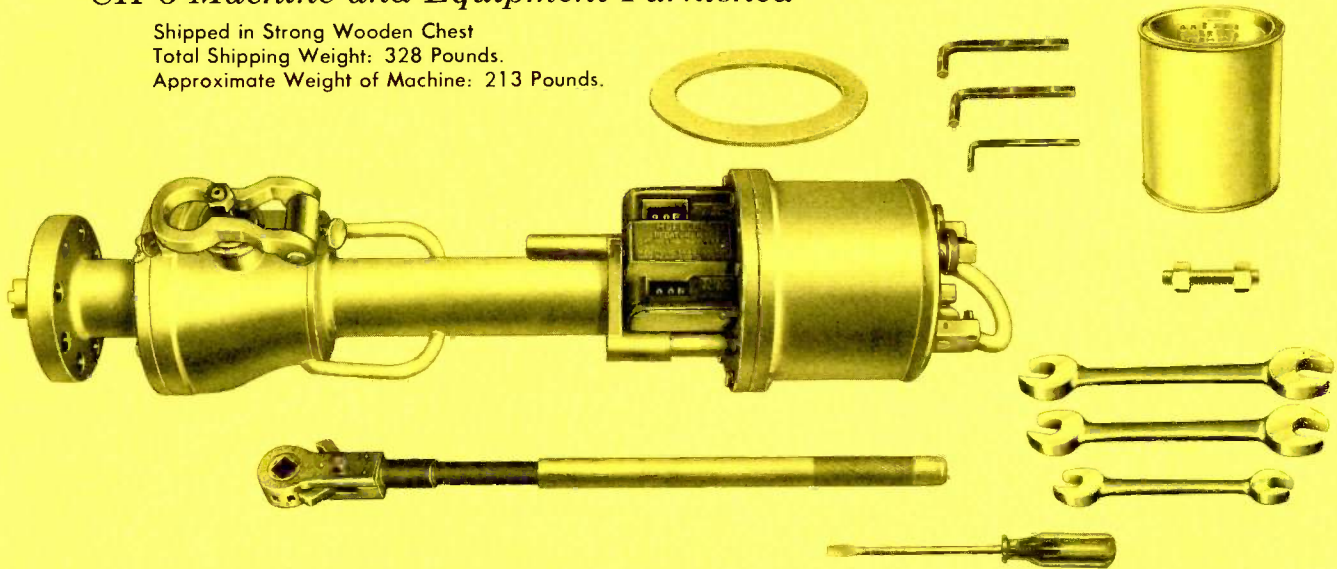
cuts into pipe up to 6" prior to stopping-off lines; and with Save-A-Valve drilling nipples to make temporary or semi-permanent connections up to 6". All cuts are made under pressure.

Working Pressure and Temperature

1440 p.s.i. at 100° F.
500° F. at 1250 p.s.i.

CH-6 Machine and Equipment Furnished

Shipped in Strong Wooden Chest
Total Shipping Weight: 328 Pounds.
Approximate Weight of Machine: 213 Pounds.



Equipment to be Selected

Power Operating Units, cutting equipment (cutter, pilot and hub) and Adapters.

	For Line Stopper Fittings			For Mechanical Joint Tapping Valves and Standard Gate Valves			
	3"	4"	6"	2"	3"	4"	6"
Size of Fitting or Valve	3"	4"	6"	2"	3"	4"	6"
Size of Shell Cutter or Drill	3 1/4"	4 1/4"	6 1/4"	1 3/4"	2 1/2"	3 1/2"	5 1/2"
Shell Cutter or Drill	49043	49044	83647	48271*	83617	83203	83134
Cutter Arbor	83637	83644	83648	83632**	83635	83637	83640
Pilot Drill	83634	83643	83639	.....	83634	83634	83639
Adapter for Line Stopper Fittings	83630	83630	83631	.....	.....	.....	.....
Adapter for Tapping Valves .....	.....	.....	.....	83658	83660	83662	83664
Adapters For Standard Gate Valves:							
150 Pound Flange .....	.....	.....	.....	83619	83621	83623	83626
400 Pound Flange*** .....	.....	.....	.....	83620	83622	83624	83627
600 Pound Flange .....	.....	.....	.....	83620	83622	83625	83628

*Solid Drill is used in place of shell cutter for 2" size.

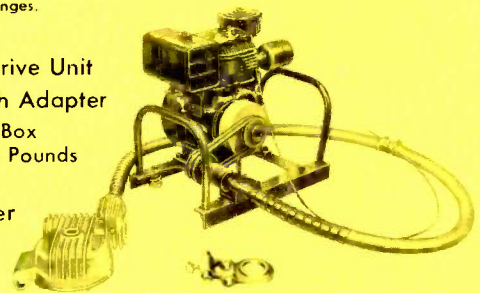
**Boring Bar Adapter is used with Solid Drill.

***These Adapters may also be used with valves having 300 pound flanges.



H-602 Gasoline Engine Drive Unit
with Adapter

Shipped in Strong Wooden Box
Total Shipping Weight: 265 Pounds



H-601 Air Motor Power Unit with Holder

Shipped in Strong Wooden Box
Total Shipping Weight: 95 Pounds

Order by Quantity
and Catalog or Part Number



MUELLER CO.

DECATUR, ILL.

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

UNIQUE TRAILER USED

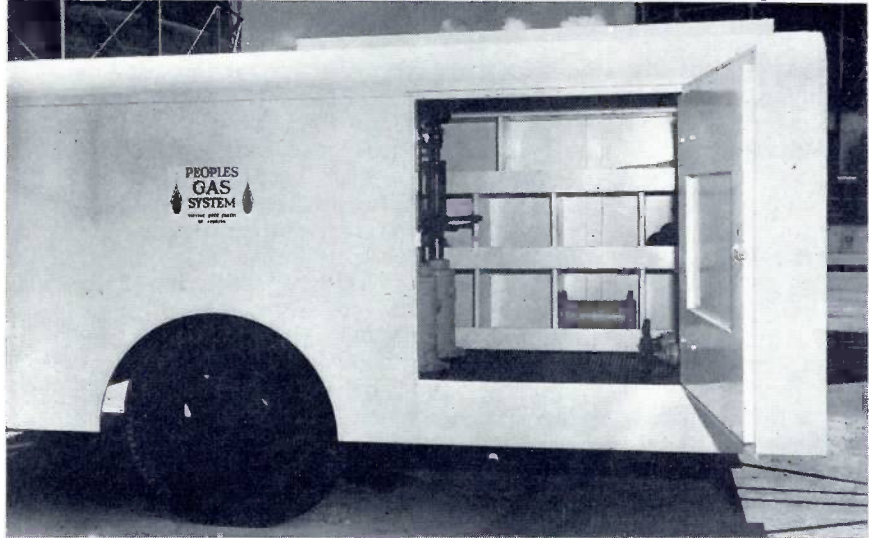
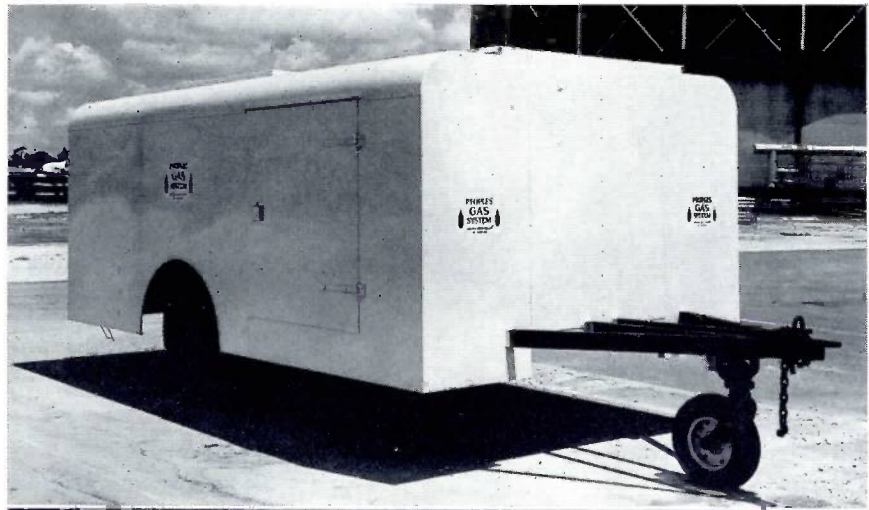
The trailer pictured on this page belongs to Peoples Gas System, Florida, and is used for storing and transporting Mueller line-stopping equipment.

Some time ago, several men at Peoples Gas System headquarters recognized the need for a compact mobile unit which could be used throughout the system. The East Coast Division of this company serves customers from Fort Lauderdale to Miami Beach, a distance of between 35 and 40 miles. The West Coast Division serves customers in the city of Tampa and Hillsboro County.

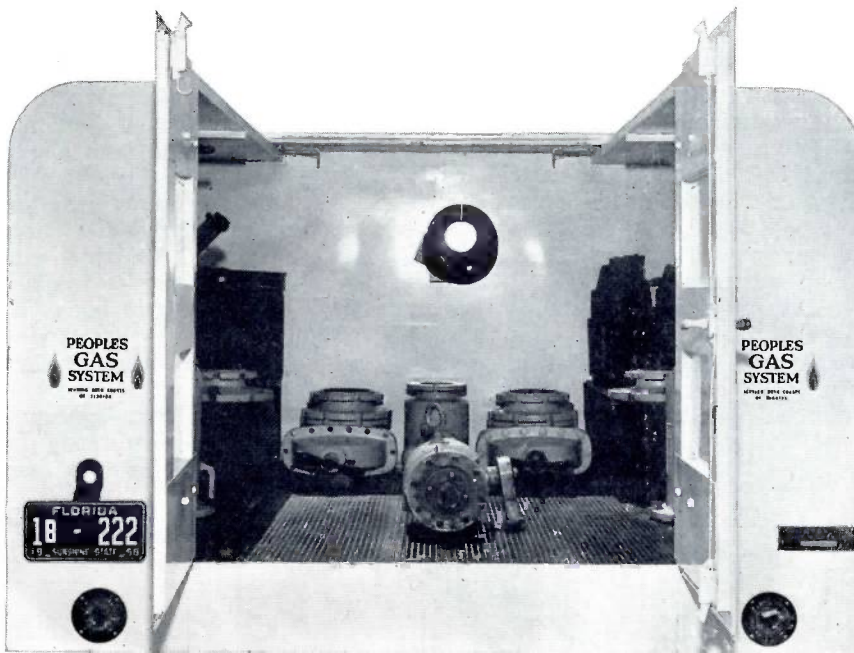
This trailer is the result of the total customers of Peoples' system, which number is approximately 100,000. Largely responsible for the work on the unit were: Mr. N. O. Boutzilo, Distribution Engineer; Mr. E. W. Bender, Foreman of Transportation and Heavy Equipment; and Mr. J. J. Dickson, Assistant Distribution Superintendent.

The trailer is designed for ease of accessibility in handling heavy equipment, which may be removed by sliding the top of the trailer back.

You will notice that each piece of equipment has its proper place, attesting to the efficiency of the personnel of Peoples Gas System.



TAILOR-MADE





"THIS IS YOUR INDUSTRY" SERIES

GASLIGHT goes MODERN



Gaslight is back!

Today, suddenly, people everywhere are rediscovering the elegance and distinction of gaslight. All over the country, newly-installed gas lamps are shedding their soft glow over doorways and driveways, parking strips and patios, in clubs and restaurants. The "old-fashioned" aura of gaslight has been traded in for a new glamour, which is rapidly being adopted as part and parcel of gracious *modern* living.

The comeback of gaslight, while sudden, is by no means surprising. Its soft radiance — resembling bright moonlight out of doors— has a beauty of its own preferred by many to the glare of harsher illumination. In many places, such as New York's MacDougal Alley and the Champs Elysees in Paris, the gas lamps had been preserved and kept burning over the years both as a beautifying touch and as a reminder of mellow days. As modern homeowners and businessmen realize that economical, easy-to-install gas lights can give the same touch of mellow beauty to their premises, gaslight has re-emerged as a popular fashion of the present day.

Gas utilities are leading the way in reawakening the public to the practicality and appeal of gaslight. Recent sales promotions have revealed a market for thousands of gas light units per month. Besides individuals, municipal authorities are showing renewed interest. For example, in Albuquerque, New Mexico, gas lighting was installed for an entire suburban area; and in Little Rock, Arkansas, a "Gaslight Month" was proclaimed!

This new chapter in the story of gas lighting — which promises to be a bright one — is but the latest in a long and colorful history.

In fact, the entire gas industry, which in the United States is now the fifth largest in plant investment, had its beginnings in gas lighting.

The first users of gas for lighting probably were the Chinese (who also constructed the first pipelines of bamboo sections laid end-to-end). These ingenious people collected natural gas from gas "springs" in bags or bladders. Pricking pinholes in these, they ignited the escaping gas, thus providing themselves with portable lights.

The city of Genoa, Italy, may have been the first to furnish municipal lighting with gas on a commercial basis. Natural gas was brought from nearby wells for street lighting, at a date previous to the general introduction of gas lighting elsewhere. Since the long-distance natural gas pipelines were many decades away, however, the real development of gas lighting waited upon the application of manufactured gas.

Great Britain claims the inventor William Murdock as the real "father of gas lighting." In 1792 Murdock, after experimenting with distillation of gas from coal, succeeded in lighting his house with gas. This achievement has been hailed as one which "opened up a whole new industry and changed the living habits of the civilized world."

Within a few years, Murdock was lighting with gas an entire factory in which he was a partner; and in 1804 he built a gas works to supply 900 burners lighting a large cotton mill.

In France, experiments in gas lighting were being made about the same time. In 1785, a Professor Minckelen had lighted his lecture room at the University of Louvain with gas distilled from coal, and in 1799 Phillippe Lebon took out

patents on various uses of gas, including lighting. But Murdock is generally credited with the first practical application of gas lighting.

Once introduced, gas lighting made swift headway — in spite of scoffers such as Sir Walter Scott, who ridiculed the idea of lighting London "with — what do you think? Why, with smoke." Napoleon was another intellect who dismissed gas lighting, terming it "une grande folie."

Despite such opinions, London and Paris soon had gaslight. London's Pall Mall was lit with gas in 1807, and in 1812 the London and Westminster Gas Light and Coke Company became the first company in the world to be chartered for the purpose of supplying gas for illumination. Paris streets became gaslit beginning in 1820.

The advent of gas street lighting was a great step forward toward cleaner, safer and more law-abiding cities. Previously, if streets had been lit at all, it had been only by smoky flares of pitch or oil, or by candles or lanterns hung in windows. As the gas mains were extended, and as improved burners including mantle types came into use, gas lights began to replace candles and oil lamps in homes as well as outdoors.

The United States was not slow in adopting the new means of illumination, which was amazing everyone by its ability to "turn the night into day." In 1806, a man

named David Melville lighted his house in Newport, Rhode Island, with gas which he made himself. Melville later engineered gas lighting for a cotton mill in Massachusetts, and for a lighthouse on the New England coast. In 1816, in order to exhibit a mastodon skeleton, a Baltimore citizen named Rembrandt Peale opened a museum, which he lit with gas. The gas lights proved far more of a sensation than the mastodon, with the result that Baltimore that same year gave Peale and his associates a permit to light the city with gas.

Boston, New York, and other cities soon formed gas companies of their own, and the gas industry in the United States was born.

Gas lighting had its heyday in the late 19th Century, following the perfection of the incandescent gas mantle invented by Baron Auer von Welsbach (who received his title for the invention). The incandescent lamp increased the candlepower of a gas flame many times by utilizing a mantle impregnated with chemicals which glowed brightly when heated by the flame.

After Thomas A. Edison developed the incandescent electric light, the gas companies fought a long but losing battle to retain their lighting business. The defeat, however, was not without its compen-

STRICTLY

Off the Record

A friend of ours recently bought a foreign automobile, and after careful computation for one month, came to the conclusion that he was not getting the phenomenally-high mileage he had anticipated. So he took the car to a competent mechanic, who examined it thoroughly and pronounced it in perfect working condition. "But, isn't there something I can do to increase this mileage?" the distressed owner asked.

sations — for the gas companies perforce turned their energies to the development of gas cooking and the other home and business uses of gas which support the great gas industry today.

With the recent re-introduction of gas lighting, using low-cost natural gas, many gas companies once more are finding that the field of illumination can be an important source of load and revenue.

Thus, modern citizens may well look, not only backward to the gaslight era of the past, but forward — to a new gaslight era of the future!

"You can do the same as lots of foreign car owners do," replied the mechanic. "Lie about it!"

A bride of only a few months met her husband at the airport. They were waiting for his luggage when he pointed out a good-looking stewardess from the plane — a Miss Tracy.

"How do you happen to know her name?" the wife asked.

He explained that it was listed, together with the names of the pilot and co-pilot, on the door of the cockpit.

The wife's next question was a classic which he could not answer. "Dear," she asked, "what was the pilot's name?"

Middle age is when you are thick and tired of it all.

Did you hear about the Texan whose son wanted a chemistry set for his birthday? His Dad bought him E. I. duPont.

The 'good old days' were when inflation was just something you did to a balloon.

A pallid individual entered the hotel dining room and sat down at his usual table. "Can I help you sir?" inquired the waiter.

"Yes," replied the diner. "What've you got to eat that'll give me heartburn right away instead of at three in the morning?"

The Scot said to his neighbor, "So your fourth daughter's getting married, Jock. You must be very pleased."

"Aye," returned Jock, "but the confetti is gettin' awful dirty."

Hitching post: The third finger of a girl's left hand.

Cold war: Nations flexing their missiles.



A lady with a pain in her side went to see a physician. He said she had appendicitis and needed an operation. She disliked this diagnosis, so she went to another doctor. He told her she had gall-bladder trouble, and needed an operation. "Where do you go from here?" inquired a friend.

"Back to the first one," she declared. "I'd much rather have appendicitis!"



"I just went broke. Can I still order the Business Man's lunch?"

The man that a woman can't make a fool of doesn't live. He merely exists.

When the grass looks greener on the other side of the fence, it may be that they take better care of it over there.

Overheard in a jammed night-spot: "I'm so full of penicillin—if I sneeze in here I'm sure going to cure somebody."

Did you hear about the moron who thought that steel wool was the fleece from a hydraulic ram?



"Can't you forget business and take a real vacation for once?"

THE ON

A young college freshman wrote home to his father: "I've decided to quit school and get married. I'm engaged to a peach."

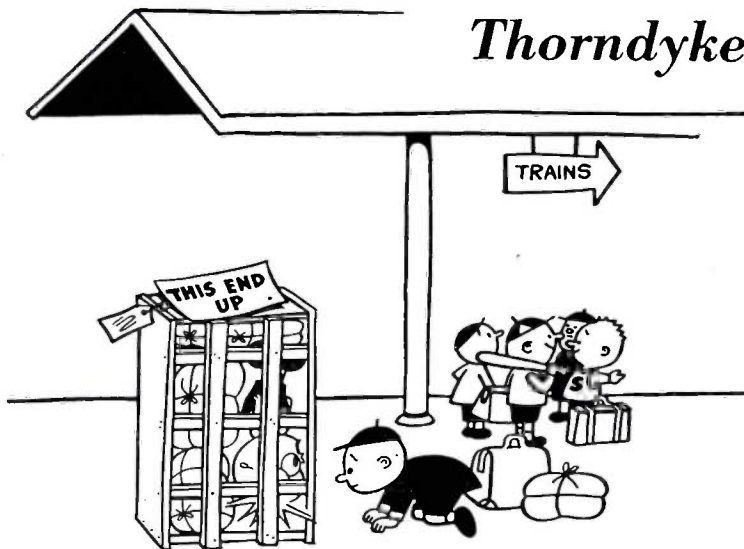
In due course, he received this reply: "Suggest it would be wise to take my advice and leave the peach to its parent stem until you are able to preserve it."

An antique is a piece of furniture that is paid for.

It frequently happens that the self-made man is an outstanding example of unskilled labor.

A good wife laughs at her husband's jokes, not because they are clever but because *she* is.

A vacation consists of 2 weeks which are 2 short after which you're 2 tired 2 return 2 work and 2 broke not 2!



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"It's not that I mind the way they ship me off to summer camp -- I just wish they'd give a little thought to how they paste on the labels!"



"It's hard to be cross with that fellow for spending so much time at the water cooler. He toasts me every time I pass!"

JOKE'S

ME

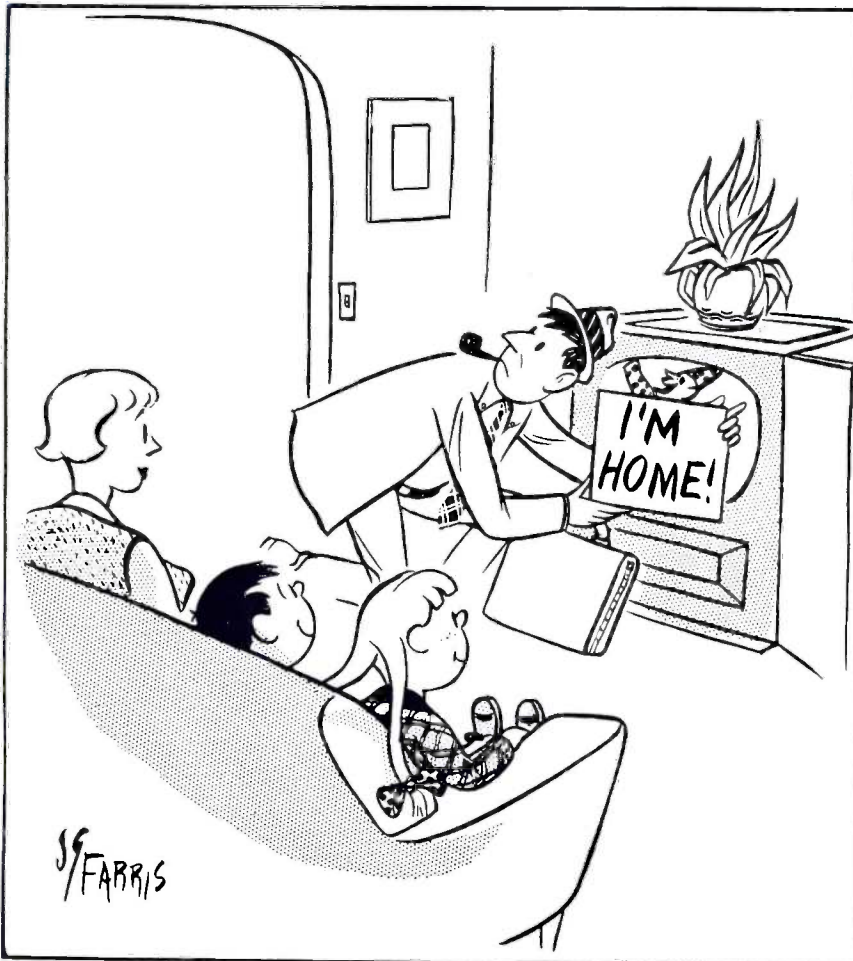
The human brain is a wonderful thing. It starts working the moment you are born, and never stops until you stand up to speak in public.

Forty years ago it took only 100 horsepower to keep a combat plane in the air. Today it takes 250 horsepower to carry a 115-pound female to the corner grocery.



"You asked me to file what he said!"

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These days there are too many people in too many cars in too much of a hurry going in too many directions to nowhere for nothing!

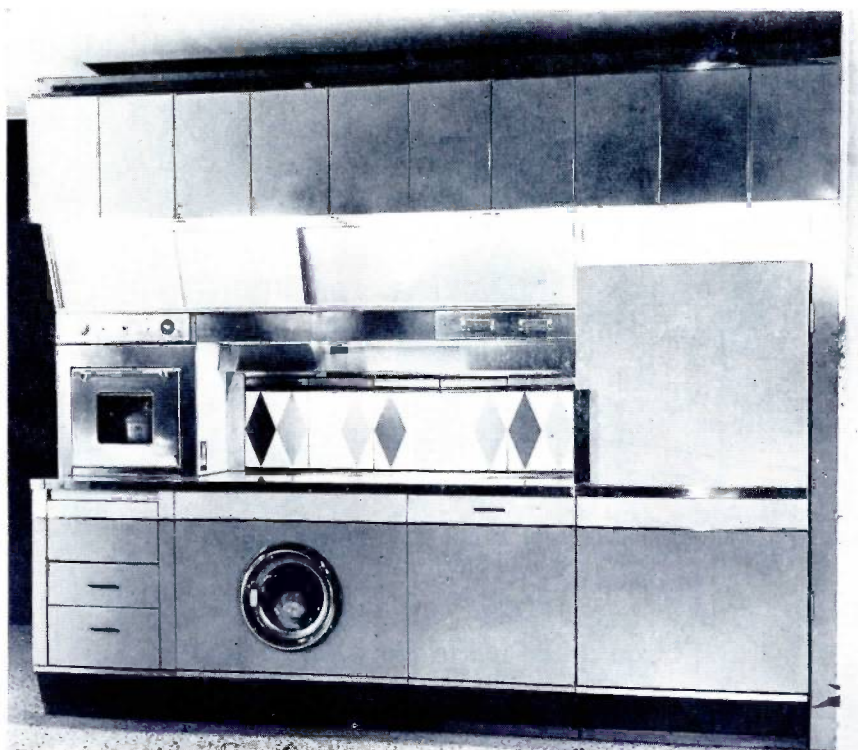
Women can keep a secret just as long as men, but it usually takes more of them to do it.



"Persley, you've demonstrated that you have an eye for business!"

A chance remark is anything a man manages to say when two women are talking.

To handle yourself, use your head; to handle others, use your heart.



The Multimatic Wall is 10 feet wide, 7 feet 11 inches high, and 33 inches deep, and is made entirely of steel.

New Multimatic Wall Introduced Recently

Home appliance design took a giant step forward recently with the introduction of an exciting new "Multimatic Wall" developed by the American Gas Association.

Handsomely styled, the Multimatic Wall combines cooking, laundering, refrigeration, house heating, and water heating in one compact unit.

The result of two years of intensive research and development by the gas industry through the Association's PAR Research Program, the space-saving unit offers maximum efficiency and convenience within a limited area.

The project had its inception in 1955. After broad design objectives had been established by a special research committee, A.G.A. retained Walter Dorwin Teague, leading design and engineering development firm, to design and build the prototype model.

PAR Research is one of the most

important activities of the Promotion, Advertising and Research (PAR) Plan which currently directs the expenditure of more than \$6 million a year. Apart from the industry's \$3 million national television activities, half of all PAR funds are devoted to research in all gas industry fields.

While the all-gas appliance center is designed for installation in the kitchen, it is not offered as a complete kitchen. To permit architects and builders greater flexibility in the placement of dining and clean-up areas, a sink and dishwasher are not included.

Savings in building costs are realized because the Multimatic Wall integrates all of the major home appliances in one compact, space-saving unit. This eliminates the need for a basement, utility room and separate laundry area, making it particularly attractive to builders of large-scale developments, as well as owners of apartments, summer homes and multiple-family dwellings.

Inexpensive installation is made possible by the incorporation in the unit of most of the plumbing and all of the flue requirements. An outside terminal, which can be located on the rear or at either end of the Multimatic Wall, exhausts all products of combustion to the outside and makes construction of

The unit contains over 18 cubic feet of storage space and approximately nine square feet of counter space.



a chimney and one interior wall unnecessary.

Additional bonus features of the Multimatic Wall include a ventilating fan located over the cooking top area which can be operated manually or automatically. A flick of a switch sets the fan to turn on automatically when one or more of the five top burners is lowered. Two of the burners are equipped with the top burner heat control. Built-in fluorescent lighting illuminates the work areas.

A unique stainless steel broiler door, incorporated in a folding section of the counter, lowers automatically as the broiler swings out to form its own counter for ease of transfer from the broiler to the counter. The broiler, oven, and top burners also feature automatic ignition and the newest timing devices.

The water heater is concealed under the counter between the washer-dryer and the refrigerator. A touch-open door swings out to enable the housewife to dial the desired water temperature. A shallow row of shelves in the front of the water heater provides convenient storage of laundry supplies. The full-size refrigerator has the magic Ice-Maker, automatic defrost and deep freeze compartment.

Five specially designed fold-away burners are recessed into the stainless steel backsplash, forming an attractive harlequin design and a bonus in extra counter space. When needed the burners pivot down onto the counter top. Even when all five are being utilized, the cook has plenty of counter space for mixing and serving.

All major parts of the Multimatic Wall are accessible from the front to keep maintenance and servicing costs at a minimum. Appliances can also be removed from the front of the unit so that replacement can be made if desired. Baked enamel and stainless steel surfaces permit ease of care. The entire unit can be wiped clean with a damp cloth.

The Multimatic Wall has been thoroughly tested for safety, durability and performance. It is expected that the all-gas appliance center will be marketed at a price lower than the total cost of individual components. It can be shipped completely assembled and requires only a simple, inexpensive installation.

"PARADE OF PROGRESS" SET FOR ATLANTIC CITY

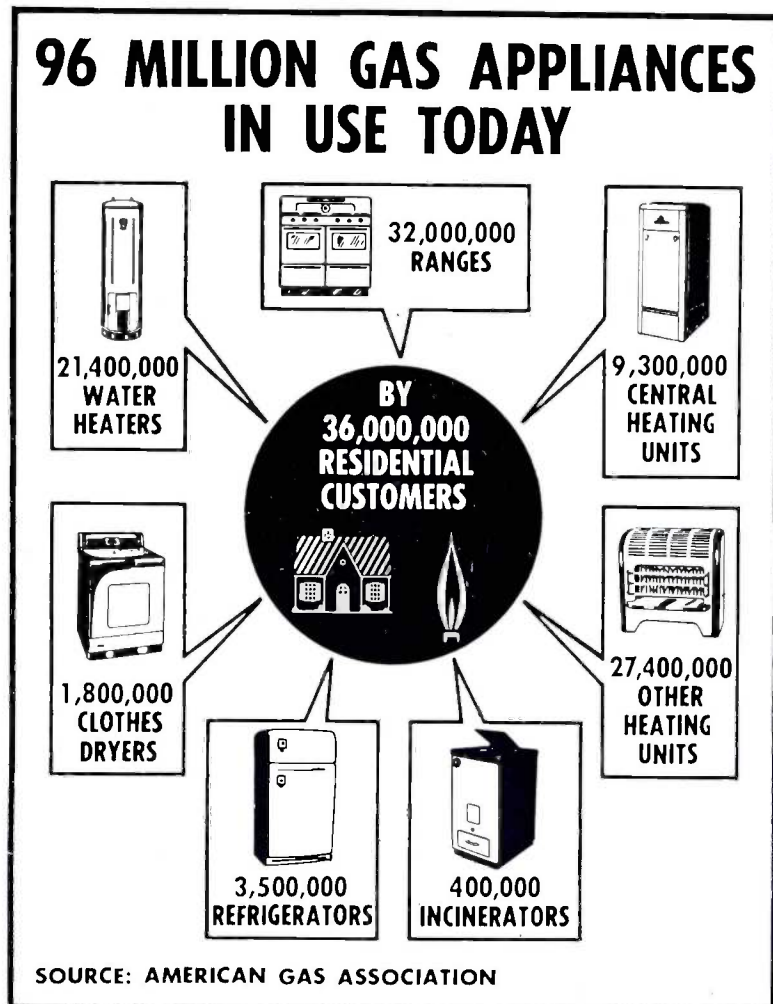
Significant new developments in gas appliances and utilization technology will be dramatically demonstrated before the nation's gas industry leaders at the "Parade of Progress" exhibits which the AGA will sponsor during its annual convention in Atlantic City October 13-15.

H. Vinton Potter, vice-president of Oklahoma Natural Gas Co., Tulsa, Oklahoma, and chairman of AGA's Exhibit Planning Committee, reports that the "Parade of Progress" will be educational rather than promotional in nature. Exhibits will be limited to gas utilization items which have become commercially available since October, 1956, or that will soon become commercially available, and

to prototypes of important new devices still under development.

Exhibit will be on an invitational basis, with invitations issued by the Committee beginning in May.

The "Parade of Progress" will open at noon Sunday, October 12, and will remain open from noon to 6 P. M. daily during the convention. Approximately 23,000 square feet of floor space have been reserved for the show in Atlantic City's famed Convention Hall. Exhibitors' booths will be identical in design and decorated to focus attention on the items displayed. AGA will provide the basic booths, draperies and floor coverings, informational signs, guards, and central lounge facilities.



The *May, 1928* issue of the MUELLER RECORD gives each of us this bit of wisdom:

"Big men learn by listening and applying what is valuable to their aims and purposes; but little men babble all they know, and if by chance any of their chatter is of value, it is lost to them or divided with someone who knows better how to apply it than they."

Have you ever doubted the adage, "It Pays to Advertise"? The *June, 1928* issue tells about one bank which paid to do so:

"A western bank believes in turning such a financial annoyance as a bank robbery into good advertising copy. This bank had a window display with \$54.50 in cash accompanying it as a realistic touch. A sign over it read: 'This is the interest that \$100 will bring in ten years if invested with us.' A thief, who evidently did not believe in waiting ten years for the interest, smashed the window and took the money, whereupon the bank immediately put another sign in the window. This sign read: 'If the culprit deposits the \$54.50 immediately, his money in ten years will have earned \$30.80 to begin life on when he gets out of the penitentiary.'"

It won't be long until radio, television — indeed, all media — are occupied with a red-hot political campaign. The *July, 1928 RECORD* spoke of a quick-thinking politician in this vein:

"A candidate for political office, while making a campaign speech, sought to discover the denominational sympathies of his audience, in order that he might turn the information to his advantage. 'My great grandfather,' he began, 'was an Episcopalian (stony silence), but my great-grandmother belonged to the Congregational Church (continued silence). My grandfather was a Baptist (more silence), but my grandmother was a Presbyterian (still frigid silence). But I had a great-aunt who was a Methodist (loud applause). And—I have always followed my great-aunt (loud and continued cheering.)' He was elected."

Dynamite comes in small pack-



LOOKING BACKWARD

ages (or so they say). The same issue as above told of one such package:

"A company of doughboys in the American Expeditionary Force, from New England, were distinguished for their unusual height and weight — all big fellows. A consignment of shavetails arrived in France — destination, Company G — among whom was a little fellow of five feet three inches. At his first inspection of the platoon, he turned his back to the men to examine a paper, and a falsetto voice from the ranks was heard, "And a little child shall lead them."

"Swinging around, the little second lieutenant shouted, 'The man who made that remark step two paces forward.' The entire platoon advanced two paces. Biting his lips, the little officer hissed, 'The man who made that remark step two paces to the rear.' The entire platoon retreated two paces.

"When inspection was over, the lieutenant announced, 'Orders for the day will be posted at 12 o'clock on the company bulletin board.'

"A few minutes before 12, a few stragglers sauntered up to the bulletin board and found this notice posted—'Second Platoon, Company G, will report at 12:15 in full marching gear — tin hats, rifles, gas masks, blankets, and knapsacks, for a twenty-mile hike—and a little child shall lead them on a damned big horse.'"

The fight to put meters on water services was a long, hard pull, as brought out by the *September, 1928* issue:

"At Buffalo, New York, a civic organization leads the opposition (to meters), claiming that with city-wide installation of meters 'consumers would be so economical of the use of water as to endanger health.' A plan to install meters in Fresno, California, met with official opposition from the

mayor: 'I know of no faster way of ruining the velvety lawns, the cooling trees and the beautiful shrubbery for which Fresno homes are famous, than by placing meters on the water services.'"

We'll report this item from the *November, 1928 RECORD*—with-out further comment:

"They say that personal journalism passed out with Henry Waterson and some more of the old-time editors whose personalities stood out in every line. This is true of most papers — big papers —but personality is not a lost art 'in the sticks.' Some of those boys who edit, print and deliver their own papers get down to brass tacks still. Here's a sample from a Wagon Mound, New Mexico paper:

"Ten cents straight will be charged for all obituary notices to all business men who do not advertise while living. Delinquent subscribers will be charged fifteen cents a line for an obituary notice. Advertisers and cash subscribers will receive as good a send-off as we are capable of writing, without any charge whatsoever. Better send in your advertisements and pay up your subscriptions, as hog cholera is abroad in the land.'"

Oh, for the good old days! Had any medical bills lately? If so, this item from the same issue as above will make you sick all over again:

"Health statisticians show that sickness costs the average person \$31.08 a year."

Remember: if you change addresses, please notify us of the change. Just clip your address from the back cover of this issue, make any necessary corrections, and mail to: Editor, Mueller Record, Mueller Co., 512 W. Cerro Gordo, Decatur Illinois. We will see that each issue reaches you promptly. Thank you.

A report of progress is found in the *November, 1928*, issue of the *MUELLER RECORD*:

"Construction of Chicago's gigantic Merchandise Mart, the largest business building in the world, is now underway. . . .

"An idea of the magnitude of the building, which is to rise from one of the most romantic sections of Chicago's pioneer history, may be gained from the fact that it will require ten miles of caissons. There will be 450 of them which will go down 110 feet to bedrock. It is estimated that these caissons will require 2,000,000 cubic yards of concrete. . . . The Mart will have a total floor space of about 4,000,000 square feet."

When we read of today's heated controversies concerning commercial jet air travel, and how most of the existing airports across the country will need to lengthen their runways and take steps to wipe out jet noises, this bit from the same issue of the *RECORD* as above seems refreshing:

"While America is still feeling the way regarding airports, foreign countries are solving the problem in advanced fashion. One of the most outstanding efforts in this particular is the new port building at Pau, France, fifty miles from Bordeaux.

"The port is of immense dimensions, glass lighted. It is 370 feet by 260 feet. Passengers are protected from the weather just as they are under train sheds, now in use at all important railway stations. Incoming planes land on a well-prepared field outside of the building and then taxi inside, while outgoing planes start in the building and rise from the field upon reaching it. Powerful beacon lights serve as landing guides at night."

'Boys will be boys' is proved adequately in this entry in the *RECORD* from *December, 1928*:

"The good wife apologized to her unexpected guests for serving the apple pie without cheese. The little boy of the family slipped quietly away from the table for a moment, and returned with a cube of cheese, which he laid on a guest's plate. The visitor smiled in recognition of the lad's thoughtfulness,



LOOKING BACKWARD

popped the cheese into his mouth, and then remarked:

"You must have sharper eyes than your mother, sonny. Where did you find it?"

"The boy replied with a flush of pride: 'In the rat-trap.'"

Here's one of those 'did-you-know' items for men in the natural gas industry, as recorded in the *March, 1929 RECORD*:

"High pressure gas is not so new as one might think. The Pacific Gas and Electric Company, as far back as 1871, was distributing through high pressure mains over a wide territory. . . . This was the first installation of its kind in the country."

This one would have been more timely in the June issue, but no matter what month it appears in print, it retains a certain ring of truth and familiarity. From the *May, 1929* issue:

"The June bride walked briskly into the market and said, 'I want a half pound of mince meat, and please cut it off a nice tender young mince.'"

Have trouble getting up in the morning? Here is an interesting, and somewhat controversial, statement from a doctor, as reported in the *July, 1929 MUELLER RECORD*:

"The alarm clock is an institution which should be abolished, says Dr. Jesse Feiring Williams, professor of physical education at Teachers College, Columbia. . . . The learned doctor goes on to say, 'Of course, when one is asleep, all his functions, such as his heart and respiration, are very much slowed down. It is the worst way of awakening to awaken suddenly because of a clanging, raucous sound, and it is a distinct shock to the nervous system.

"This way one is literally kicked out of bed. The reason people have

alarm clocks to get them up is because they don't go to bed the night before. The way to get up in the morning is to go to bed the night before.'

"Professor Williams advocates getting up by nature, following the dog and cat method of rousing—stretching first a leg, then an arm, and gradually coming into consciousness."

This item from the *March, 1930*, issue supports the theory that it pays to advertise:

"An Oklahoma girl advertised for a husband, and landed one within a very short time. The advertisement cost \$3. She paid the wedding expenses of \$9. In less than a year the husband died, and left his widow an \$11,000 insurance policy.

"Now will you admit that it pays to advertise?"

From the issue of *November, 1930*, comes one you can tease your wife about:

"At a dinner party, the guests were discussing whether women or men were the most trustworthy in business. 'No woman can keep a secret,' said one man scornfully.

"I don't know so much about that,' retorted the forbidding-looking woman sitting opposite him. 'I've kept my age a secret ever since I was four.'

"You'll let it out someday, though'

"I doubt it,' she answered. 'When a woman has kept a secret for twenty years, she can keep it forever.'"

The teacher was trying to make the pupils think, so she asked some tricky questions. "Johnny," she said, "give me an example of 'nothing'."

Johnny did not hesitate. "Nothing," he said, "is a balloon with its skin off."

NOTICE TO POSTMASTER

If for any reason delivery is impossible please return promptly to sender.

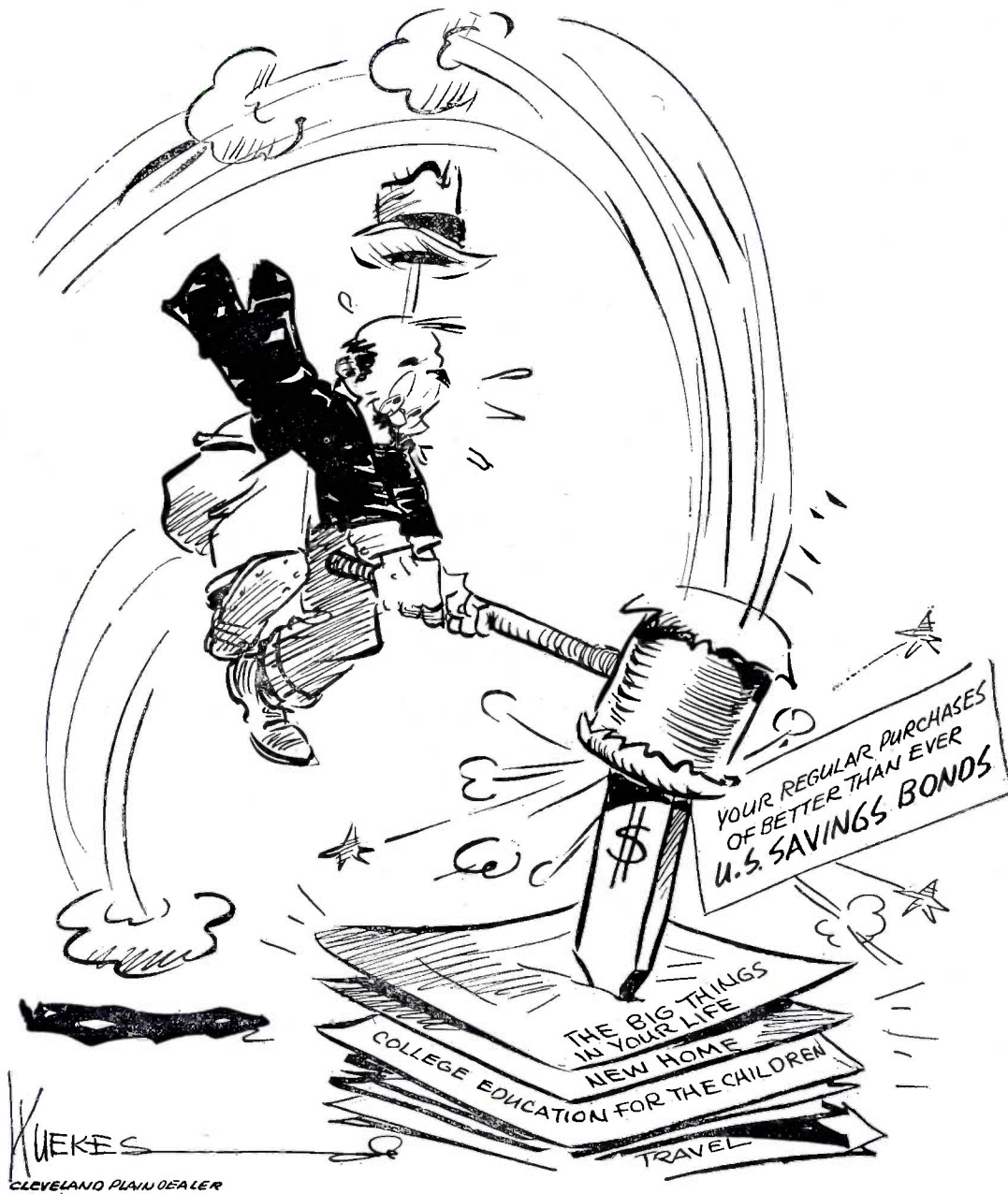
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