MUELLER RECORD

MARCH • 1950 • APRIL

MUELLER RECORD

Published

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New York, San Francisco

March • 1950 • April

Vol. XXXVI No. 5

GENE J. KUHN, Editor

CONTENTS

MOSTLY PERSONAL

SOME TIME AGO we published in this column the amounts of whiskey necessary for the first filling of the old style wet meters to prevent freezing. The amounts ranged from 1½ gallons for a 3-light meter to 30 gallons for a 100-light meter, according to a circular issued by the Washington Gas Light Company in 1858. The customer furnished the whiskey; the gas company filled the meter, free.

At the time this came to our attention, we naturally figured that the employees who were charged with the duty of filling the meters probably got themselves charged from doing a little filling of their own. But we had nothing to substantiate this.

Then, a few weeks ago while obtaining material on Rembrandt Peale, one of the founders of The Gas Light Company of Baltimore, predecessor of today's Consolidated Gas Electric Light & Power Company, we came across another reference to this old custom in the company's *American Gas Centenary,* published in 1916.

In an article, *Some Early Personal Recollections,* George Beadenkopf wrote that as a small boy he had been puzzled by the actions of "a tall, thin, long-legged man, dressed in black clothes, with long, black side whiskers, who carried a big black can with a spout like a water pot,

(Continued on page 20)

An impression of America's first auto race as drawn by a staff artist for The Chicago Times-Herald.

America's First Automobile Race

Only two cars—the Duryea and the Mueller—were able to reach the finish line in the 1895 contest.

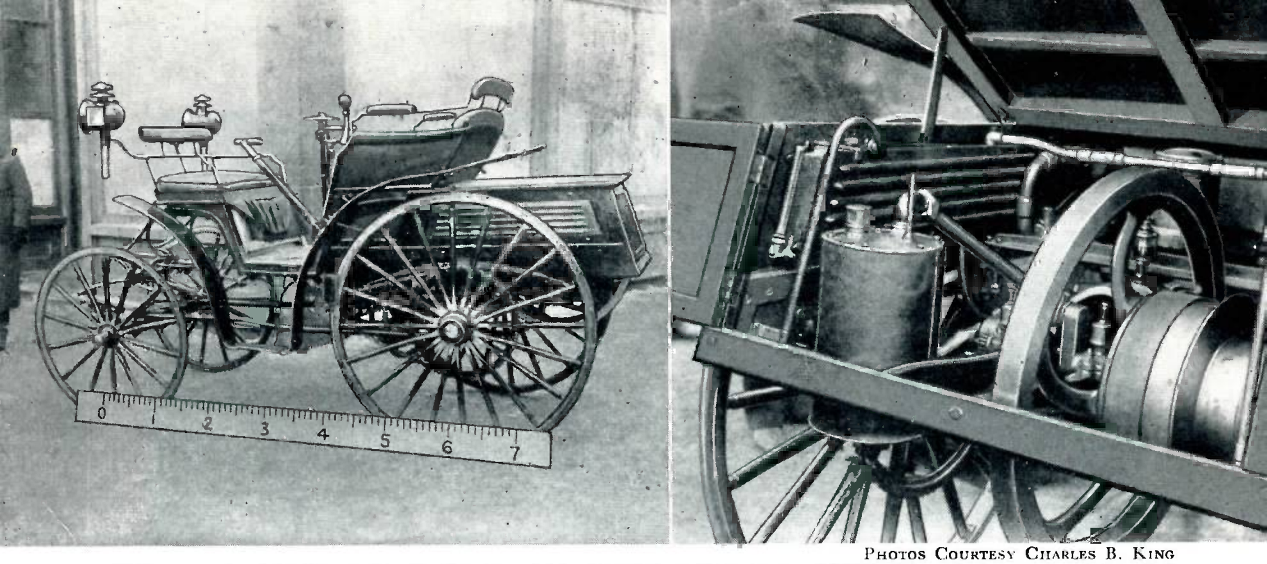
IN THE EARLY 1890s, American inventors were busily engaged in the development of horseless carriages, and, despite the ridicule leveled at their efforts, the more astute were aware that a revolution in transportation was underway.

In Europe considerable progress had been made, notably in Germany and France, and the automobile race between Paris and Bordeaux early in 1895 had attracted wide attention on the Continent. It was a description of this race, published in *L'Illustration* of Paris, that caught the eye of H. H. Kohlsaat, publisher of *The Chicago Times-Herald,* and gave him the idea of having his newspaper sponsor America's first automobile race, which originally was scheduled for the Fourth of July, 1895.

More than 60 contestants entered the race. Mr. Kohlsaat's office also received numerous requests for financial assistance from impecunious inventors, who had plans for cars on paper but lacked the means to build them.

Among the entries received by the newspaper was one, which was to be powered by a "pyro-pneumatic" motor. The Chicago inventors claimed it would develop a speed of 50 miles an hour, "although they will gear it down to run only 20 miles an hour during the contest." This hot air machine failed to make an appearance. Otis E. Smith of Hartford, Connecticut, also entered a car which, according to the inventor, was propelled by spiral springs augmented by a coil spring. Mr. Smith expected that six windings would suffice to carry the car over the route of the race. It was hinted that perhaps it might not be completed in time for the race, and that presumably prevented it from competing. As it turned out, only one car, the Haynes-Apperson, actually appeared for the Independence Day contest, and the race was postponed until Labor Day.

As Labor Day approached, it became apparent that another postponement was in order. November 2 was given as the next date the race would be attempted. However, there again was a marked lack of actual entries on hand, and the day before the race was to be run the judges requested another postponement, this time to Thanksgiving Day, November 28. In lieu of the race, an "exhibition run" was scheduled with a purse of $500 to be divided among the cars that covered the distance between Chicago and Waukegan within a 13-hour time limit. Only two cars started, the Mueller-Benz, driven by Oscar Mueller, and the Duryea, driven by J. Frank Duryea. The Duryea car was forced into a ditch and the damages it



PHOTOS COURTESY CHARLES B. KING

This was the Mueller entry in the great Thanksgiving Day race of 1895. The photograph at the left shows the car's size. At the right is a view of the single-cylinder engine which powered the car.

sustained put it out of the running. The entire $500 purse went to the Mueller entry, which completed the run of 92 miles in 9 hours, 22½ minutes.

On the eve of the great Thanksgiving Day race, 11 out of the 31 entries listed on the official program were slated to compete. But when Judge C. F. Kimball gave the signal to start on the 52.4-mile race at 8:55 o'clock the next morning, only five cars were at the line. These were the entries present:

No. 5—Duryea Motor Wagon Company, Springfield, Massachusetts, gasoline.

No. 7—De la Vergne Refrigerating Machine Company, New York, gasoline.

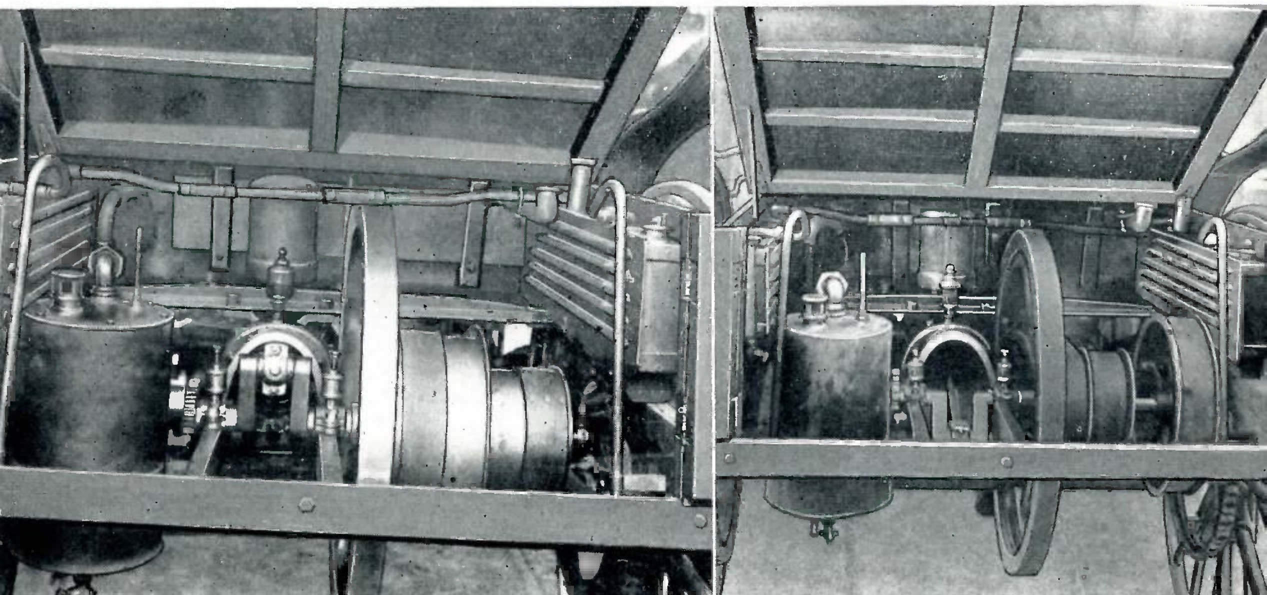
No. 18—Morris and Salom, Philadelphia, electric.

No. 22—R. H. Macy Company, New York, gasoline.

No. 25—Sturges Electric Motocycle, Chicago, electric.

No. 19, the Mueller-Benz, was delayed because difficulty was experienced with the new leather belts of the transmission. Oscar Mueller arrived at the starting point, Midway Plaisance, picked up Charles B. King, the umpire, and the ob-

These rear views of the engine, with the "hood" raised and the compartment doors open, show the crankshaft, main bearings, flywheel, belt transmission system, and cooling and lubrication systems.



This 55-year-old photograph shows Charles B. King, extreme left, the umpire assigned to the Mueller entry, awaiting the arrival of the "motocycle" at the starting line. The package under his arm contained three sandwiches, which he shared with Oscar B. Mueller, the driver, and Observer Charles G. Reid. Car No. 22 was the Macy-Benz, which did not finish the race.

server, Charles G. Reid, and got underway at 10:06 o'clock, more than an hour behind Frank Duryea's car.

The heavy snow caused the De la Verge, which had won the Paris-Bordeaux race, to drop out of the race shortly after the start. The Morris and Salom electric car, according to *The Times-Herald* account, "made a quick run to Lincoln Park and part of the way back, the owners determining not to run the race," and the other electric car, the Sturges, left the race at the north end of the park. Its driver claimed the battery had been overworked getting through the snow of the Midway.

The Duryea, with J. Frank Duryea driving, got off to a good start and an early lead, but was overtaken when it broke down temporarily at Rush and Erie streets by the Macy-Benz, which left the starting line at 8:59 o'clock. The Duryea did not regain its lead until the cars had reached Evanston.

The Macy-Benz, driven by Jerry O'Connor, figured in a series of freak accidents. Near the Art Institute it staved in the rear end of a street car it had been following too closely, damaging its steering gear. Then at the crossing of the Chicago, Milwaukee and St. Paul tracks near Calvary cemetery it collided with an overturned sleigh. Continuing, despite these mishaps, its front wheel next collided with the rear wheel of a hack in Rogers Park, damaging four spokes and bending its steering gear further. It finally broke down in Douglas Park at 6:15 P. M. At that time it was only 25 minutes behind the Duryea car and ahead of the Mueller. O'Connor and Lt. Samuel Rodman, the umpire, worked on the car until 11:30 P. M. before they were finally able to have the machine in running condition again, but decided to abandon the race.

Those in the Mueller car also had their share of difficulties. The heavy snow was a serious handicap to all cars and particularly so for those equipped with solid rubber tires. Mueller, King and Reid were forced to push the car from time to time, even though they had wrapped cord around the tires to give them more traction. Observer Reid became unconscious late in the afternoon from the exertion and the cold and was removed to a cutter. Oscar Mueller then succumbed, and Mr. King seized the steering control and drove the last hour of the race, holding the unconscious man at his side.

The Duryea car crossed the finish line

at 7:18 o'clock, completing the run from Jackson Park to Evanston and return in a total elapsed time of 10 hours and 23 minutes. Its average speed was 5.05 miles an hour. The Mueller car, with Mr. King driving, arrived at the finish line at 8:53 o'clock. Its total elapsed time for the race was 10 hours, 47 minutes, for an average speed of 4.87 miles an hour. The Duryea and the Mueller were the only cars to finish the race.

The race admittedly had been a circulation-building promotion for *The Times-Herald,* yet it did a great service for the fledgling automotive industry. In its way the Chicago race was the shot fired at Lexington. It stimulated wide interest in the possibilities of horseless carriages, and the results of the race had shown that "motocycles," as the newspaper termed them, were a practical means of transportation. The race also served to accelerate the efforts of American inventors as perhaps nothing else could have done. Within the next few years these efforts produced a number of autos to which many designs incorporated in today's cars may be traced.

About Charles Brady King

The umpire assigned to the Mueller car has had a long and distinguished career in numerous fields.

DURING THE PAST 82 years, Charles B. King has become jack of a good many trades and master of most, if not all, of them. He prefers to be known as an engineer and inventor, terms which have a wide enough connotation to be fairly descriptive of his varied interests.

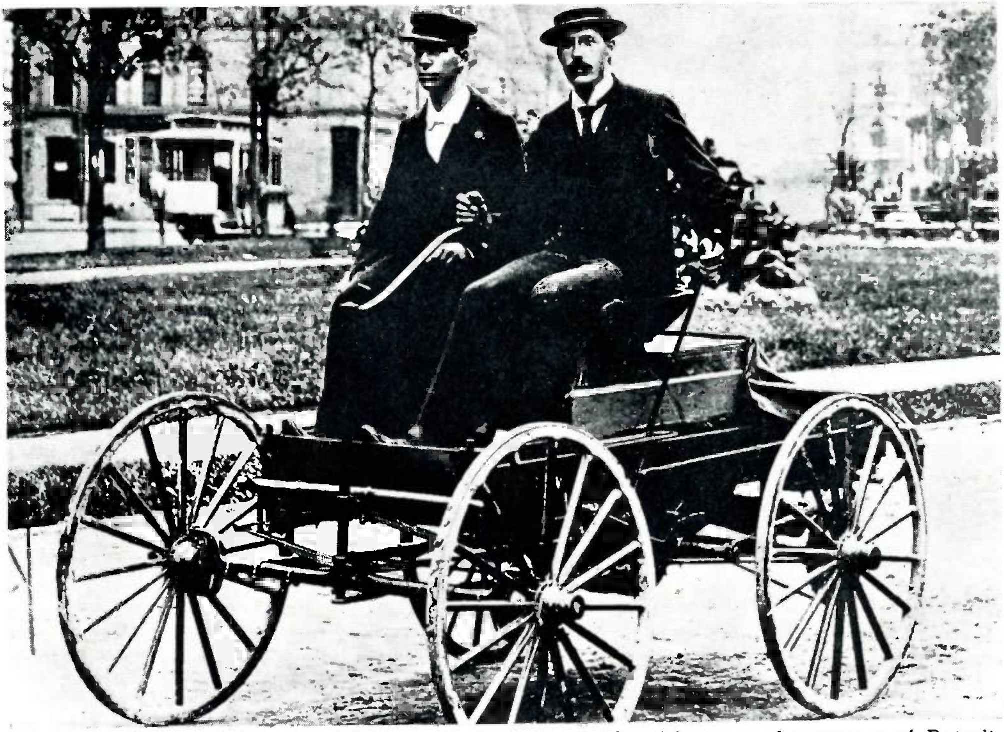
Mr. King has been granted more than forty patents on gasoline engines for automotive, marine and aeronautical use, automobile parts, railroad equipment, pneumatic hammers, and electrical and radio devices. In addition, he has demonstrated a marked ability as an architect, a musician, a writer, and an artist, producing oils, water colors and etchings. For a number of years his etchings in black and white and color were hung in the autumn salons of Paris. One of his best known etchings is "A Rainy Day—Fifth Avenue," which for many years was published annually in the New York Public Library's handbook. He has pursued his interests in science and art not as a dilettante but as an engineer who wanted to find what made them tick and, if possible, improve on them.

Charles Brady King

The son of General John Haskell King, his boyhood was spent in one Army post after another. When he was fourteen years old, his father retired from the service and the family moved to Detroit. He attended Trinity College school at Port Hope, Ontario, and then went to Cascadilla school at Ithaca, New York, in preparation for his entrance to Cornell University in 1887. He was at Cornell two years, leaving college shortly before his father's death.

When he left Cornell, he was twenty years old "with plenty of confidence and full of ideas." He began putting his ideas into practice on his first job as draftsman with the Michigan Car Company, Detroit. He originated a design for a pneumatic hammer in 1890, which was patented, and in 1893 the Russel Wheel and Foundry Company placed him in charge of an engineering exhibit at the Columbian Exposition. He had an opportunity to exhibit the pneumatic hammer, the only tool of its kind at the fair, and it was awarded a medal and diploma. He also showed another invention —the King brake beam for railroad cars. The sale of this patent helped finance the organization of the Charles B. King Company in 1894 at Detroit.

The fair had still another effect on his fortunes. He saw the Sintz gasoline engine, built by the Sintz Gas Engine



The four-cylinder King automobile was the first car to be driven on the streets of Detroit. This historic run was made March 6, 1896. Mr. King was the driver and he was accompanied by Oliver E. Barthel. He was unable to complete the car in time for the 1895 race.

Company of Grand Rapids, and this kindled an interest in gas engines.

With his new company set up to manufacture pneumatic hammers and marine engines, he designed and built a bevel-drive car for the King four-cylinder, four-cycle gasoline engine. This car was entered in the great auto race of 1895 at Chicago, but was not completed in time to participate. It became the first car to be driven on the streets of Detroit, now the automobile capital of the world.

Then followed a period when he designed and built a number of engines for automobiles, although the mainstay of his business was the demand for pneumatic hammers and marine engines.

As a member of the Michigan Naval Reserve, he was called to active duty in the Spanish-American War in 1898, and was assigned to the USS Yosemite as a chief machinist's mate. This ship distinguished herself for driving the Antonio Lopez to destruction on the beach at San Juan, Puerto Rico, June 28, 1898, a feat that gave the officers and crew the last "double prize money" ever awarded by the Navy.

Returning to Detroit, he sold the marine engine business. He then turned to automobile engines and became chief engineer for the Northern Motor Car Company, leaving in 1908 to study automotive design in Europe. Upon his return he organized the King Motor Car Company, which introduced many refinements of design. When he left the King motor company in 1912, he took with him all his patents, which were later sold to other companies.

Another interest was making itself manifest at this time—aeronautical engines. When World War I appeared imminent, he was appointed aeronautical mechanical engineer in the Army Signal Corps. As head of the division of engine design he directed the design of several engines, including two types of 550-horsepower King engines and the 450-horsepower King-Bugatti, 2,000 of which were put into production. He also supplied all reference data for the design of the widely-known World War I Liberty engine.

His later years have been "devoted to setting the record straight on the history of the automobile as I saw it unfold."

America's First Gas Company

Founded in 1816, its organization followed a demonstration of the "light of science" at Peale's Museum.

GAS LIGHT

Yesterday evening, for the first time, the citizens who attended at the Baltimore Museum were gratified by seeing one of the Rooms lighted by means of *carburetted* Hydrogen Gas. The effect produced by this beautiful and most brilliant light, far exceeded the most sanguine expectations of those who had not before witnessed an illumination by similar means.

—Federal Gazette and Baltimore Daily Advertiser, June 12, 1816.

FOR THE ADMISSION price of 25 cents, the residents of Baltimore were privileged to observe a "ring beset with gems of light" in the "saloon of paintings" of Peale's Museum and Gallery of Fine Arts. The illumination was "without oil, tallow, wick or smoke," and those who attended were satisfied they had received full value for their money.

The demonstration presented by Rembrandt Peale, son of Charles Willson Peale, a prominent painter of the period, was not Baltimore's first introduction to gas lighting, but it was the most successful. Out of it grew The Gas Light Company of Baltimore, America's first gas company and the predecessor organization of today's Consolidated Gas Electric Light and Power Company of Baltimore.

Peale had studied painting under his father, and as a youth of 17 he had George Washington as the subject for a portrait. Washington had agreed to sit for the painting at the request of Charles Willson, whose portraits of Washington cover the whole of the first president's active life, from a colonel of the Virginia militia to the presidency. Young Peale, so the story goes, was so nervous he had difficulty mixing his paints, and only regained some degree of composure when his father decided to make a portrait at the same time.

At the time he built the museum, which opened its doors to the public in 1814, Peale was a well known painter in his own right. He was also something of a scientist, and he had some of the attributes of a showman.

Rembrandt Peale demonstrates the use of gas for illumination in his museum, June 11, 1816 —from the painting by R. McGill Mackall in the collection of the present Peale Museum.

His father had financed the excavation of the skeletons of the first mammoths discovered in this country, a discovery which attracted considerable attention. Young Peale took one on a traveling exhibition, and the tour convinced him that he might capitalize on the interest shown in it. The museum, undertaken against his father's advice, resulted. It was advertised as "an elegant rendezvous of taste, curiosity and leisure."

Rembrandt Peale, from a daguerreotype made shortly before his death.

Besides the skeleton of the mastodon, it contained exhibits of art and natural history. Peale also gave scientific lectures and conducted experiments and what he termed "philosophical demonstrations." How he happened to decide upon a demonstration of gas as a scientific novelty for the museum is a matter of conjecture. He may have recalled an earlier demonstration of gas lighting in Baltimore around 1808 or 1810, and figured that it was worth repeating for the benefit of those who visited the museum. The newspapers also were carrying articles at the time on the use of gas lighting in France and England and the attempts of American inventors, and they may have stimulated his interest.

However, at this date it appears the demonstration may have been intended as part of a carefully planned campaign to convince the people of Baltimore of the merits of gas lighting. Almost coincidentally with the demonstration, Peale proposed lighting the city's streets with gas. As the following extract from the June 14 issue of the *Federal Gazette* indicates, he had no difficulty in obtaining approval of the project:

". . . the Mayor and City Council, have evinced by their conduct that to the utmost extent of the means within their control, they are disposed to promote and encourage whatever may tend to the welfare of the citizens.

"A new instance of this liberal disposition in the Mayor and City Council, we are gratified in having an opportunity of communicating to the public. A proposition has recently been submitted to the Mayor, by Mr. Rembrandt Peale, proprietor of the Baltimore Museum, to light the streets of this city by means of carburetted hydrogen gas; the very brilliant and pleasing light produced by that means, the citizens have had an opportunity of witnessing for several nights past in the saloon of paintings at the museum.

"The proposition of Mr. Peale was submitted to the City Council yesterday afternoon at an extra meeting called by the Mayor; and a committee of three members from each branch was appointed to examine the apparatus erected by Mr. Peale for manufacturing the gas, and to make the necessary inquiries as to the manner in which it was contemplated to light the streets of the city.

"We learn with pleasure the committee was so fully satisfied, after a particular investigation, that they will unite in recommending to the City Council to authorize the lighting of the city in the mode proposed. Baltimore will therefore most probably be the first city in the United States that will enjoy the advantage of this valuable discovery, which may be truly called *Light of Science.*"

An ordinance "to provide for more effectively lighting the streets, squares, lanes and alleys of the city of Baltimore" was passed June 17 by the council, authorizing the mayor to contract for lighting the city by means of carburetted hydrogen gas with Rembrandt Peale and the other members of The Gas Light Company of Baltimore. This marked the granting of the first gas franchise in America.

One of the provisions of the ordinance stated: "the said Company shall not in any manner injure or displace any pipe or pipes laid or to be laid by the Baltimore Water Company for the purpose of conveying water into or through any part of the City or Precinct."

At that time, Baltimore had a population of approximately 56,000. It was the third ranking city in the United States according to population, being exceeded by New York and Philadelphia. Its area was three square miles, but the agitation that arose for additional annexation in 1816 resulted in increasing the boundaries to include an area of thirteen square miles.

The Gas Light Company of Baltimore was incorporated under an act passed by the General Assembly of Maryland February 5, 1817. The founders were listed as Rembrandt Peale, William Lorman, James Mosher, Robert Cary Long and William Gwynn. Lorman was elected that year as the new company's first president.

Two days after the company had received its charter, the first gas lamp erected on the streets of Baltimore was lighted.

The first public building lighted by gas, according to Scharf's *History of Baltimore City,* was the Belvidere or old "Mud" Theater at the northwest corner of North and Saratoga streets.

However, at first gas illumination was regarded as a luxury. By 1836 only about two miles of mains had been laid, and there were few consumers. An employee of the company at the time wrote: "There were, I believe, no dwelling houses that burned gas; it was used only in stores, public places and churches—and in very few churches . . . The mains were iron pipe. The service and all pipes in the stores were copper."

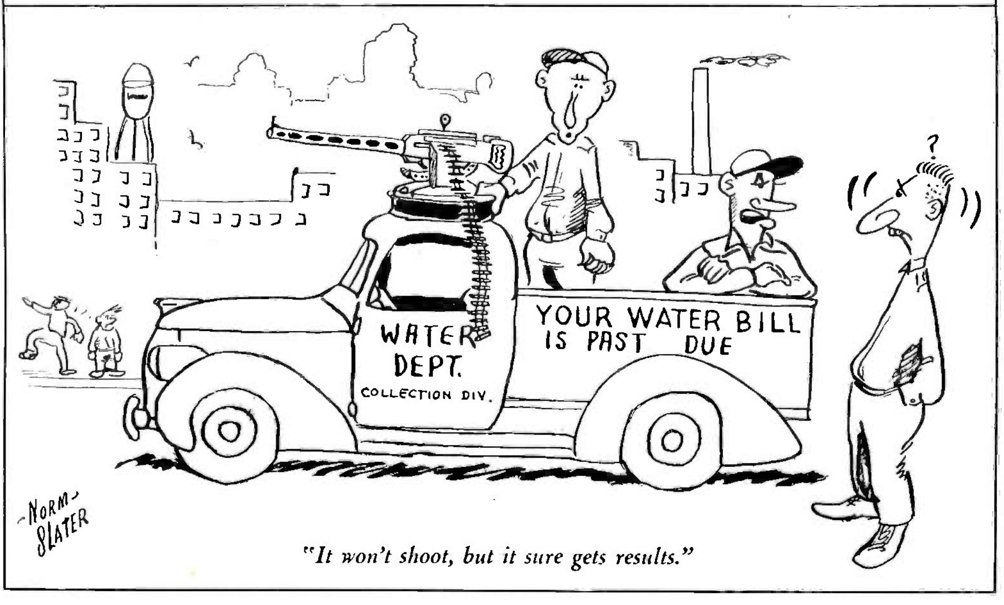
Until 1832, when Samuel Hill began manufacturing the first gas meters, gas was charged for at a flat price per burner. The burners were reckoned as $12, $14 and $18 burners. The consumer was charged for the amount of gas used by the hour. If he wanted to pay $12 a quarter for gas light, he was supplied with that size burner.

The Gas Light Company of Baltimore continued as the only company to furnish gas in the city until the formation of the People's Gas Company began delivering gas in 1871. The Consolidated Gas Electric Light and Power Company's *American Gas Centenary,* published in 1916, said, "There have been at different periods during the past 100 years six separate systems of mains. Most of these systems were very small when compared to the present mileage of the company. . . . What constituted the best of the former systems was used in the building up of the present system."

The present company is now converting to natural gas—a move it estimates will save its customers more than $7½ million as compared to manufactured gas rates.

As for the museum, site of the historic demonstration of gas lighting, it finally has reverted to Peale's Museum, after having been Baltimore's City Hall for a period of 45 years, between 1830 and 1875, and a storage place for the city's water department. It again opened its doors as Baltimore's municipal museum in 1931.

Liverlip and Leo



"It won't shoot, but it sure gets results."

The MUELLER HYDRANT

O RING SEALS, developed and proved under rigorous use by the air forces during World War II, have been incorporated in the design of the Mueller fire hydrant with these attendant advantages:

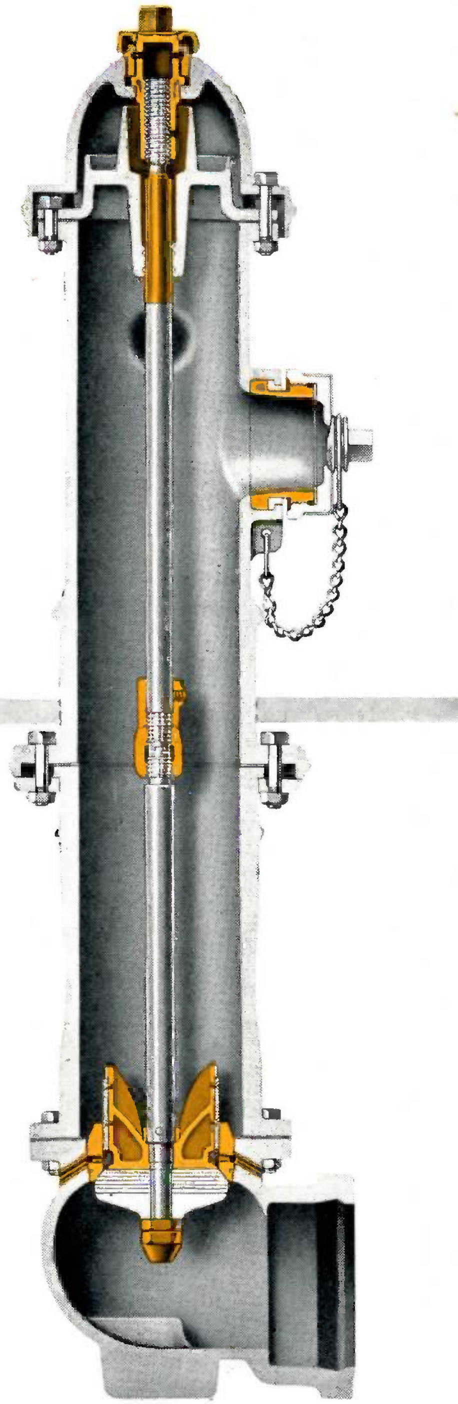
- No stuffing box to require adjustment.
- No packing to dry out and cause leaks.
- No stuffing box bolts to corrode or break.
- No stuffing box gland to bind the stem.

Use of "O" ring seals has resulted in an even more dependable hydrant . . . easy turning in summer or winter, yet leak-proof under the most adverse service conditions.

The natural resilience of the compressed synthetic rubber furnishes the necessary sealing force when the hydrant is in the closed position. When the hydrant is open, the hydraulic pressure of the water within the barrel of the hydrant forces the "O" ring away from the pressure side of its groove, causing a distortion which augments this sealing force.

In motion, as when the hydrant is being opened or closed, the "O" ring's sealing property comes from a rolling, sliding, wiping and squeezing action against the sealing surface . . . in this case the bronze sleeve of the hydrant's stem. The action may be compared to that of a windshield wiper.

"O" rings provide a reliable and simple packing through wide ranges of pressure, temperature and speed of motion . . . plus long life. These characteristics led to their extensive use during the war in the hydraulic systems of aircraft, for they eliminated the need of stuffing boxes, gland adjusting devices and multiple packing rings. Longevity has been proved under the most demanding conditions of actual use and performance tests which have been the equivalent of many years of service.



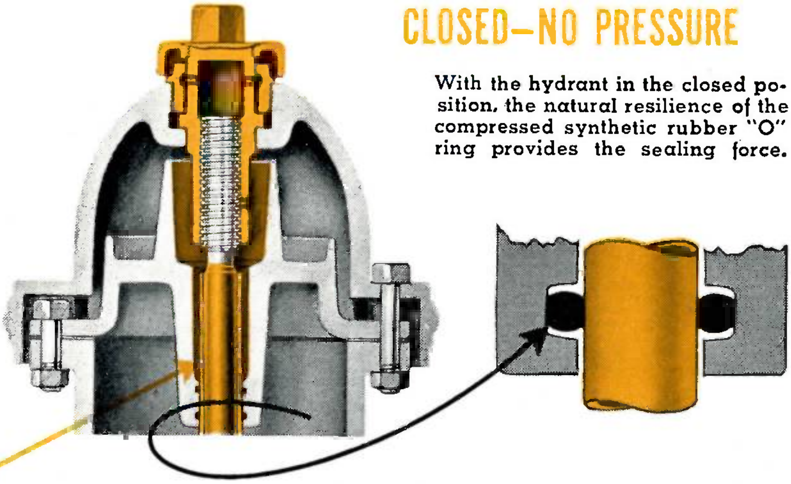
has the "O" RING SEAL

DEPENDABLE • EASY TURNING IN SUMMER OR WINTER

These sectional views show the quality features of the Mueller fire hydrant, which has been carefully designed to prevent corrosion, wear and leakage. All threads and bearing surfaces are fully bronze mounted and self-lubricated. The bronze sleeve on the stem of the hydrant provides the sealing surface for the "O" rings and also prevents any corrosive action or binding of the stem. The top "O" ring seals off the oil reservoir, while the lower ring provides a positive seal against water. The effective sealing action of the "O" rings is illustrated at the right of the sectional drawings of the hydrant bonnet assembly. In addition to the sealing action of the "O" rings by means of resilience when the hydrant is closed and through distortion under pressure when the hydrant is in the open position, the sealing properties of the rings act against the bronze sleeve while the hydrant is being opened or closed.

CLOSED—NO PRESSURE

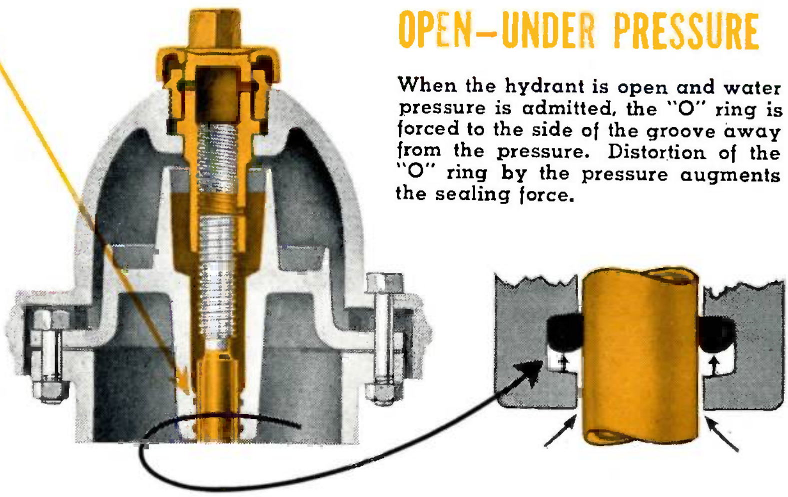
With the hydrant in the closed position, the natural resilience of the compressed synthetic rubber "O" ring provides the sealing force.



BRONZE SLEEVE

OPEN—UNDER PRESSURE

When the hydrant is open and water pressure is admitted, the "O" ring is forced to the side of the groove away from the pressure. Distortion of the "O" ring by the pressure augments the sealing force.



The hydrant's operating unit is completely and effectively sealed away from the barrel by means of the "O" rings. All working parts are continuously lubricated from the large oil reservoir. This makes for sure, easy turning in any climate. The bronze weather cap prevents freezing of the operating nut and unauthorized removal of the hold-down nut. The hydrant's safety flange and stem coupling permits breakage in case of impact from a traffic accident or other source, yet permits fast, inexpensive replacement.

Eden's So-So Well

Since it's the deepest one in Texas, the city's water department claims a new world's record—at 4,210 feet.

DOWN IN TEXAS, where the best, the most, the biggest, the tallest and the deepest are merely commonplace, they've got a sort of unusual well, as judged by standards in other parts of the country.

C. O. Smith, water superintendent of the city of Eden for the past 15 years, modestly allows it's probably the world's deepest municipally owned water well. Thus far, at any rate, he has not received any contradictory claims, and other Texas cities seem content for the moment to let Eden rest on its laurels.

Eden's well was drilled to a depth of 4,210 feet, into the hickory sands. B. A. Duffey, who drilled the well, contracted to sink one to a depth of 4,000 feet for a fee of $35,000. However, since water was not encountered at that depth in sufficient quantity, the city paid an additional fee of $5 a foot for the extra 210 feet.

The Eden well was at least a shade different from some of the others he had drilled—and Mr. Duffey has done considerable drilling in Texas. For one thing he came across gas at around 1,500 pounds pressure at 3,200 feet. This had to be cased off with the aid of 1,500 sacks of cement. To allow the cement to dry, the gas was vented through a 2-inch pipe. Then, too, he lost several strings of tools and had to drill around them. His log showed clay, sand, gravel, red sand, red shale, brown sand, blue shale, lime rock, sand, and finally, after two and a half years, hickory sand—and plenty of water for the small Texas community.

There's still another thing about the well that makes it dear to the heart of all Texans, particularly those who like to point out the unusual and make it appear as the usual. Water leaves the well at 130 degrees, about right for heating systems but far too hot to drink.

Eden's water department finds this something of a problem. Water from the well is unusually—or usually, for Texas—pure. For this reason, the state health department won't permit open air cooling or the use of an aerator.

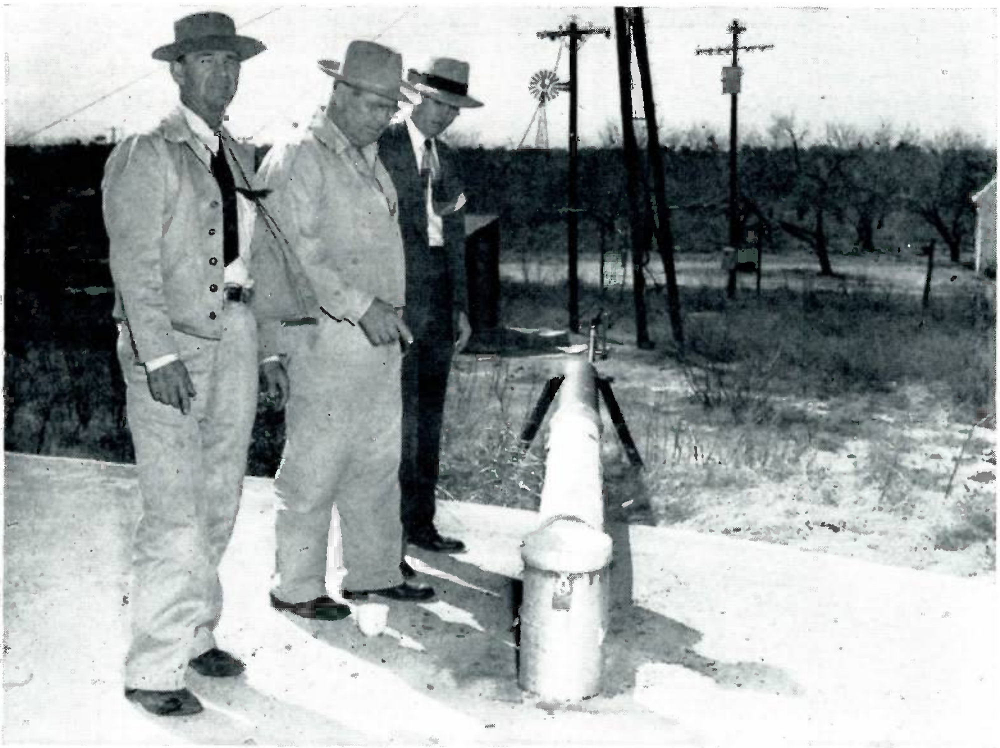
Mr. Smith and his colleagues have gotten around this as best they could. A cooling fan blows into a 750,000-gallon storage tank, the air being vented on the opposite side of the tank. However, even with this cooling system, water still reaches the consumer at around 90 degrees at the tap during the summer months.

In winter the temperature of tap water is about normal—unless there is a great demand on the storage tank and water is drawn off before the fan has its effect. From the storage tank water is pumped to an elevated tank, giving it another chance to cool.

Water comes to within 350 feet of the ground level at 175 gallons a minute. A deep well pump, set at 1,000 feet, is used to take water from the well. The water is very soft, the principal mineral being soda.

Eden's gas supply comes from another well about 2,000 feet from the water well. The gas well is a mere hole in the ground of 3,200 feet. Gas pressure at the well is approximately 950 p.s.i. Home delivery is eight ounces.

The population of Eden is 2,138 and there are about 600 water and gas customers. Average consumption of water is about 30 million gallons annually.



This is the line through which water is pumped from the deep well to the ground reservoir, where it receives its initial cooling. Left to right are: C. E. Harris, mayor of Eden; Carl O. Smith, manager of utilities; and Richard D. Kitchen, Mueller Co. representative.

This 1911 photograph shows construction work on one of Denver's wood stave conduit lines, which delivered water from the South Platte River to Marston Lake, an impounding reservoir.

Then---and Now

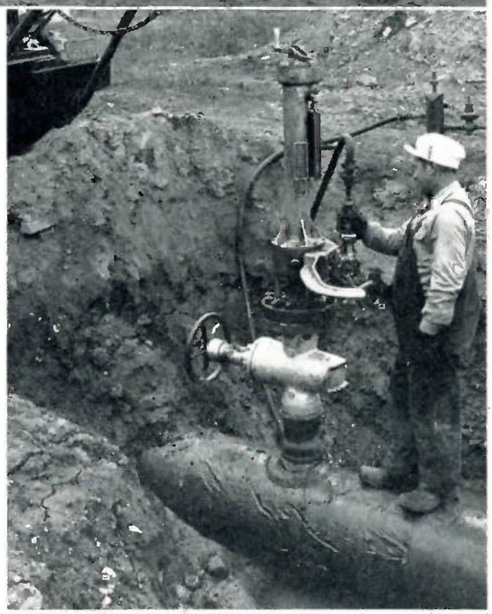
Denver will abandon two wood stave conduits this summer when 90-inch concrete line is completed.

DENVER'S CONDUIT No. 20, a 90-inch reinforced concrete pressure pipeline, is expected to be in service before the heavy demand for water is reached this summer. The new pipeline and tunnel will carry water from the South Platte River to Marston Lake, an artificial impounding reservoir of 6,450,000,000 gallons capacity, supplying two filter plants. The old wood stave conduits had become so unreliable and their capacity so limited that the new and larger supply line, one of the major projects in the city's $30 million, 5-year improvement program, became imperative. Combined capacity of the two wood stave conduits, which will be abandoned, is 75 million gallons a day; that of Conduit No. 2 is 200 m.g.d. Estimated cost for manufacture and installation of the pipeline is $3,370,000; for driving and lining the tunnel, $425,000.

Denver's new 90-inch reinforced concrete pipeline will replace the old wood conduits.

Each 16-foot length of the pipe weighed about 20 tons. First pipe was laid May 25, 1949.

Texas Eastern Finds Another Use for Mueller C-1 Machine



INSTALLATION OF "blow off" stacks on Texas Eastern Transmission Corporation's 20-inch natural gas pipeline marks still another use for the versatile Mueller C-1 power-operated drilling machine. The stacks are installed on both sides of a main line valve, and are used in venting the line whenever a particular section may be taken out of service. Either the upstream or downstream section of the line in relation to the valve may be vented through the connections.

(PHOTOS COURTESY COMPRESSED AIR MAGAZINE)

Top: Mueller C-1 machine arrives at the site suspended from gin poles. Bottom: machine being placed in position on valve flange. Right: drilling into the line under pressure.

W. Victor Weir,
President

Dr. Albert E. Berry,
Vice-President

William W. Brush,
Treasurer

Weir To Head A. W. W. A.

Other officers-elect are Dr. A. E. Berry of Toronto, vice-president; and William W. Brush, treasurer.

W. VICTOR WEIR, president of the St. Louis County Water Company, St. Louis, and president of the Missouri Water Company, with systems in Lexington and Independence, will succeed Dr. Alvin P. Black, professor of chemistry at the University of Florida, Gainesville, as president of the American Water Works Association on May 26 at the close of the association's 1950 annual conference at Philadelphia.

Dr. A. P. Black

The other officers-elect are: vice-president, Dr. A. E. Berry, director of the sanitary engineering division, Ontario Department of Health, Toronto; and treasurer, William W. Brush, editor of *Water Works Engineering,* New York. Mr. Brush was renominated to the post. He is completing his twenty-fifth term as the association's treasurer. Harry E. Jordan is secretary.

The board of directors of the A.W.W.A. elected the following to honorary membership at its annual meeting:

Jack J. Hinman, Jr., Iowa City, Iowa, engineer; John H. Murdoch, Jr., New York, vice-president and council of the Water Service Company; and George W. Pracy, San Francisco, general manager and chief engineer of the San Francisco water department.

In addition, the board announced that Joseph P. Schwada, city engineer of Milwaukee, Wis., would be awarded the Diven Medal for 1949 "in recognition of the effort expended in directing a committee in the preparation of Revised Specifications for Laying Cast Iron Water Mains and for his meticulous care, exacting detail, and frank and courageous presentation of the problems involved.

The association's Goodell Prize for 1949 will this year be awarded to a committee instead of an individual. Its members include Dr. Black, chairman, Dr. Berry, L. H. Enslow, H. A. Faber, R. J. Faust, Mr. Weir, and H. T. Dean. The prize was awarded to the members for "The Fluoridation of Public Water Supplies — Statement of Recommended Policy and Procedure," which was presented at the 1949 annual conference of the association at Chicago.

The board's statement said, "The selection of an association committee to receive the Goodell Prize award is an unusual but perfectly proper act. The committee report has already received wide recognition among people in the

George W. Pracy,
Honorary Member

Jack J. Hinman, Jr.,
Honorary Member

John H. Murdoch, Jr.,
Honorary Member

public health field and in the dental profession. It represents an important step in association policy."

Mr. Schwada's selection as this year's Diven medalist was "in recognition of the effort expended in directing a committee in the preparation of 'Revised Specifications for Laying Cast Iron Water Mains' and for his meticulous care, exacting detail, and frank and courageous presentation of the problems involved."

J. P. Schwada

He has been city engineer of Milwaukee since April, 1923. For two years prior to that he was in charge of design and construction of pumping stations for the city. He has wide experience in the engineering field since he received his degree in civil engineering from the University of Wisconsin in 1911.

Mr. Weir, who is completing his term as the association's vice-president, was graduated from Washington University of St. Louis in 1923. He first was associated with the West St. Louis County Water Company, which became the St. Louis County Water Company, as a junior engineer, becoming successively engineer, assistant manager, chief engineer, superintendent, and vice-president and general manager. He became president of the company in 1946. He was also superintendent, vice-president and general manager of the Missouri Water Company before his promotion to the presidency of the company.

Dr. Berry, the new vice-president, has been a member of the A.W.W.A. since 1920, and has been active in the Canadian Section of the association as an officer and as a member of various committees. He received his doctorate in sanitary engineering from the University of Toronto in 1926.

Harry E. Jordan

He served as a lieutenant in the Royal Engineers in World War I, and first became associated with the Ontario department of health in 1919 as a sanitary engineer. He has been director of the sanitary engineering division since 1926. He is a registered professional engineer in Ontario.

Mr. Brush has been the association's treasurer continuously since 1930. He also served in the office from 1922 to 1927. A member since 1911, he was vice-president in 1928 and president the following year. He received the Diven medal in 1932. He received his B.S., C.E., and M.S. degrees from New York University and was engineer for the Brooklyn Water Department from 1894 to 1907, when he became engineer for the New York Board of Water Supply, serving as chief engineer from 1927 to 1934. He became editor of *Water Works Engineering* in 1934.

Mr. Jordan has been secretary of the A.W.W.A. since 1936.

Off the . . Record . .

The patient had just been certified cured and was saying farewell to the director of the mental institution.

"What are your plans, now that you're going out into the world again?" the physician inquired.

"Well, I've passed my bar exams, so I may try to work up a practice. I also had quite a bit of experience with dramatics in college, so I may try my hand at acting. Then on the other hand, I may be a tea kettle."

* * *

An old Irishman collapsed in the street, and a crowd soon gathered. Everyone wanted to help and each had a different suggestion. One, Maggie Riley, kept shouting, "Give the poor man whiskey," but little attention was paid to her. Then the agonized voice of the Irishman rose above the din, "Will the lot of ye hould yer tongues and let Maggie Riley speak!"

* * *

"I come to bring warmth and light into the bleakness of your home."

"Oh, you dear—"

"Nix on the love stuff, lady. I'm the installation man from the gas company."

In a crowded train, a salesman sat down beside a young woman who fought a desperate but losing battle to keep her skimpy skirt from creeping up over her knees. After another futile yank, she looked up to meet the gaze of her traveling companion. "Don't stretch your calico, sister," he said, "my weakness is liquor."

* * *

The Sunday School teacher, wishing to arouse the interest of her class, asked them to write down the names of their favorite hymn.

All of the scholars bent their heads over pencil and paper for a few minutes, and handed in their slips. All except Jane.

"Come, Jane," said the teacher, "write down the name of your favorite hymn and bring me the paper."

Jane wrote, and with downcast eyes and flaming cheeks, handed the teacher a slip of paper bearing the words, "Willie Smith."

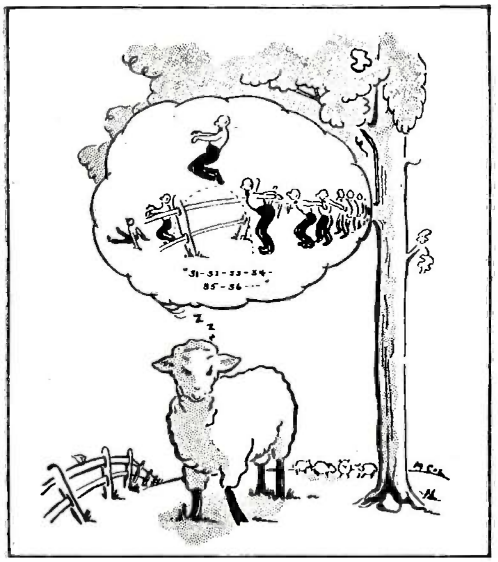
* * *

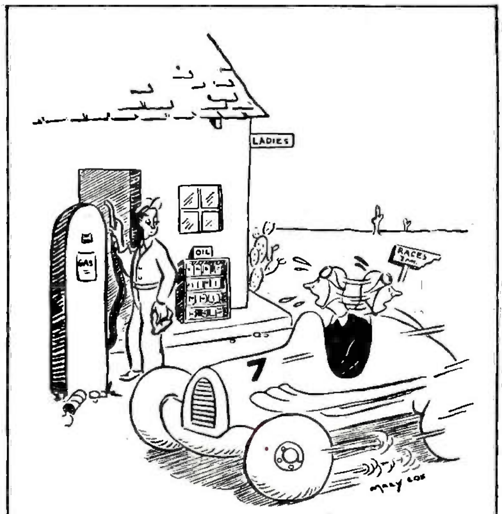
The young student nurse was considerably flustered by the sudden appearance in her ward of a well known physician who began examining an influenza patient. "Nurse, what was this man's temperature at the onset?" the physician inquired.

"Gee, I don't know, doctor," replied the nurse, looking confused. "I've been taking it by mouth."

"No, thanks. I'm just feeling!"

"Some of our customers are hard to convince!"





"Give me five gallons—QUICK!"

"I see by the paper that a woman has just cremated her fourth husband."

"Isn't that always the way! Some of us can't get a man at all while others have husbands to burn."

* * *

A general, accompanied by a colonel, was somewhat surprised to hear the colonel mutter, "And the same to you," each time they returned a salute as they made their rounds, inspecting a large recruit training base.

"Why do you say that?" the general demanded.

"Well, sir," the colonel replied, "I was once an enlisted man myself and I know what they're thinking."

* * *

A grumpy-looking man boarded a train, arranged his coat, hat and luggage, called for a pillow, made himself comfortable, extracted a sizable sign from his brief case and propped it on his lap. Then he closed his eyes. The sign read:

"I don't trust Stalin; the weather's unusually nice for this time of year; the country is full of reds; I hope we won't have another war; I think prices will start descending in about a year, but that we won't have another depression. Wake me up at Schenectady."

* * *

Tourist: "What's your speed limit here?"

Native: "Ain't got none! You fellers can't go through here too fast to suit us."

When a woman driver puts her hand out, you can always be sure of one thing: the window is open.

* * *

"Ten dollars for speeding. And the next time you'll go to jail," roared the country magistrate.

"Sounds like a weather forecast," commented the truck driver. "Fine today, cooler tomorrow."

* * *

A temperance lecturer was going full blast. "Who has the most money to spend?" she roared. "Who drives around in the finest car? The saloon keeper! Who wears mink coats? The saloon owner's wife! And who pays for these riches? You do, my friends, you do!" Several days later a man and his wife who had attended the lecture met the speaker on the street and thanked her for her words of counsel.

"I'm glad indeed," said the lecturer, "that you have given up drinking."

"Oh, we haven't done that," said the man. "We bought a saloon."

* * *

A man was driving an auto with his wife in the back seat and stalled the car on the railroad tracks as the train approached. His wife screamed, "Go on—go on!"

"You've been driving all day from back there," he answered. "I've got my end across . . . now see what you can do with your end."

Mostly Personal

(Continued from page 1)

coming with long strides through the street where I lived, and going in and out of people's cellars.

"I never knew who he was and what his business until I had become a man and had entered the gas business myself. I then asked one of the old employees if he remembered this man, and he told me his name and that his business was to fill up the wet gas meters, which were then in use, with water to their proper working level, for correctly measuring the gas.

"All of the gas meters then used were what were known as wet meters. Also, in very cold weather he 'whiskeyed' the meters—that is, he poured whiskey in them to keep the water from freezing. I was told that it sometimes happened that the men who did this work would also 'whiskey' themselves in the cellar and would occasionally have to be carried out."

Filling meters must have been one of the most popular jobs the gas companies had to offer in those days. It would be our guess that cirrhosis of the liver was probably considered as an occupational disease for such employees.

* * *

Two articles in the last issue of the *Mueller Record* brought us some interesting letters. One article, *How It Started,* concerned William Murdoch, the Scot who is credited as the founder of the gas industry. From J. E. Cleland of the Cleland Company, Lynchburg, Virginia, we received the following:

"The writer's grandmother was Janet Murdoch, a niece of William Murdoch. My grandfather, who started our business here in 1853, worked with the original William Murdoch company and came to America to build gas plants, working on one in Baltimore and in Philadelphia before building the plant in this city, where he finally settled."

* * *

The memoir on the great auto race of 1895, America's first, which was contributed by Charles B. King, Larchmont, New York, the umpire assigned to the Mueller entry, occasioned another letter we should like to pass on. It was written by Stephen Morris, mayor of Lakehurst, New Jersey. His father was the driver of the Morris and Salom Electrobat.

"Being the son of Henry G. Morris, I was very much interested in your article by Mr. King on the first automobile race.

"As I remember it was the snow storm that prevented not only the Electrobat but several others from covering the course. I did not gather that the Electrobat developed any trouble other than using up all their power in bucking the drifts. As I also understood it, there was a test for efficiency later, and I do know that father came back with a gold medal, which is now in the possession of my nephew.

"As vice-president of the Julian Storage Battery Co., which was later absorbed by the present Exide Co., he was an engineer naturally interested in the use of storage batteries, which, as you know, up to that time were practically only used in connection with peak loads and for small plants.

"The Electrobat which you illustrate was, I think, about the third product of our shop, which later developed the hansom cabs operated in New York a few years later.

"I have always felt that father has not been given the credit he deserved for the development of the industry. The storage battery car is, of course, practically a thing of the past, but it had much to do in the early stages in creating popular interest, and I believe I am right in feeling that until the advent of the Selden patent the gas cars did not amount to much.

"In 1896-97 father used this same Electrobat in running from Philadelphia to my home at Haverford, some ten miles out, as an evening jaunt, and he made pretty good speed, although it went a little faster down the hills. But I never remember his getting stuck."

The Electrobat was one of two electric cars which started the race. The medal was presented for its showing in the official tests, ease of control, absence of noise or vibration, cleanliness and general excellence of design.

* * *

We are indebted to Larry Guerin of Lykes Bros. Steamship Co., Inc., New Orleans, for the photograph of the U. S. Coast Guard training vessel *Eagle,* used as the cover for this issue.

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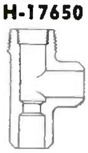
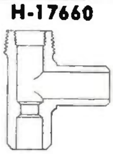
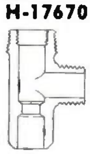
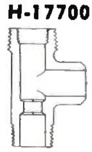

WELDING
Sizes 1" and 1¼"

H-17660

DRESSER
Sizes ¾" thru 1¼"

H-17670

THREADED
Sizes 1" and 1¼"

H-17700

WELDING
Sizes 1" and 1¼"

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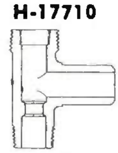
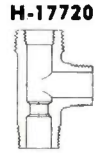

DRESSER
Sizes ¾" thru 1¼"

H-17720

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When ordering specify quantity, size and catalog number. The size of the tee is determined by the size of the service pipe to be attached to the side outlet. Catalog 55 gives complete information. Write for your copy today.

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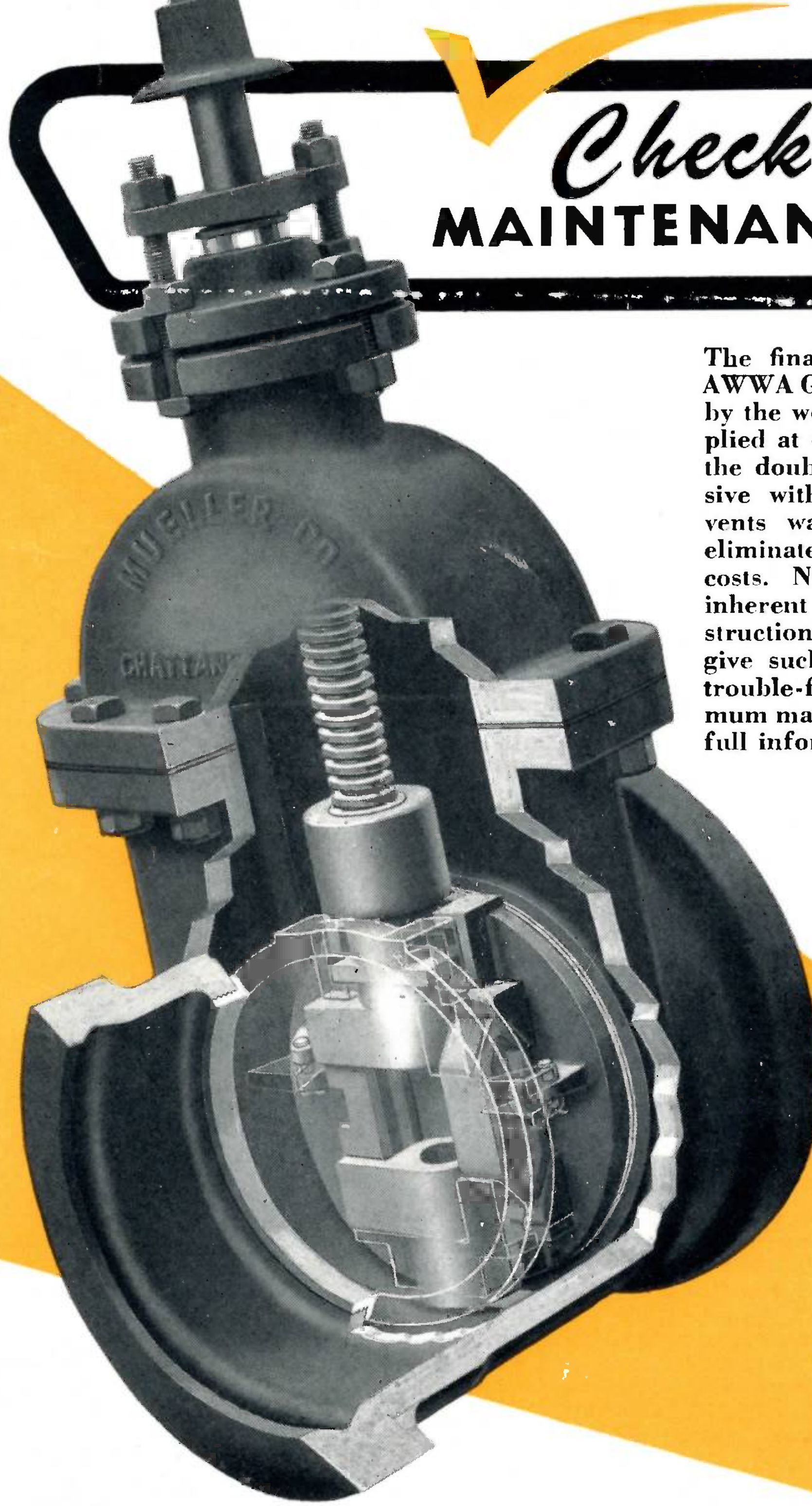

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