MUELLER RECORD

NOVEMBER • 1948 • DECEMBER

ALL BRONZE
HIGH PRESSURE GAS STOPS

H-11074

FOR PRESSURES UP TO 300 POUNDS

The MUELLER H-11074 is designed and constructed to meet the demand for a stop to handle higher pressures than average gas stop requirements. The bodies are cast from high copper content bronze with extra thick sections for added strength. The bronze keys are precisely lapped into the bodies for tight seal and easy turning. Full line capacity through body and key. Furnished in sizes ¾" to 2".

H-11075

FOR PRESSURES UP TO 500 POUNDS

The MUELLER H-11075 is designed to meet the requirements for a stop to handle extreme high pressures. The heavy, ribbed design provides additional strength to the rugged body of high copper content bronze and the drilled solid bronze key is ground and lapped into the body to insure a tight seal and easy turning. Generous proportioning of both the body and the key permits large openings to assure a free flow of gas. Available in sizes ¾" to 2".

DEPENDABLE SINCE 1857 FULLY WARRANTED OUR 91st YEAR

MUELLER CO.

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

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

MUELLER RECORD

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New York, San Francisco

November • 1948 • December
Vol. XXXV No. 3

GENE J. KUHN, Editor

CONTENTS

COVER
Gustav Anderson
Amityville, New York

MOSTLY PERSONAL

AS THE CREDIT LINE above states, this month's cover photograph was made by Gustav Anderson of Amityville, New York. Mr. Anderson was born in Sweden and began his photographic career in 1910. He is famous in exhibition circles for his excellent photographs, and he is a frequent contributor of articles and photographs to magazines specializing in photography. The cover photo, "Jingle Bells," is one of Mr. Anderson's favorites. For the information of any camera bugs among our readers, the photograph was made with a Speed Graphic, using fast panchromatic film, with an exposure of 1/100 at f16, light yellow filter.

* * *

This month we are publishing the first in a series of cartoons by Norman Slater, water works superintendent of Windsor, New York. Norm, you may recall, was the subject of an article in the July-Aug-

(Continued on page 20)

SHOWER SATISFACTION

Your customer gets complete shower satisfaction when you recommend and install a Mueller SELF-CLEANING Shower Head because he is assured of a head that will never clog---never sputter---and never needs to be removed for periodical cleaning.

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With Ball Joint, Arm and Wall Flange

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Head and Ball Joint Only

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BETHLEHEM - FIRST WATER WORKS IN AMERICA TO USE PUMPS

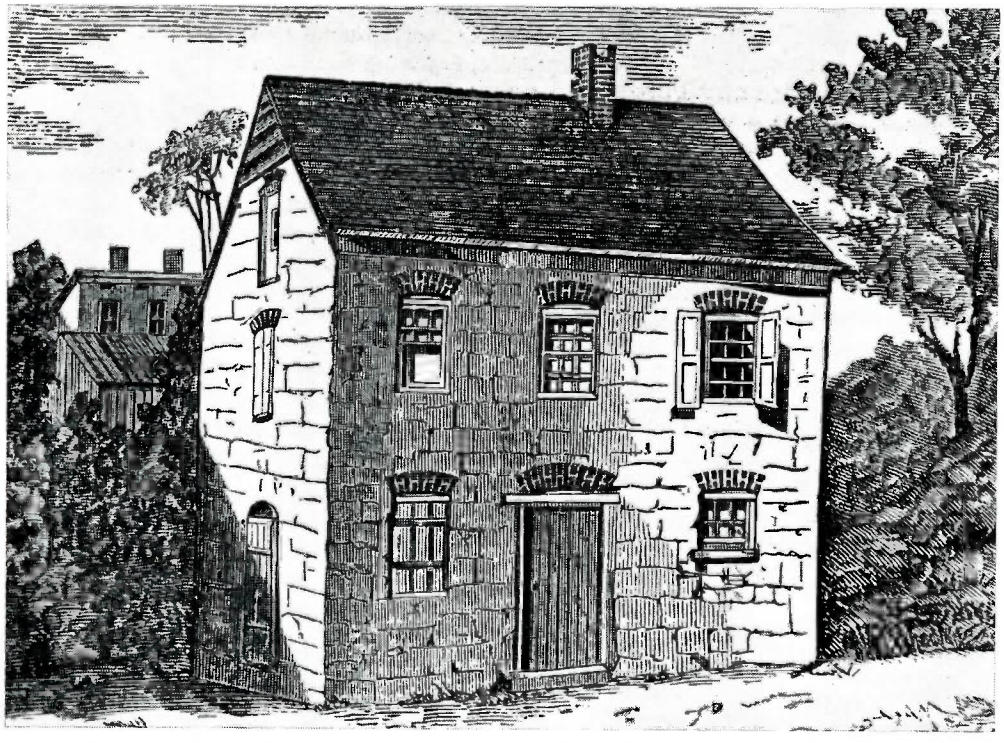
Hans Christopher Christianson's pumps not only set a precedent but also made possible today's systems.

HANS CHRISTOPHER CHRISTIANSON, a Danish millwright, who came to the little community of Bethlehem, Pennsylvania, in September, 1751, soon found himself solidly established among the Moravian settlers who had founded and named the village on a Christmas Eve ten years earlier. There was much work to be done before the industrious pioneers could feel secure in their New World homes, and a man who was something of a mechanical genius found his talents in great demand.

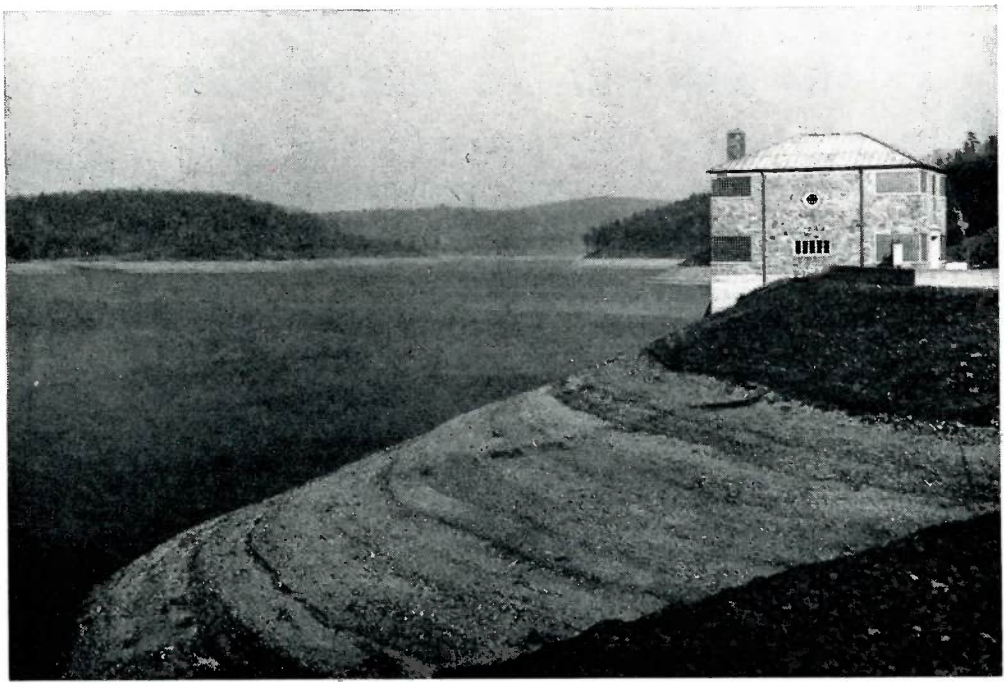
The problem of finding a better means of supplying the community with water from the spring up the hill than by cart and buckets had been officially discussed in the town. Water power was used to run the oil and bark mill, and possibly a wheel could be devised to do more than that.

After hearing the talk, Christianson came to feel that the task was a challenge to his ingenuity. One day Christianson and John Boehner, a West India missionary and one of the first settlers of Bethlehem, fell to discussing the matter of a water works on one of Boehner's visits to the community. Boehner had more than a passing knowledge of mechanics, and the two were able to make a small model of a pump.

Christianson's position in the village was such that the townspeople had little doubt of his eventual success, and they pitched in to help where and whenever needed. Construction of the water works was begun in the Spring of 1754. Hemlock logs, which were to be bored for



This is the building which housed Bethlehem's first water works, built in 1754. Bethlehem was the second city in America to have a water works, but it was the first to use pumps.



A view of Bethlehem's impounding reservoir in the Pocono Mountains. It has a capacity of 4,100,000,000 gallons. A 27-mile aqueduct of concrete pipe is used to bring water to the city.

pipe, were floated down the "West Branch of Ye Delaware," as the old accounts termed the Lehigh River, from Gnadenhuetten in March. A reservoir was also constructed on the square.

By June, the work had advanced to the the stage where Christianson deemed a test of the pump might be made. Accordingly, on the evening of June 21, after all preparations had been made, the pump was connected and a stream of water was forced up as high as the houses around the square in the town above. The demonstration proved the feasibility of the pump beyond a doubt.

The machinery of the pump was then perfected, a separate water wheel was built, the hemlock pipes were laid, the reservoir or distribution tank was gotten ready, and on June 27, 1755, the flow into the tank on the square began. Christianson's pump was made of lignumvitae, and the cylinder was five inches in diameter.

It is not to be inferred that Bethlehem's water works, the first water works in America to use a pump (Boston's was a gravity flow, built in 1652), was an immediate and continuing success. There were many interruptions caused by the bursting of the wooden mains. But Christianson's pump did serve to lay the foundation on which today's water works industry is based.

In 1761, Christianson commenced the building of more powerful and efficient machinery to meet the needs of the growing settlement. The new pumping equipment consisted of three single-acting force pumps, which were made of cast iron and which were of 4-inch caliber with an 18-inch stroke, worked by a triple crank geared to the shaft of an undershot water wheel 18 feet in diameter and two feet clear in the buckets. The works were calculated to raise the water a height of 70 feet. According to old records, the rising mains were made of gum wood, since they were subject to greater pressures, and other mains were made of pitch pine. Still other records state that some of the pipe was made from walnut logs floated down from Walnutport.

The new water works was completed on July 6, 1762, and on the day the pumps raised the first water, the citizens of the town, who had turned out en masse for the memorable occasion, presented Christianson with a purse of 30 shillings and

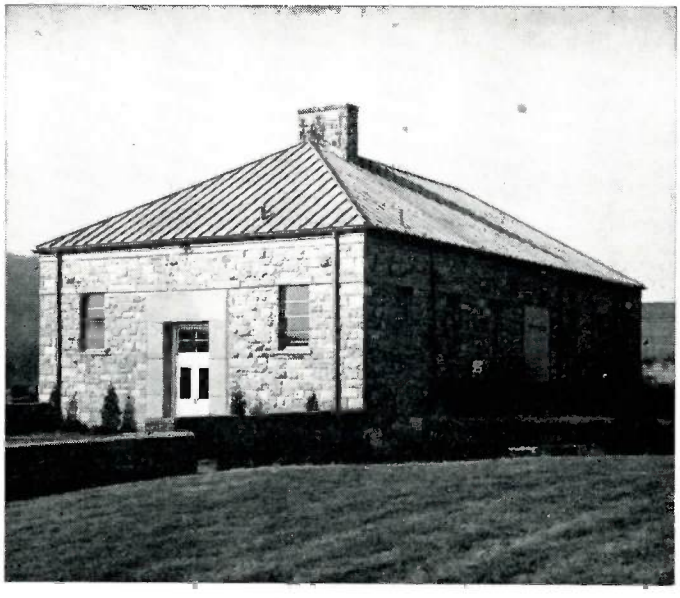
Ario Wear, director of parks and public property of the city of Bethlehem, is shown at his desk. The busy industrial city is "using every drop" of water that can be brought through its aqueduct from the impounding reservoir in the Pocono Mountains, Mr. Wear says. The aqueduct has a rated capacity of 21 million gallons.

Christopher Demuth, his assistant, 15 shillings "for ye water running."

■ ■ ■

THE SPRING WAS USED as Bethlehem's water supply until it became contaminated in 1907. It was replaced by three artesian wells, drilled by the borough of Bethlehem. In 1918, the city of Bethlehem was formed by the consolidation of the boroughs of Bethlehem, West Bethlehem, South Bethlehem, and Northampton Heights.

The boroughs of West Bethlehem, South Bethlehem and Northampton Heights were served with water at the time of the consolidation by the privately-owned South Bethlehem Water Company, which obtained its supply from the Lehigh River. In 1922, the city of Bethlehem purchased this company and consolidated with the municipally-owned old system of the borough of Bethlehem. The filter plant and pumping system of the system soon became inadequate.



This is a view of the city's chemical control building. Chlorine and Calgon are used in treating the water, the latter to offset its low pH. Water used in the city is not filtered, however. The system was built in 1938 to meet the needs of the city, which was formed by the consolidation of four different boroughs in 1918.

In 1938, the city decided to build a system from the Pocono Mountains to the north of Bethlehem. An impounding reservoir with a capacity of 4,100,000,000 gallons was built and an aqueduct was constructed which is about 27 miles in length, using 36 and 30 inch concrete pressure pipes. The line also contains two tunnels, one a mile and a quarter in length, the other about three-quarters of a mile long.

Ario Wear, director of parks and public property, said recently, "The rated capacity of this line is 21,000,000 gallons, and at the present time the city is using every drop that can be brought through it."

■ ■ ■

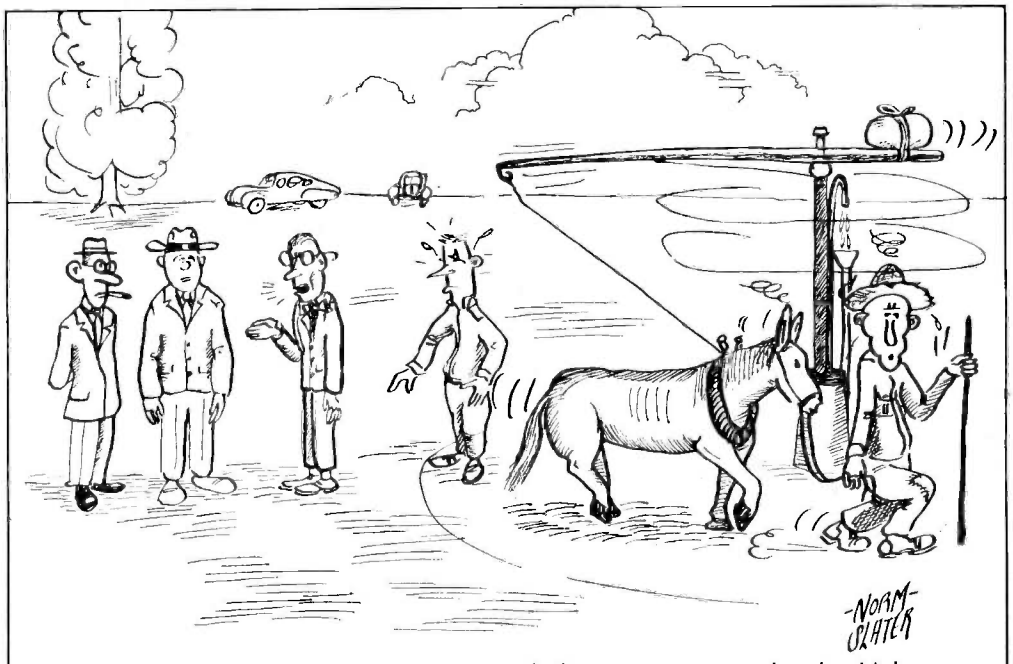
MENTION ALREADY HAS been made that Bethlehem was named and founded on Christmas Eve, 1741. The naming of the settlement, so the story goes, occurred as the hardy Moravians gathered in a rude cabin to observe their first Christmas in the New World to which they had come to find religious freedom.

More than 200 years have passed since that Christmas and Bethlehem has grown to a busy steel and manufacturing city. But Christmas in Bethlehem is still largely a Moravian Christmas.

The city's annual observance of Christmas has gained for it the name, "The Christmas City of America." The city's lighting display during the Christmas season has been described as the most elaborate and artistic in the world. The huge Star of Bethlehem on the summit of South Mountain overlooking the city was turned on December 1.

Weeks ago the casting of beeswax candles to be used during the traditional Christmas Eve vigils at the old Moravian Church was begun in the Simon Rau and company's apothecary shop, the oldest drug store in America. Preparations also were started for the community Christmas Putz and for the putzes of individual homes.

A "putz" is the Moravian version of the Christmas tree and comes from the German "putzen," meaning to decorate. It is a miniature portrayal of the Nativity. In its construction, treasured figures of wood or papier-mache are used, along with small fences, gnarled stumps, rocks, sand and earth, trees and sometimes water, so arranged that the Holy Family, represented in a cave or thatched stable, is always the central subject.



"Well, gentlemen, I guess it is agreed that our water works should be modernized. Does anyone know where we can find a bigger horse?"

PIONEER IN THE USE OF NATURAL GAS

THE MYSTERIOUS BUBBLES that formed and burst on the surface of Canadaway Creek near the village of Fredonia in western New York were as much a puzzle to the first white explorers and settlers as they had been to the Indians who had earlier occupied the area near the shores of Lake Erie.

Surveyors of the Holland Land Company were among the early discoverers, and in their field books mention was made of a spring which emitted an "odorous air." Before their arrival, such springs were known by the earliest French explorers of central and western New York as *fontaines qui bouillent.*

According to some stories, the spring that was later to give such international celebrity to Fredonia was discovered by a traveler who had gone down to the creek bank for water and shade as he ate his midday lunch. The spring was located at the side of the Buffalo and Cleveland road, the oldest and most important of the lake shore highways. After the traveler had finished his meal and was striking a light for his pipe, he happened to ignite the escaping gas.

However, it was not until 1821 that actual drilling for gas was attempted. Edward Howard had come to Fredonia, built a house and a mill on the Canadaway, and was engaged in manufacturing woolen cloth. Noticing the shale near the creek, he believed he might be able to obtain a better supply of water for his house, and he decided to test it with a length of iron bar he kept about the mill. Forcing the bar into the shale a few feet, he saw bubbles of gas escaping through the water. He also found that the gas was inflammable.

One of Howard's friends and companions was William Aaron Hart, the village gunsmith. Hart visited the mill and became interested in the phenomenon that Howard had uncovered, and decided to learn the extent of the gas vein. He continued working in the hole that Howard had started until the improvised drill broke, plugging off the small flow of gas.

Hart then made another attempt to drill for gas in the nearby valley. He went down about 40 feet, but failed to locate any considerable volume of gas. Undismayed, he made still another effort to locate a gas vein in the shale. This time he drilled in the valley north of the main road, just where the best known natural seepage in the neighborhood had been observed.

How deep he drilled is a matter on which no two authorities apparently agree. Some said he drilled down only 27 feet; others are of the opinion he drilled to a depth of 70 feet. In any case, this third attempt was successful.

Hart then built a rude gasometer in which to store the gas, and purchased some ¾-inch lead pipe. He connected the line to the village hotel, the Abell house, and also laid pipe to several stores on the opposite side of the street.

The supplying of natural gas for the lighting of these few places marked the first utilization of natural gas and the founding of today's huge industry. How-

ever, at the time, the lighting obtained from Hart's well was considered primarily as a novel spectacle to astound travelers as they passed through the village on the stage line from Buffalo to the west country.

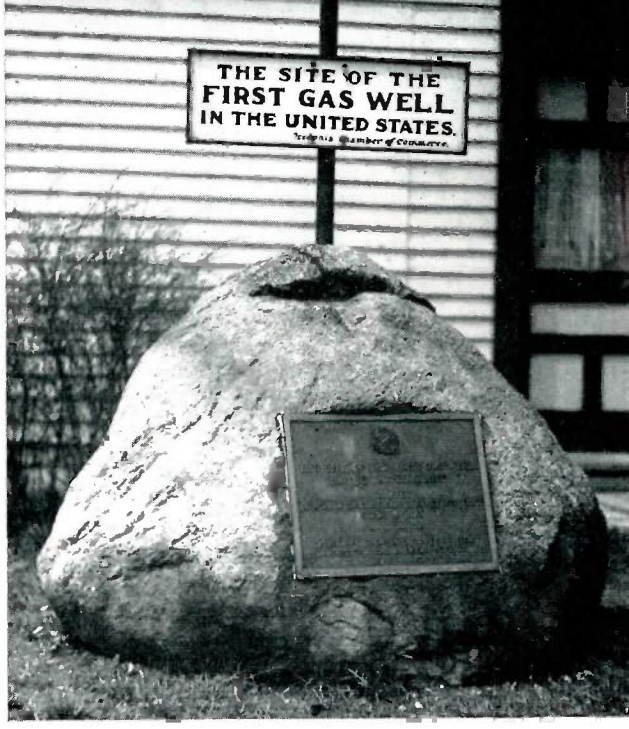
The gas lights were one of the attractions at the celebration that marked General Lafayette's visit to Fredonia on June 4, 1825. Lafayette's secretary during his trip, A. Levasseur, gave what is considered a slightly exaggerated account of the effect of Fredonia's gas lights on the general's suite as they approached the village with the remark that "our eyes were immediately dazzled by the glare of a thousand lights."

General Lafayette and his party arrived in the village at about 2 o'clock in the morning, and after a round of welcoming speeches they were entertained and served refreshments at the Abell hotel by the light of natural gas jets. Although Lafayette and his attendants were not of a scientific turn of mind, they must have noted the light with great interest. The residents of the village who had waited up half the night to greet the French hero of the Revolutionary War undoubtedly pointed out the lights with an understandable pride.

Commemorating this historic visit today are the village's Lafayette park and a bronze tablet marking the site of the first gas well. The tablet was placed there on the hundredth anniversary of the general's visit by the Benjamin Prescott chapter of the Daughters of the American Revolution.

The elder Benjamin Silliman, Yale's distinguished professor of chemistry and natural history, was instrumental in gaining widespread recognition for Fredonia's use of natural gas. In 1831 he published an account of the phenomenon, and it was republished by Sir David Brewster, a prominent scientist of Scotland. The articles were then widely copied by newspapers both here and abroad.

According to the Silliman article, "A company was formed and a hole, an inch and a half in diameter being bored through the rock, a soft fetid limestone, the gas left its natural channel and ascended through this. A gasometer was



A multi-billion dollar industry had its start at this site in Fredonia, New York, in 1821.

constructed and a small house for its protection and pipes being laid, the gas was conveyed through the whole village. 100 lights are fed from it, more or less, at an expense of $1.50 each. The streets and public places are lighted with it. The flame is large but not so strong and brilliant as that from gas in our cities; it is, however, in high favor with the inhabitants. The gasometer, I found on measurement, collected 88 cubic feet in 12 hours during the day. But the man who has charge of it told me that more might be secured with a larger apparatus."

That the inhabitants of Fredonia did indeed look with "high favor" upon their natural gas lights was demonstrated when the village was incorporated in 1829, for its official seal showed a section of pipe and five burning gas jets.

About the same time, an attempt was made by Walter Smith to supply gas for a government lighthouse at Dunkirk. He obtained possession of another gas spring, and, confident in the experience that had been gained through Hart's utilization of natural gas, he built a pipe line of logs from the spring to the lighthouse. However, he had overlooked two

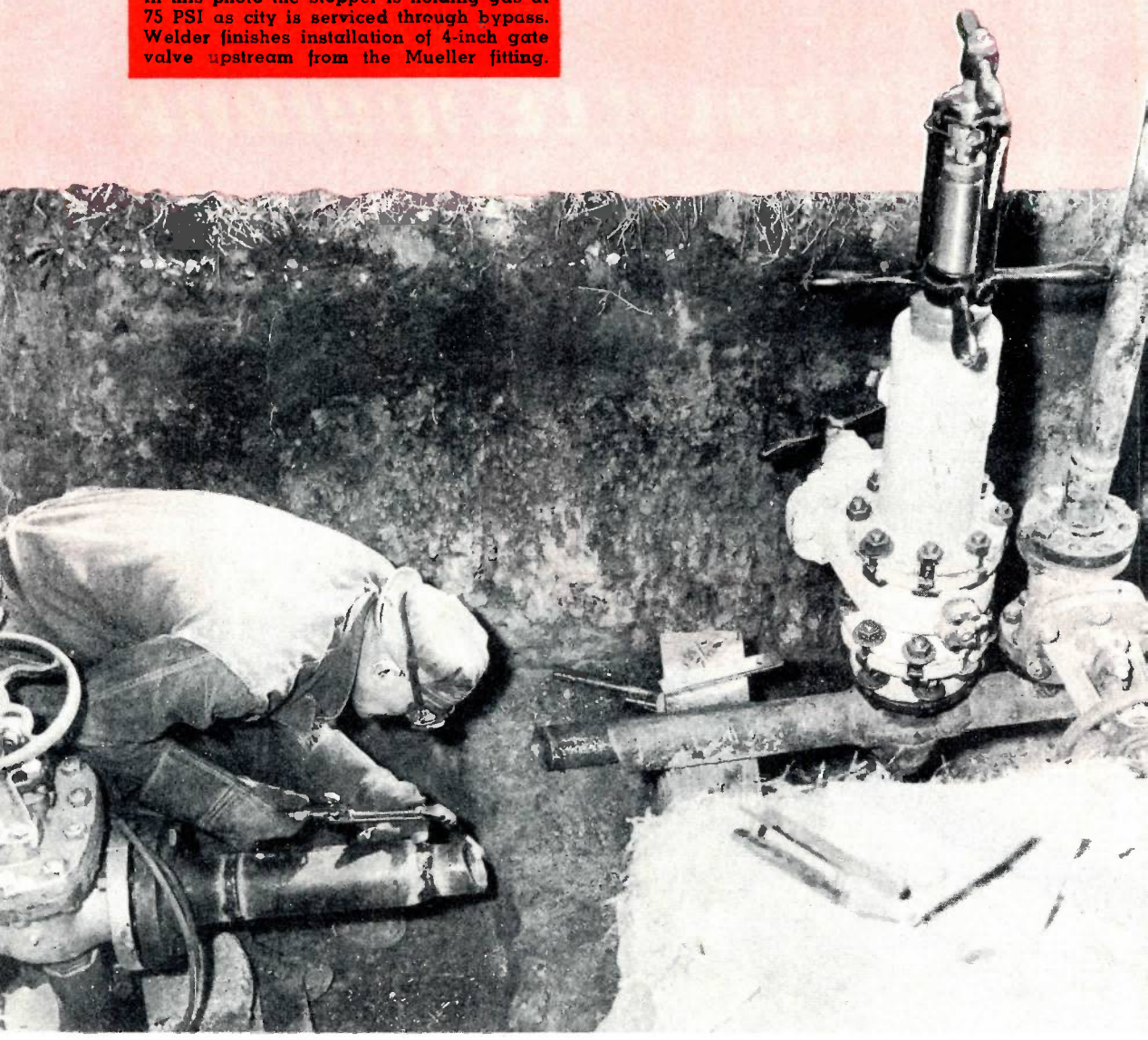
(Continued on page 20)

a new measuring station for DANVILLE, INDIANA

MUELLER LINE STOPPER equipment was used by Panhandle Eastern Pipe Line Company in the recent installation of a new measuring station for the city of Danville, Indiana, which is served by Indiana Gas Distribution Corporation. The job involved the complete removal of the exist-

With bypass connection made, a Mueller C-1 power operated drilling machine is used to cut into the Danville lateral.

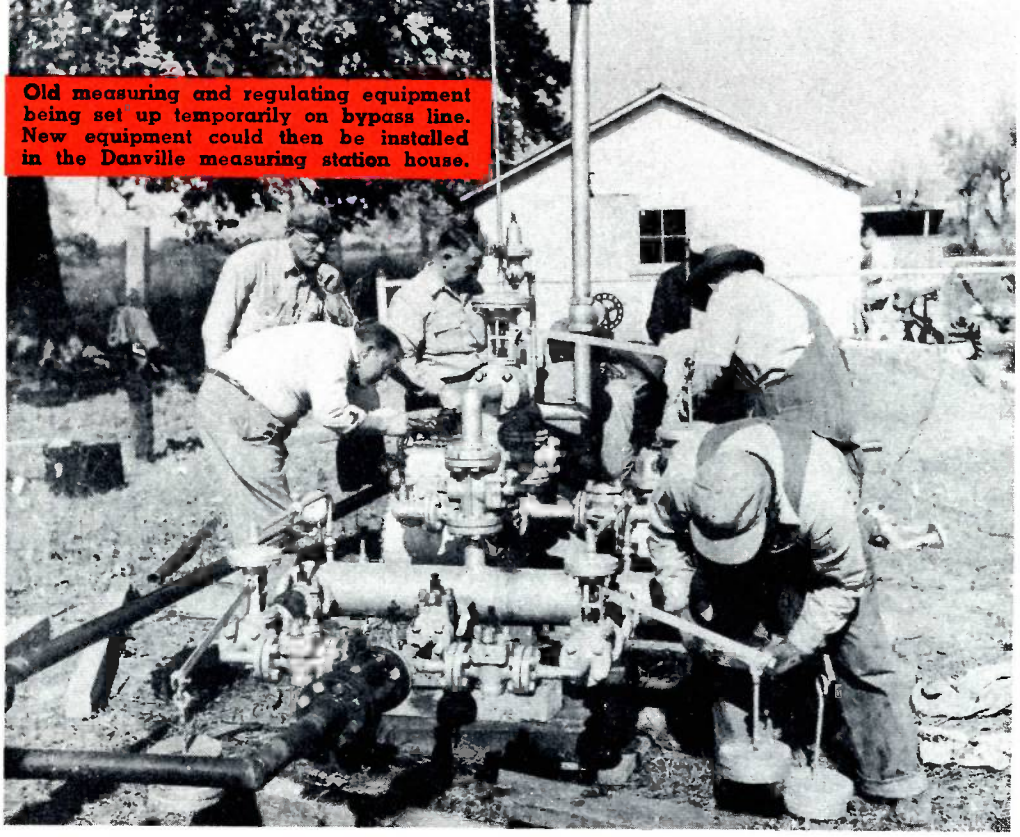
In this photo the stopper is holding gas at 75 PSI as city is serviced through bypass. Welder finishes installation of 4-inch gate valve upstream from the Mueller fitting.



ing regulating and metering station, the stopping off of the 3-inch Danville lateral, and the temporary maintenance of service to Danville throughout all operations by means of a bypass line connected to one of Panhandle's main lines, G-200.

The first step in the installation consisted of installing a bypass connection to Line G-200, which was tied in to a 1¾-inch tap made in the Danville lateral by means of a Mueller D-4 drilling machine. Next, a 3-inch Mueller welding fitting was installed on the Danville lateral on the upstream side of the tap. A Mueller C-1 power operated drilling machine was then used to cut into the line under pressure and the line stopper inserted, shutting off the flow of gas.

As soon as the Mueller stopper was inserted, hand feeding of the city was begun through the bypass connection and continued until the existing regulating and metering equipment could be torn down and reassembled on a setting previously prepared outside the station building. The regulating and metering equipment could then be used in its temporary location for an indefinite time and operate in much the same manner as it had within the regulator house. After the Mueller stopper had been inserted into the lateral and hand feeding started,



Old measuring and regulating equipment being set up temporarily on bypass line. New equipment could then be installed in the Danville measuring station house.

there was an interval of approximately an hour and twenty-five minutes until the old regulating and metering equipment had been reinstalled on its temporary site and put on the line.

A 4-inch gate valve was installed on the upstream side of the Mueller fitting and welded by means of a short connecting length of pipe swedged from four to three inches to the Danville lateral. The gate valve was then closed, the pressure equalized on both sides of the rubber stopper through the use of a ½-inch bleed connection located between the

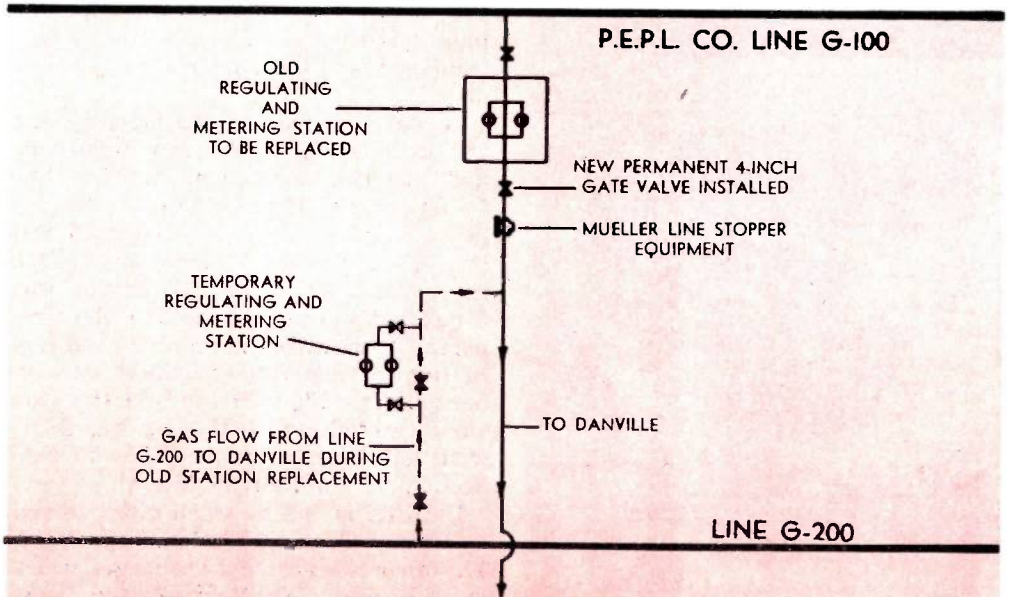
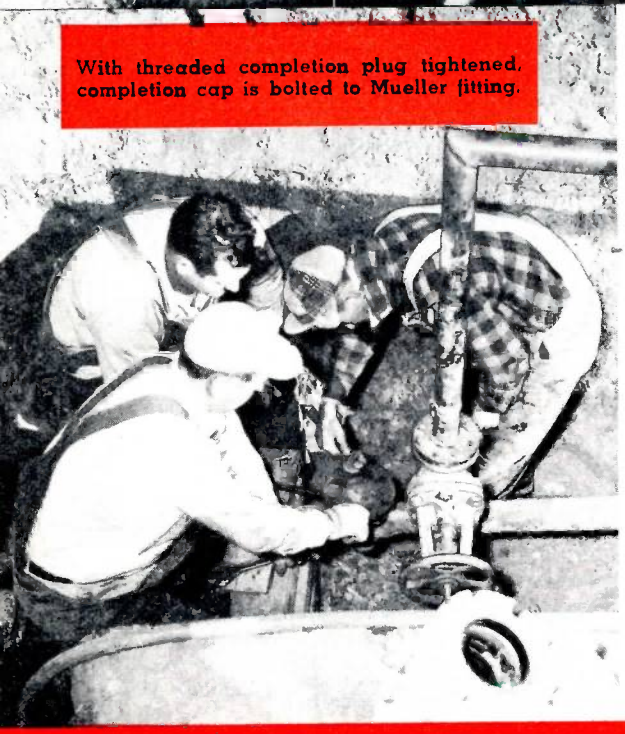


Diagram shows installation of new main line measuring station, without interrupting service, using Mueller line stopper equipment.

The stopper is next removed from lateral. Machine also inserts the completion plug.

With threaded completion plug tightened, completion cap is bolted to Mueller fitting.



gate valve and the Mueller fitting, and the stopper removed. The completion plug was then screwed into the fitting, tightened, and the completion cap bolted on.

It was then possible to proceed with the installation of the new regulating and metering equipment between line G-100 and the Danville lateral, the city being supplied with gas under 75 PSI throughout the entire operation through the bypass. When the new station was completed and put on the line, the temporary connection and all of the old regulating and metering equipment were removed. The 1¾-inch tap and the gate valve through which the tap was made were left as a permanent blow-off connection for the Danville lateral.

Danville is one of seven cities served by Indiana Gas Distribution Corporation. The other cities are Brownsburg, Carmel, Dana, North Salem, Rockville and Zionsville.

Aerial view of Springfield's city water, light and power building on Lake Springfield with the filtration plant in the foreground. The lake has a storage capacity of 21.4 billion gallons, a 3-year supply.

Springfield's Water System

Construction of city lake in 1935 ended a shortage that had existed there for almost a hundred years.

IF AT ANY TIME the history of the water system of Springfield, Illinois, happens to be set down in book form and the chapters arranged according to years, the one marked *1935* should provide the most comforting reading for both water works officials and the citizens themselves. Until that year, when Lake Springfield with its storage capacity of 21.4 billion gallons was completed, the city had been plagued with inadequate supplies to meet its constant growth.

The inadequacy of the city's water supply can be traced back as far as 1839. That was the year Governor Thomas Carlin issued a proclamation which moved the capital from "the wilderness of Vandalia" to Springfield. The move was the culmination of much sectional maneuvering in the state legislature, of which Abraham Lincoln was a member. Springfield then had a population of about 2,000, but its public water supply consisted only of a town pump and a water trough.

It was not until 1866 that a water works was started on the Sangamon River. Prior to that the need for an adequate water supply had been the subject of considerable agitation on the part of the Illinois State *Register* and the Illinois State *Journal.* In its issue of April 6, 1857, the *Register* commented editorially: "The greatest drawback upon our city thus far has been an insufficiency of water. If we had the necessary supply of water we might occupy a front rank amongst manufacturing cities." At that time the city's water supply consisted of a patent chain pump on the southwest corner of the square.

During 1857, the Springfield Water Works Company was organized to furnish the city with water. It was hoped that artesian wells would provide an adequate supply at nominal expense. How-

Shown here are Commissioner John H. Hunter and S. T. Anderson, general superintendent.

L. W. Hagel and Arthur W. McDonald head distribution and water service departments.

ever, after two years of digging, the artesian well project was abandoned. The company had located a vein of coal but no water. The possibility of a river supply was suggested, and in 1860 the city bought out the water works company. A year later a charter was obtained from the secretary of state to build the water works on the river, and a reservoir was constructed near the union market for fire fighting purposes. There were also four cisterns which had been built around the square and at several other locations.

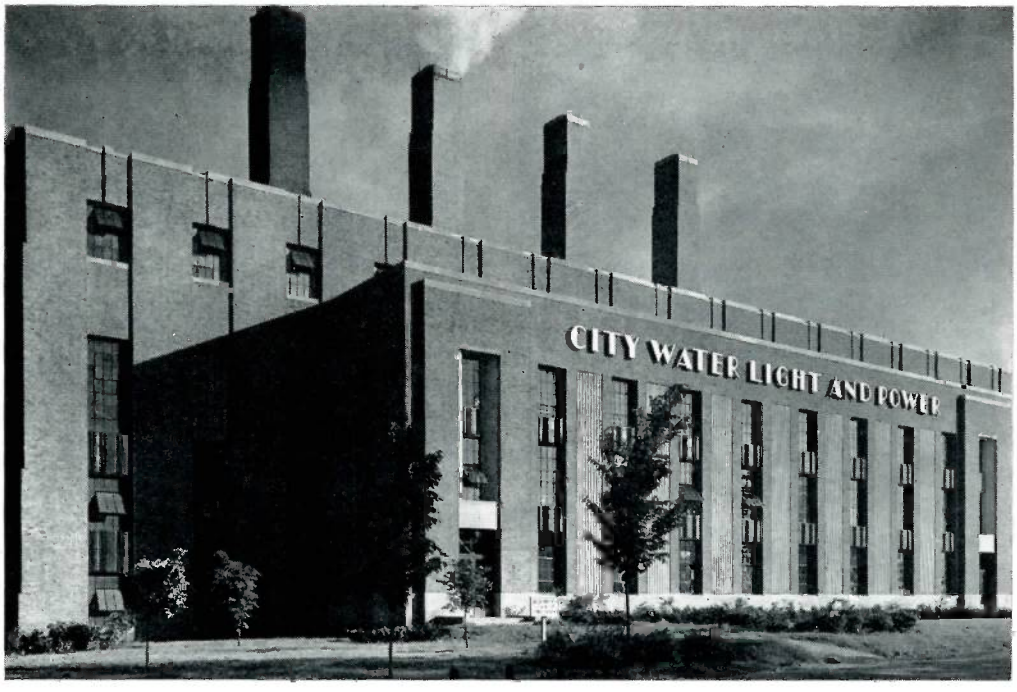
The inadequacy of the supply for fire protection was dramatically brought out in 1863, when a tournament was held in Springfield for various volunteer fire departments in the state. There was not enough water available for the fire laddies even to put on a demonstration. The *Journal* found in this failure some excellent powder for its demanding blasts for a dependable and adequate water supply.

Finally, in June, 1866, work was started on a water works on the Sangamon. A reservoir was constructed, and by the end of January, 1868, some 80,000 feet of pipe, 51 fire plugs and 12 hydrants had been placed. A 15-inch main was laid from the river works to the city. The engine at the river pumping station was set in motion April 30 to pump water into the reservoir. The new water works was completed July 1 at a cost of $434,000. It was the second in the state of Illinois.

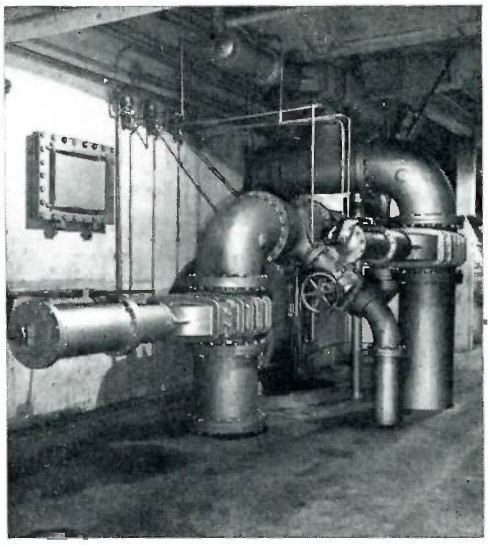
Improvements continued to be made to the water works, including the drilling of wells to augment the river supply, the construction of filter galleries, and the building in 1898 of a new pumping station. However, in 1900 the city council, short on funds, began diverting water funds to other city uses. By 1909, when Willis J. Spaulding was made superintendent of water works, the department was seriously crippled through neglect. The water was badly polluted, service was poor, and proper maintenance to equipment had been languishing for years. The city itself was broke and city employees were being paid with so-called "red warrants," which sometimes discounted for 80 cents on the dollar.

Mr. Spaulding was placed in what appeared to be an almost hopeless situation. One of his first steps was to fight against the further diversion of water funds, and the department began installing meters. In 1911 Springfield adopted the commission form of government and Mr. Spaulding became commissioner of public property. A year later, 30 permanent wells were put down, and a marked decrease resulted in the death rate from water-borne diseases—from 70 to 8 per 100,000. A new pump station also was built in 1912.

An interior view of the filter gallery. The filtration plant originally had four filters when it was built in 1936; four others were added in 1942. The operator shown in the photograph is M. Payne Gale.



A close-up of the city water, light and power building at the lake. In addition to the generators, which supply the city's electricity, the building serves as the department's main pump station.



One of eight filter units, showing installation of Mueller gate valves — from 8 to 24 inches.

Willis Shumacher and Rodney Rohr tap a main under pressure with a Mueller A machine.

Intermittent chlorination of water was begun in 1918, followed in 1924 by continuous chlorination, and a new water purification and softening plant was completed in 1926, further improving the quality of the city's water.

As early as 1924 a report had been made on the idea of a lake which "would insure an ample water supply for the rapidly increasing domestic needs" of the city. This was followed up in the next several years with surveys for a possible lake site.

On June 24, 1930, a bond issue of $2,500,000 was passed for the construction of Lake Springfield. The site selected was in the Sugar Creek valley, part-way up the valley of Lick Creek, a tributary. Work on the lake commenced in 1932 under the direction of Commissioner Spaulding, and the first water went over the Spaulding dam spillway, named in his honor, at 12:30 a. m., May 2, 1935. Mr. Spaulding's long tenure as commissioner ended with his retirement in 1942.

The department's new water purification plant at the lake was completed and placed in operation October 18, 1936. The plant and its methods of processing were designed by Mr. Spaulding's brother, Charles H. Spaulding, who was chief chemist at the time. The plant was designed for four filters and in 1941 four others were installed.

Today, the department prides itself not only on the quantity of the water it has available but also on its high quality and its low rates. The metric system of weights and measures is used in the treatment processes, since the department believes it can more accurately maintain a constant quality of product through that means. It also boasts of "the lowest water rate in the state of Illinois for filtered, treated and softened water."

John H. Hunter, the present commissioner of public property, and S. T. Anderson, general superintendent and a veteran of 26 years' service with the city's water, light and power department, are looking forward to other improvements to the water system as a result of increasing industrial use. Although not yet beyond the planning stage, future improvements, they hope, will include increasing the clear well capacity from two to six million gallons and the running of a 36-inch main from the filtration plant to the city. This would also include the installation of pumps and other equipment to the plant.

The department at present has approximately 24,000 metered services. Like many other water departments, it has standardized on Mueller brass goods, hydrants and valves.

Son Succeeds Father

W. L. (Bill) Jett, Mueller Co. salesman and a veteran of 44 years' service, retires at Los Angeles.

WHEN W. L. (BILL) JETT, a Mueller Co. salesman with more than 44 years of service with the company retired November 30, he was succeeded by his son R. P. (Bobby) Jett, who will cover essentially the same territory as his father. Young Jett will make his headquarters in Los Angeles.

Bobby Jett is a comparative newcomer to the Mueller organization, having started with the company in 1945, after having served in the Air Force as a staff sergeant from 1941 to 1945. He has worked in the shipping department and the office of the Los Angeles factory.

Bill Jett's career with the company began April 22, 1904, and has been continuous since then. After two years in the shipping department of the Decatur plant, he was sent to the company's Chicago office to gain sales experience, and then was assigned a territory which included central and southern Illinois. Later, he was transferred to the Pacific Coast, with headquarters in San Francisco, and his territory covered Fresno to San Diego, including the fast growing city of Los Angeles.

He managed the early Los Angeles sales branch when it opened in 1924. He then was transferred to Decatur and sent to Dallas, Texas, to open another branch office in 1927. From Dallas he was sent to Atlanta, Georgia, to open still another office. He was then appointed sales manager of the southern division, working out of Memphis, Tennessee. After these ventures on behalf of the company, he was appointed traveling assistant sales manager until the Los Angeles factory was opened. He then made Los Angeles his headquarters, covering a territory which includes part of the city and adjacent counties. He has continued in this position ever since.

At the time of his retirement Bill was the oldest Mueller Co. salesman in years of service.

W. L. (Bill) Jett

R. P. (Bobby) Jett

Off the . . Record . .

Pat was determined to pass by his favorite tavern on his way home. As he approached, he became somewhat shaky, but, steeling himself, he passed on. Then after going about fifty yards, he turned and said to himself: "Well done, Pat, me boy. Come back and I'll treat ye."

* * *

A school kid, whose first love was baseball, was writing the answers to a test in physiology. He wrote:

"Your legs is what if you ain't got two pretty good ones you can't get to first base and neither can your sister."

* * *

A group of prohibitionists looking for evidence of the advantage of total abstinence were told of a man 90 years of age who had never touched a drop of liquor. They rushed to his home to get a statement. After hearing his story they propped him up in bed and guided his feeble hand so that he might sign on the dotted line. As this was being accomplished a violent disturbance was heard outside; scuffling feet, furniture falling and smashing dishes.

"Good heavens, what's that?" gasped one of the group.

"Oh," whispered the old man as he sank exhaustedly into his pillows, "that's Pa. He's drunk again."

Ole, the night porter, was testifying before the jury after the big bank robbery.

"You say," thundered the attorney, "that at midnight you were cleaning the office, and eight masked men brushed past you and went on into the vault room with revolvers drawn?"

"Yah," said Ole.

"And a moment later a terrific explosion blew the vault door off, and the same men went out past you carrying currency and bonds?"

"Yah," said Ole.

"Well, what did you do then?"

"Aye put down my mop."

"Yes, but what did you do after that?"

"Vel, Aye say to myself, dis bane hell of a way to run a bank."

* * *

Reporter (interviewing grandfather of a Hollywood star): "Does Bill ever come back to the old farm since he's a big shot in the movies?"

Grandfather: "Every one of the five summers he's been away."

Reporter: "And did he bring his wife with him?"

Grandfather: "Every time; and they was five as purty girls as you ever laid eyes on!"

* * *

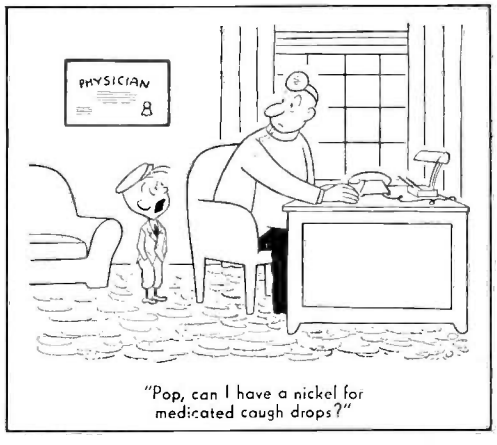
"Where you going?" asked the farmer of his hired man, who had just borrowed a lantern.

"Sparkin'."

"Carryin' a lantern is a waste of money. When I went sparkin', I went in the dark."

"Yeah, and look what you got."

"You should've seen the expression on her face when I handed her the check!"



"Pop, can I have a nickel for medicated caugh drops?"

"My girl's been a chorus girl for ten years."

"What shows?"

"Practically everything."

* * *

He: "You know, drinking makes you look so beautiful."

She: "But I haven't been drinking."

He: "No, but I have."

* * *

"And, finally, if you drink water freely, it will keep you from getting stiff in the joints," said the doctor. "But most joints don't serve water," replied the patient.

* * *

"Oh," exclaimed the fair city boarder, as a couple of calves scampered across the meadow, "What pretty little cowlets."

"You air mistaken, mam," said the old farmer, "them's bullets."

* * *

Cowboy: "What kind of a saddle do you want—one with a horn or without?"

Dude: "Without, I guess. There doesn't seem to be much traffic on these prairies."

* * *

A couple of telephone linemen were climbing a pole when the woman motorist drove by. "Look at those morons," she sniffed. "Just because I've had a couple of accidents, everybody in town is trying to be funny."

* * *

A man telephoned his doctor: "Come over quick, Doc, my wife has appendicitis."

Doctor: "Nonsense. I removed your wife's appendix three years ago. How can anyone have a second appendix?"

Husband: "Listen, haven't you heard of anyone having a second wife?"

* * *

Wife: Wasn't it disgusting the way those men stared at that girl getting on the train?

Husband: What train?

* * *

Science Professor: "What always results when a body is immersed in water?"

Coed: "The telephone rings."

* * *

Sonny: "Dad, what do you call a man who drives a car?"

Dad (a pedestrian): "It all depends on how close he comes to me, my boy."

* * *

"Have you a book entitled, 'Man, Master of Woman?' "

Librarian: "Look in the fiction department, please."

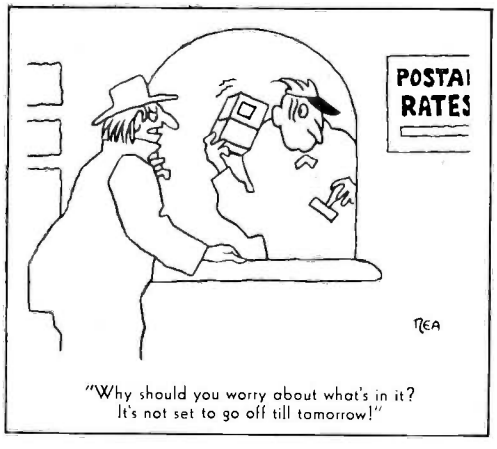
* * *

"Johnny, to what class of the animal kingdom do I belong?"

"I dunno, teacher. Pa says you're an old hen and Ma says you're an old cat."

* * *

Then there was the family of moths who moved into a wool coat for the season. Before they settled down, the mama moth collected her young about her and cautioned, "Careful not to overeat, dears. This home has to last us all winter."



"Why should you worry about what's in it? It's not set to go off till tomorrow!"

"I'm sorry, Mr. Mayor-- things have never quite returned to normal since 'Boys' Week'!"

Mostly Personal

(Continued from page 1)

ust issue of the Mueller Record. The adventures of Liverlip and Leo do not necessarily portray Norm's experiences at Windsor, and we should be sorry to learn that there is any resemblance between Liverlip and Leo and persons living or dead. They will appeal, we think, particularly to water works men; we'd like to have any comments you may care to make on Norm's two characters.

* * *

A firm as old and as well known in the trade as Mueller Co. makes many lasting friends among its customers. One of these is W. Howard Lee. Mr. Lee has had considerable experience in the plumbing, heating and water works supply field, and, in addition, has also made quite a career in public service. He and his brother, Arthur, inherited their father's plumbing and heating supply business at Irvington, New Jersey, in 1930, and six years later Howard sold his share of the business to his brother and opened a heating, contracting and water works supply business at Denville. Since 1928 he has been a resident of Rainbow Lakes, Parsippany-Troy Hills Township, where he is completing his ninth year as a member of the township committee and as chairman of the department of public works. He also holds the post of supervisor of bills in the New Jersey State Senate. In 1945 he organized the Morris County Officials Association, an outgrowth of the Morris County Association of Township Committeemen, and became its first president. In this capacity, he sponsored a county-wide police radio system, and when this became a reality he was elected to the board of directors of the Morris County Municipal Services, Inc., which was created to take over the operation of the system.

■ ■ ■

Quite a study might be made, it seems to us, of the official seals of cities throughout the country. One of the best known and most unusual seals is that of Fredonia, New York, which shows five burning gas jets (see page 7). By chance we also happened to find a copy of the seal of the city of Bethlehem, Pennsylvania, an account of which appears on page 3. Appropriately, Bethlehem's seal features a star, the five points of which are symbolic of the five major interests of the city: religion, music, industry, recreation and education.

■ ■ ■

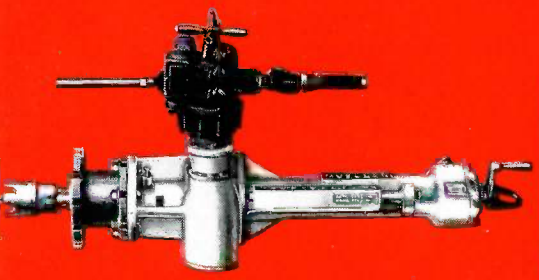
Pioneer in the Use of Natural Gas

(Continued from page 8)

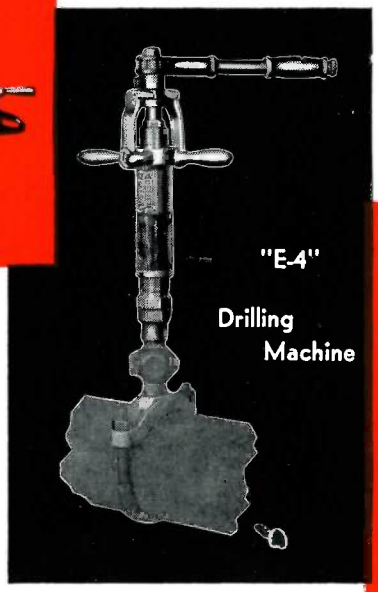
important points: the difference in elevation between the lighthouse and the spring, which was about 150 feet higher than the lake, and the specific gravity of the gas. He suffered a severe financial loss when it was found that the gas had force enough to travel only about half the distance required.

Whether Smith's disappointing failure had a dampening effect on others who dreamed of exploiting the gas in the strata underlying the village is not known; but very little was done in the way of drilling additional wells and extending mains and services for the next 30 years. In the Fall of 1858 a company was formed under the name of the Fredonia Gas Light Company. For the remainder of that year and for the next year about 2,000 feet of gas were supplied to the village line each day. A gasometer of 12,000 cubic feet capacity was constructed and the introduction of gas into private homes was begun. Several years later, three miles of mains had been laid within the corporate limits, and as one historian states, "for the first time the early designation of 'a village lighted by natural gas' could be truly made as to Fredonia."

MUELLER Products for TRANSMISSION AND DISTRIBUTION LINES



"C-1" Drilling Machine



"E-4" Drilling Machine

"D-4" Drilling Machine

When it is necessary to make repairs, extensions or additions to transmission or distribution lines that are under pressure, most Gas Companies use Mueller Equipment to do the work SAFELY and ECONOMICALLY because Mueller Drilling Machines are available that will drill through stops, valves or fittings without shutting down the line or reducing pressure.

The "E-4" Drilling Machine has a drill capacity from 7/16" to 1" inclusive, the "D-4" Drilling Machine has a drill capacity from ¾" to 2" inclusive and the "C-1" Drilling Machine will drill through gate valves in sizes 2" to 12" inclusive. The "C-1" Machine is extremely efficient as it is operated by a compressed air motor that cuts many times faster than hand operated machines.

Mueller SAVE-A-VALVE Drilling Nipples are ideal for temporary or semi-permanent pressure connections as they have an inside thread which permits the insertion of a plug in the nipple with the "E-4" or "D-4" Drilling Machine. The valve can be removed when the connection is abandoned while the line is under pressure. At any future time, the connection may be used again by simply reversing the procedure. Mueller SAVE-A-VALVE Drilling Nipples are tested for pressures up to 500 Lbs. p. s. i. and are available in sizes from 1" to 3" inclusive.

Ask any Mueller Representative to explain how you can benefit by the use of these Machines and Nipples or write us direct for full information.

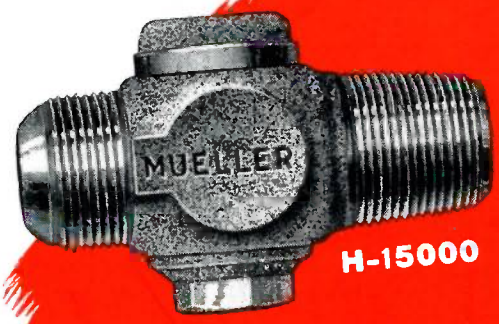
H-17490 SAVE A VALVE Drilling Nipple

MUELLER CO.

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

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

FOR DEPENDABLE PERFORMANCE AT THE MAIN AND THE CURB

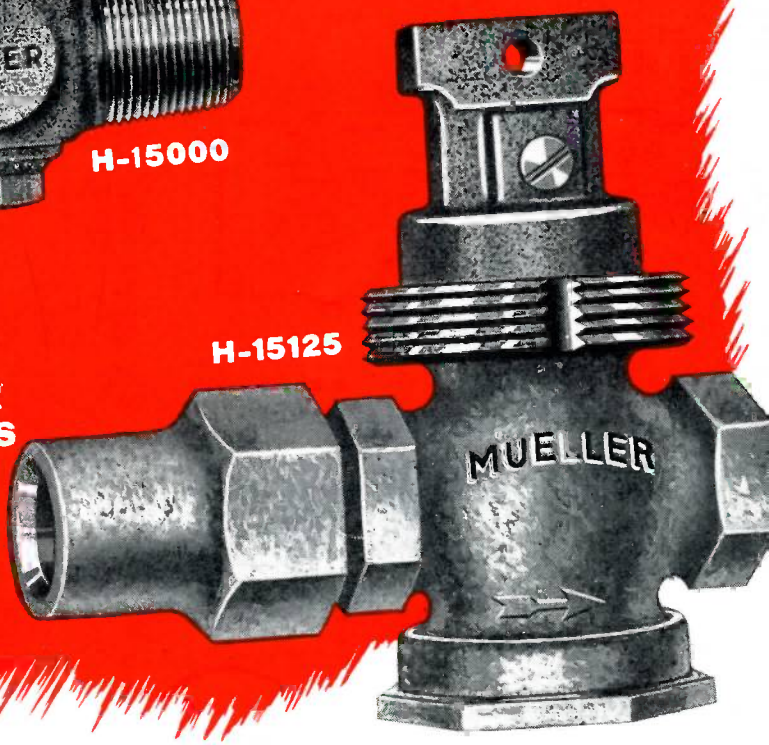


H-15000

MUELLER
CORPORATION STOPS

H-15125

MUELLER
CURB STOPS



The installation of Mueller Ground Key Corporation and Curb Stops at the main and the Curb is your best assurance of dependable performance at these critical points in the distribution system. They are cast with heavy sections from high copper content bronze which gives maximum resistance to corrosion and also permits precision grinding and lapping of the key into the body for a leak-proof fit and easy turning. The threads are accurately aligned and machined to run up smoothly and make a tight joint with the pipe.

These features of design and construction result in a line of tough and rugged Corporation and Curb Stops that are leak-proof, easy to install, easy to turn, and will give many long years of continuous service. They are available in a variety of styles and patterns with end connections to meet the requirements of standardized water works practice. Write us concerning your requirements.

DEPENDABLE SINCE 1857 FULLY WARRANTED OUR 91st YEAR

MUELLER CO.

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

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