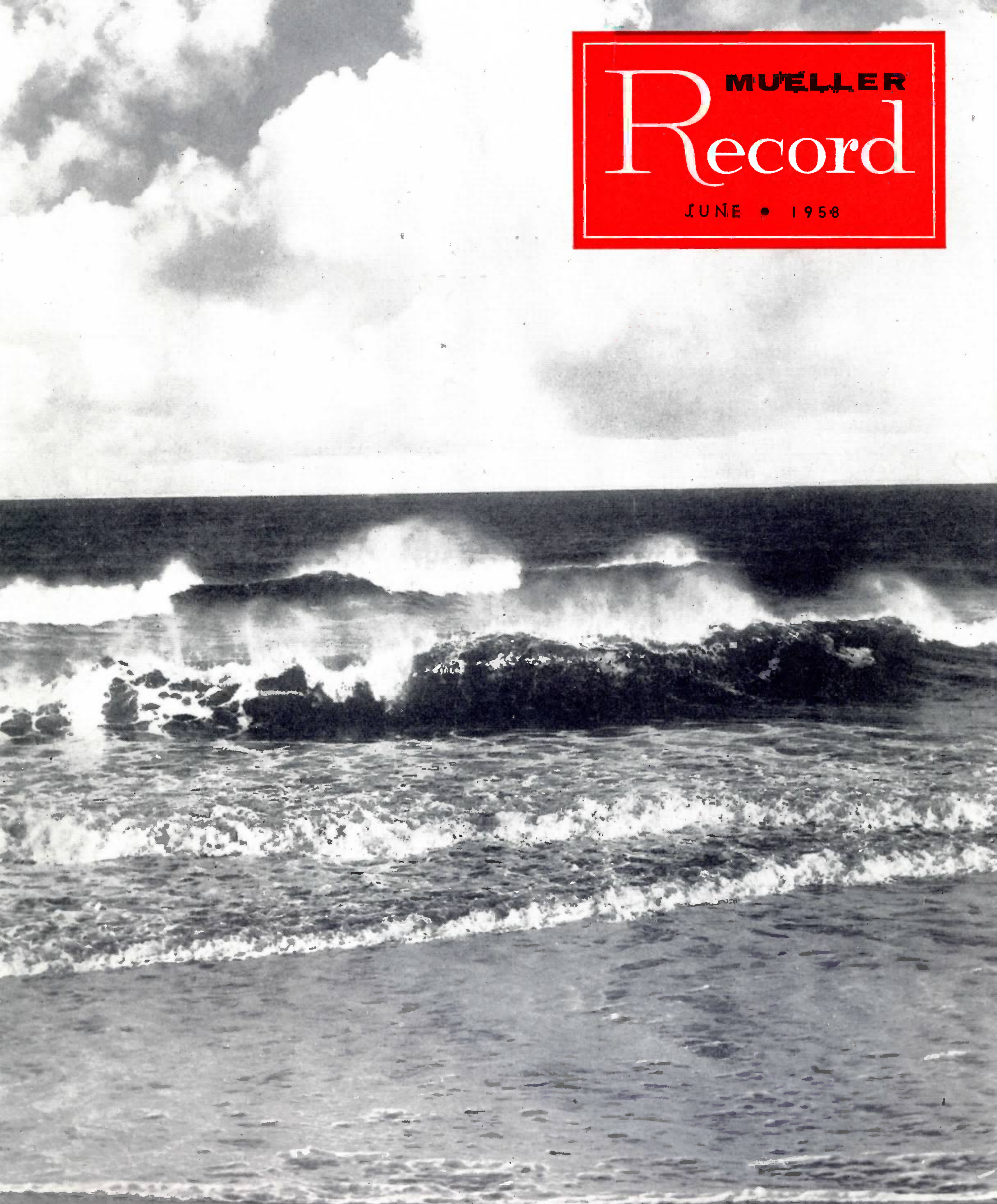
MUELLER Record

JUNE • 1958



De-Salting the Sea . . . . See Page 4

Recording Our Thoughts

We were saddened to learn of the death of Thomas F. Leary in San Francisco's Albany Hospital on May 2, 1958. Mr. Leary, a native of Rock Island, Illinois, joined Mueller Co. in 1896 in New York, and became manager of our West Coast operations in 1912. He held that position until his retirement in 1942. Throughout his long and colorful career, Mr. Leary was well-known to many members of both the waterworks and natural gas industries. The end came for him at the age of 87. Our deepest sympathy is extended to his family.

Our sincere thanks to Mr. Charles G. Caldwell, Director of Environmental Sanitation Services of the New Mexico Department of Public Health, for his cooperation on an article in this issue. The article concerns the New Mexico Water and Sewage Works Association. Our thanks also to Lou Mautz, a Mueller Sales Representative in our Southwest Section, for his alertness in recognizing the value of such a story.

The May, 1958, issue of *Water & Sewage Works* carries two articles of great interest. The first, entitled "Colored Water," was authored by John J. Hamilton and Martin E. Flentje, respectively, Chemist and Chief Sanitary Engineer of American Water Works Service Co., Philadelphia. Any of you who have iron oxidation trouble will appreciate the section on "red" water.

The second article is entitled "Customer Relations," and was written by Mr. Thomas W. Moses, President of the Indianapolis Water Company. This is actually a condensation of a talk given by Mr. Moses before the Pennsylvania Water Works Association at Atlantic City, New Jersey. In it, he deals with interviews, surveys, opinion sampling, public relations consultants and advertising as they apply to a private water company's problems of rate increases and absentee ownership.

At a recent meeting of industrial editors, the main speaker stated: "You can never be sure who does and who does not read your company publication until you mail one which contains a glaring error. Then — look out!"

We think the speaker was being a little extreme, because we sometimes receive complimentary letters which do not pick out errors. BUT — we have received two comments on our February, 1958 issue. Reference is made to a photo on Page 6 of the magazine, which depicted Meriwether Inn, the original building at the site of the Georgia Warm Springs Foundation. The caption of the photo read, "This is Meriwether Inn about 1920 . . ." And there — parked in front of the building, sit two 1929 Fords!

Many of you have requested the increased use of jokes or cartoons in the MUELLER RECORD. Space limitations sometimes prevent the use of as much humor as we would like to run, but we hope the laughs on Pages 10 and 11 of this issue appeal to you. Meanwhile — keep writing; we enjoy hearing from you!

MUELLER RECORD

JUNE • 1958

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Our Cover this month is a familiar sight to those Americans acquainted with our coasts. This salt-water scene takes on a great deal of significance when you read the story beginning on Page 4 of this issue.

Contents

Preview

Next month, the MUELLER RECORD brings you a comprehensive story on Omaha, Nebraska, a city which has witnessed spectacular post-war growth. The article will feature Metropolitan Utilities District. Since the District consists of both water and gas operations, next month's story will be concerned with gas, and the water story will appear in the August issue.

In search of fresh water . . . .

De-Salting The Sea

WE Americans use over 250 billion gallons of water daily. A man uses anywhere from two to twenty gallons shaving with a safety razor, a woman from five to fifty gallons on the evening dishes. It takes ten gallons of water to produce one gallon of gasoline, twenty-five gallons for a pound of paper, and 2,200 to process one steer in a packing house.

Industry's thirst for water is tremendous—and constantly growing. To produce just one ton of steel requires 65,000 gallons of water, a ton of synthetic rubber — 600,000!

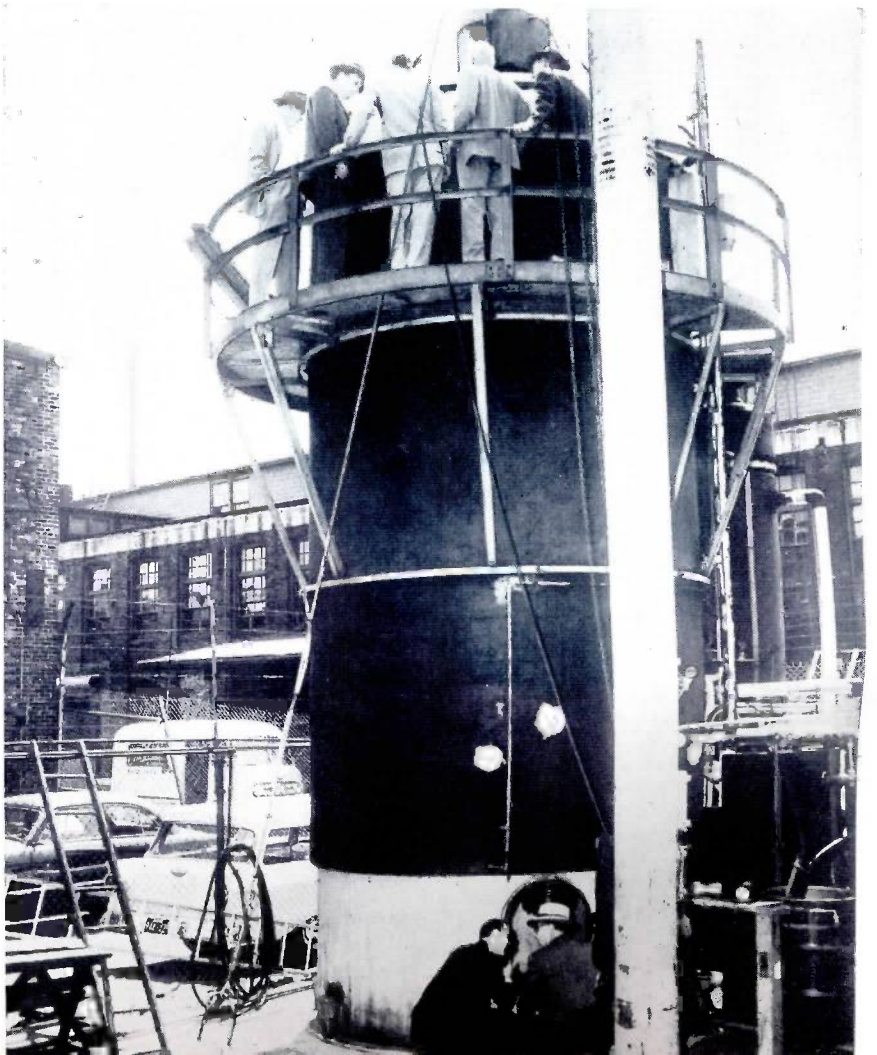
It is estimated that our needs could easily double by 1975. Of course, there is no serious shortage of water — four-fifths of the earth's surface is covered with the liquid. Yet, New Yorkers looked at dry reservoirs five years ago, while city fathers pleaded for water conservation. On the West Coast, a brown-out in several cities drove home the consequences of the habitual abuse of a water supply. To conserve water, the Pacific Gas and Electric Company had to cut down on the usual amount of current. Restrictions on water itself followed. Swimming pools closed. Farmers saw faithful wells run dry. Dairymen, forced to slaughter cattle, were driven out of business. In all parts of the country, there are cities that have outgrown their supplies . . . industries whose needs have skyrocketed . . . streams that have been polluted.

Water, in its purest form, naturally contains oxygen and hydrogen; but sea water contains salt, magnesium, calcium and other impurities — even gold. So, most of the water that exists is really water plus chemicals. The fact is — so much of the earth's water contains chemicals that make it unfit for washing, drinking and industrial purposes, a shortage of pure water might soon become a big problem for all America. What can be done?

Two possibilities suggest themselves. Either we reduce our demand for fresh water, or we increase our supply. In view of our burgeoning population and industrial growth, a reduction in demand appears impossible. The only answer, then, is to increase our supply. But how can this be done?

The solution currently whipping up enthusiasm in scientific and governmental circles is "de-salting the sea." Turning salt water into fresh water has long challenged men.

Saline water experts inspect inside of Badger-Hickman still at recent demonstration given by Badger Manufacturing Company, Cambridge, Mass.



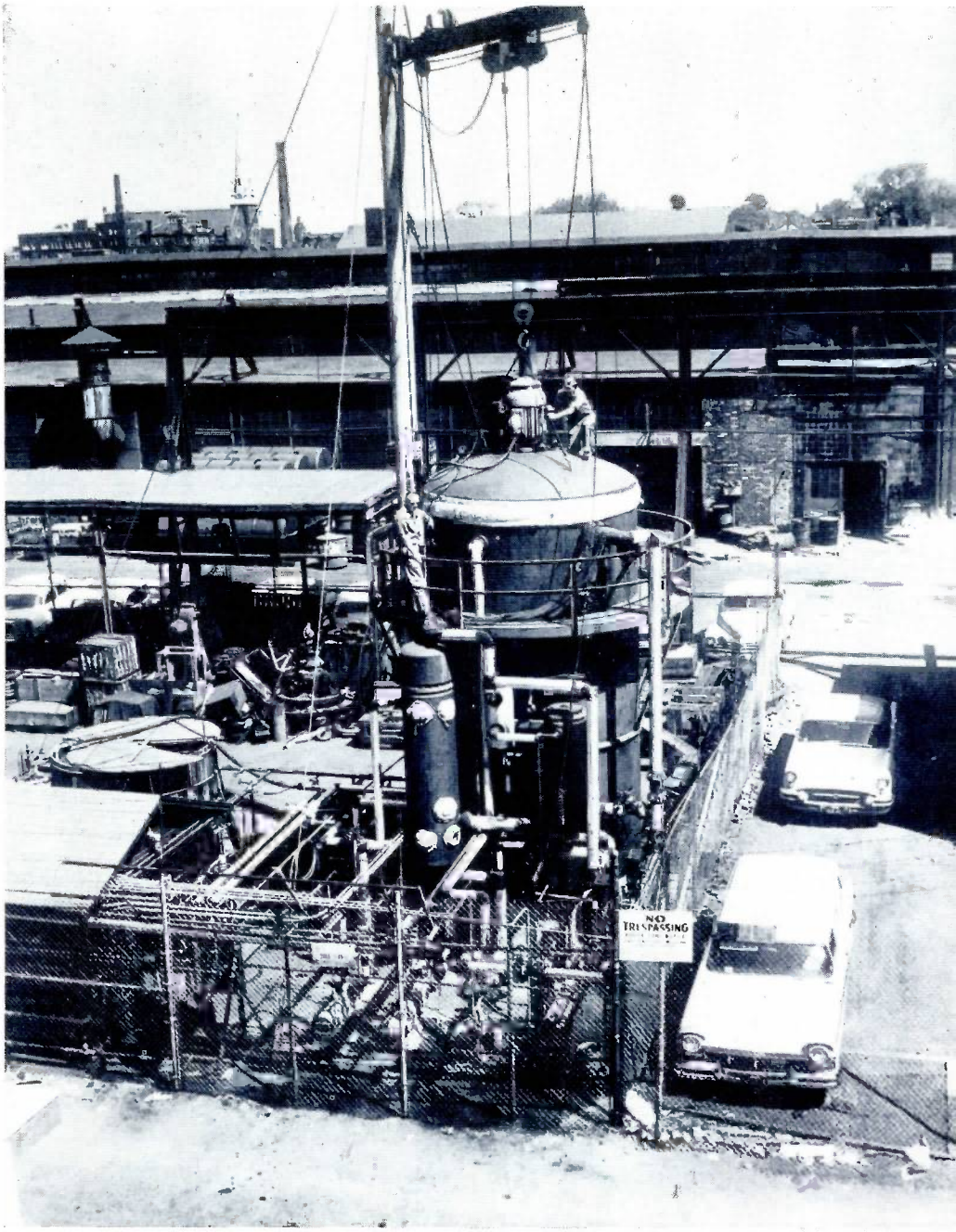
Aristotle toyed with the problem (unsuccessfully), and Queen Elizabeth I had a standing offer of 10,000 pounds sterling for the secret that would enable her fleet to sail for months at a time.

Strangely enough, the theory behind de-salting the sea has been known for a long time — boil the salt water, catch the steam (which is free of all impurities, condense it, and you have fresh water. This principle was used during World War II to supply fresh water to troops in water-shy areas. But—their needs were relatively small. The difficulty lies in doing it on an enormous scale, and doing it cheaply. But now some new solutions appear at hand.

Dr. Kenneth C. D. Hickman, working with the Badger Manufacturing Company, an engineering firm in Cambridge, Massachusetts, has developed a giant still that can turn out an impressive 25,000 gallons of fresh water daily at an estimated cost of $1.50 to $2.00 per thousand gallons. As explained by Dr. Hickman, his still is basically a series of copper and aluminum "pie plates" arranged in pairs so that two of the pie plates are set face-to-face to form a hollow drum unit. The drum looks something like a child's top viewed edge on.

These drums are rotated and heated to form 125 to 150 degrees Fahrenheit. Sea water is then sprayed in a thin film onto the interior surface of the drums. Some of this water evaporates as low temperature steam, while the remainder is drained off as a concentrated brine.

The steam evaporated from the drums is collected and compressed slightly to raise its temperature. This compressed steam or water vapor is then passed over the outside of the drums, where it condenses as pure water and, at the same time, helps heat the evaporator drums.



Adjustments are made prior to the test run of the Badger-Hickman still for government officials late last year. The successful demonstration proved that the de-salting unit can turn out 25,000 gallons of fresh water daily at a low cost per thousand gallons.

While the Badger-Hickman unit, developed under the sponsorship of the Office of Saline Water, appears promising, it may not be the "ultimate" answer to low cost water conversion. Equally promising, Badger officials say, are the flash evaporators and new types of vapor compression stills the company has successfully built for the armed forces or is presently developing.

Human beings have always followed water — civilization's first cities were built along lakes and rivers; many of the world's capital cities were once major seaports. When the supply of water diminished or disappeared, so did the city.

One theory about the abandoned cliff dwellings of our own Southwest is that they are the ruins of a primitive civilization that died out for lack of water. Thanks to Dr. Hickman, the Badger Company, and many others, it seems likely that this will never happen to America.

Pictured above is the Kemble Street Supply Center and Meter Shop of the Utica, New York, Board of Water Supply. These buildings are indicative of the many modern facilities used throughout the system.

Utica, New York

A "Wild and Doubtful Project" Blossoms

Water Supply Dates Back To 1802

IN the autumn of 1847, the taxpayers of Utica rejected as a "wild and doubtful project" the proposal that the city build and operate its own public water supply system. Ninety-one years later, in 1938, the city's governing body authorized the purchase of the then existing water works system for $7,900,000. The purchase was financed with proceeds received from the sale of revenue bonds which mature each year in varying amounts until 1973.

The history of Utica's water supply covers a period of more than one hundred and forty years. In 1802, the village of Utica was a community of five hundred pioneers who made their homes near the banks of the Mohawk River. Open wells and the 'old oaken bucket' supplied the inhabitants with water. In April of that year, a group of citizens was authorized by an Act of the State Legislature to supply the village with wholesome water under the name of the Utica Aqueduct Company.

The company constructed an aqueduct from hollow logs with two

inch bore from springs located at the foot of a sand bank across pastures, down Genesee Street to the village square, Bagg's Square. How many of the inhabitants forsook their wells in favor of the newfangled water system is not known, but the aqueduct supplied water to a considerable part of the village until 1824, when construction of the Erie Canal through Utica's downtown district severed the wooden pipeline. More than 100 years later, in 1906, some of the logs of the early aqueduct were found in good preservation at a depth of nine feet below the surface of Genesee Street.

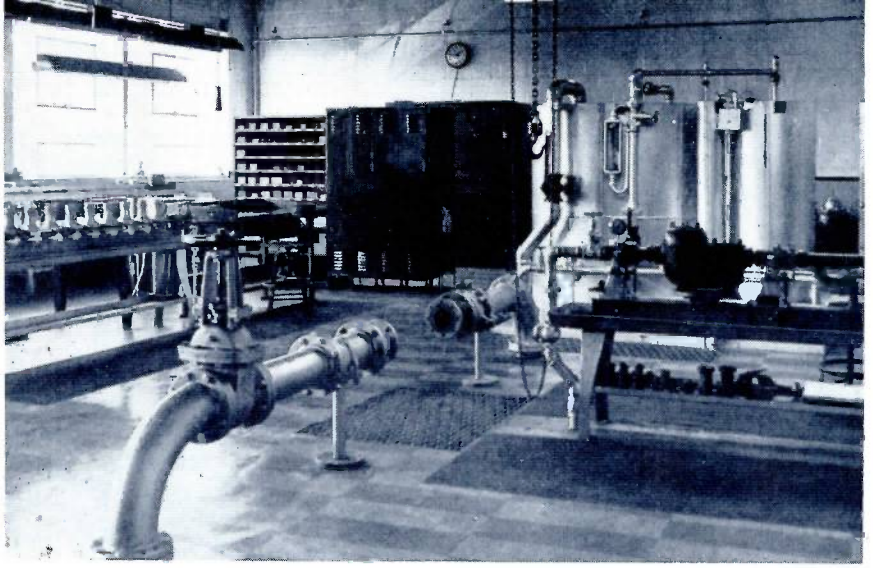
In the early years of candles and whale oil lamps, wood fires, and sparking chimneys, the hazards of property fires were great. As an auxiliary to the wooden aqueduct for better protection against fires, the village trustees, in 1805, ordered that three wells be dug and fitted with pumps. They were equipped with wooden troughs for the refreshment of horses and cattle, while housewives frequented them daily to fill their wooden buckets and exchange a bit of gossip. The pump at Bagg's Square was a popular gathering place and outlived the other two; it was discontinued in 1822.

After the aqueduct was severed in 1824, there was a ten year period during which the inhabitants depended entirely upon their wells. In 1832, when the city charter was obtained, the population numbered about ten thousand; and, during the summer, cholera ravaged the new municipality and the matter of water supply was a grave concern. The Utica Water Works Association was formed that same year, but did not construct their works until 1834.

In 1848, the Association was incorporated with a capital of $75,000. Many of the leading citizens subscribed and became stockholders, but the sum of money required for the "wild and doubtful project" appeared too great, as only about $22,000 was subscribed. After considerable delay, the originator of the enterprise subscribed for one-half of the amount required, and entered into a contract on April 21, 1849, to build the works.

By 1854, as the supply of spring water, about 800,000 gallons per

Examining automatic proportioning chlorinators are, left to right, Dennis P. O'Dowd, General Manager; Louis G. Sunderhaft, Sr., Chairman; Leo Aiello, Engineer; and Fred A. Roser, Senior Engineer. Below is the Hinckley Dam and spillway.



This photograph was taken at the Meter Repair Shop on Kemble Street in Utica. Notice the cleanliness of this busy building, and the excellent condition of the equipment which is so important to the successful operation of a water system.

day, was becoming inadequate for the demands of increasing population and industry, the company purchased forty acres of land for its first storage reservoir. Its construction was quite different from similar work done today. All the work was accomplished by man and horse power. Picks, shovels and wheelbarrows, with man, muscle, horse and wagon — all combined to carry out the plans of the surveyors and construction engineers.

From time to time, new sources of supply and additional storage were needed and acquired to meet the increasing demands of the growing city. At the close of 1886, the public water supply of Utica consisted of three storage reservoirs with total capacities of 368 million gallons, which was distributed through about fifty miles of mains. Later, two additional reservoirs were constructed, increasing the storage capacity to 833 million gallons.

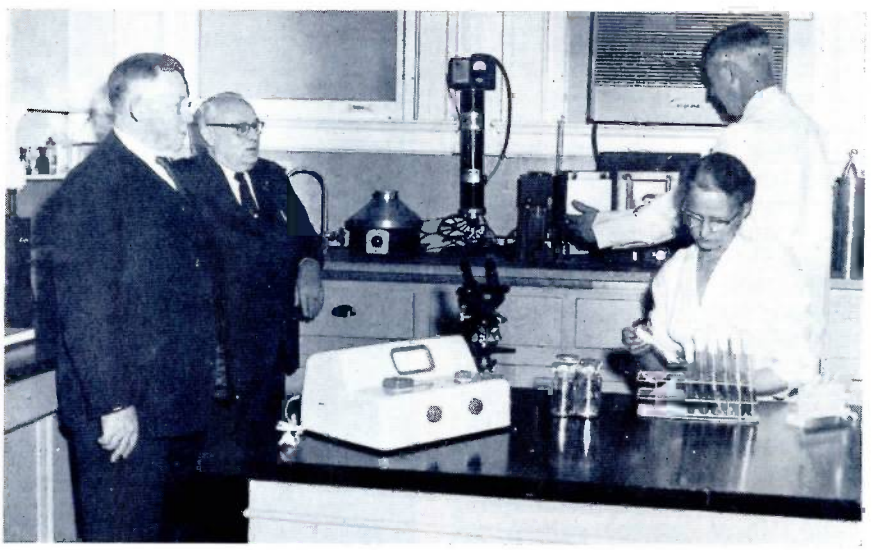
In 1902, the embankment of No. 3 or Savage, Reservoir gave way. The drained reservoir was never rebuilt. Following the draining of No. 3, the city was dependent on the four remaining reservoirs until 1900, when Deerfield Reservoir was constructed, and an additional supply was obtained from Reels Creek.

Water from West Canada Creek was first brought to Utica in 1906, and the importance of this cannot be over-estimated. In 1899, the Utica Water Works Company merged with the West Canada Water Company, which had secured franchises to supply water from West Canada Creek to Utica and surrounding villages. The stockholders of the two companies incorporated the Consolidated Water Company, which began a new era of progress. Modern and improved methods of construction and operation were introduced, resulting in an extended system of reservoirs, pipe lines and buildings. The Deerfield Reservoir, the Reels Creek supply, twenty odd miles of supply mains connecting West Canada Creek with Utica, the compensating reservoir at Gray, the Marcy Reservoir, the erection of a modern office building, and the establishment of one of the first water analytical laboratories in this country — all were accomplishments of the new company.

During the next era, the New Hartford and Whitestown water systems were acquired and connected to the Utica system, and steel storage tanks were erected to improve distribution in Deerfield, New Hartford, Oriskany and Whitestown. The greatest accomplishment of the new company was its foresight in acquiring lands, reservoir sites and riparian rights on the West Canada Creek and its tributaries. The possession of these rights secured, for all time, an inexhaustible supply of potable, soft water for inhabitants of Utica and vicinity. It gave the Consolidated Water Company, and its successor, the City of Utica, the right to divert 50 million gallons of water per day from the state reservoir at Hinckley, which the state constructed as a source of supply for the Barge Canal in 1911. Since West Canada Creek is the only adequate supply of water within reasonable distance of Utica, the importance of having secured the necessary rights before the adoption of the Barge Canal Act is easily understood.

West Canada Creek is a spring-fed mountain stream located on the Western slopes of the Adirondack Mountains, with a drainage area of approximately four hundred square miles. This area contains many

Watching experiments in the Chemical and Bacteriological Laboratory are Mr. O'Dowd and Mr. Sunderhaft. Conducting the experiments are James H. Haberer, biochemist, and Margaret A. Heigl, laboratory technician.



Viewing operations in the Meter Shop are, left to right: L. G. Sunderhaft, Jr., Senior Bookkeeper; Dr. Paul J. Christenson, City Health Officer; Mr. Roser; George W. Moore, Commissioner of Public Works; Mr. O'Dowd; Howard J. Hoffman, Sanitary Engineer; Robert Brown, District Engineer; L. G. Sunderhaft, Sr.; and Donald B. Helmes, Finance Supervisor of the Board of Water Supply.

lakes and streams with outlets and tributaries emptying into the main stream above the state reservoir. The water is of excellent quality for residential, commercial and industrial purposes, with an average hardness of only twenty-one parts per million gallons. The Gray Reservoir, with a capacity of more than one billion gallons, is located on Black Creek, a tributary of West Canada Creek. Flood and freshet waters are collected and impounded at that point, and used for compensating purposes when the natural flow of West Canada Creek falls below 2,500 gallons per second. In that event, the impounded water is released to compensate for the quantity of water diverted from the state reservoir located downstream.

The point of diversion is about eighteen miles north of the city in the state reservoir, which has a capacity of 25 billion gallons, with a spillway 1,225 feet above sea level. The intake in the reservoir comprises two 42-inch cast iron pipes through the dam with the necessary screens, gates and operating controls. Below the dam, these pipes converge and form a 24-inch cast iron supply main, which extends about ten miles to Marcy Summit, the location of the Marcy surge tank. At that point, the 24-inch main is divided into 16-inch and 24-inch mains. The 16 extends four and three-quarters miles to the Deerfield Reservoir, and the 24 extends about two miles to Marcy Reservoir. From that point, a twenty-four inch main extends about three and three-quarters miles to Utica.

Approximately ninety-eight per cent of the water supply for the city and surrounding towns and villages is obtained from West Canada Creek, and the remainder is secured from the Graffenburg spring-fed reservoir built in 1854, and still in service. The Graffenburg supply is softened, and furnishes water to the high elevation area principally in the town of New Hartford.

The supply and distribution systems are operated by gravity, with auxiliary pumps located at strategic points, and comprises more than 330 miles of mains connected to six storage reservoirs and seven storage tanks with total capacity of more than 650 million gallons.

Purification stations equipped with dual chlorination apparatus are maintained at each point of distribution. The system has approximately 27,500 service laterals and 28,000 meters, 6,000 gate valves and 2,300 hydrants. The average quantity of water furnished by the distribution system is approximately 17 million gallons per day. In addition to the City of Utica, water is also furnished to the villages of New Hartford, New York Mills, Oriskany, Whitesboro and Yorkville, and to the towns of Deerfield, Frankfort, Marcy, New Hartford, Russia, Schuyler, Trenton and Whitestown. Also, the Clark Mills district in the town of Kirkland and the Sauquoit Valley district are served Utica water through town-owned systems.

The system is managed by a nonpartisan board of five commissioners appointed by the Mayor under the authority of local laws adopted in 1938 and 1941. The commissioners have full control, direction and management of the water supply revenue funds, the lands, reservoirs, aqueducts, mains and water courses, and all things and matters pertaining thereto, including construction, maintenance, extension and repair. The system is self-supporting at no cost to the taxpayers except payment of water bills. All expenditures for every purpose are obtained from revenues received.

Commissioners now serving on the Board are: Mr. Louie G. Sunderhaft, Sr., Chairman; Clifford F. Brophy, Vice-Chairman; George E. Bannigan; Joseph A. Davoli; and James A. Ricco. Dennis P. O'Dowd serves as General Manager.

Sign on an office wall: "Do it tomorrow. You've made enough mistakes for Today."

If at first you don't succeed, try, try again. Then quit. No use being silly about it!

THE ON

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

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

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

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

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

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

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

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

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

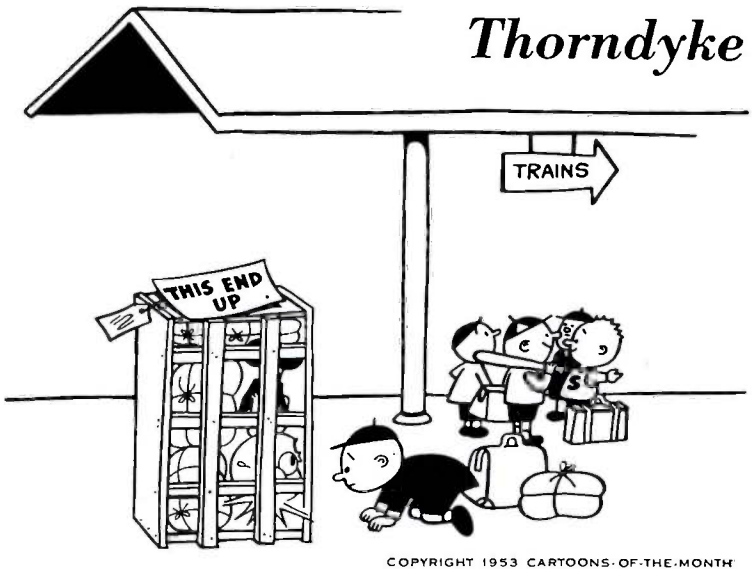
In due course, he received this reply: "Suggest it would be wise to take my advice and leave the peach to its parent stem until you are able to preserve it."

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

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

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

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



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

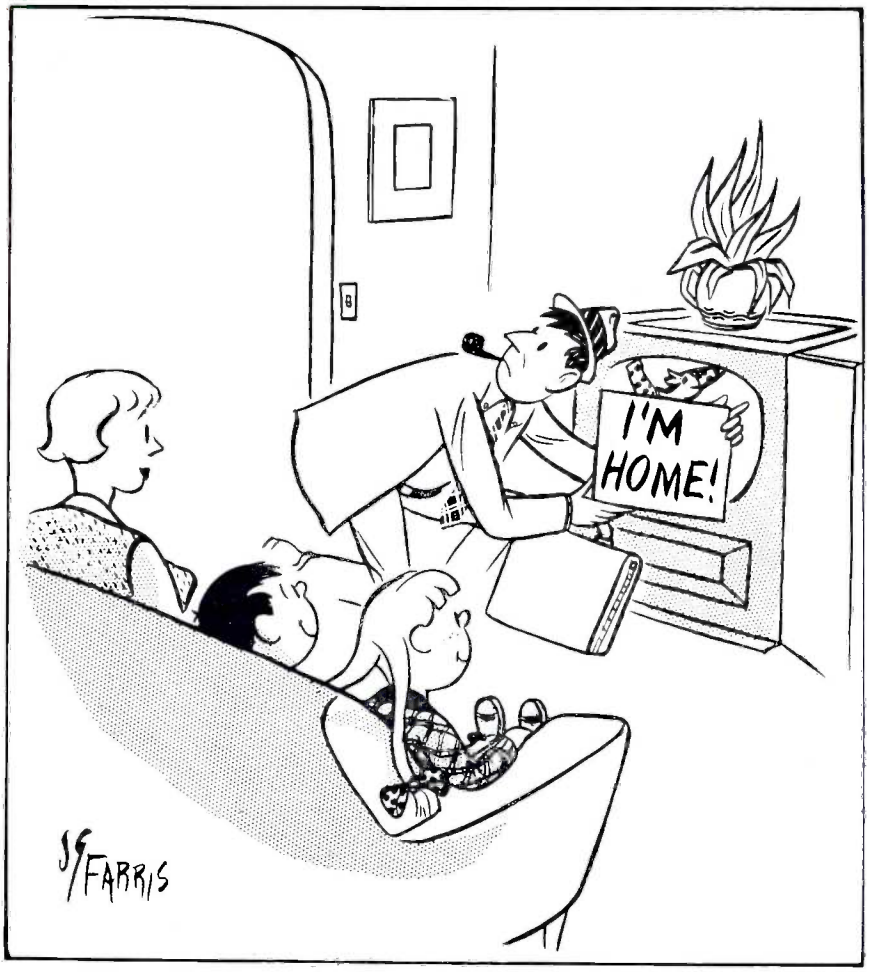
"It's hard to be cross with that fellow for spending so much time at the water cooler. He toasts me every time I pass!"

JOKE'S ME

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

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

"You asked me to file what he said!"



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

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

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

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

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

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

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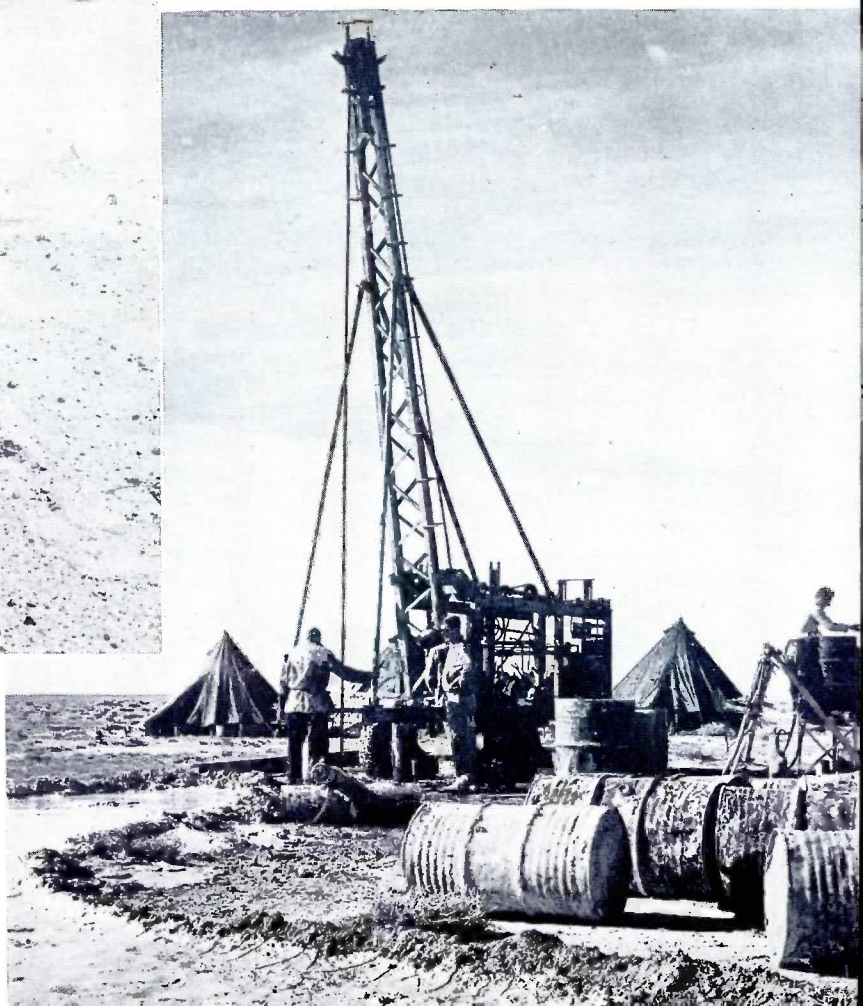
PHOTO REPORT

Above: the United Nations has built a new village and irrigated surrounding land for 400 Arab refugees in Syria.

Personnel of the United Nations Relief and Works Agency examine plans which call for bringing Nile River water to Western Sinai to irrigate 50,000 acres of land. (Photos courtesy Authenticated News).

Below: Out of 32 wells drilled, only six yielded sweet water.



This photo was taken during the May meeting of the New Mexico Water and Sewage Works Association in Las Cruces. Left to right: H. V. Gaines, Jr., Utility Supt., Las Cruces; J. W. Clark, professor, New Mexico A. & M.; Charlie Griggs, Assistant Superintendent, Carlsbad; H. S. Groves, Meter Department, Carlsbad; R. P. Lowe, Associate Engineer, New Mexico Public Health Department; Farrell McLean, Superintendent of Water and Sewers, Carlsbad. In the foreground are Ernest Martinez, Manager, Water-sand Sewers, Taos, and M. H. "Cowboy" Alexander, Water Superintendent, Hobbs, New Mexico.

"In Order To Form . . . ."

IN 1945, Charles G. Caldwell, Director of Environmental Sanitation Services of the New Mexico Department of Public Health, attended a convention of the Rocky Mountain Section, AWWA, and the section meeting of the American Federation of Sewage and Industrial Wastes Association. The meetings were held in Denver, and Mr. Caldwell was the only representative from New Mexico in attendance.

During the course of the meeting, the Association members agreed to hold their next convention in Cheyenne, out of respect for their incoming president, Mr. W. V. Leonard, who called Cheyenne home. The matter had not, however, been put to a formal vote. In the words of Mr. Caldwell, "Being completely ignorant of the workings of the Association, but knowing only that it was indeed a wonderful group of people who were very much interested in water supplies and sewage, I could only think —how wonderful it would be if they could come to New Mexico and hold a meeting. . . ."

Mr. Caldwell mentioned this to several people, and it was suggested that he place a motion on the floor to have the next meeting held in Santa Fe. "I did just that," says Mr. Caldwell. "To me, that moment was critical in the development of our present organization (New Mexico Water and Sewage Works Association)."

On the first vote, it appeared that most people raised their hands for Cheyenne. Then a vote for Santa Fe was called, and many hands went up. Everyone for Santa Fe was asked to stand. The "clincher" came when the new incoming president, Mr. Leonard, stood up and grinned broadly. That ended it; if their new president wanted Santa, Fe. Santa Fe it would be.

The convention was held in Santa Fe the following year, and a record attendance was the result. Thirty New Mexico people were in attendance, which figure swelled the membership of the Rocky Mountain Section to the delight of everyone. During the meeting, it was decided that one meeting would be held in Wyoming and one in New Mexico for every two in Colorado. This rotation plan has been adhered to since 1946.

According to Mr. Caldwell, "We of course participated in the annual short schools sponsored by the sections, with more and more of our water and sewage works personnel from the state attending each year. However, it was realized at the short school held in Boulder in April, 1955, that we had prob-

ably reached the ultimate number of New Mexico people who could or would attend. They were an exuberant group who fully appreciated the benefits of the short school. . . .

"During the session at Boulder, some of these water and sewage works people from New Mexico got together with Mr. Robert P. Lowe, Associate Engineer with the New Mexico Department of Public Health, and arranged for a New Mexico get-together banquet downtown, at which time we all discussed the need for a short school here in New Mexico — one close enough to all of the municipalities in the state, and one which would provide training for everyone in the water and sewage works business who cared to attend.

"The ground work was laid for the association at this dinner meeting, with everyone agreeing that, upon our return to New Mexico, we would really beat the bushes and sell the idea. This is exactly what happened. Everyone at the meeting contributed. The names include those of Mr. M. H. Alexander, Hobbs, New Mexico; Mr. Melvin W. Smith, Albuquerque; Mr. Ernest Martinez, Taos; and Mr. Robert P. Lowe, Santa Fe.

"Another most significant point which should be made is that New Mexico A. & M. College in Las Cruces had been developing its engineering curricula, which included a sanitary engineer on the staff—Professor John W. Clark. Mr. Clark, together with Mr. Frank Bromilow, joined in the selling campaign and lent themselves to the forming of the association. They have both ever since made every effort to serve the group and promote its objectives and purposes."

Mr. Caldwell relates that notices of the first school were sent out to water and sewage works personnel all over the state, to city managers, to mayors — in fact, to everyone who could have even the slightest interest. "This was indeed a serious step," says Mr. Caldwell. "We were diverging from custom in that we were not attending the Rocky Mountain short school, hoping that we would be able to build up a greater attendance by having a school here in the state. It could be a flop, or it could be a success, and how much of either we did not know.

"Finally, the great day arrived —March 26, 1956. We would have been happy to see fifty or sixty people there. You can imagine our surprise when we built up an enrollment of 107!"

The school was sponsored by the New Mexico Department of Public Health, the U. S. Public Health Service, the New Mexico Water and Sewage Works Association, and the Civil Engineering Department of New Mexico A&M College. At the business meeting on the concluding night, the association voted to formalize. The members elected a group of officers and developed Articles of Incorporation and by-laws.

"The second school and meeting were held on May 1, 2 and 3, 1957," states Mr. Caldwell. "Imagine everyone's surprise and pleasure when the enrollment climbed to 147.

"We feel very definitely that the organization is filling a tremendous need, and certainly all personnel gain a great deal by discussing their problems with people in their own field. . . . The organization is a success to date because of the sincere interest which our water and sewage works people have in serving the public with a safe and adequate water supply, and in efficiently operating their sewage works facilities. These people are proving this themselves by their attendance and desire to build and develop a strong association which will strive constantly to raise standards by training and certification. . . .

"We believe that adoption of the certification plan by the group will further stimulate interest in self-education and training. This, in turn, will help to insure that qualified personnel will be retained by our municipal authorities on a career basis. It is an organization that is, essentially speaking, owned and operated by the water and sewage works people of this state. . . ."

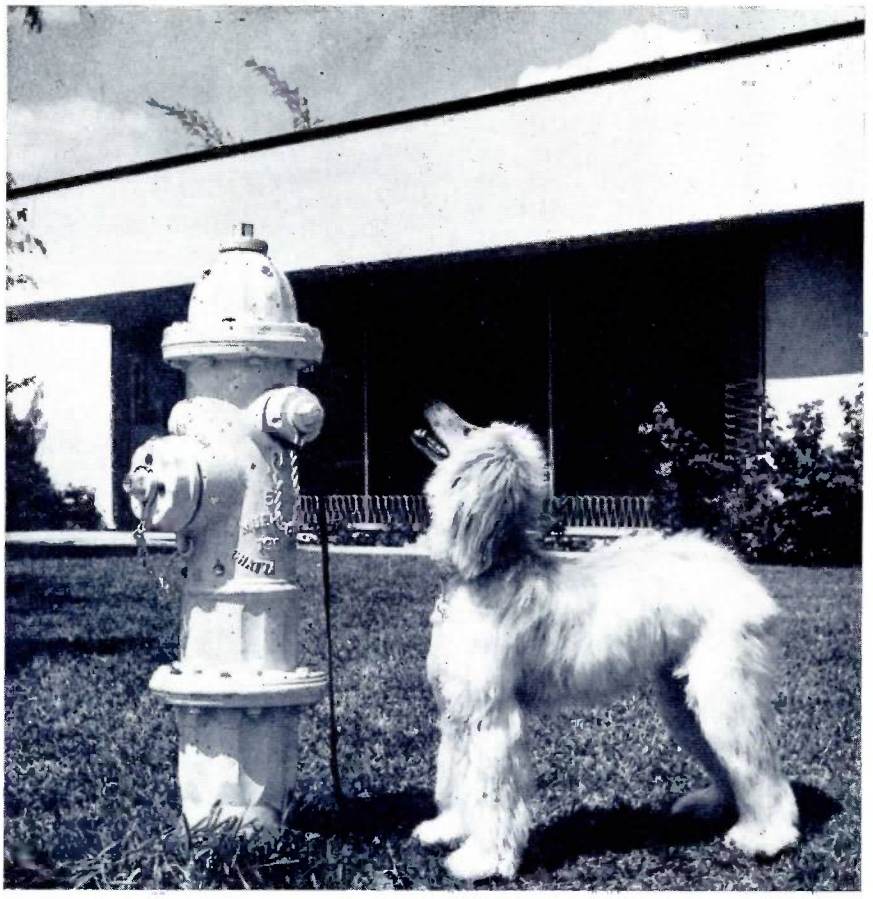
Officers of the Association are, left to right: A. L. Willard, Associate Engineer, New Mexico Public Health Department; Mr. Alexander, Mr. Martinez; and Mr. Gaines.

A Hydrant Is A Thing Of Beauty

The following appeared recently in the newspaper in Harlingen, Texas: "Renoir may have inspired Mr. John's coutourier collection of chapeaux for fall, but only Inspector Coffee of the Harlingen Fire Department could have inspired such a work of art as Lila Jean's Fire Plug. . . . Ninety-six degrees in the sun, with bucket, brush and pallette in hand, our artist went to work with the fervence of Picasso. Brilliants and rhinestones, sequins and glitter added the finishing touch. Motorists were awe-struck . . . including the two police cars that passed, and even the fire chief had to come and see for himself the masterpiece of the pink fire plug. . . ."

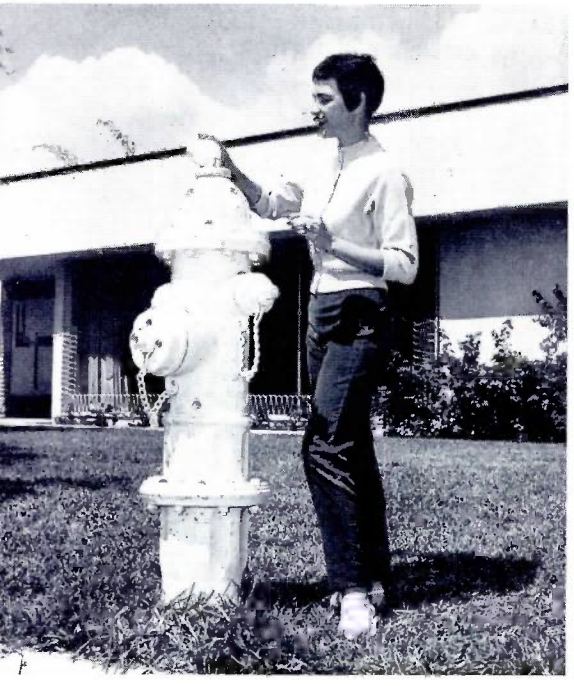
The photos on this page show this "masterpiece of the pink fire plug," which is, of course, a Mueller Improved Hydrant.

The hydrant is located in front of the Lila Jean Dress Shop in Harlingen, owned by Mr. and Mrs. Bernie Haffele. After the shop was redecorated recently, and the exterior painted pastel pink, the owners noticed that their color scheme clashed with the orange hydrant. Permission was obtained to decorate the hydrant. Pictures of it have been printed in newspapers throughout the country; each day brings mail addressed to "Dress Shop with the Decorated Fire Hydrant."



Tajah, whose master owns the dress shop in the background, seems attracted to this sequined hydrant. Painted a pastel pink, the hydrant blends perfectly with the decor of the building.

Miss Cuen Jones applies the finishing touches to a fire hydrant in Harlingen, Texas.



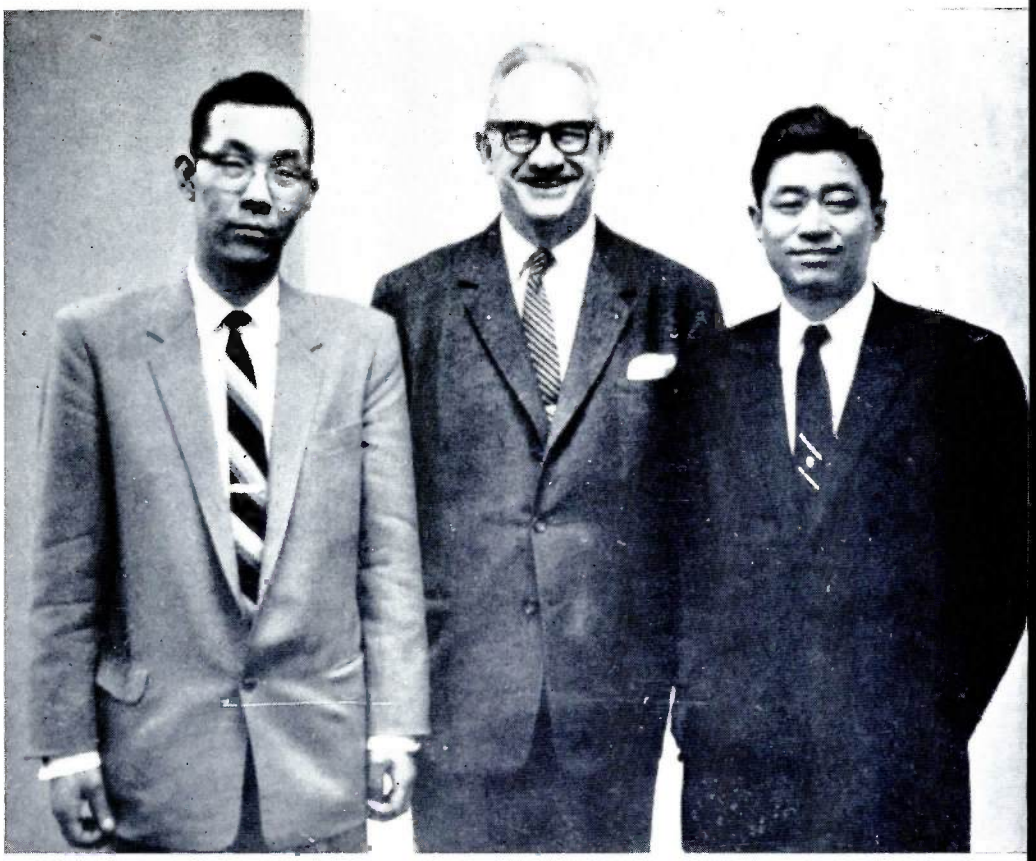
The beautiful dog which posed beside the hydrant, Tajah, was especially co-operative, since bits of ground meat were placed in inconspicuous places on the hydrant.

Shortly after these photographs were taken, Tajah, valued at one thousand dollars, was struck and killed by an automobile.

(Our thanks to Mr. Ray Roarick, Mueller Sales Representative, whose alertness made this interesting item possible.)

Visit Harlingen, Texas, and See for Yourself

Korean Officials Study Water Systems



Mr. Leroy J. Evans, Mueller Co. Vice-President in charge of Eastern Sales, greeted two Korean public works officials recently. Shown during a meeting at the Philadelphia offices of American Water Works Service Company are, left to right: Mr. Dae Joon Yoo, Mr. Evans, and Mr. Sae Yung Chung.

TWO Korean public officials, visiting this country under joint sponsorship of the U. S. State Department and the International Co-Operation Administration for the purpose of studying American waterworks and sewage works operations and administration, met recently with Mr. Leroy J. Evans, Mueller Co. Vice-President in charge of Eastern Sales.

Dae Joon Yoo, Administrative Officer of the Municipal Engineering Division, Bureau of Public Works of the Republic of Korea, and Sae Yung Chung, Chief Engineer of that Bureau's waterworks section, were assigned to American Water Works Service Company, Inc., Philadelphia, by the Department of Health, Education and Welfare, the agency directly charged with the U. S. training of the two Korean officers. They spent three months at the offices and plants of American and its associated companies.

Although a last-minute change in their itinerary prevented the two men from visiting Mueller Co.'s Decatur and Chattanooga plants, they had ample opportunity to observe the operation and installation of many Mueller products in American's affiliated operating companies.

Mr. Chung expressed admiration for the general excellence of American-made waterworks and sewerage works equipment and materials, and the Mueller line came in for its share of the compliments.

The study of American procedures, operations and materials which both men received in this country will augment the extensive knowledge which they already possessed, and will be put to good use in their headquarters city, Seoul, Korea's largest city, which has a population of over 1,700,000 people. Their chief duties are: the design and construction of new water and sanitary systems, operation of existing systems and supplies, and rehabilitation of war-damaged plants. In addition, Mr. Yoo will teach and lecture at schools and colleges, and both will preside at waterworks operators' conferences for some time to come.

Both gentlemen praised American methods and efficiency, and said they were most appreciative of the hospitality and co-operation extended to them in this country.

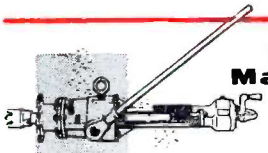
"Sixty per cent of our water facilities were destroyed during the war," said Mr. Yoo, "but with the assistance of the United States and other countries . . . we now have the situation well in hand. However, we must be working for our country's population and economic growth."

As for the future of his country, Yoo said, "The Korean people want unification, and feel that the Republic of Korea and North Korea will eventually be reunited. The North Koreans do not like the Communists, whose treatment of them has been harsh and unkind."

Chung, a civil engineering graduate of Syowa Technical School and Kogyogusha College, was an executive engineer in charge of works from 1943 until 1955 in Seoul. Since that time, he has been Chief Engineer of the Republic's water works. Yoo was Administrative Officer of the Kyunggi-Do Provincial Government from 1946 to 1955, and has since been Public Works Administrative Officer in the Republic's Home Ministry.

MUELLER®
PRODUCTS
STANDARD
OF THE
WATER WORKS INDUSTRY

Since the first Mueller Tapping Machine revolutionized the method of making service connections to mains, Mueller products have been the water industry's basic equipment. Today, a large portion of the nation's water works companies use Mueller products—many exclusively. Their trust in the superior quality of Mueller products is repaid with long, trouble-free service.



Drilling Machines

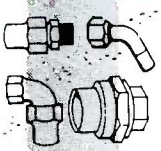
...cuts from ½" to 12". Pressures to 500 p.s.i.

Corporation Stops

...½" to 2". Practically any combination of inlets and outlets.

Gooseneck

...wiped joint, lead flange, solder joint.

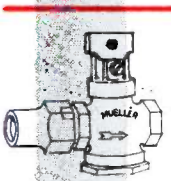


Service Pipe and Fittings

...tees, branches, couplings, fittings.

Service Clamps

...single or double strap.

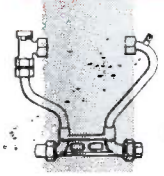


Curb Stops

...inverted key or solid head. ½" through 2".

Curb Boxes

...telescopic type.



Meter Setting Equipment

...yokes, relocaters, stops, meter box covers.

Regulators, Strainers, Relief Valves

...for water, steam, gas or oil.

Tools

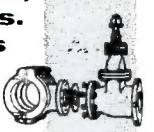
...jointers, calking tools.

Fire Hydrants

...AWWA improved. Flush type.

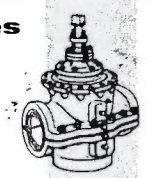
Gate Valves

...2" to 48". Four-point wedging mechanism.



Tapping Sleeves, Crosses, Valves. Repair Sleeves

...to 48". Calked or mechanical joint types.

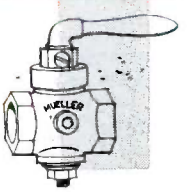


Inserting Valves - Equipment

...for 4", 6", 8" lines. Pressures to 125 p.s.i.

Valve Boxes

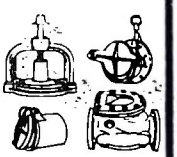
...for valves to 24"

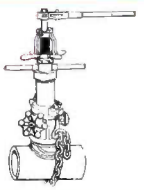


Rough Plumbing

...stops, drains, faucets.

Miscellaneous Valves...check, flap, mud valves...shear gates... valve operating mechanisms ...indicator posts, floor stands, extension stems.





Tapping Machines

...for inserting corporation stops ½" through 2" ...plugs ½" through 4".

MUELLER CO.
DECATUR, ILL.

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

LOOKING BACKWARD

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

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

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

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

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

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

Dynamite comes in small packages (or so they say). The same issue as above told of one such package:

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

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

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

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

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

"At Buffalo, New York, a civic organization leads the opposition (to meters), claiming that with city-wide installation of meters 'consumers would be so economical of the use of water as to endanger health.' A plan to install meters in Fresno, California, met with official opposition from the mayor: 'I know of no faster way of ruining the velvety lawns, the cooling trees and the beautiful shrubbery for which Fresno homes are famous, than by placing meters on the water services.' "

We'll report this item from the *November, 1928 RECORD*—without further comment:

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

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

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

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

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

MRS.WILLIAM E. MUELLER
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