

MUELLER RECORD

SUMMER • 1971

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Editor

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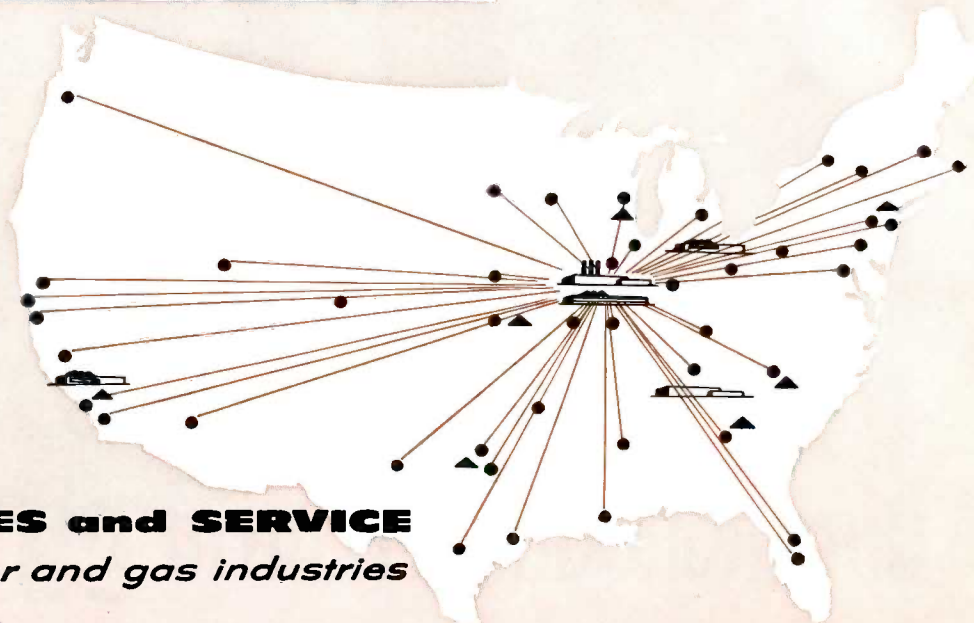
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Since 1857
Quality Products for the
Waterworks and Gas
Industries

MUELLER SALES and SERVICE
...serving the water and gas industries





Above and around these bridges is downtown Atlanta and beneath them is Underground Atlanta. Underground (inset) is an exciting opportunity to re-live the early days of Atlanta while still enjoying many of the tastes, sights and sounds of today.

THE HISTORIC CITY BENEATH THE STREETS

UNDERGROUND ATLANTA



AN UNDERGROUND movement is taking place in downtown Atlanta, Georgia, but it is no radical plot.

Radical changes, however, are taking place in a forgotten area that has been buried for nearly 40 years, but the remains being resurrected are full of life and offer lots of fun.

This carefully planned downtown renewal program in "Underground Atlanta" results from a cooperative effort on the part of some far-sighted businessmen, investors and the city government.

Underground Atlanta, one level beneath a few blocks of Downtown Atlanta, offers a restored Victorian City of the 1800s complete with specialty shops, restaurants, saloons, boutiques, cabaret theatres, Dixieland jazz and gaslights. Best of all, it possesses a charm and flavor that can't be duplicated with new construction.

Underground Atlanta is unique in the true definition of the word. Where else can you find in one of the country's fastest moving and economically strong cities a capsulized view of the area's birth conveniently located one flight down in the heart of the business district?

Atlanta was founded in 1837 as the southern terminus of a new rail line from Chattanooga. Around this railhead grew a city called Terminus, then Marthsville and in 1845 it was named Atlanta. It was incorporated in 1847 and the city limits extended one mile in every direction from an area near Underground Atlanta.

The city grew with the railroads and was almost choked by them. Four railroads and upwards of 100 trains a day passed through the mid-town terminal, each train bringing cross-town traffic to a halt and creating monumental traffic jams—even for horse and wagon days.

In 1852 the city fathers authorized a bridge over the tracks to ease this critical problem. The first bridge proved so successful that a series of bridges and viaducts was used to elevate the entire street one level.

Underground Atlanta's main avenue, Old Alabama Street, was the center of commercial trade

during the early days. Heavy traffic tied to rail travel poured in and out of the area and Alabama Street, Pryor and Loyd streets were lined with stores, hotels, bars, cafes and variety stores.

The viaduct system led to changes in commerce and in the early 1900s the merchants and businesses were forced to move their operations to the second floor or upper street level where they were available to local traffic.

By 1929 the concrete overpass system was complete and once-flourishing old Alabama Street was cut off from sunlight and traffic. The stores became storehouses and the dark streets were used for parking.



For many years these buildings have been sleeping and gathering dust, ignored by the people of Atlanta who were intent on building a modern city with comfortable living, something they accomplished.

In May, 1967, Underground Atlanta, Inc., was formed by a group of enthusiastic and enterprising young Atlantans. The company immediately put together all the wheels and machinery necessary to complete an undertaking no less ambitious than restoring four square blocks of downtown Atlanta to the glory it had known in the late 1880s.

The historians did their research, the architects swarmed

through the buildings, and the construction gangs began peeling away the decades of grime and dust in late 1968.

The developers worked closely with the city, the Civil Design Commission, tourist and historical organizations. In addition, several hundred citizens invested money to become stockholders in the development. The excitement lured tenants to the area and the first businesses opened in April, 1969.

About 50 businesses are open currently in Underground Atlanta and as many as 100 more are expected to be included within two years. The area is isolated from the busy world around it by the concrete ceiling of the bridges, but there isn't a feeling of confinement.

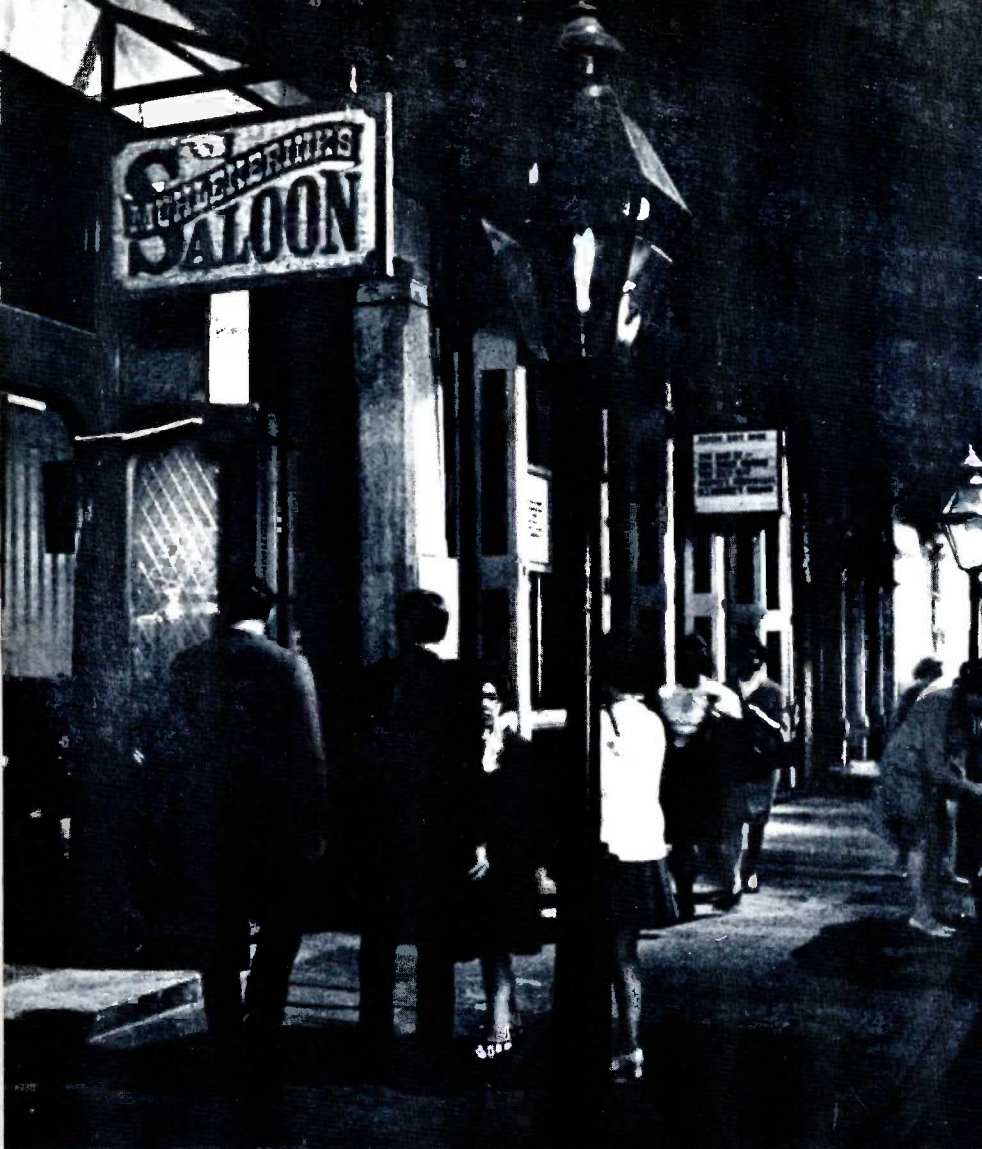
There is something for everyone here. More than a dozen restaurants offer menus ranging from Mexican cuisine and French entrees to a traditional Southern-style buffet. The dining rooms vary in decor from basements with stone walls to the most well-appointed. One even features synthetic grass turf on the floor instead of carpeting. Another dining room offers a full seven course gourmet dinner, featuring delicacies from a different country each week.

Specialty shops offering novelties from around the world include: an astrology shop; antiques; an old fashioned printer; a glassblower; a book store, custom-made knives; a candlemaker and an art store.

For the youngsters there are Alice's Wonderland, a musical museum, and other points of interest to children.

Quiet, relaxing piano bars, to the modern rock dance spot is the spectrum of music. Sing-alongs, modern jazz, banjo bands, and a honky-tonk piano make the scene.

At night the streets are crowded with fun-seekers. There is no problem because the streets are for walking—not vehicles. The cars are left on the 11,000 nearby parking spaces. The streets also are for gaslights which abound and add to the surroundings out of the late 1800s. Gas from Atlanta Gas Light Co. not only lights the streets, but provides modern



Gaslights (above) abound, adding to the surroundings of Underground Atlanta. Visitors pause (left) in front of Muhlenbrink's Saloon, a unique re-creation of a bar, of the same name and on the same spot, that was popular in the 1850s.

climate control throughout the area and is used to cook meals in many Underground restaurants.

Like the Atlanta Gas Light Co., the City of Atlanta Water Works has worked to maintain surroundings in keeping with Underground Atlanta—while still offering water service and water for fire protection to the area.

The Water Department under the direction of General Manager Paul Weir has worked on projects in Underground Atlanta for a number of years and currently is finishing a program that includes the installation of more attractive Mueller Improved Hydrants in the place of other hydrants.

Another project involving the Maintenance and Distribution Division of the Atlanta Water Works under Superintendent J. H. Bullard included renewing a 20-inch

water main that was first installed in 1909. Other mains in the area had to be upgraded and checked, and service lines to new customers had to be run.

Chief Engineer C. W. Cline said one of the hardest jobs involved trying to make six-inch riser pipes as inconspicuous as possible. These risers run from the mains in the streets in Underground Atlanta to fire hydrants on the upper street level. Many of the risers were, by necessity, in busy locations. They couldn't be moved and couldn't be ignored so the Water Department used its ingenuity and camouflaged them by wrapping them in insulating material and letting them blend into the background.

The City of Atlanta Water Works is involved in underground work every day in this burgeoning

City of Atlanta Department of Water Works General Manager Paul Weir plays some old time music in the musical museum.



city headed by Mayor Sam Massell. About 44 miles of new water mains and 1,770 water meters were installed to serve 8,000 new customers during 1970. The water system has more than 125,000 separate accounts, nearly 15,000 hydrants and more than 1,800 miles of main in this outstanding system.

To keep pace with the growth of metropolitan Atlanta (1 million people in 1960, 1,337,000 in 1970 and 2 million estimated for 1983) the water department had made some significant expansions. A river water quality control center recently was completed at a cost of \$1.8 million. A water treatment plant expansion will be completed this year at a cost of more than \$9 million and nearly a half-million was spent to install trash removal systems in the major intake conduits.

To further keep the Department ahead of demands, new storage, enlargement and rehabilitation of water mains, and an addition to the Maintenance and Distribution Service Center to house the Engineering Division are underway.

In this modern city so intent on the future, there is an interest in the historical remaining, and Underground Atlanta offers Atlantans and tourists a glimpse into this past. But even this district that is tied to early Atlanta and flowing with tradition is dynamic. Early this spring Underground Atlanta announced the signing of a lease giving the organization another 51,000 square feet of area to improve and promote.

This acquisition is planned to provide easy access to "Underground" from one of the main intersections of Downtown Atlanta and is another way to further display this exciting "time capsule" which has quietly been waiting to be opened as the City of Atlanta grew up, around and over it.

New Atlanta will continue growing. The "Old" Atlanta, now preserved and restored underground, may serve as a solemn reminder of the city's simple beginning, but more likely "Underground Atlanta" will be known for its fun, excitement and gaiety.



Underground Atlanta Guide Cathy Hardin gets a briefing on Mueller fire hydrants by Atlanta Water Works General Manager Paul Weir. Looking on are, from left, J. E. Kinsey, assistant superintendent Maintenance and Distribution Division; J. H. Bullard, Atlanta Maintenance and Distribution Division superintendent; Frank Kellett, Mueller sales representative; and Robert J. Ott, Mueller district sales manager.



Atlanta's J. H. Bullard, left, M & D superintendent, and Chief Engineer C. W. Cline stand beneath a riser pipe going from a water main in Underground Atlanta to a fire hydrant on the upper street level.

Mueller Founder Entered Water Industry a Century Ago

The name of Mueller has been in the business world of Decatur, Illinois, since 1857, but it was just 100 years ago this fall that "Mueller" became associated with the water industry.

Our centennial in this field will take place Oct. 23, 1971. On this date, 100 years ago, Decatur Mayor Martin Fortsmeyer presented a resolution to the town's governing board for the appointment of Company Founder Hieronymus Mueller to the position of city plumber.

Two months earlier, the City of Decatur's municipal water system was started when the town board of trustees authorized a bond issue of \$35,000. The water works was built primarily to supply water for a manufacturing plant and only incidentally for fire protection and domestic use.

Mr. Mueller had been in business for 14 years as a gunsmith and had gained a fine reputation as a machinist and a mechanical wizard. He had shown an interest in the plumbing field also, so his appointment as city plumber was logical.

His work consisted primarily of making all new home service connections to the city water mains, but the method then in use was uncertain and unsatisfactory. A simple drilling frame called a "crow" was attached to the main and used to support an exposed drill. The main was drilled until just the point of the drill penetrated the inside of the main. The corporation stop was located in the partially drilled hole and struck a sharp blow with the intention of breaking away the remaining web of metal and wedging the tapered inlet of the stop securely into the hole.

Obviously, this was a tricky procedure at best and resulted in many failures. The permanence of the installation was uncertain, and as far as the workmen were concerned there was always the threat of a good soaking and then a water-filled ditch to work in if the first attempt at a connection missed its mark.

The disadvantages of the method started Mr. Mueller in search of a better way to do the job, and on July 23, 1872, he patented the first tapping machine. The Mueller machine eliminated the uncertainties of the earlier method by providing for drilling, tapping and inserting a threaded corporation stop into the main under pressure and while under control of the operator.

It was the invention of the tapping machine, followed by the invention in 1878 of a water pressure regulator, that led Mr. Mueller to believe there were possibilities in the manufacture of water works goods. In 1885 he opened a small brass foundry and Mueller corporation stops were placed on the market.

Using the old crow and ratchet (right) to drill into a water main, the plumber of a century ago had to hit the corporation drive stop a solid blow and wedge it into the main. It wasn't always successful and problems resulted.

Many changes have been made in the machine through the years, but they have come in the form of mechanical refinements or through the availability of new materials. The original concept and basic design using the double pressure chamber and single boring bar has remained virtually unchanged for almost 100 years.

The company offers nearly a century of experience and background in the industry and points to its success, beginning with the founder's appointment as city plumber and growing to four manufacturing plants in the U.S. and two in Canada, and offering thousands of quality products for the water industry.

Mueller Co. founder Hieronymus Mueller didn't like the uncertain methods of connecting a home service that were first available to him so he invented his own drilling and tapping machine. The basic design he introduced nearly a century ago is still used on this Mueller B-100 drilling and tapping machine.



A QUOTE FROM BIRMINGHAM

Every year the Water Works Board of the City of Birmingham, Alabama, produces one of the most attractive annual reports found in the water industry. The 1970 edition in full color is no exception and included in it are a number of quotations which apply to water and its importance to life. The one that seems to summarize the feelings of those in water supply is a Hebrew proverb which says: "Water is the least valued among things existing, and the most valued among things wanted."

FIRE HYDRANTS MAKE THE NEWSPAPERS

Most of us take fire hydrants for granted and we take little notice of them, but they find their way into the newspapers and a Mueller Improved hydrant even is featured on the cover of a record album.

For example: A three column photo in the *Indianapolis Star* shows a fire fighter's car parked in front of a Mueller fire hydrant.

The *Phoenix Gazette* shows a Glendale, Arizona, city official looking at an obsolete fire hydrant and devotes about 15 inches of copy describing an auction sale conducted by the City. The story dwells on the sale of about 25 hydrant barrels which were reportedly to be of great interest to dog owners.

An interested citizen in Lincoln, Nebraska, wrote the *Lincoln Journal and Star* "Action Line" information column requesting information about a fire hydrant. The questioner had witnessed an auto hitting a hydrant and snapping it off. He wondered why no water gushed out. Lincoln Utilities Department Director Lee Blocker answered that "the hydrant is the breakaway type, specially designed to prevent water from gushing out when the hydrant is broken." He went on to say in the paper, "If the hy-

HYDRANTS HAVE COATS OF RED—AND PANTS OF BLUE IN CHARLESTON

Cities across the nation have their own specifications and needs when it comes to painting their fire hydrants and Mueller Co. does its best to meet these demands as the company furnishes hydrants.

The combinations and colors probably number in the thousands, but Charleston, South Carolina, has come up with what has to be among the most unique in hydrant painting.

Red is a typical fire hydrant color but Charleston has "Redcoats".

In keeping with Charleston's (and South Carolina's) Tricentennial celebrations last year, the City gave permission to the local committee to paint about 50 hydrants in the historic tour area like the British "Redcoat" soldiers found during the Revolutionary War. The cast iron sentries have blue trousers, red coats, yellow belts, white collars, and pink faces.

The coats of paint were applied appropriately by students from Moultrie High School. General William Moultrie commanded the South Carolina forces at the Battle of Sullivan's Island in 1776, the first American victory of the Revolution.

Thomas E. Thornhill, chairman of the Charleston County Tricentennial Committee, created the design used on the hydrant and promoted the project.



In the Carolina to the north, some students from a Greensboro high school recently painted Mueller hydrants in a shopping center to look like soldiers.

We've always contended that fire hydrants have an aesthetic value as well as being functional, but this type of painting isn't among those many combinations provided by Mueller Co.

REFLECTIONS ON WATER

drant is broken, an automatic shutoff valve seals off the water source. The breakaway hydrant, a compression type, is cheaper to repair than older compression models. All of the older hydrants are gradually being replaced with the breakaway type."

The hydrants are part of the City of Lincoln Water Department System headed by Superintendent Richard Hall.

Mueller District Sales Manager Matt D. Sylvan points out that the hydrant pictured with the "Action Line" article is a Mueller/107® fire hydrant.

MUELLER RECORD

A JIGGER OF ppm MAKES VERY DRY MARTINI

Water works men often talk in terms of parts per million (ppm) when describing certain characteristics or ingredients in their water supply. To reduce "parts per million" to terms significant to the average customer try using some of the following examples. One ppm amounts to: one minute in two years; one second in 11.6 days or one cent in \$10,000. For some it may be more vivid to say that 1 ppm is the equivalent of one ounce of vermouth in an 8,000 gallon tank car of gin.

3 NEW LANDMARKS NAMED BY A.W.W.A.

Three more properties have been designated as American Water Landmarks by the American Water Works Association, bringing the total to 12.

Newly recognized were: The Louisville (Ky.) Water Company Standpipe Tower; The Elmira (N.Y.) Water Board Filtration Plant, and the Eden Park Water Tower, Cincinnati.

To be considered for designation as an AWWA American Water Landmark, a nomination must meet three criteria: (1) It must be a tangible, physical property that has or had a direct relation to water supply, treatment, distribution, or technological development. (2) It must be 50 or more years old and have attained significance as a landmark within the community. (3) It must be approved and accepted by an appropriate government or other body having jurisdiction, and be maintained in a manner consistent with its significance.

AN ARGUMENT FOR HARD WATER COMING STRAIGHT FROM THE HEART

If some of your customers complain about hard water, show them an article taken from the *Scientific American*.

Several studies in the past decade or so have suggested that the death rate from coronary disease is inversely correlated with the

hardness of the local water supply: the harder the water, the lower the coronary rate. Because there was no correlation with the presence or absence of calcium, magnesium or any other substance commonly reported in municipal water supplies, epidemiologists began to look for an unknown "water factor" in coronary deaths.

A study recently published in the *New England Journal of Medicine* reports evidence that the excess coronary deaths in soft-water areas are almost entirely sudden deaths outside the hospital. In such cases the cause of death is usually certified by a coroner rather than by a physician. T. W. Anderson, W. H. leRiche and J. S. MacKay of the University of Toronto School of Hygiene reviewed the death certificates of 55,000 people who died in the province of Ontario in 1967 and classified the deceased individuals according to whether their local water supply had a hardness of less than 100 parts per million, (ppm) of between 100 and 200 ppm or of more than 200 ppm. They found that the standardized death rate from ischemic, or coronary, heart disease declined from 416 per 100,000 in the first category (softest water) to 390 per 100,000 in the second category (medium-hard) and to 365 per 100,000 in the third category (hardest). There was no correlation for any other disease.

When the deaths from ischemic heart disease were classified into deaths reported by coroners (sudden deaths), the correlation with type of water supply was even more striking. The sudden-death rates per 100,000 were 195 (soft water), 164 (medium-hard) and 120 (hardest). There was no correlation between water hardness and nonsudden deaths from ischemic heart disease. The Toronto workers concluded: "The main effect of water hardness may be on the mechanism causing death rather than on the underlying process of myocardial infarction." They suggest that something present (or absent) in soft water may favor cardiac arrhythmias that often lead to sudden death.

In an accompanying editorial in *The New England Journal of*

Medicine Henry A. Schroeder of the Dartmouth Medical School offers the hypothesis that soft water, which is often slightly acid, dissolves cadmium normally present as a contaminant in the zinc used to galvanize pipes. It has been shown that soft water passing through galvanized pipes can dissolve enough cadmium to exceed by two to eight times the limits allowed in food (10 micrograms per liter). In rats trace amounts of cadmium are known to produce the "pathological picture" of hypertensive disease. If this hypothesis is correct, says Schroeder, there should be a perceptible decline in coronary deaths in coming years because copper has been widely used in place of galvanized iron piping in dwellings built since World War II.

NEW AWWA OFFICERS ASSUME POSTS IN DENVER

The new officers of the American Water Works Association assumed their posts at the AWWA annual conference in Denver in June.

Charles A. Black, senior principal, Black, Crow & Eidsness Inc., Gainesville, Florida, automatically moved into the office of president at the conclusion of the term of the current president, Thurston E. Larson, head, Chemistry Section, State Water Survey, Urbana, Illinois.

President-elect is Clifford W. Hamblin, general manager, water department, St. Paul, Minnesota.

Succeeding Mr. Hamblin as vice president is George E. Symons, manager special projects, Malcolm Pirnie, Inc., White Plains, New York.

Entering his third term as treasurer is Thomas W. Fauntleroy, executive vice president and director, Pittsburgh-Des Moines Steel Company, Neville Island, Pittsburgh, Pennsylvania.

The 91st annual meeting of the A.W.W.A. had about 5,000 in attendance at the five-day meeting. The conference included 26 technical sessions, a number of featured speakers and displays by about 100 manufacturers of products associated with water supply.

HARLAN WHITE NAMED VICE PRESIDENT— OPERATIONS

Harlan A. White was elected to the newly created position of vice president—operations by the Board of Directors of Mueller Co. at the Board's quarterly meeting in Decatur in May. Mr. White has been vice president and general manager of the company's Chattanooga, Tennessee, operation since 1968.

White, in his new position, will be responsible for day-to-day operations of Mueller Co. plants located in Decatur, Illinois; Chat-



HARLAN WHITE

tanooga, Tennessee; and Brea, California. In this position he will coordinate the company's activities in research, development, manufacturing and finance with the requirements of the Marketing Division.

White is a graduate of the University of Illinois, with a B.S. degree in accounting and, prior to joining Mueller Co., was a partner in a Decatur public accounting firm. He started his career with Mueller Co. December 1, 1955, and since then has served as assistant to the administrative vice president, assistant works manager, manager of manufacturing (Decatur), general controller, administrative vice president, and vice president and general manager (Chattanooga Operations).

He was elected to a vice presidency in 1965 and became a member of the Mueller Board of Directors at the company's annual meeting on Feb. 11, 1971.

WHAT'S **NEW** and **NEWS** FROM

RUSSELL K. LUTTRELL TO OREGON TERRITORY

Russell K. Luttrell, formerly sales service correspondent in the Brea Sales Office, has been appointed Mueller Co. sales representative for the western two-thirds of Oregon.

This area has been covered by F. V. (Doc) Martin who has traveled Washington and Oregon for a number of years. Martin plans to retire early next year. Meanwhile, this splitting of the territory will provide better customer service.

Luttrell joined Mueller Co. in 1965, after completing four years of service in the U. S. Air Force. He worked in the Decatur Sales Office a number of years and then transferred to the Brea Plant Sales Office in 1970.

In 1971 he was selected to enter the company's sales training program. This program, plus his experience, gives him a broad background in the knowledge of products for the water and gas industries.

Russ, his wife, son and daughter will live in the Portland area.



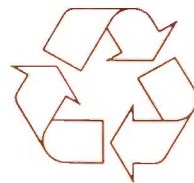
RUSS LUTTRELL

OLD CARTONS FOR NEW USES

Those three red arrows following each other on the bottom of Mueller Co. cartons are reminders to our customers that pollution can come in many forms—even as paper cartons.

Mueller Co. is one of many manufacturing firms around the country cooperating with the paper and paperboard industry in a campaign to reduce pollution from paper wastes.

The symbol is there to remind the end user that if paper and paper board products are recycled and reused, it will help eliminate much solid waste. Recent studies show that paper products represent between 40 and 50 per cent of municipal solid waste, and paper products represent as much as 60 per cent of highway litter.



Although most paper and paperboard products are disposable, the fibres from which they are made can be used over and over. Last year more than 11 million tons of used paper fibre were collected and reprocessed into new products, removing 20 per cent of the waste paper from the solid waste stream.

Mueller Co. hopes that users of our products will make our cartons and other paper goods available to the paper industry for reuse—a practice also carried on by Mueller. In Decatur the company does no scrap burning and recently purchased a paper baler so that waste paper could be baled and ultimately returned for recycling.

MUELLER

MUELLER INTRODUCES MANY NEW PRODUCTS

A number of new products or extensions of current lines were introduced recently by Mueller Co. at the annual American Water Works Association conference held in Denver in June.

The Mueller Modern Improved Fire Hydrant with its new sleek, low profile design was featured at the Mueller exhibit, but also introduced were: a wet barrel type hydrant; the Insta-Tite connection for service lines of Polyethylene plastic pipe; plastic valve, curb and meter boxes; two new lines of repair clamps, and new tapping valves for iron pipe size PVC pipe.

The new *Modern Improved Fire*

Hydrant is a compact, modern appearing hydrant. Standing 27" above the ground line on a square base, the hydrant presents an exceptionally low (approximately 30% lower than most existing hydrants) smooth-lined profile, yet maintains proper nozzle height for efficient hose hook-up. The new hydrant incorporates a number of operating characteristics that prevent freezing and minimize maintenance requirements. In the event the hydrant is struck by a vehicle, it is designed to minimize hydrant damage and permit fast, economical repair.

The Insta-Tite connection designed initially for ¾" and 1" I.P. size Polyethylene plastic pipe is designed to provide simplicity and superior performance. All a workman has to do is slightly bevel the end of the PE pipe and stab it fully into the connection. A "one way" grip ring which permits the pipe to be stabbed easily, holds it securely in place after it's inserted to prevent pullout. Additional sizes, including copper

tube size, will be added to this line soon.

The new lightweight valve, curb and meter boxes made of fiber-reinforced polyolefin plastic weigh about ⅓ as much as comparable sized cast iron boxes. The lighter weight offers safety and handling advantages and reduces shipping costs.

New lines of pipe repair clamps for leaks, splits or breaks in cast iron, steel or asbestos-cement pipe were shown in Denver. Designated MUELLER® (Adams®) Xtra Range Full Seal® repair clamps—Style 450, and MUELLER (Adams) Single Section Full Seal Repair Clamp—Style 400, the new clamps are designed to accommodate wider ranges of outer diameters in nominal pipe sizes from 4" to 12".

The new tapping valve for use with iron pipe size PVC pipe having the same O.D. as steel pipe is available in the 2" and 4" sizes.

Additional information on these and other Mueller products can be obtained from the Mueller Sales Representative in your area.

FIREMAN'S BEST FRIEND

Fire hydrants and dogs have been linked for years, but manufacturers of hydrants have tended to ignore this affinity, assuming there was little to gain.

This year, however at the American Water Works Association's annual conference in June, Mueller Co. introduced the Mueller Modern Improved Fire Hydrant with its new sleek, low profile design and beside it was a mechanical dog. The two of them were the hit of the exhibit hall.

We asked conferees and families to help us name the dog and 160 names were submitted along with a number of complimentary remarks about the hydrant, dog and display.

Spotty or Spot, Sparky and Squirt were the most popular names submitted with each receiving four votes. Pee Wee was next in popularity, followed by Puddles, Hydro and Wiggles with two each. Some of the more original included Hydro-Plug, Full Flow, Yikes and Mrs. Mitchell. (We aren't sure which Mrs. Mitchell, if any in particular, but perhaps the attorney general's wife likes dogs as much as former president Johnson.) Speaking of names in politics, one suggestion offered "Kennedy K-9". What other Kennedy could it be? Various names for people were also used including Jennie, Joe, Sam, Sambo and the name of a Mueller man in Decatur. Marketing Services Manager Hugh Baker is currently having this handwriting analyzed.

Some of the suggestions were derived from the Mueller name and included Muellette, Muelie and Mulehide. One entry from Maryland suggested Itsy

and one from Colorado tossed in Bitsy, while someone with an international flair came through with Fido. It was spelled Phydeaux, however, and a comment read: "A quality French name for a quality American product."

We were surprised there was only one suggestion of Snoopy and this entrant added that the hydrant should be called the Red Baron. (What about those cities that specify green or orange hydrants?)

Man's best friend at our exhibit can be called any one of many names. The fire hydrant, the fireman's best friend, should be referred to as "Dependable."



A three level observation deck is perched atop a 500,000 gallon water

tower in Peoria Heights, Illinois.

This is unique, but it has to be if the tower is to serve as a symbol for the many unusual things going on in this community of 8,300.

The Village is an island, blocked from expansion on the east by the beautiful Illinois River valley and bounded on the other three sides by the sprawling City of Peoria. Many communities would be happy to become a part of Peoria, but the people of Peoria Heights like what they have and the citizens and community leaders are working to make it better.

"We have a most unique urban renewal program going on here and there isn't one penny of state or federal money involved," says William L. Rutherford, local attorney, former state director of conservation and civic leader. "We are showing what can be done with pride, initiative and hard work," he points out. He gestures around his beautiful office and with considerable pride explains it had once been a "derelict" service station.

He proceeds to point out numerous examples of downtown renewal programs that are completed or planned, utilizing volunteer labor, donated equipment and money provided by interested groups. These improvements include offstreet parking, underground utility lines, colorful planters and a rebirth of the business district.

Instrumental in the local program, which is in its fourth year, is the Forest Park Foundation. The foundation started in 1939 with a businessman, a physician and an industrialist providing funds for philanthropic ventures in which they were personally interested. Forest Park Foundation, a not-for-profit, nonsectarian organization originated to study and seek solutions to the problems of old age, is taking on new areas of interest, including conservation, park and open land acquisition, highway safety education and city beautification. Mr. Rutherford, who is also administrative vice president and treasurer of the organization, says these activities keep the Forest Park Foundation moving ahead in its attempt to make all communities a better place in which to live.

Nature preserves and parks have a high priority in Peoria Heights where nearly 2,000 acres are available for a population of 8,300. The most spectacular area is Tower Park, site of the water tower and its observation decks reaching to heights of 169 feet. A

The combination 500,000 gallon water storage tank and observation tower stand high behind Abraham Lincoln's statue in Tower Park in Peoria Heights, Illinois. Halfway up the side of the tank is a carved wooden woodpecker standing six feet tall.



glass enclosed, 14-passenger lift carries the visitor up the side of the tower to a point where he can see objects 50 miles away on a clear day.

On one side is the broad Illinois River, to the south and west are downtown Peoria Heights and Peoria, and surrounding all of these is fertile Illinois farmland. Three separate observation decks offer unobstructed views and markers indicate the direction and distance to many of the world's major cities, including Siagon which seems a very distant 9,000 miles on a beautiful summer afternoon.

The Peoria Heights Department of Public Works and the Village built the water tower, and the observation portion was provided through the efforts of the Forest Park Foundation. A non-profit organization, known as Tower Park, Inc., is responsible for the operation and maintenance, funded by a nominal fee to ride to the top. Tower Park, Inc., is comprised of directors appointed by the Village and the Foundation.

Tower Park attracted 42,000 visitors during two months of last year and as many as 100,000 are expected to visit it this year.

Tower Park is more than just an observation point, however. It includes fountains, flower gardens, benches and a rare bronze head of Abraham Lincoln which was one of three in the world cast from the sculpture done as a model for carving the Lincoln face on Mount Rushmore. The other two are on display in Capitol Rotunda in Washington, and at Lincoln's Tomb in Springfield, Illinois.

Not far from the tower is "Kiddie Park", constructed by volunteers using materials donated by local firms and organizations.

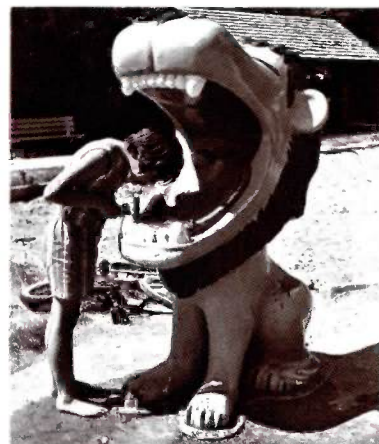
Under construction this summer is a new park which will share property with the Public Works Department. The property now includes a pumping station, a reservoir and a water tower for its 2,100 customers, but according to Public Works Superintendent Wayne C. Homan and Public Works Foreman George I. Dwyer a shuffleboard court and a chessboard, using man-sized chessmen, will be constructed along with flower gardens, new wide sidewalks, fountains and benches.

The history of Peoria Heights has its high points also. Charles Duryea, often referred to as the "father of the automobile" is credited with building the first full fledged automobile here in 1892. Pabst Brewing Company, Illinois' largest brewery and the Village's only major industry, is located on the site of the original Glide automobile factory.

Theodore Roosevelt once exclaimed as he rode over newly opened Grandview Drive in the Peoria Heights area in a new 1907 Glide automobile, "This is the world's most beautiful drive." The citizens, businessmen and Village officials, led by Mayor Raymond L. Picl, are working hard to promote this inviting image.



The Illinois River and many miles beyond can be seen from the 169-foot high observation tower. This is just one of the impressive views available to the tower visitor.



To get a drink of water all you have to do is put your head into the friendly lion's mouth at Kiddie Park. Behind him is one of the largest sandboxes known, holding more than 100 tons of washed mason sand.



Looking over a MUELLER/107 fire hydrant are from left: J. William Coffey, Mueller Co. sales representative; Wayne C. Homan, superintendent of the Peoria Heights Public Works Department, and George Dwyer, Public Works Department foreman.



The circus is in town every day in Baraboo, Wisconsin—self proclaimed circus center of the world.

The Ringling Bros. circus started in Baraboo and for 34 years the town served as the winter headquarters for this attraction. The circus found other winter quarters but the flavor and thrills, plus some buildings, remained and now the State Historical Society of Wisconsin operates the Circus World Museum.

From May through September the oldsters can reminisce and the youngsters can enjoy the sights and sounds of circus time. The museum opened in 1959, financed by public subscription and now five huge buildings and ground covering 15 acres offers real live trained animal circuses, exhibits and equipment displays.

P. T. Barnum's side show of the 19th century, the world's largest collection of circus wagons—60 parade wagons and 25 baggage wagons valued at \$1.5 million—exhibitions of loading and unloading circus trains with draft horses, goat cart rides, parades and calliopes are all in Baraboo. A miniature animated circus contains over 25,000 tiny handcarved figures in 700 square feet of space.

One of the trademarks of the circus was the youth carrying

water to the elephants. The elephants still get their water, but it is convenient and pure furnished by the Baraboo City Water Works headed by Superintendent Robert G. Wolkowski.

Mr. Wolkowski, continually working to improve his department and striving to promote his community, is only the third superintendent the system has had since the city purchased the property from a private group in 1904.

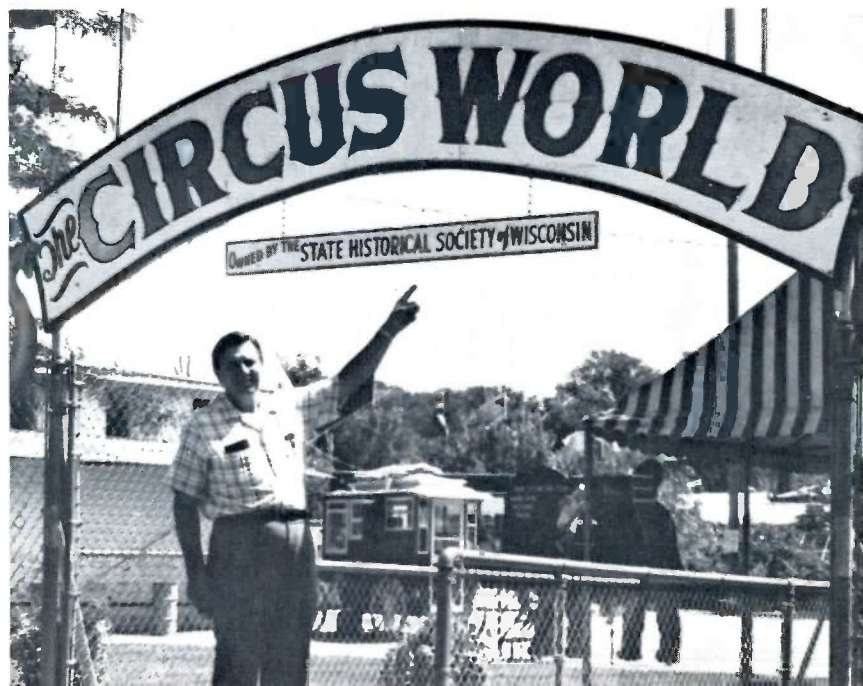
One of the biggest and most immediate improvements in the water system is the new 250,000 gallon water sphere and high lift system which started serving the north section of the city this past May.

Another new piece of equipment installed recently was a meter test bench—an item that was of interest to Mueller Co. It's not that we produce them currently, but the new unit replaced one made by Mueller Co. and sold to the city of Baraboo in 1935. The tester was in regular service for 35 years but it couldn't be replaced by another "Mueller" because the company discontinued its line in about 1940.

Mueller first produced the test benches around the turn of the century. The device was rather simple and the test was run by passing water through a meter that was clamped on a bench and then flowing it into a tank mounted on a scale. The reading of the meter was compared with the weight of the water run through the meter and its accuracy determined from that.

Baraboo, near the beautiful Wisconsin Dells is home for 8,500 residents and every day is circus day.

Robert G. Wolkowski, superintendent of the Baraboo City Water Works, points to the sign over the entrance to the Circus World Museum in Baraboo, Wisconsin.



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Built for reliable, full-flow performance

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- Sleek, low profile design
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- Easy, economical repairs to traffic damage

The Mueller Modern Improved Hydrant brings new good looks to community safety. Standing just 27" above the ground line, it presents an exceptionally compact, smooth-lined profile to complement modern communities.

Completely weatherproof, the drain valves and openings in the Modern Improved Hydrant are force-flushed each time the hydrant is operated to assure positive and complete draining. No water remains in the barrel to freeze or damage working parts. The large weather cap completely covers vital hydrant parts, discouraging tampering and protecting them from rain, snow, dirt and other foreign matter.

Traffic damage is minimized in the Modern Improved Hydrant design. Safety flange clips and the safety stem coupling break cleanly on impact from any angle, permitting the upper barrel and the upper stem section to fall undamaged to the ground. The compression-type main valve remains closed to prevent flooding, and the hydrant can be returned to service in minutes using an inexpensive repair kit.

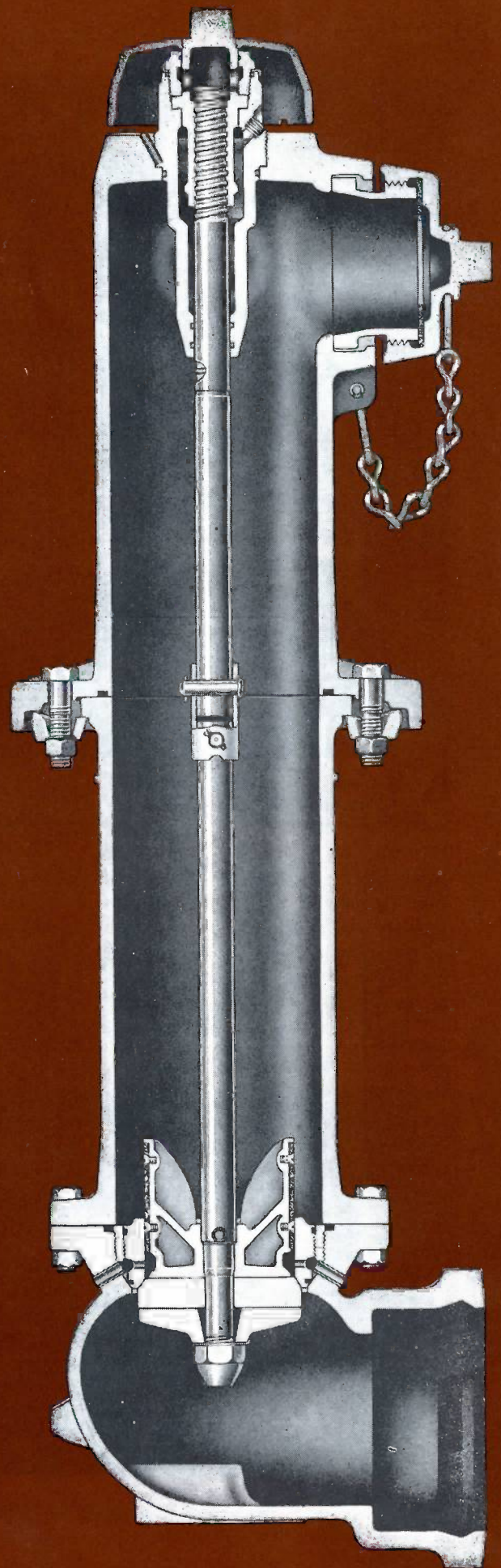
Your Mueller Representative has all the facts on these new hydrants—call him today, or write direct for further information.

W-113

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Banning Superintendent Wallace Stewart sits beside one of the water wheels used to pump water in the city's system. Water rushes in one side of the water wheel, spins the wheel, which

in turn powers the pump. The series of pumps in the system produces about 9,350 gallons of water per minute.

THE POWER OF WATER

Banning, California, uses

water wheels

to turn pumps

You usually prime a pump with water, and run it with electricity, but at Banning, California, where its pumping system is rather unique, electricity works to "prime" the pumps and they are run by water.

Things aren't really mixed up there. Rather, Banning is taking advantage of the resources and natural terrain that make it possible to pump water with water wheels where water flow was started by an electric pump.

It all begins in a canyon about seven miles upstream from the city, in the higher elevations of the sometimes-raging San Geronio River. At the uppermost well, the 30-horsepower electric motor is used to prime the system and gets water flowing at the rate of about 1,350 gallons per minute

MUELLER RECORD



The San Geronio River begins as a trickle (above) high in the mountains of southern California (top, left) and finds its way into one of the percolating ponds used for water conservation in the Banning area.

(GPM). This is put into a 20-inch line and as the water falls it builds up a head of nearly 200 pounds by the time it reaches the first water wheel 6500 feet away.

The rushing water turns the first "water wheel" pump, producing an additional 3,000 GPM. Now we have 4,350 gallons of water swirling through the 20-inch pipe, rushing toward the city. Two more water wheel pumps, each capable of producing 2,500 GPM, are in the series and by the time the water gets through them the system is producing up to 9,350 gallons per minute. From the 30-horsepower pump and the water power generated by the set-up itself, Banning has a supply system capable of producing up to 13,464,000 gallons per day.

The water wheel system is rath-

er simple. The rushing water pushes cups about the size of a man's hand around the wheels. Spinning at a high velocity, the wheels produce power that is transferred to the pumps.

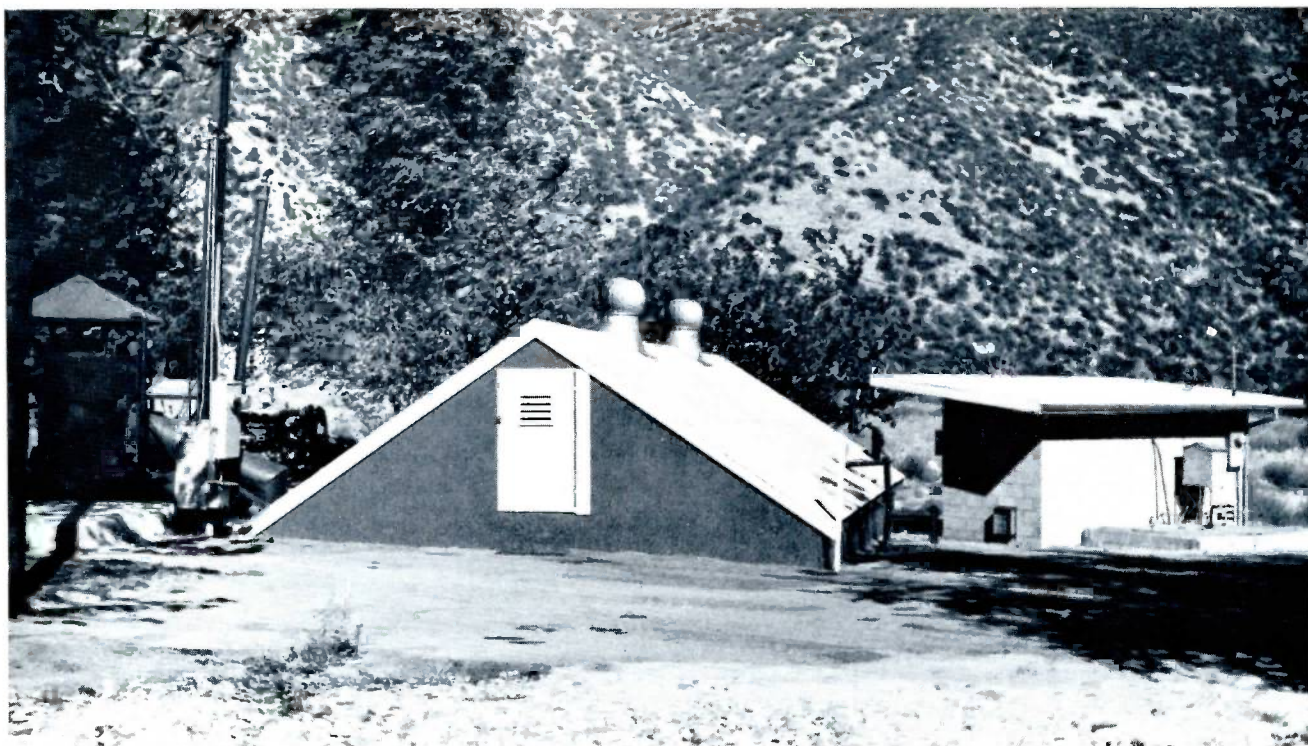
Wallace Stewart, superintendent and an employee of the Banning Water Department since 1936, says the first Pelton water wheels were installed in 1917 and he remembers having to rebuild only one of them since then.

Mr. Stewart says other cities have tried to use the water wheel pumps, but they did not have any success because they didn't have the water in the right place or the natural terrain wasn't right. "The fall in our canyon is so great that it builds up a terrific pressure," he said.

At one time the system used nothing but water to pump water, but in recent years the natural flow of water was interrupted by flooding and a pipe problem, so the electric motor was added to "prime" the system.

"The geological nature of the area is also unique and lends itself to a water conservation program," Mr. Stewart said. By using a series of ponds, river water and run-off is directed into three large separate basins formed by earth upheavals. These basins are filled with sand, gravel and rock which serve as natural filters as the water percolates through the basins, finding its way into the pumping system.

Although the water direct from the wells is probably potable, it goes through another filtering sys-



tem, and then through the chlorination process before it goes into the two storage tanks with a combined capacity of 3,000,000 gallons. From there it enters the distribution system serving 4000 customers (meters).

Banning, near Palm Springs, has grown from 8500 people in 1960 to 13,500 in 1971.

The City of Banning bought the old Banning Water Co., originating in the late 1880s, for \$2,200,000 in March, 1967. Mr. Stewart joined the firm in 1936 as water master, advanced to superintendent in 1951 and became general manager in 1957. He came to Banning in 1926 from his native Arkansas.

Mr. Stewart has been active in water works organizations for a number of years and is a past-president of the Inland Counties Water Association of California. This group is made up, primarily, of men from Riverside and San Bernardino Counties representing water systems and their suppliers in the area. Mr. Stewart has been a member of the California Section, AWWA, since 1955.

After passing through the series of water wheel pumps it goes through a settling process (center building) and then undergoes chlorination before the water enters the Banning distribution system.



Wallace Stewart, associated with the Banning Water system since 1936, has been active in California water works groups for many years and is past-president of the Inland Counties Water Association.

Strictly

Off the Record

I've invented a computer that's almost human," boasted one scientist proudly.

"You mean it can think?" asked his friend.

"No, but when it makes a mistake, it can put the blame on some other computer."

* * *

Inflation hasn't ruined everything. A dime can still be used as a screwdriver.

* * *

A disconsolate-looking farmer stood on the steps of the town hall during the progress of a political meeting. "Who's talking in there now?" demanded a stranger. "Or are you just going in?"

"I've just come out," said the farmer. "Congressman Smiffkins is talking in there."

"What about?" asked the other.

"Well," continued the puzzled farmer, "he didn't say."

* * *

A rooming house landlord received a phone call from the mother of a college freshman. "Please keep an eye on Albert for me," begged the mother. "See that he gets plenty of sleep and doesn't drink or run around too much."

"You see," she added in an apprehensive tone, "this is the first time he's been away from home—except for two years in the Marines."

* * *

Entering an automobile showroom, a man checked the price tag on one of the new compact cars. "Why, that's nearly the cost of your biggest model," he said to the salesman.

"If you want economy," the salesman replied, "you have to pay for it."

* * *

"I didn't come to be told I'm burning the candle at both ends," said the patient to his doctor, "I came for more wax."

The hippie bride wore something old, something new, something borrowed and something blue, red, orange, green, pink and purple.

* * *

On viewing the ocean for the first time the little boy exclaimed, "Look, Mother, it just keeps flushing and flushing."

* * *

Golfer: "I'm eager to make this shot. That's my mother-in-law on the clubhouse porch."

Friend: "Don't be silly; that's over 200 yards. You can't hit her from here."

* * *

One place a teenager never seems to get a hangup is in a clothes closet.

* * *

One businessman to another: "Recessions don't bother me. I was a failure during the boom."

* * *

A long-winded minister who always read long sermons placed his text on the pulpit an hour before the service. One young member of the congregation sneaked up to the pulpit and took the last page of the minister's sermon. Preaching vigorously, the minister came to the words, "So Adam said to Eve . . ." and then his voice trailed off. He had discovered that the last page was missing and he was horrified. To gain time, he repeated, "So Adam said to Eve . . ." Then in a low voice, but one which the amplifying system carried to every part of the church, he added, "There seems to be a leaf missing."

* * *

First lady: "How are your children doing in school?"

Second lady: "Better," said the weary mother, "but I still go to PTA meetings under an assumed name."

A successful author confessed to Mark Twain that he was losing confidence in his ability to write.

"Did you ever get that feeling?" he asked.

"Yes," admitted the humorist. "Once, after I had been writing for 15 years, it suddenly dawned on me that I did not possess the slightest talent for writing."

"What did you do?" asked the writer.

"What could I do?" shrugged Twain. "By then, I was already famous."

* * *

It used to be that papa dealt out a stern code of discipline to junior. Then the safety razor took away the razor strap; furnaces took away the woodshed; and baldness took away his hair brush. That's why kids are running wild today. Dad ran out of weapons.

* * *

An after dinner speaker, known for his long-windedness, suddenly became equally famous for his brevity. His explanation: "During a pause in one of my speeches I overheard one man ask: 'What follows this speaker?' and the other fellow replied: 'Wednesday.'"

* * *

One sure way to entertain customers is to listen to them.

* * *

"Integrity and wisdom are essential to success in every business," the boss told the new employee. "By integrity, I mean when you promise a customer something, you must keep your promise, even if we lose money."

"And what is wisdom?" asked the new man.

"Don't make any such fool promises."

* * *

From a bus conversation: "My daughter has been protesting everything I've told her for 18 years, but thank goodness, she's too lazy to march."

* * *

"Congratulations," said the doctor. "You have made a nice recovery and can lead a normal life." The patient looked disappointed and said: "I was hoping for something better than that."

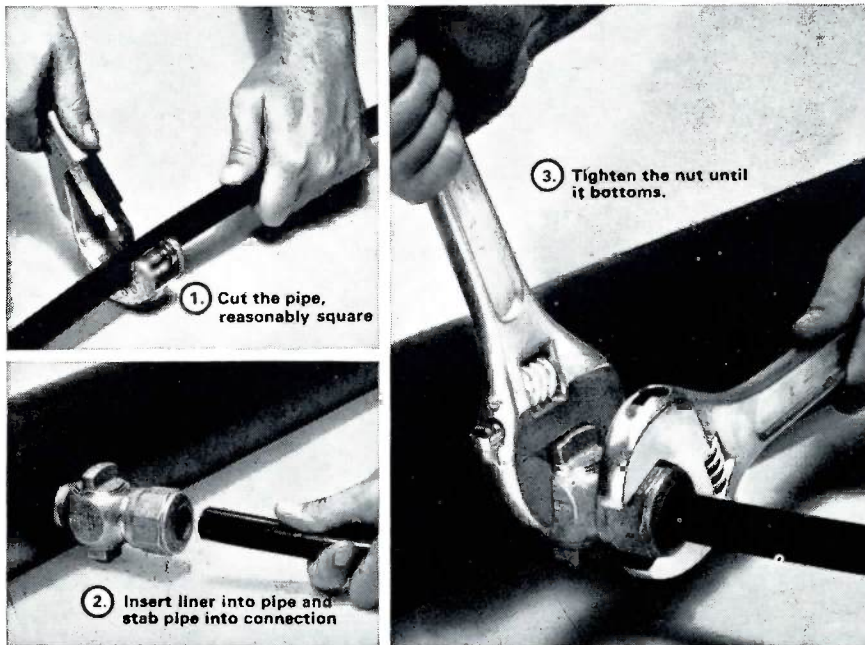
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