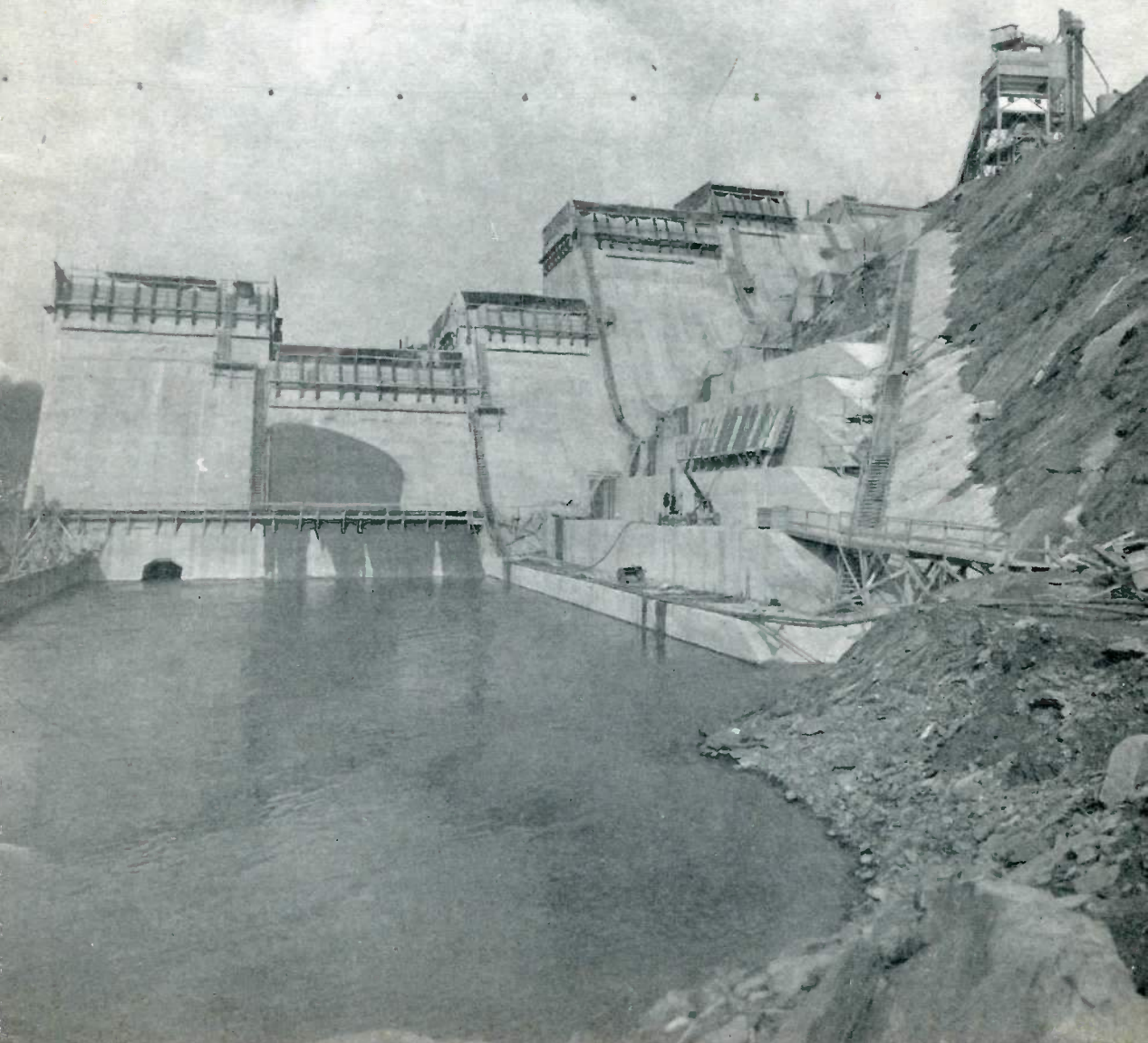
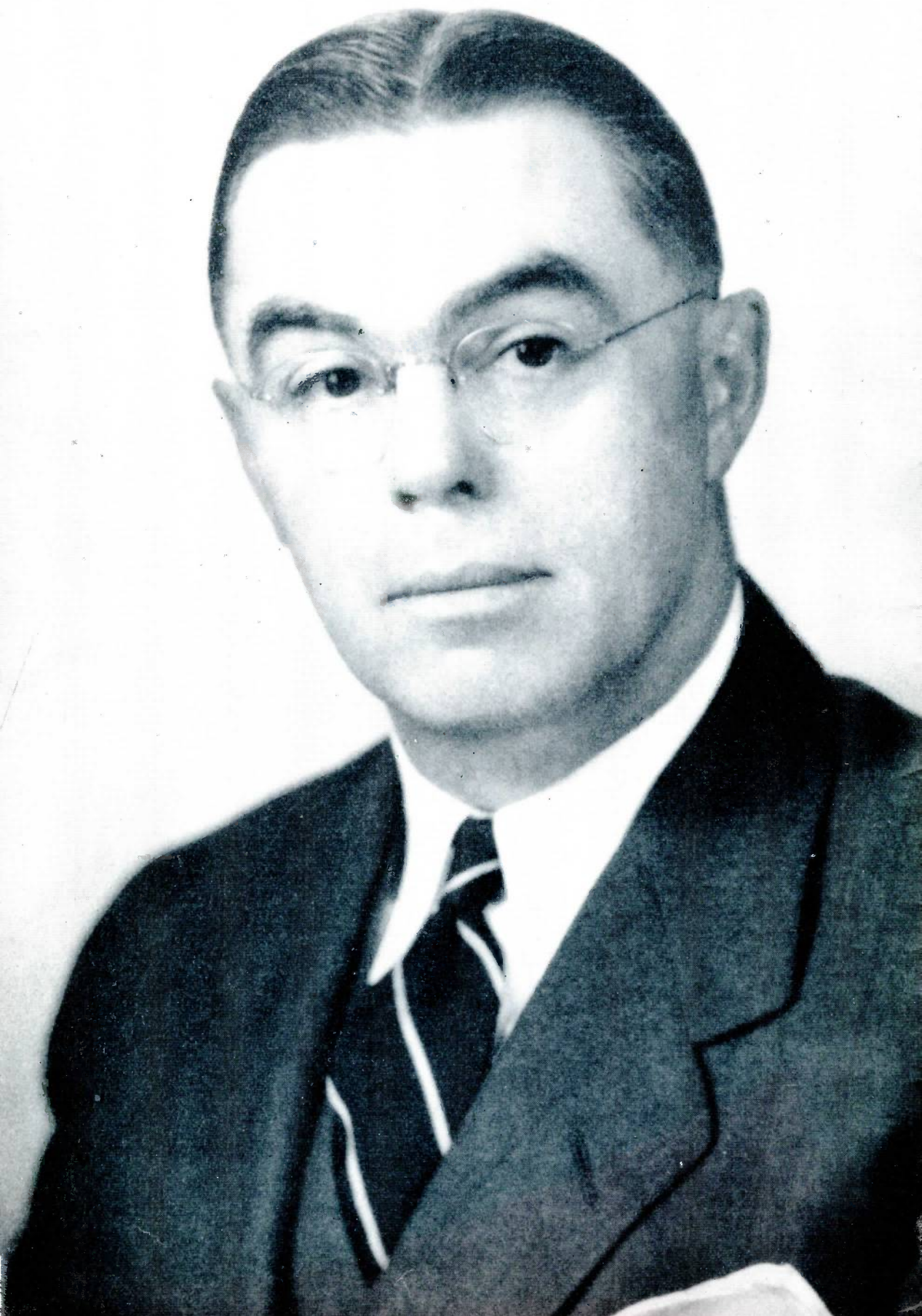


MUELLER RECORD

OCTOBER, 1953





L. W. Mueller Dies

Lucien W. (Duke) Mueller, chairman of our Board of Directors, died Tuesday, October 6, in Decatur and Macon County Hospital after an illness of eight weeks. He was 58.

A son of the late Philip and Mary E. Shorb Mueller, he had been associated with our company since his early youth when he followed the family custom of working at the plant during school vacations. His father was first vice-president of the company until his death in 1928.

Mr. Mueller was a grandson of Hieronymus Mueller who founded Mueller Co. in 1857, and was the second person to serve in the capacity of Chairman of the Board. The first chairman in the company's history was his uncle, the late Adolph Mueller.

Mr. Mueller attended Decatur High School, St. John's Military Academy and was graduated from Cornell University in 1917 with a degree in mechanical engineering. With the entry of the United States into World War I, he was commissioned a second lieutenant in Army Ordnance and entered military service.

He returned to Decatur and soon was elected to the Board of Directors. He served continuously as a member of the Board until his death. He also was a director of Mueller Ltd. at Sarnia, Ontario, Canada. He had served on the Board of Directors of the Citizens National Bank in Decatur since January, 1951.

Mr. Mueller, associated with Mueller Co. his entire business career, began as superintendent of the foundry division following Army service. He distinguished himself early in his career when he instituted new metallurgical processes for casting metals used in the company's products. His next step upward was an assignment with the plant engineering division where he designed some of the new machinery and equipment for the shops and foundries. In 1928, he was elected to the office of vice-president in charge of works management. This placed him in charge of all factory operations and personnel.

When Mueller Co. acquired the Chattanooga division, then known as the Columbian Iron Works, in 1933, Mr. Mueller supervised the rebuilding and reorganizing of that plant. During the same year he supervised the building of our Los Angeles plant. Once constructed, he organized and placed the plant in operation.

Mr. Mueller continued as works manager in charge of three company plants in the United States until 1944, when he was elected vice-president in charge of administrative and sales engineering.

In October, 1947, he was elected Chairman of the Board of Mueller Co. and also was made Chairman of the Board of Columbian Iron Works, a subsidiary of Mueller Co., and served in that capacity until the companies merged.

During his college days at Cornell University, Mr. Mueller developed into one of the nation's outstanding football players. He played on the Cornell varsity as a fullback in 1915 and 1916, and was captain in his senior year.

In 1915, after he led Cornell to a 10-0 victory over Harvard, eastern newspapers hailed him as one of the "greatest finds" of the year. They referred to him as a "battering ram" and a "42-centimeter Krupp gun" because of his great play as a plunging fullback. He scored 60 points in 1916, tenth highest record in the nation.

He was a devotee of all outdoor sports and was an ardent golfer. He played on many Country Club of Decatur teams, and won the President's Cup at the Country Club of Decatur in 1950.

Mr. Mueller was a member of the Decatur Club, Country Club of Decatur, Stephen Decatur Lodge 979, A. F. & A. M.; Macon Chapter 21, Royal Arch Masons; Beaumanoir Commandery 9, Ansar Shrine, the Association of Commerce and Phi Gamma Delta Fraternity.

He was on the Board of Directors of the Decatur and Macon County Hospital, and also was a councilor for the Decatur Association of Commerce.

(Continued on page 21)

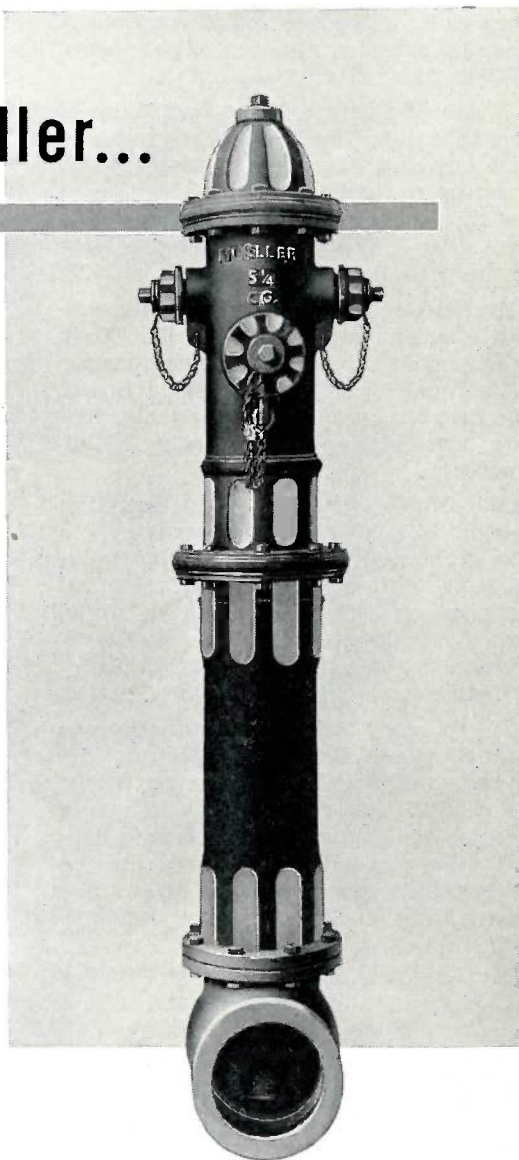
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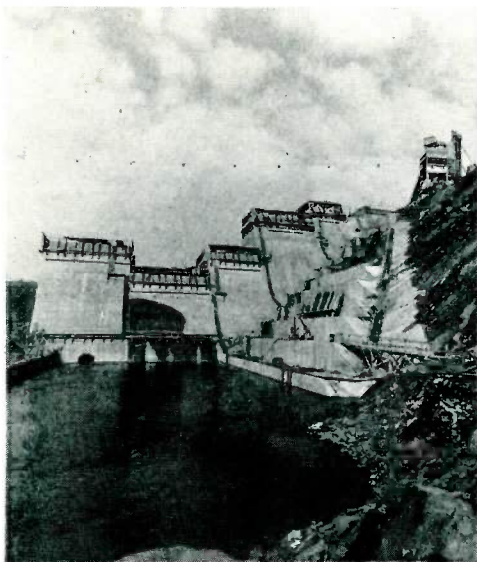
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THIS MONTH'S COVER

Liberty Dam, part of the \$49,000,000 Patapsco Development project designed to give Baltimore and adjacent counties an adequate water supply, is shown while workmen are pouring monoliths on the east side. When completed, the giant program will make 200,000,000 gallons of water a day available for residents of the Baltimore area. The reservoir built with the dam will impound 43 billion gallons of water.

Recording Our Thoughts

THE external edition of the MUELLER RECORD with this issue makes its first regularly scheduled appearance since December, 1952. It is also the first external issue produced by the magazine's new editor. Former editor Herman E. Jackson has been permanently assigned to the company's catalog department where he is helping produce new catalogs and other descriptive literature.

Publication of the magazine was halted last December when Mr. Jackson's services were needed for catalog work. When it became apparent that the catalog assignment was to become a permanent one, management decided to employ a new editor in order that the Record would again be placed in circulation.

The many letters received from long-time Mueller Record readers indicate that this magazine has served a worthwhile purpose both for the company and for the water works industry. Basically, the magazine will remain the same as in the past. We will try to produce an informative and entertaining magazine.

Many of our news tips will come from our sales representatives who are located from coast to coast. In a sense, they are serving as "foreign correspondents" for the Record. Then, too, we invite the reader to send us news. Tell us about your promotion, your problems and solutions,—and always enclose your picture with the story.

From time to time, we will carry stories written by experts in the water works field. We hope to carry a personality sketch in every issue—such as that of the very interesting life of Thurman A. Stout of Clarksburg, W. Va. His story is on page 11.

MUELLER RECORD

October, 1953

WALTER H. DYER, Editor

MUELLER CO.

MANUFACTURERS OF WATER AND GAS
DISTRIBUTION AND SERVICE PRODUCTS

FACTORIES

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Printed in the U.S.A.





Liberty Dam, part of Baltimore's \$49,000,000 Patapsco Development, stands completed. The day is drawing near when its opening will be closed and the newly built reservoir will impound 43 billion gallons of water.

More Water For Baltimore

The last yard of concrete has been poured on Baltimore's Liberty Dam, and the day is drawing near when its small eight-by-ten foot opening will be sealed, sending water from the North Branch of the Patapsco River over its banks.

That day, which will conclude the second phase of the \$49,000,000 Patapsco Development, will be a long-awaited one for such city officials as Bernard L. Werner, Deputy Water Engineer, Bureau of Water Supply. Mr. Werner long ago realized Baltimore's desperate need for an increased water supply.

Back in 1951 when The Arundel Corporation of Baltimore was awarded the contract to construct the Liberty Dam, it was noted that the average daily consumption of water in Baltimore City and adjacent counties was approximately 200 million gallons. The safe yield of the Gunpowder Falls Development is 148 million gallons per day, and, as Mr. Werner pointed out at the time, only the fact that the area has had sufficient rainfall during the past decade saved

the city from a serious water shortage.

The Patapsco River had been mentioned as a possible future water supply source for Baltimore City for a great many years. Even at the time the development of Gunpowder Falls was first under consideration, the Patapsco River was studied as a possibility. In those days it was discarded in favor of Gunpowder Falls because the cost of development was greater than that of Gunpowder Falls.

Thus, when it became apparent that Gunpowder Falls would have to be augmented with a supplementary source of water supply, officials naturally turned to the Patapsco River.

Following the recommendations of the Advisory Engineers on Future Water Supply in their report to the Public Improvements Commission in 1934, officials previewed ten dam sites on the North Branch of the Patapsco. There were no suitable storage sites on the South Branch, and even the smallest of them would have resulted in flooding

of the Baltimore and Ohio Railroad tracks which follow the course of the River over most of its entire length.

As a result, the present site was chosen as the most favorable location on the North Branch. It has the advantage of adequate rock formation, a relatively short distance across the stream, and satisfactory impounding volume per unit of height.

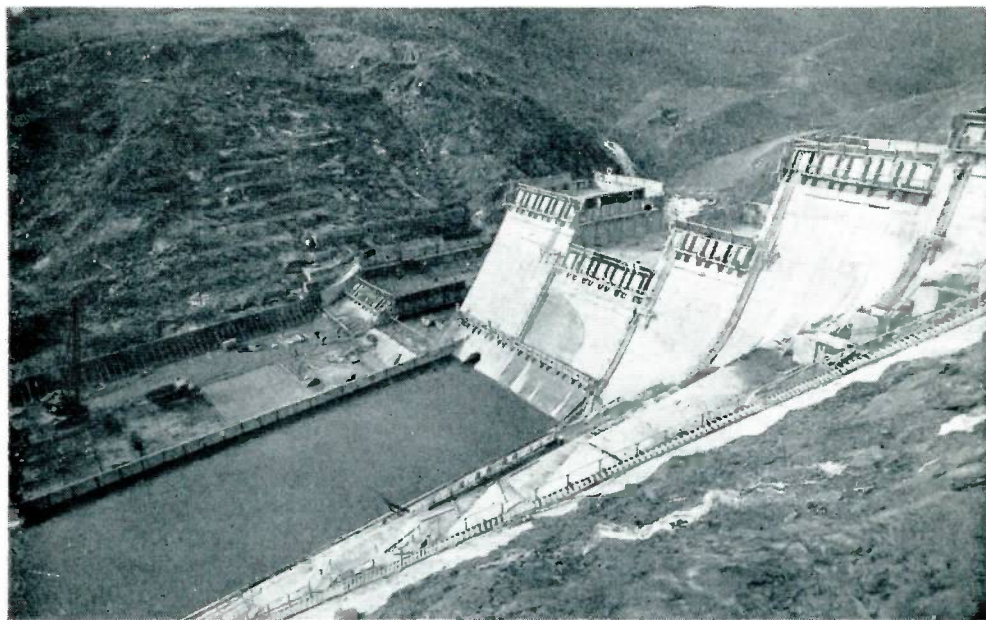
The contract for the construction of Liberty Dam was awarded to the Arundel Corporation on August 8, 1951, and construction was started the following month. The dam is located approximately two miles downstream from the Liberty Road and will impound some 43 billion gallons of water, almost the exact combined capacity of the Loch Raven and Prettyboy Reservoirs on Gunpowder Falls. The drainage area comprises 164 square miles with the stream bed at elevation 275. The length of the shore line of the new reservoir at elevation 420 is 82 miles, and will extend eight miles into Baltimore and Carroll counties. The reservoir will cover 3,100 acres.

The dam is 704 feet in length between abutments, with a spillway 480 feet long. The east abutment is 92 feet in length, and the west abutment 132 feet. The maximum height of the dam above

stream bed is 160 feet. It is a straight gravity type, roughly triangular in cross section and constructed straight in plan.

Prior to its construction a geological investigation of the rock formation was made by Dr. Joseph Singewald, Jr., consulting geologist to the Bureau of Water Supply. In his report, Dr. Singewald described the foundation as being composed of a dark green schist and stated that the physical character of the rock, the structural position of the rock, and the depth of sound rock below the surface were all satisfactory and combined to make this an excellent dam site. His findings have been proven accurate in every detail. After the concrete had been poured, grout holes were drilled through a gallery provided in the dam 20 feet into the rock. These holes took only 300 cubic feet of grout which is an insignificant quantity for a structure the size of the Liberty Dam.

A formula set up by the Water Resources Commission was used in estimating the spillway design flood for the construction of the dam. The Bureau of Water Supply was entrusted with the design of the dam and the preparation of plans and specifications for the structure. It was realized that a structure such as Liberty Dam must have a high



This scene shows the completed portion of the spillway section on the east side of the dam. Visible at the bottom or water level is the eight by ten foot opening for diversion.



Here is a general view of the site that was cleared shortly after the contract was let. The temporary bridge over the Patapsco River can be seen in the distance.

degree of safety, yet it was also known that a dam of this type could be over-designed with a large expenditure of money being spent that did not necessarily add to the dam's safety. Therefore, independent studies were made by the unit hydrograph method to calculate a design flood for Liberty Dam. The spillway design flood is based on an overflow of 46,000 cubic feet per second or 31 billion gallons a day. This figure determines the height of water on the dam, which in turn governs the weight of the structure necessary to resist sliding or overturning of the completed structure. All computations made by Mr. Werner and his department were approved by the Department of Geology, Mines and Water Resources.

In constructing the dam, 202,000 cubic yards of excavation had to be made, 75 per cent of which was rock. The concrete amounted to approximately 160,000 cubic yards, with 410,000 pounds of steel reinforcement being used around the grouting gallery and other reinforced concrete members.

Included in the contract for the construction of the dam was the gatehouse intake tower, which is located near the

present diversion dam and is approximately one and one-fourth miles upstream from Liberty Dam. This circular tower is 35 feet in diameter, and approximately 170 feet high. It houses eight three-by-five foot sluice gates. Two are located on a low level, four in the center, and two on an upper level which makes it possible to draw water from the lake at different elevations. A 270-foot aluminum suspension bridge from the tower to the shore is to be used for a walkway.

The bulk of the concrete for the dam is mass concrete, and the cement content has been limited to a three-bag mix per cubic yard plus one bag of fly ash weighing 94 pounds. Mass concrete used weighed approximately 155 pounds per cubic foot. The use of fly ash in concrete is an innovation in construction by the Bureau of Water Supply, Mr. Werner said, and added that so far as he knew, the use of fly ash on the Liberty Dam was the first such use on any dam in the eastern part of the United States.

The fly ash not only netted the city a savings of about \$80,000 but also contributed largely to the quality of the completed structure. Mr. Werner explained that foremost among control

measures are means of limiting the temperature rise in mass concrete and thus reduce the undesirable thermal stresses and cracking. Under the rapid rate of concrete placement possible today, the heat of hydration of cement cannot escape from the massive structure as fast as it is generated during the early ages of the concrete, and the temperature of concrete rises above the placing temperatures. Reduction of the difference between the maximum and the ultimate temperature of concrete will decrease the tendency of uncontrolled cracking. One method used for reducing temperature rise in mass concrete is the use of fly ash.

Fly ash was obtained from the Consolidated Gas Electric Power & Light Co. of Baltimore.

When completed, the finished structure will cost approximately \$4,850,000.00 or \$373,000.00 over the contract price; however it includes the cost of additional excavation of rock on the slopes downstream, concrete in excess of that estimated and the cost of a 24-inch opening through the dam which can release quan-

ties of water downstream in cases of extreme drought conditions.

Just how long it will take to fill the reservoir after the opening is closed is problematical and will depend on the natural stream flow. Based on the average flow during a period of record, it would take 14 months for the reservoir to fill, provided no water was used by Baltimore City. This time will be shortened or lengthened, depending on whether the run-off is sub-normal or excessive during the next year.

Before the reservoir can be filled, four bridges must be constructed and several new roads built.

Clearing for the reservoir was accomplished by the city's forces. About 110 men were hired to clear the 3,500 acres of wooded area. Nothing was wasted. Some five and one-fourth million board feet of lumber has been sawed with many bureaus of the city government making use of the timber. Private buyers have also purchased a large share.

Trees were cut as close to the ground as is practicable. Grubbing is not being done as it was decided that benefits



This photo shows the diversion of the Patapsco at the west side of the dam and the bottom concrete monoliths being poured.

derived from this operation did not warrant the additional expense involved. Trees too small for lumber are sold as pulp wood to a paper manufacturer located about 38 miles from the site of the operation. The wood pulp averages about 80 cords weekly, for which the city nets approximately \$1,200. Total volume of all sawed lumber thus far amounted to \$500,000, and the sale of wood pulp netted a sum of \$133,000.

There were about 400 buildings on the 200 parcels of land bought for the reservoir, and those that are not now occupied are being leveled. Buildings that are not removed will be burned. What is left will be blasted. Bulldozers will move in then, and level off the rubble. Early records show that the clearing costs for the 6,300 acres will be about \$200 per acre.

It also was necessary to relocate electric transmission lines of the Consolidated Gas Electric Light & Power Co. and an oil line of the Sinclair Pipe Line Co., the former to cost approximately \$250,000 and the latter \$150,000.

Finally, to treat the water from the reservoir, the Ashburton Filtration Plant will be constructed. The Arundel Corporation, of Baltimore, Md., builders of Liberty Dam, recently was the low bidder on this project. Their bid was \$11,590,000.

The plant will have a normal capacity of 120 million gallons a day. Construction of the plant will be the third and final phase of the Patapsco Development. The first phase, and the largest task of



The 170-foot high intake control tower and its 270-foot aluminum suspension bridge is one and one-fourth miles upstream from Liberty Dam.

the three, was the construction of a ten-foot water tunnel to Montebello, costing approximately \$23,000,000.

When finally completed, the Patapsco Development will bring to residents of Baltimore City and adjacent counties an ideal picnic area. But far more important is the fact that residents of the area will be certain of an adequate pure water supply for many years to come.

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T. A. Stout Heads Clarksburg, W. Va. Water Department

The following article concerning the appointment of Thurman A. Stout as manager of the Clarksburg, W. Va., Water Board appeared in the Clarksburg News recently. The story was one of a series in the Clarksburg daily newspaper to acquaint its readers with people "they should know."

The article follows:

Water—clear, cool water. It's always in the greatest demand and its always posing the greatest problems. To the satisfaction of this demand and to the solution of the problems, Thurman Stout, new manager of the city water department, is dedicated and has been for most of his life. He was born in Harrison county in 1899, almost within sprinkling distance of Clarksburg, and attended Washington Irving High School for one year before taking off for prep school in Saltsburg, Pa.

West Virginia University started him on his watery way with a degree in civil and water works engineering. His first job was with the North Eastern Water and Electric Corp., which served Madison, W. Va., and installed him as water-works manager. In 1933, the same company transferred him in the same capacity to Cattlettsburg, Ky. Then in 1938 they sent him on to McDonald, Pa., and in 1940 he went to LeMoyné, Pa.

Water, a demand, and a problem—those three mix well with Thurman Stout. . . In 1942, he entered the army as a captain, assistant post engineer at Fort Meade, Md., in charge of the water-works, sewage plant, and other utilities. In 1943, he was moved to Fort Belvoir, Va., and promoted to major in the engineers. The following year he became a student in the army military government school. In seven months of intensive studying he learned to speak fluent Japanese and knew almost more about



Thurman A. Stout, new manager of the city water department at Clarksburg, W. Va., recently returned to his hometown after a tour of duty which took him to Korea and Tokyo. He was military governor at Seoul, later headed the water department at Tokyo.

Japanese laws and customs than about this country's. When the Japs, occupying Korea, surrendered in 1945, Major Stout, soon to be promoted to Lt. Col., became military governor of the Korean province of Cheju, an island off the mainland.

Here, he supervised all departments of the city of Cheju as well as the other villages dotting the island, and replaced all Japanese officials with Koreans as quickly as they could be trained. By the middle of 1947, as an engineer again, he had charge of the utilities in Seoul, Korea. Then, his tour of overseas duty ended and still not having seen Tokyo, he and his wife, who had joined him in Korea, took ten days furlough. But a colonel friend, head of the Tokyo water-works, whose tour of duty was also over talked him into accepting the job for a year. From Tokyo's water department he joined 5th Army headquarters in Chicago as a civilian engineer troubleshooter until 1950.

From that time until he returned to Clarksburg, he was with the West Virginia Water Service Co., engineering staff. He says, after all this roving he wanted to come back to the home town 'cause naturally, "there's no place like home."

Tapping title again won by Mt. Vernon

Michael Rossi and Joseph Mazulla are still the "world champions."

The Mt. Vernon, N. Y., water works operators won first place in the annual "world champion tapping contest," sponsored July 28 by the Westchester Water Works Conference held at Greenburg, N. Y. It was the second consecutive year Rossi and Mazzulla have won the championship event. Their winning time this year was 4 minutes, 58½ seconds.

As in the case of all four contesting teams, the winners used a Mueller B tapping machine and tools and inserted a Mueller corporation stop in the cast iron pipe used for the contest. Rossi and Mazzulla took the Al Cassey trophy home for the second consecutive time and are looking forward to 1954 when a victory would give them permanent possession of the trophy. Mr. Cassey, retired superintendent of North Tarrytown, N. Y., presented the trophy to the conference two years ago.

Object of the contest was this: Each team of two men would pick up their tapping machine and equipment at a line ten feet from a six-inch cement lined cast iron pipe, place the machine on the pipe, and then drill and tap a ¾-inch



Schmidt's Farm proved to be a nice location for all-around recreation. Here, members attending the Westchester Water Works Conference join in the fun for a fast game of softball.

hole in the pressurized pipe. Then they inserted a ¾-inch Mueller corporation stop, removed the machine and equipment from the pipe and returned to the starting line.

It is interesting to note that the slowest time at this year's annual outing and picnic was 8 minutes, 4½ seconds. By comparison, the 1948 champions posted a winning mark of 8 minutes, 22 seconds.

The outing was attended by city commissioners, water superintendents and water plant operators as well as many private plant officials and operating

Michael Rossie and Joseph Mazzulla of the Mt. Vernon team wear the smile of the victors while posing with "old faithful" in the foreground.

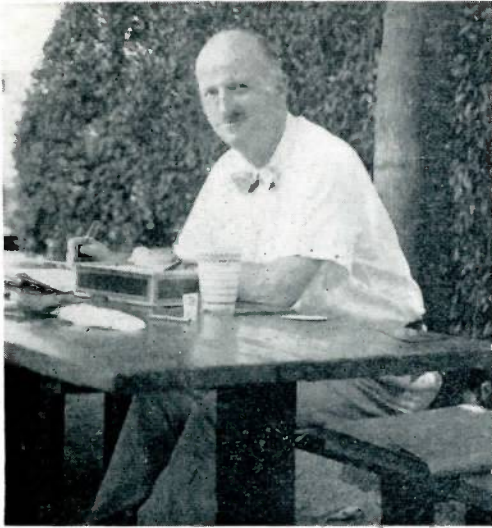


Rossie and Mazzulla show their winning form in this action shot. Their time was 4 minutes, 58½ seconds. The victory gave them the Al Cassey trophy.



Nick Soriano, left of the Westchester J 1 of Mamaroneck, I in 5 minutes, 37½ s





Mac McLaughlin, secretary of the Westchester Water Works Conference, is taking tickets in the photo at left. At right, N. Iannarelle, left, of the Westchester Joint Water Works, Charles Dedde, center, water superintendent at Chappaqua, N. Y., and James J. Harding, commissioner of public works in Westchester County, White Plains, N. Y., renew old acquaintances.

personnel, manufacturers and wholesalers and representatives.

The tapping contest committee included: Arthur Jewel, superintendent, Mt. Vernon, N. Y., Water Department; Charles Horsfall, superintendent Ossining, N. Y., Water Department; Irving Manahan, superintendent, Bryaircliff Manor, N. Y., Water Department, and Al Cassey.

Dinner was served following the afternoon's recreation during which time James E. Williamson, Mueller Co. sales representative, presented the winning tapping contest team with a prize.

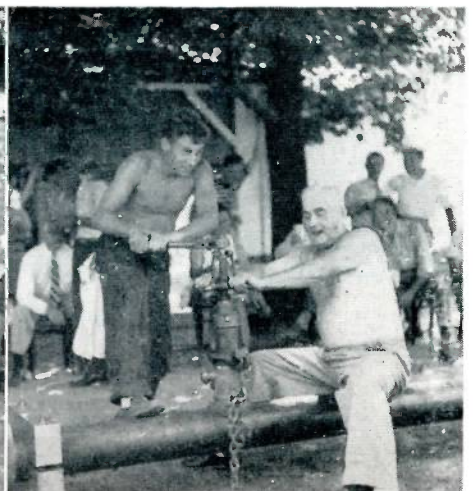


The tapping contest committee, left to right, was Charles Horsfall, Irv Manahan, Al Cassey, and Arthur Jewel.

and Patsy Gabrielle
nt Water Works No.
Y., finished second
conds.

Berie Cropsey and John Castellano, fourth place contestants, represented the Greenburg, N. Y., Water District. Their time was 8 minutes, 4½ seconds.

George Freis, left, and Ed Fisher copped third place in the time of 8 minutes, 4½ seconds. They represented the Thornwood, N. Y., Water District.



Water Utilized As Tourist Attraction

THE utilization of water in Florida for agriculture, travel and recreational facilities has been combined in the state's newest tourist attraction—Ponce de Leon Springs, located on highway 17, eight miles north of DeLand.

The Springs itself is the central spot in the 54-acre area of the attraction. The boil of the spring is located directly in the swimming pool and rises from a depth of 45 feet to form a semi-circular pool 170 feet in diameter, in which the water maintains a year round temperature of 72 degrees. The crystal clear spring flows at the rate of 30 million gallons per day.

Legend has it that a Spanish treasure was buried in the spring cavern in 1817 and numerous diving attempts have been made to recover it. During these attempts historical treasures in the form of machinery for the old Spanish sugar mill, built adjacent to the Springs, have been recovered.

The mill, built in the sixteenth century, has been restored and the large wheel can be seen slowly revolving, propelled by the Spring's water.

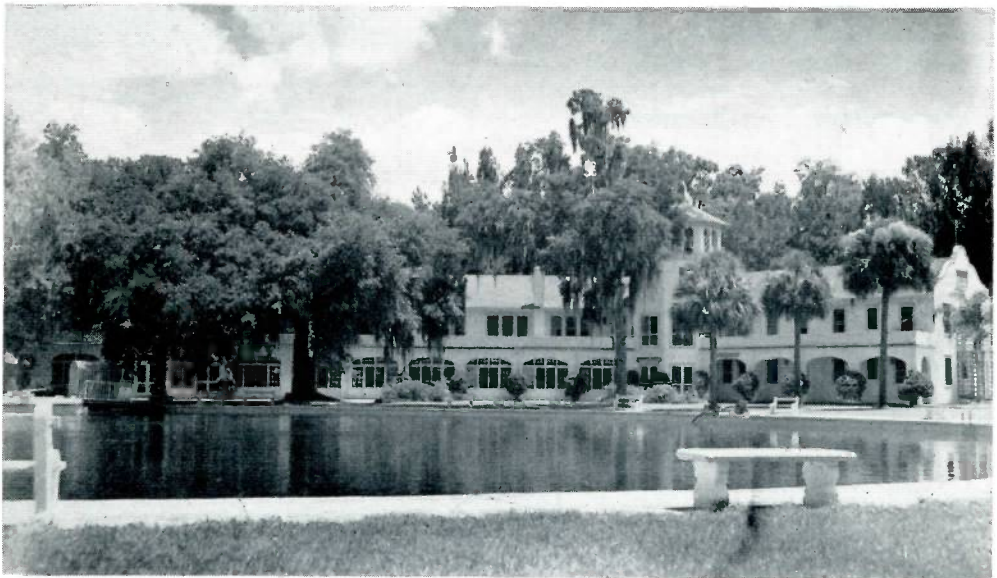
Another recreational device which water supplies at Ponce de Leon Springs is the unusual "Aquabatic Circus" in which college students from Florida State University and Stetson University furnish spectators the thrill and fun of watching acrobats and clowns perform on and over a river island. The island is situated in Spring Garden Run which is fed by the overflow of the Springs and feeds directly into the St. Johns River.

The river island, equipped with a tight wire and high wire for a trapeze, swinging ladder and Spanish web, serves as a stage for the performers, while the surrounding water provides the exit for their acts instead of the conventional circus net.

For the travel-minded, water provides the highway through Ponce de Leon Spring's Jungle Cruise, with fourteen islands housing the inhabitants.

Electric-powered boats take the visitors through a thick Florida jungle on a mile-long waterway to see macaws, flamingoes, ducks, swans, peacocks, bears, deer and monkeys.

The jungle itself is truly a "natural,"



Ponce de Leon Springs swimming pool overlooked by dining room and cocktail lounge.

as before the attraction was opened the waterways were carved out of the heart of rich Florida hammock land, taking nearly four months to complete it. The canals are fed by the St. Johns River.

When one thinks of agriculture in any state, one thinks of orderly rows of food crops growing in cultivated fields, but Ponce de Leon Spring's use of agriculture is one of pure beauty for flower lovers.

The rich Florida hammock land provides fertile soil for over 18,000 camellia plants along Camellia Drive with many different species represented. Other Florida flowers to be seen throughout a 45-minute garden tour aboard a rubber-tired train includes gardenias, flame vine, orchids, hibiscus, and bougainvillea.

Many varieties of Florida trees are to be seen on the garden tour, one of which is the majestic and long-lived Cypress tree. One such tree grows at the foot of the reflection pool, taking a clear picture of itself in the water. This tree is estimated to be 2,700 years old.

A historical pool of water is passed on the garden tour called the clay pool. At this spot the early Seminole Indian settlers washed the red dirt before baking it into vessels.

What nature and history have not provided for visitors at Ponce de Leon Springs the management has, in the way of a modern dining room, cocktail lounge, gift house, snack bar and orange shack.

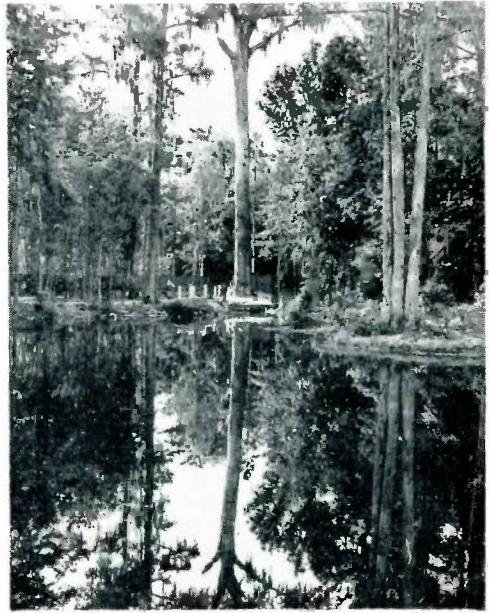
The true spirit of the attraction is represented by the two statues at the entrance gate. Here one sees a nine-foot statue of Ponce de Leon dressed in colorful sixteenth century costume and on his arm is a modern bathing beauty. Ponce is symbolic of the rich historical background of the attraction while his modern companion represents the Ponce de Leon Springs of today with its lovely gardens and spectacular new water show.

BIG MONEY

A hill-billy member of the infantry got into a poker game with some British soldiers. After the first deal, they drew.

"I'll wager one pound," said one of the Britons.

The American studied the four aces in his hand, then declared, "I dunno how you fellows count yer money, but I'll jest raise you a ton."



"Nature's Cameraland" is represented in the gardens by a giant Cypress tree reflected in a quiet pool.

Fred Kroschwitz Retires; Was Mueller Salesman

Fred Kroschwitz, first hired by Mueller Co. in 1928, retired effective July 31. He was a salesman covering a New York territory.



Fred Kroschwitz

Mr. Kroschwitz came to our firm from the J. L. Mott Co. of Trenton, N. J. in 1928. He later left our company but joined Mueller Co. again in 1933 and has been with us continuously since that time.

He is married and has one daughter, Jane Ann, 13.

Mr. and Mrs. Kroschwitz have sold their home in Trenton and are making their home in Fort Lauderdale, Florida.

LITTLE MONEY

Just about the time you think you can make both ends meet, someone moves the ends.

History Made At Big Rapids, Mich.



History was made recently at Big Rapids, Michigan, when a water valve was installed on a six-inch main under pressure for the first time. Shown above from left are E. Peterson of Battle Creek, construction foreman of the P & M Construction Company, Inc., of Battle Creek, and Don Crowell, a Big Rapids city employee. The pair is installing the adapter prior to cutting for the valve insertion.

(EDITOR'S NOTE: George A. Granger, city manager of Big Rapids, Michigan, a city of 7,000, was faced with the problem of how to properly valve his city's distribution system without seriously disrupting the city's water service. Such work had been postponed for more than two years, but when a new elevated storage tank was installed, he was forced to find a way. How he accomplished that task, the first time in Michigan that a valve was installed under pressure in this manner, is told in the following article.)

By **GEORGE A. GRANGER**
City Manager, Big Rapids, Michigan

Before I knew anything about the Mueller Co. valve inserting machine, the only way I could place a valve in the distribution system was to shut down the entire city and drain most of the water system. This was impractical, as well as dangerous in case of fire, so we hadn't tried it for over two years. In July, 1952,

we added a new 300,000 gallon elevated storage tank to the system, increasing the pressure on the system about 30 pounds per square inch. It now became mandatory that I find some way to insert valves in the system without shutting down the plant.

In January, 1953, I saw the Mueller Co. valve inserting machine advertised for the first time in the *Michigan Municipal Review*. As a result of that advertisement I asked to have the machine demonstrated at our yearly waterworks meeting at Traverse City in March. Soon after the demonstration, the P & M Construction Company of Battle Creek bought the machine and a few days later I had them insert the first valve in our downtown area.

We now have inserted 13 valves of four, six and eight inch size throughout the system, and I believe that I now have

the city equipped so that I can shut off a small area when we need to work on the system.

This installation of valves was necessary because there was not an adequate number of valves placed in the lines when the system was originally built in the 1870's, or added in later years. I suppose that in the early days it did not matter if the system was shut down for hours or days at a time. In the years since 1870 some of the few valves that were installed have become useless and it was impossible to shut down any part of the system.

Although such an installation cannot be considered an inexpensive operation, the city commissioners and I feel that the cost of the job was reasonable and that the job should have been done long ago. On most of the valves the city also built a valve pit. Two of our waterworks men worked with the P & M Construction Company crew during their three weeks in the city, and another city crew of three men located and dug the holes over the main for the valve inserting operation.

I certainly would recommend very highly this method of inserting valves in a water system to any city, large or small, in preference to shutting down the entire water system or even a part of it, if it happens to be in a high valve or high water use area. Just one fire in an area where the water is off to install a valve could destroy property worth many times the value of inserting one valve.

The city of Big Rapids is a city of 7,000 population and covers an area of six square miles, of which three square miles is platted and quite densely built up. Our water system has about 18 miles of water mains from 16 inch down to 4 inch. The entire system of mains has about 160 valves installed, including the 13 just placed by the P & M Construction Company; however, the 13 valves are the key valves.

ONE SURE METHOD

We believe in clubs for women when other forms of persuasion fail completely.



Shown lowering the slide valve are, from left, R. A. Martin of Battle Creek, superintendent of P & M Construction Company, Inc., Jack Rubicam of Grand Rapids, Mueller Co. sales representative, Peterson and Crowell.



New Water Pipeline For Caterpillar

Mueller Co. 16x12 Inch Cross Will Connect 16, 12 Inch Pipelines

After cutting the 12-inch pipeline, this workman pounds his sledge hammer against the section of the pipe which was removed to make way for connecting the 12 and 16-inch valves.

The valves are shown being lowered into the hole where workmen connected the 12-inch valve with the 12-inch pipeline and made it possible for the proposed 16-inch pipe line to intersect at this point.



A Mueller Co. 16 x 12-inch cross equipped with 16 and 12-inch valves is playing a big part in supplying water to the soon-to-be-constructed multi-million dollar Caterpillar plant in Decatur, Illinois.

The Mueller cross was installed by the City Water Department and the G. S. Chastain Construction Company of Decatur. The purpose of the installation was to connect a new 16-inch pipeline, now being laid, onto an existing 12-inch pipeline which now funnels water to Decatur's northeast industrial section.

Although primarily intended to bring water to the Caterpillar plant, other industries in the area will benefit from the project. A few are the A. E. Staley Manufacturing Co., Spencer Kellogg & Sons, Inc., Army Signal Corps Depot, the Grigoleit Co., General Electric Co., and the Checkerboard Soybean Co.



Workmen prepare the cross for hoisting into the hole. The 16-inch valve was needed in order that a new pipeline to the proposed new Caterpillar plant in Decatur might be laid.

Here, all workmen join forces to connect the Mueller Co. valves into position. Although primarily intended for the new Caterpillar plant, this also makes considerably more water available for other Decatur industries in this area.



General Sales Meeting Held in Decatur



W. R. AUGUSTINE
Central Sales Manager



DAN R. GANNON
Southwest Sales Manager



A. DEL PARKS
Southeast Sales Manager

Two important promotions and the appointment of a third man formerly associated with Mueller Co. to a similar post highlighted our general sales meeting held at Decatur, Ill., from August 17 through August 21.

W. R. Augustine, who began as a sales representative with our company in 1948 was promoted to the post of central sales manager.

A. Del Parks, who first worked for Mueller Co. in 1935, was elevated to the position of southeastern sales manager.

Returning to Mueller Co. after an absence of 15 years is Dan R. Gannon, who will serve as southwestern sales manager. In recent years, Mr. Gannon has been associated with a nationally-known manufacturer.

These three positions, all new to our company, were created in order that our sales department might better serve our customers. The above named men will act in their respective areas as a liaison between our sales representatives, our customers and our company. They will always be available to assist customers in any way possible.

Company executives and sales department personnel joined sales representatives in the week-long meeting held at Mueller Lodge.

Company speakers who addressed the group were: W. H. Hipsher, executive vice-president; R. H. Morris, general sales vice-president; F. H. Mueller, engineering vice-president; R. K. Levey, general sales assistant vice-president; W. A. Coventry, assistant sales manager, Chattanooga plant; F. X. Uhl, gas sales engineer; F. R. Seevers, assistant to general sales vice-president; L. S. Ross, president, Ross Advertising Agency; and A. G. Webber III, Mueller Co. legal counsel.

Guest speaker for the meeting was Dr. Kenneth McFarland of Topeka, Kan., educational consultant for General Motors and educational director for the American Trucking Association. The widely known teacher, rated as one of the top seven educators today, is also a former guest lecturer for Readers Digest.

Herbert Huffine Joins Sales Force



HERBERT T. HUFFINE

Herbert T. Huffine, formerly associated with a large oil company as a sales representative, recently was appointed as sales representative for Mueller Co., replacing Fred Kroschwitz, who has retired.

Mr. Huffine will make his home in Whippany, N. J., where he is building a home. He is married and has two children. He served in the Air Force during World War II from 1942 to 1946, and was discharged as a captain.

He will travel out of our New York sales office.

L. W. Mueller (Continued from page 3)

Mr. Mueller was born on March 11, 1895, in Decatur. He was married to Claribel Rorick of Detroit, Michigan, on February 5, 1919.

Besides his wife, he leaves two sisters, Mrs. Clara M. Kaiser and Mrs. Leda M. Brownback, and three brothers, Robert H. Mueller, Frank H. Mueller and Clarence Mueller. One sister, Mrs. Phyllis M. Cozad, preceded him in death.

Funeral services were held Friday, October 9, at Decatur. Burial was in the Fairlawn Cemetery at Decatur.

NEW WATER WHEEL OPERATES SNUFF MILL

A newly-installed water wheel is in full operation turning wooden gears and wheels used for grinding snuff at the Gilbert Stuart Birthplace Museum and Snuff Mill at North Kingstown, R. I., near the historic village of Wickford. The unique museum, birthplace of the foremost portrait painter of George Washington, consists of the carefully preserved original house with furnishings, the snuff mill, restored to working conditions, a grist mill and a herring run. The house was built about 1751.

Special carpenters were engaged by the Gilbert Stuart Association to make the water-powered mill wheel, as these huge wheels must be highly balanced in order to turn properly.

Visitors see the huge mortar and pestle of the 18th century snuff mill once used for grinding cured tobacco leaves into snuff. This mill is believed to be the only old-time snuff mill in demonstration operation in this country. A feature of the huge snuff mill apparatus is a large wooden wheel driven by wooden-toothed gears. The house is furnished with many interesting pieces of period furniture, cooking utensils and implements. Guides first show the room in which Gilbert Stuart was born in 1755.

Stuart studied art under Benjamin West in England. A few years after the Revolutionary War, Stuart returned to this country and painted portraits of many of the new republic's wealthy people. He is most famous for his portraits of George Washington, of which two originals may be seen by visitors to Rhode Island. One is in the Governor's Reception Room at the State House, Providence; the other is in historic Old Colony House, Newport, where Washington was entertained during visits to the old city. Incidentally, Stuart was commissioned by the State of Rhode Island to paint both portraits. Most Americans see copies of Stuart's most famous portrait of Washington daily as they handle a dollar bill or a twenty-five dollar war bond. Other Washington portraits by Stuart have been used on postage stamps.

Off the .. Record ..

As a young man, Mark Twain was a serious newspaper reporter who took the word of his city editor as one of finality.

Told one day to "cut his stories to the bone with no unnecessary description," the famed American humorist came up with this piece the following day:

John Butler looked up the elevator shaft to see if the elevator was coming down. It was.

Age 45.

The Sunday school teacher had finished her talk on behavior and what folks must do to get to Heaven.

"Now, Billy," she questioned, "tell me what we must do before we can expect forgiveness of sin."

There was a moment's thought, then Billy replied: "We gotta sin."

A young boy was applying for a job in a downtown office. The manager said to him:

"You know, we have very early hours here."

The youngster brightened a bit and said:

"That's okay with me. The earlier we quit, the better."

The elderly woman was trying on spectacles in a department store, reaching for first one pair and then another, and having a hard time making up her mind. An optometrist came along and said: "Pretty hard to get the right pair of glasses that way, isn't it?"

"It certainly is," replied the sweet old thing, "and especially when I'm getting them for a friend."

Wife: "Darling, aren't those chimes beautiful? Such harmony! Such a beautiful tone!"

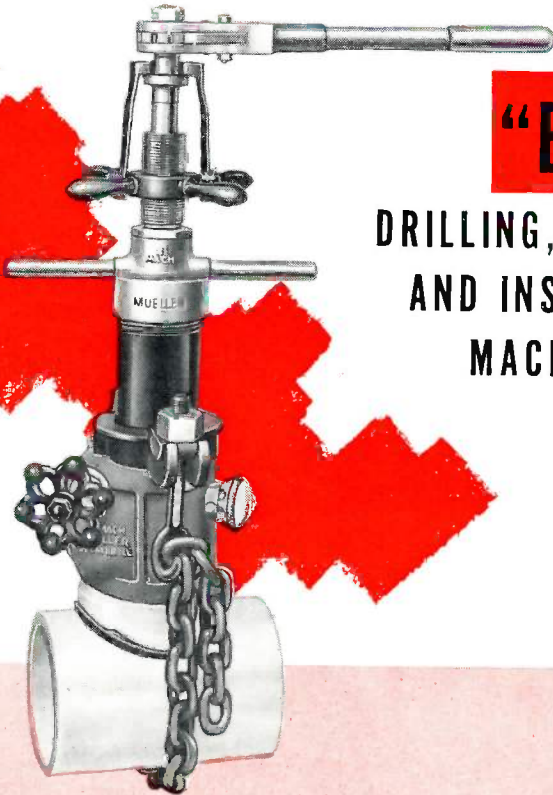
Husband: "You'll have to talk louder than that, honey. Those darn bells are making such a racket, I can't hear a word you say."

Liverlip & Leo



This is carrying the ground-breaking ceremony too darned far!

MUELLER



"B"

DRILLING, TAPPING AND INSERTING MACHINE

The Mueller "B" Drilling, Tapping and Inserting Machine will drill, tap and insert or remove corporation stops $\frac{1}{2}$ " through 1". It will also insert or remove pipe plugs up through $2\frac{1}{2}$ ". This work can be done under pressures ranging up to 400 p.s.i.

Taps with various types of threads to fit your requirements are available. For complete information on the full line of Mueller Drilling and Tapping Machines, see your Mueller Representative or write direct.

MUELLER CO.

Dependably Since 1857

MAIN OFFICE & FACTORY DECATUR, ILLINOIS

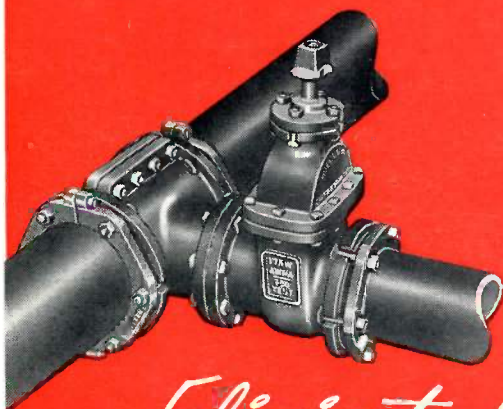
MUELLER

Mechanical Joint Tapping

Sleeves

and

Valves



Eliminate Calking!

No pouring of lead or calking of any kind is necessary with Mueller Mechanical Joint Tapping Sleeves and Valves. A permanent leak-proof joint can be quickly and easily made even under adverse weather conditions.

All end and side gaskets are totally confined to eliminate cold flow. With only two sets of gaskets, one sleeve for a nominal size of pipe will fit all classes of cast iron pipe regularly used.

Sleeves are available for immediate delivery to fit 4", 6", 8", 10" and 12" main with outlets equal size or smaller.

MUELLER CO.

Dependable Since 1857

MAIN OFFICE & FACTORY DECATUR, ILLINOIS