MUELLER
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MAY • 1965

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MUELLER RECORD

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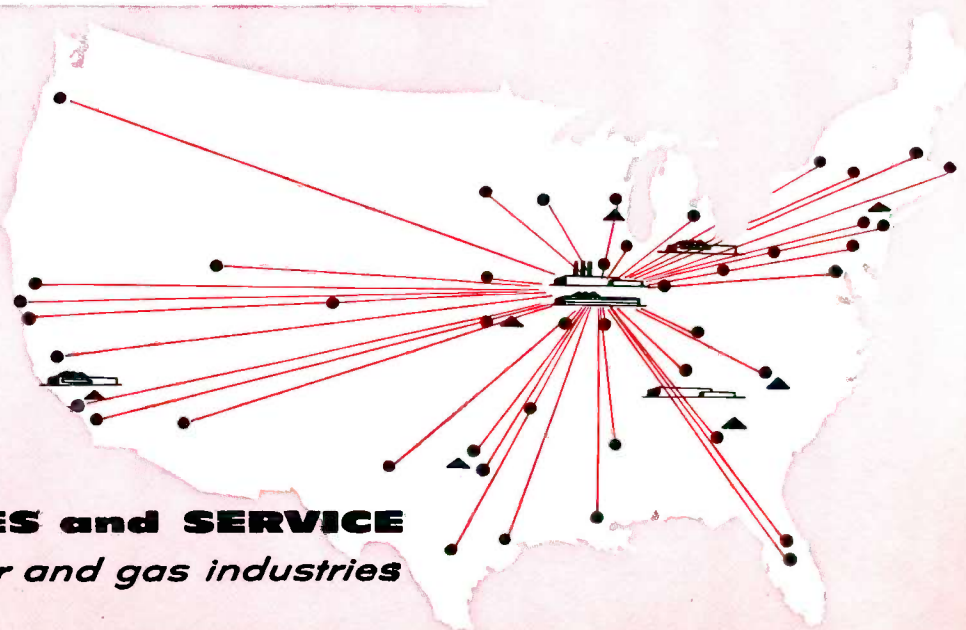


MUELLER DAY

Atlanta's Aim: Make Good Men Even Better

The theme for last year's American Water Works Association's annual conference was "Better Men for Better Service." Much of the emphasis in past years has been to seek out the best people and then try to keep them.

Today, however, you not only try for the best people available, but then you work to make them better, improving both the individuals and, in turn, the services they perform. This has been the philosophy adhered to for some time at the Atlanta Water Works, although a concerted, coordinated training program has been in effect for only about two years.

Even though the program is only about two years old, it is one of the pace setters of the industry and certainly one of the best equipped. In typical Atlanta Water Works style, there is no detail overlooked and no second-rate performance tolerated.

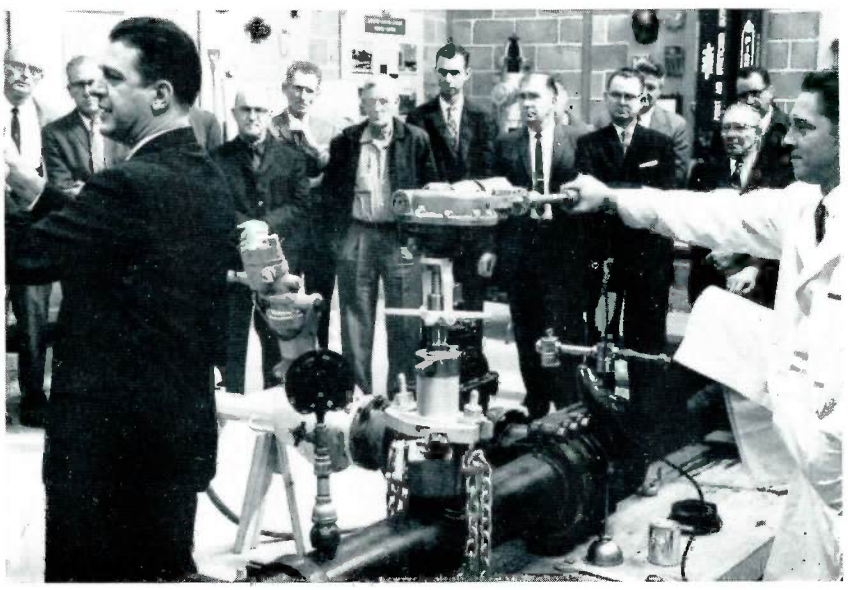
The spirit and enthusiasm for the training program prevails throughout the department, emanating from the top of the pyramid in the person of General Manager Paul Weir, and fanning out through the ranks to the men in the trench.

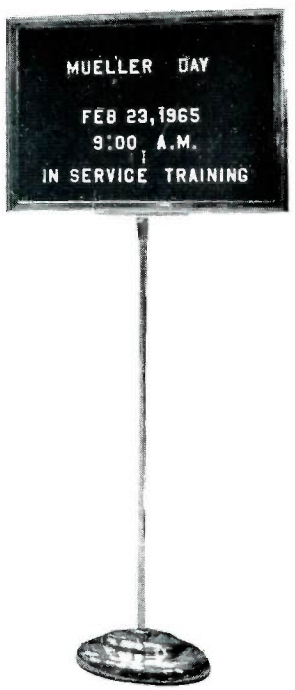
A successful program requires guidance and support from top management, and there is no question about the strong feelings of Mr. Weir on the program.

One of the most note-worthy points of the Atlanta program is its scope. Mr. Weir says, "A familiarity with the jobs of other departments leads to a greater spirit of cooperation and makes for a more cohesive organization, receptive to the needs and aware of the problems of each other."

This interest in other departments and the overall operation of the system begins with an orientation program for new employees. An entire day is spent introducing new employees to water, learning about purification, pumping, distribution, engineering, and business office procedures, as well as visiting City Hall and touring major facilities.

A couple of hours in this unique Water Works Training Center is all that is necessary to give a person a greater appreciation of water, and an awareness of the physical





Mueller Section Manager Bob Ott (left) discusses brass goods with Atlanta (Ga.) Water Works personnel at "Mueller Day," which was just a part of the continuing in-service training program that is being carried on in Atlanta for all levels of personnel. At Mueller Day about 40 supervisors had a chance to discuss and observe Mueller products in the department's training center. While Ott talks about a corporation stop, Sales Representative Jack Chilton uses a Mueller B-100 to make a tap under pressure.

A storage building has been converted to this attractive training center at Atlanta which includes a hydraulic room replete with displays, equipment and working models. The Chattahoochee Conference Room (right) is tastefully decorated and fully equipped with the latest training aids.

facilities and hard work that are necessary to produce this product.

About two years ago, the Training Center building was a storage area. Today it houses a wood panelled classroom accommodating about 50 people, and a complete laboratory. This classroom has a projection booth, maps and facilities for all of the latest training aids.

The hydraulic laboratory section is outfitted with displays and models of various types of equipment used in water supply, safety gear, and even a miniature layout of an electric pump and motor about the size of a fist, which actually circulates water. It also demonstrates the remote control of equipment from the dispatcher's office.

Training programs for veteran employees, taught by supervisors in each particular area, are continually carried on. Hydraulics, fire hydrant maintenance and installation, pumps, diesel engines, safety and chemistry are all parts of the curriculum.

Personnel are interested enough to volunteer to attend sessions on time off. If a training aid isn't available, a staff member or department employee working through Training Coordinator J. F. McKee, use their initiative and know-how to produce a model or a cutaway of the real thing.

A recent innovation was an invitation to Mueller Co. to make a presentation to about 40 of the water system's top management personnel.

"Mueller Day" included classroom sessions, slide presentations, discussions and demonstrations. Sectional Sales Manager Bob Ott and Sales Representative Jack Chilton discussed brass goods, fire hydrants and made a tap and inserted a corporation stop with a B-100, and made a six-inch cut with a CL-12 machine.

One of the highlights of the day-long session was a "visit" from Mueller founder, Hieronymus Mueller, who was portrayed by Chilton. Complete with whiskers, top hat, cutaway coat and rifle, he discussed Mueller Co. history and development in a colorful and dignified manner. W. R. Leopold, Mueller Director of Engineering, was also on the program and discussed the engineering that goes into Mueller products, and was available during the day for technical assistance.

Mueller was the first supplier to participate in the Atlanta training program, but from the enthusiastic response, it was a successful experiment and others may be invited.

The response of employees of the Atlanta Water Works and the success of this fine operation, strongly suggest other water utilities should investigate a broad in-training program and should invite and employees to participate, learn and become "Better Men for Better Service."

Participant concentration.

Jack Chilton, posing as Hieronymus Mueller, discussed Mueller Co. history.

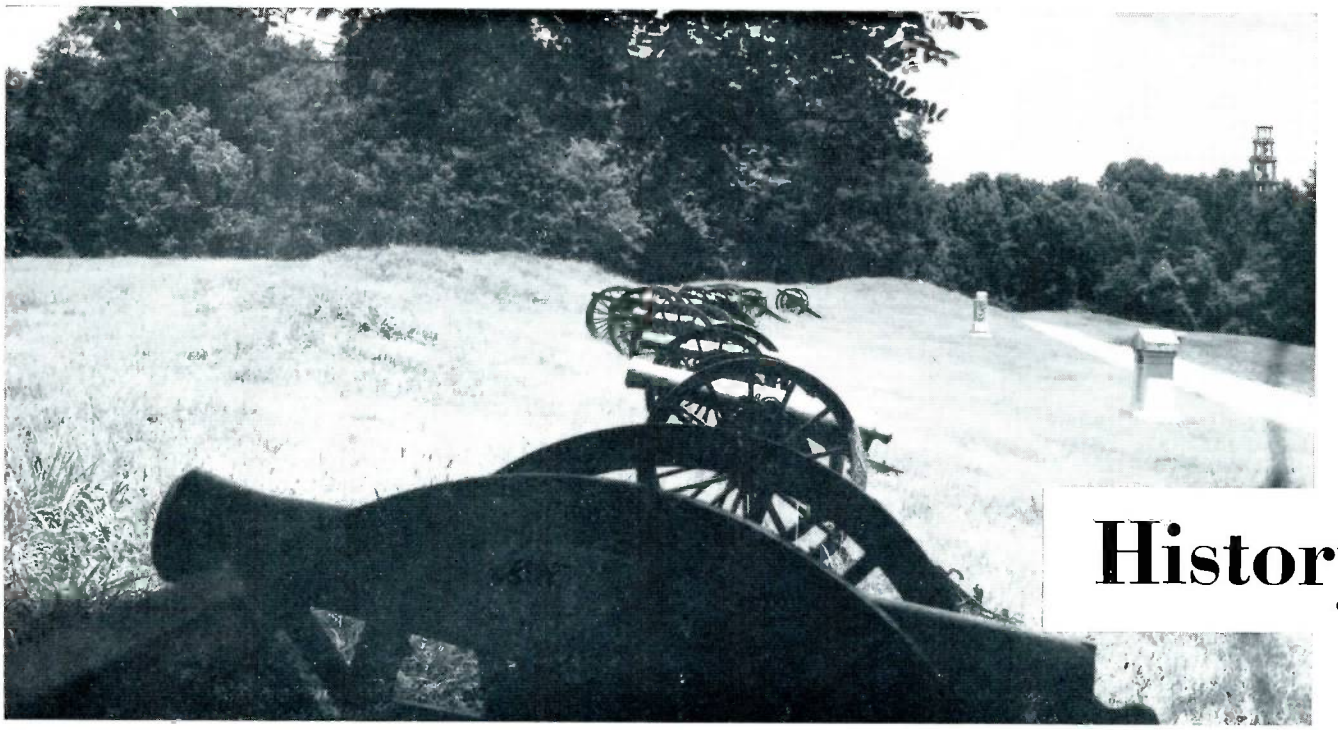
General Manager Paul Weir gestures as he makes opening remarks at Mueller Day.

Bill Murphy (left) Assistant to the President at Mueller Co. and Outside Sales Manager Del Parks (right) chat with Mr. Weir during a break in the day-long session.

C. W. Cline, Chief Engineer of Construction, checks the easy turning qualities of a Mueller/107® fire hydrant during part of the session.

Checking an inserted corporation stop are, from left: Wendell Campbell, Guy Garner, William T. Bush, and Edward Pritchett.

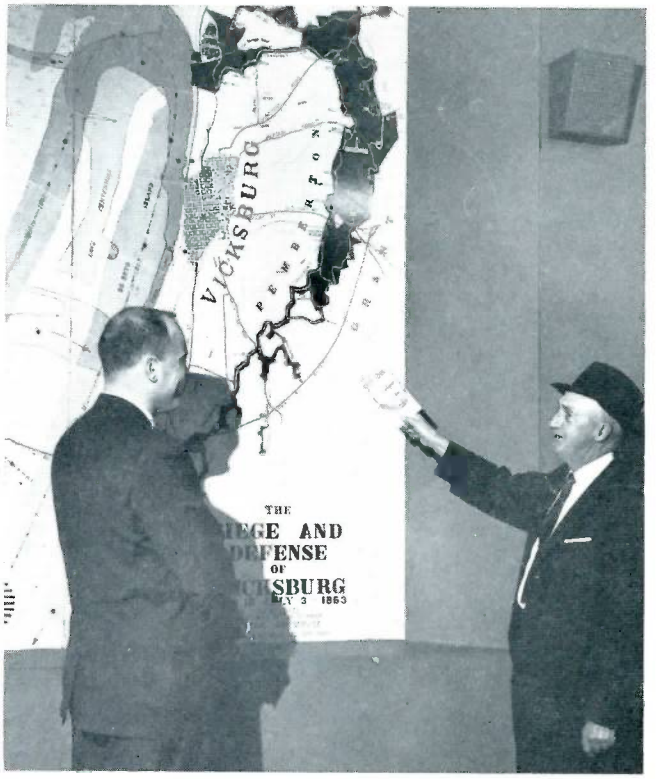
Examining a coupon cut from a pipe by a Mueller CL-12 drilling machine are, from left: Paul Weir, Richard Smith and J. H. Bullard.



History

A battery of Confederate cannons line Union Avenue at Vicksburg National Military Park, Vicksburg, Mississippi. Hundreds of thousands of tourists visit the park each year to relive some of the most important moments of the War Between the States.

Twenty-four large state monuments are found in the national park erected as memorials to the thousands who were killed or fought during this great battle.



Tom Robinson, Superintendent of Water and Gas Administration, tells Mueller Sales Representative Dave Resler (left) about the siege of Vicksburg.

Civil War Attractions Draw 400,000

Each Year to Vicksburg, Mississippi

Is Part of Its Future

Many cities have been criticized for living in the past and doing little to improve themselves.

Vicksburg, Mississippi, is living, to some extent, on its past and still doing a good job of being up to date. This really is not a contradiction because Vicksburg's history attracts about 400,000 visitors a year, and in a town of 40,000, an influx like this is important to many businesses and to the overall economy of the city.

"The Red Carpet City" is one of the terms used to describe Vicksburg's attitude toward visitors and to substantiate this term, many people work hard and use the most modern methods to attract these tourists.

While the past plays an important part in the lives of Vicksburg residents, industrial development is not de-emphasized in favor of tourism. Recently a 250-acre industrial park was developed adjacent to the Mississippi and Yazoo Rivers.

Industry is developing and prospering in Vicksburg; but what attracts the hundreds of thousands of tourists each year?

Vicksburg was called the "Key to the Confederacy" during the Civil War, and its association with this war is the key to Vicksburg's tourist trade.

A beautiful park following the former battle lines used in the fight for Vicksburg, a museum of war relics in the park, an old courthouse filled with Civil War items, ante bellum homes, and a floating museum on the largest sternwheel towboat ever built, all attract Civil War buffs, historians and just plain, average, interested tourists.

Vicksburg National Military Park, established in 1899 by an act of Congress, is an area set aside to protect the earthworks, forts and cannons situated along the various battle sites.

About 27 miles of automobile roads traverse the former battle lines of the Confederate and Union forces along the ridges which form a half moon around the City of Vicksburg. The 1500-acre park contains about 1,600 monuments, markers and plaques, including 24 large state memorials.

Many historians claim that this battle was the turning point in the War Between the States. The gun emplacements along the bluffs of the Mississippi controlled the river for the Confederacy, and its control was essential to the entire South, if victory was to be achieved.

The battle and siege of Vicksburg lasted about two months. Grant tried two frontal attacks and each time his armies were repulsed with heavy losses, so late in May, 1863, he started the siege of the city. On July 4, the Confederate forces surrendered to an army five times its size. This split the Confederacy and led to a campaign that ended the war.

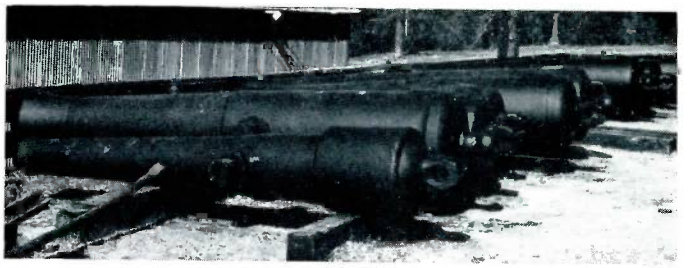
Vicksburg's most historic landmark—the old courthouse—contains in its eight large display rooms the largest collection of Confederate Americana in the South.

Located on a hill that commanded a sweeping view of the Mississippi River at the time of the battle of Vicksburg, the courthouse was a frequent target of Federal gunboats. It was over this building that forces of General Grant raised the U. S. flag on July 4, 1863 to signify the end of the paralyzing 47-day siege.

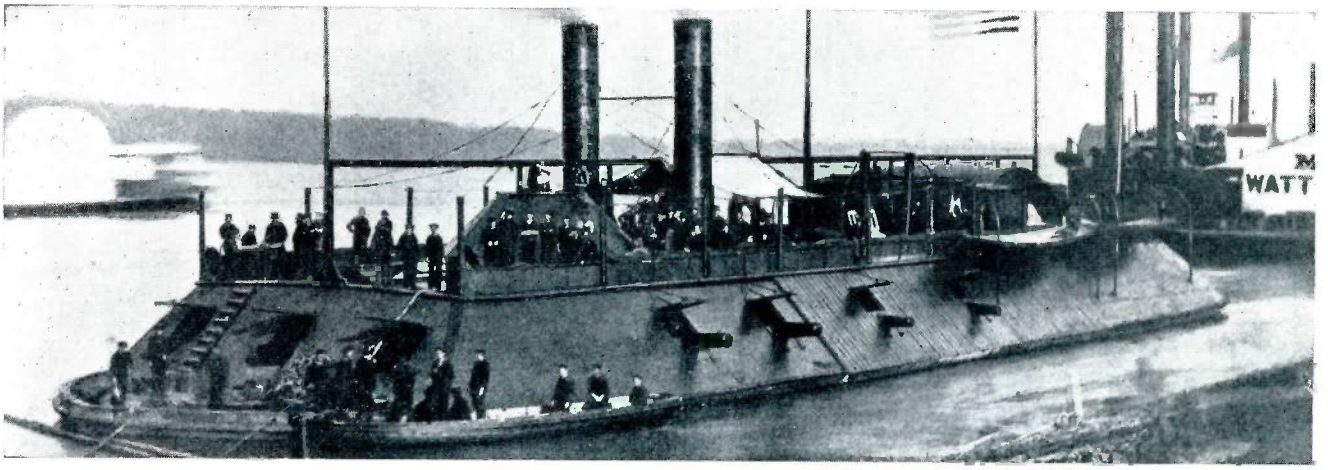
A floating museum can be found aboard the Sprague which is the largest sternwheel towboat ever built. The Sprague now contains the "River Hall of Fame" and also houses the Dixie Showboat Players as they perform "Gold in the Hills," an old-time melodrama now approaching its 29th season.

Although Vicksburg has been successful in attracting tourists to the city, a new project is underway which may add more color to the history of the area.

A Union gunboat *Cairo* was des-



At the right are some of the cannons recovered from the sunken "Cairo". The Union ironclad gunboat (below) was sunk near Vicksburg during the Civil War and recently parts have been recovered and plans are progressing toward its reconstruction.
("Cairo" photos courtesy Illinois Central Magazine.)



troyed by a torpedo in the Yazoo River in 1862, and for nearly a century it rested, forgotten, on the muddy river bottom. Edwin C. Bearss and Don Jacks, both of the Vicksburg National Military Park staff, and Warren Grabau, an amateur historian, made a study of old records, and in 1956, they located the sunken remains of the *Cairo*.

Efforts to explore and raise the vessel were carried out by volunteers using whatever was available. Their efforts to raise the boat were unsuccessful, but many artifacts were recovered. These artifacts increased enthusiasm for raising the boat and a study was made that said it would be possible to bring her to the surface.

In February and March of 1964, the Mississippi Agricultural and Industrial Board began again an attempt to raise the boat. This attempt employed the method of placing cables completely under the vessel, attached to two large flat barges. The barges would then be sunk and by pumping out the water, the barges would rise, hopefully bringing the *Cairo* up with it.

However, a sudden rise in the river broke the barges loose from their moorings and the cables around the boat snapped.

Last summer, the City of Vicksburg and Warren County got legal ownership of the boat from the State and efforts were renewed to lift it. Timbers, weakened by being submerged so long, couldn't hold the cables and the hull broke up as it was raised. The pieces, including all the heavy guns, have been brought to the surface, and experts say it is possible to restore the boat.

If the restoration is accomplished, the only ironclad Union gunboat in existence will be opened as a museum.

Although much has been chronicled about the Civil War days in Vicksburg, the early history of the city is rather sketchy. A Methodist clergyman and farmer named Newit Vick, left North Carolina, and with his family, floated down the Tennessee and Mississippi Rivers until he found a spot to his liking at the confluence of the Yazoo and Mississippi. Here, in 1811, he settled and in eight years enlarged his landholdings enough to deed a portion of these for the founding of a town. In 1840, Vicksburg was incorporated as a town and because of its location on the river, it became a busy, bustling, roistering community.

Although the history of Vicksburg is colorful and attracts many visitors, the future of Vicksburg is not all blue and gray—it is bright.

New industry is being sought, interest is shown in a renewed downtown and the water system is being studied for a possible complete revamping.

The largest single employer in Vicksburg is the U. S. Army Engineer Waterways Experiment Station which employs about 1,200 persons, working on projects for the development and improvement of our rivers and harbors—traditionally for flood control and navigation; more recently, for the corollary development of hydroelectric power and the conservation of water.

Westinghouse employs about 600 persons in a new, modern plant, and about 700 are employed at Anderson-Tully Co., working on wood and lumber products.

The Vicksburg Harbor Industrial Park, which is just completed and now available for use, has 250 out of 1,500 acres developed for an

This floating museum is another attraction for tourists at Vicksburg. This largest sternwheeler to ever ply the Mississippi houses relics of riverboat days and serves as a theater for the Dixie Showboat Players.

Commissioner Charles Guion gets a briefing on a Mueller corporation stop from Supt. Robinson. (left) Vicksburg is a Mueller city all along the line.

industrial park. This area is adjacent to the Mississippi and Yazoo Rivers and bordered by the Yazoo Division Canal.

Highway, railway, water and power lines have been constructed and a full harbor is available. Over 13 million cubic yards of dirt have been moved to develop this area and to form a harbor channel.

One of the many reasons given by Vicksburg officials why an industry should locate there is an abundance of water through the city system, wells and the rivers.

Thomas M. Robinson, Superintendent of Water and Gas Administration, says that even though Vicksburg has a seemingly inexhaustible supply of Mississippi River water, an engineering study has just been completed outlining alternate supply sources and a new filter system.

Such forethought is indicative of the municipal utility management.

The study, made by Allen & Hoshall, consulting engineers of Memphis, recommends using shallow wells instead of the river water for supply. The report says that the chemical and physical characteristics of the well water will be uniform, whereas the river water make-up changes from minute-to-minute, leading to purification problems.

Although the present system has a capacity of about 12,000,000 gallons a day, or about double the present daily peak consumption, the study also suggests that a new filter plant with a 16,000,000 gallon daily capacity be built to accommodate and soften the new supply.

The engineering study is now under serious consideration by a local group including Mayor John Holland and City Commissioners O. J. Bori and Charles Guion.

The water system in Vicksburg pre-dates the Civil War, and in 1914 the city purchased it from private owners. It has about 8,500 services and about 115 miles of main today. Four elevated storage tanks hold a total of 1,300,000 gallons and the system normally operates at pressures of 60 to 70 pounds, although this can be boosted to a maximum of 150 pounds.

Due to Vicksburg's location on the hills and bluffs along the Mississippi River and elevations varying as much as 150 feet, higher pressures must be maintained, leading to additional problems.

Vicksburg has a conventional treatment system on the bank of the Mississippi, but it has a unique intake. Due to river level fluctuations, an adjustable intake is used which is raised and lowered by a power winch with the river level.

Supt. Tom Robinson has been at Vicksburg only 13 years, but he can discuss Vicksburg, its history and its part in the Civil War like a native son—a mighty proud son.

He received a mechanical engineering degree from the University of Michgan in 1923 and the following year he studied hydraulics. In 1930 he went into the utility business as an engineer for the Federal Public Service Corporation of Chicago and eventually he became southern division manager, which introduced him to the South and ultimately to Vicksburg. Supt. Robinson is immediate past-chairman of the Alabama-Mississippi Section of AWWA.

With such progressive men as Tom Robinson, Mayor Holland, Commissioners Guion and Bori, and leaders of the Chamber of Commerce, Vicksburg will continue to be "The Red Carpet City" with a historic past and promising future.

Waterways Experiment Stations

BIG THINGS DONE ON A SMALL SCALE

Let's stroll along the banks of the Mississippi. Whoops, be careful to step over that stream of water. It happens to be the Arkansas River.

This sounds like something out of fantasyland or a tour lead by the Jolly Green Giant, but a visit to the U.S. Army Engineers Waterways Experiment Station near Jackson, Mississippi, can make this walk a reality.

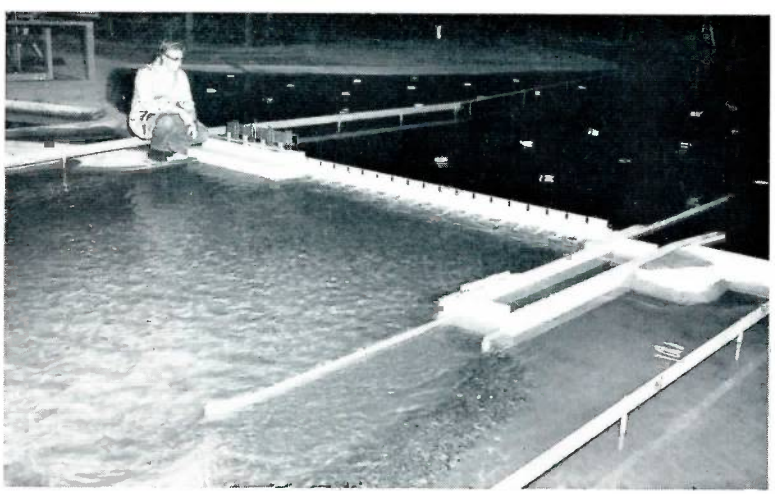
Through the magic of models, technicians and engineers have reduced the 1,250,000 square mile area of the Mississippi River Basin into 220 acres. Nearby at Vicksburg is a 400-acre reservation where the Corps of Engineers has developed the world's largest and best equipped laboratory facility for practical application of experimental hydraulics.

Through the use of hundreds of models, technicians have brought a tunnel of the Fort Peck Dam, a spillway from the Kings River, the New York Harbor, and the Niagara Falls to Vicksburg where they can be studied under controlled conditions.

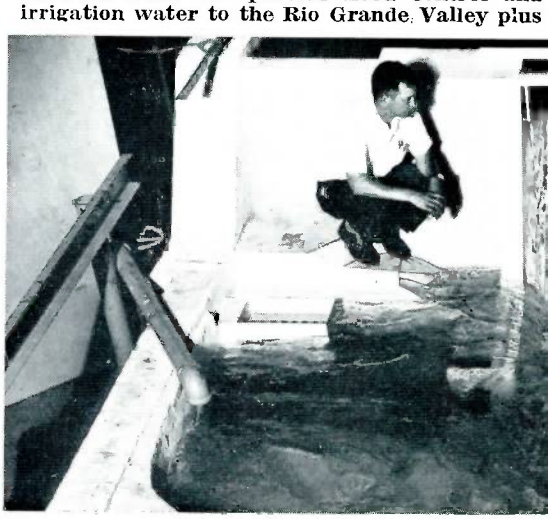
The civil functions of the Corps of Engineers involve the development and improvement of our rivers and harbors, traditionally for flood control and navigation; more recently, for the incidental development of hydroelectric power and the conservation of water for municipal, agricultural and industrial purposes. Like waterworks personnel, these engineers and scientists study water, its actions and methods for its control.

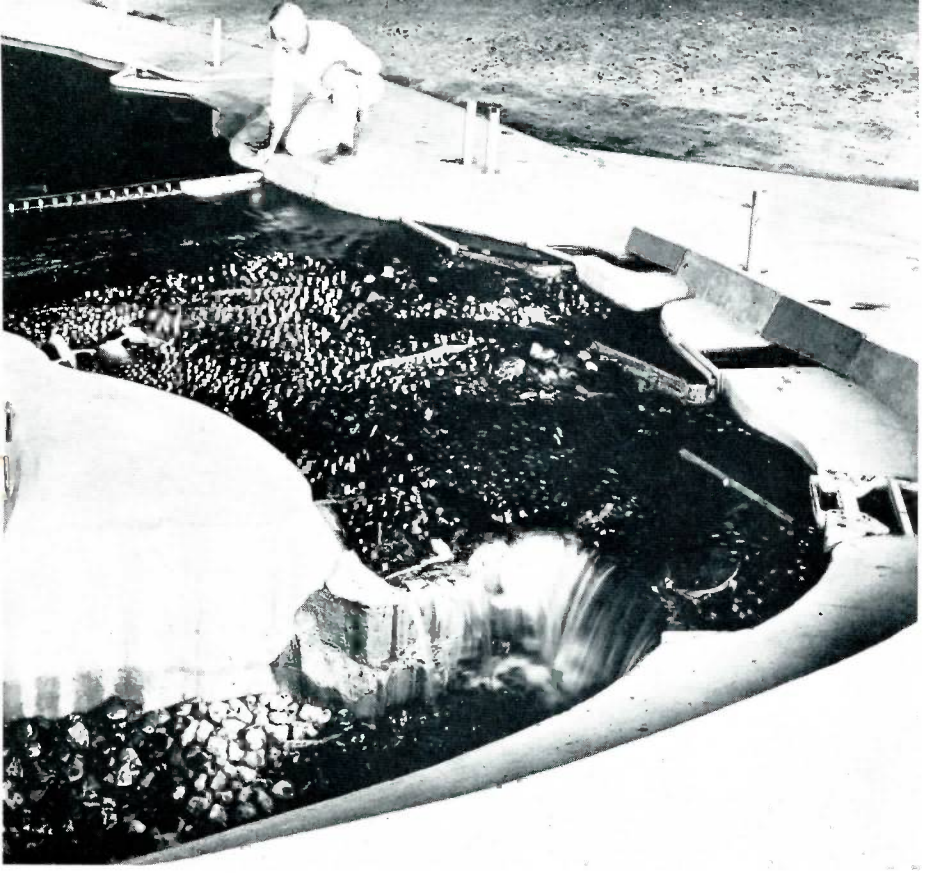
In addition to the hydraulics field, the stations in Mississippi are engaged in research and engineering investigations in the scientific fields of concrete, soil mechanics, mobility of military vehicles, nuclear weapons effects and flexible pavement design. These

An engineer studies the best navigation conditions and spillway designs by using this hydraulic model of the Robert S. Kerr Lock and Dam on the Arkansas River in Oklahoma.



This discharge being released through spillway gates here represents over 1¼ billion gallons of water per second in nature on the Rio Grande River at the Amistad Dam spillway. Amistad Dam will provide flood control and irrigation water to the Rio Grande Valley plus





This looks like a fancy pool and rock garden in the back yard of an expensive home, but in reality it is a working model of the Niagara River and Falls. Such miniature layouts play an important part in the work of the U. S. Army Engineer Waterways Experiment Station at Vicksburg, Miss.

other activities are valuable, but the study of hydraulics seems to receive the greatest emphasis.

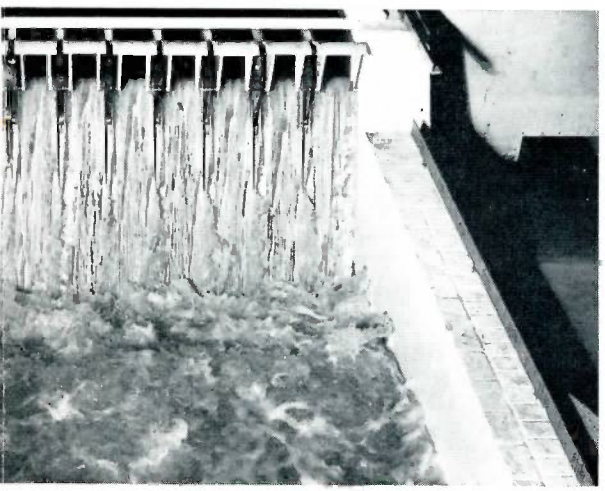
Although much of the research work at the stations is carried on through office analysis, laboratory experiment and field tests, the use of models makes a tour of the test station like a visit to the land of make believe. The models are so realistic that you think the workmen should be replaced by "little people" from **Gulliver's Travels.**

Nearly 18 acres are enclosed in 13 hangar-like structures to protect the miniature structures from the weather and to provide near-ideal surroundings for lengthy study of each project.

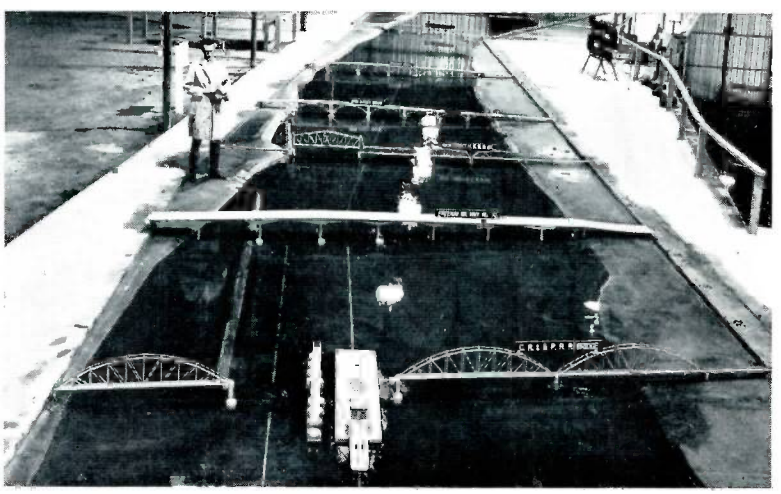
It is often necessary to reproduce to scale in models such phenomena as tides, tidal currents, wave action, movement and deposition of shoaling material, movement of beach sands, as well as the intrusion and mixing of salt water. To simulate such conditions it takes machines for making and measuring waves, equipment for shifting the tides, wind tunnels, vacuum tanks, and many flumes. Silt-injection apparatuses are used for mixing, injecting and recovering simulated silt. About 1,800,000 pounds of salt were purchased last year to keep the model oceans at the same salinity concentrations as the real ones.

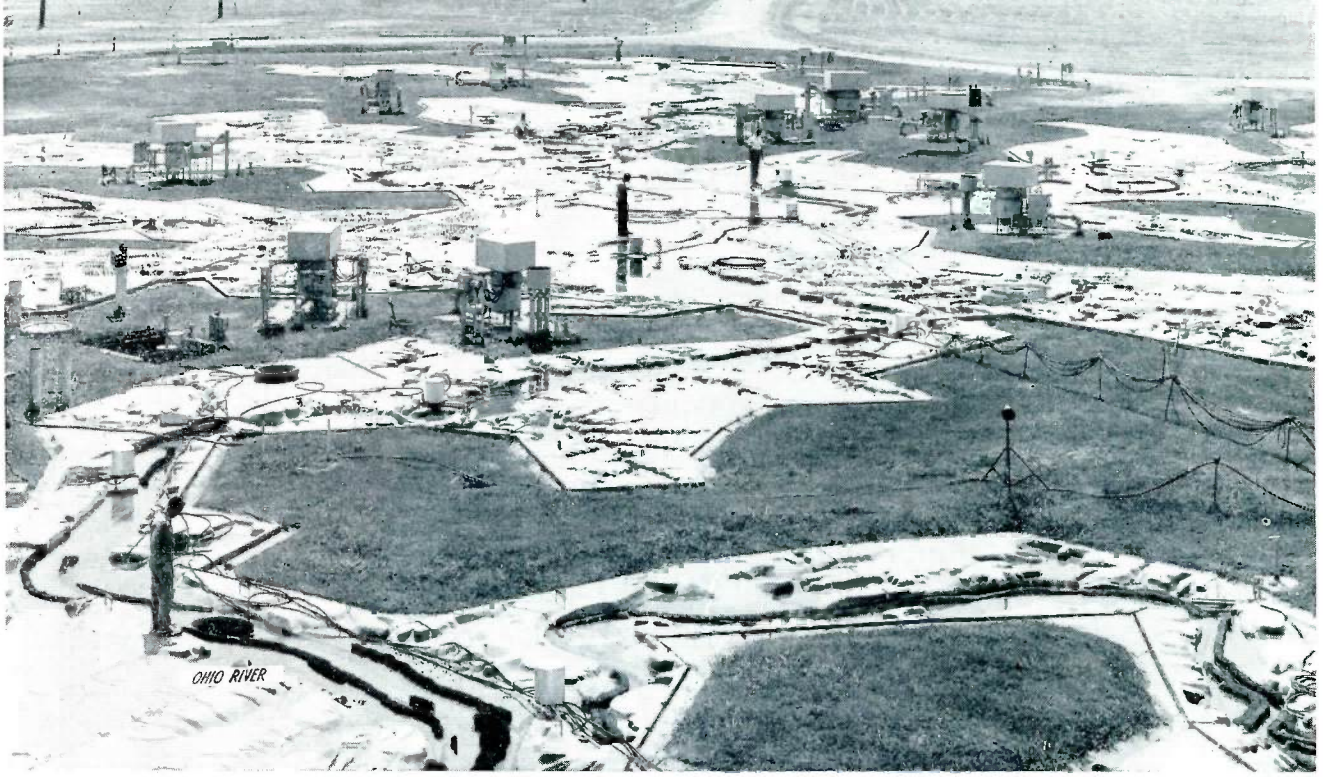
Of course, the main ingredient was water. Like any major process or project undertaken today, vast amounts of water are necessary for the Waterways Experiment Station. Last year the station purchased about 48,600,000 gallons of water from the City of Vicksburg system. The model area contains 13 reservoirs equipped with pumping stations so arranged as to supply water in required volumes

the extra benefit of power. The Mexican Ministry of Hydraulic Resources and the Corps of Engineers cooperated in planning this project. By using this model the engineers were able to test the effectiveness of a proposed stilling basin.



A remote controlled tow pushes barges upstream through the swinging span of a railroad bridge across the Arkansas River at Little Rock. Constructed on a scale of 1:100, the model allowed technicians to develop a navigation channel through the area where six bridges cross the river.





This is the largest, small-scale working model in existence, covering 200 acres. It shows the Mississippi River and its major tributaries from Sioux City, Iowa to the Gulf of Mexico. The principal purpose of the whole model is to aid in the development of basin-wide plans for coordinated operation of flood-control works.

to any desired points in the area. The largest plant has a normal capacity of 111 cubic feet a second, but this can be doubled with the addition of more pumps.

This water is stored in the reservoirs and used over and over as it is re-circulated through its pipe network ranging in size from a half-inch to 48 inches.

Following one of the nation's great disasters—the 1927 flood on the Mississippi River—the Waterways Experiment Station was established as a hydraulics laboratory to assist the Mississippi River Commission in developing and implementing comprehensive plans for flood control in the Lower Mississippi Valley. As the program progressed, it soon became necessary to establish a soils laboratory to aid in designing the levee system and insure the adequacy of foundations. From these activities blossomed new needs resulting from World War II and the postwar period.

While the Mississippi flood of 1927 led to the establishment of the experimental stations, the threats of more floods led to the construction of the Mississippi Basin Model.

Although the cities of Sioux City, Iowa, and Memphis, Tennessee, are 1180 river miles apart, the effects of rising waters in the upper Missouri River Basin on the Mississippi at Memphis can be seen on the model in a matter of minutes. Great floods of the past and the possibly greater floods of the future can be created in the model in accurate miniature to demonstrate the functioning of flood-control works already constructed and those in the planning state. In this manner, additional needs are foreseen, shortcomings are revealed and plans to achieve maximum flood protection at minimum costs are developed.

The model has the appearance of a gigantic relief map with streams and floodplains molded in concrete. It is a reproduction to scale of the Mississippi River and its major tributaries from Sioux City to the Gulf of Mexico.

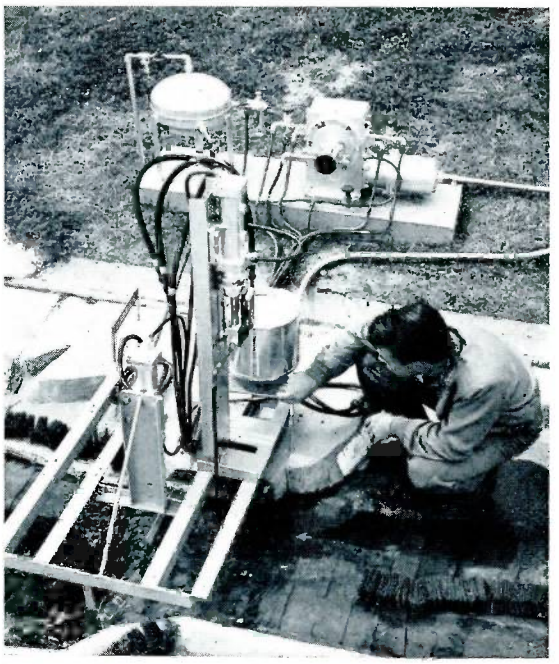
About 40 per cent of the continental United States is included in the Mississippi Basin and all or parts of 31 states and two Canadian provinces are found in the model. Within this area are more than 200 reservoirs, several thousand miles of levees and many other flood-control structures. The manifold operations of the units of this immense and intricate system of structures are so interrelated that they must be closely coordinated and controlled if maximum basinwide benefits, as well as local benefits, are to be realized.

In 1942, Major General Eugene Reybold, then Chief of Engineers, visualized this model of the gigantic basin. In spite of World War II, the project was begun in 1943 on the site nine miles west of Jackson, Mississippi. A major undertaking in itself was the preliminary grading and drainage of the model site, which involved more than 1,000,000 cubic yards of cut and fill, and the installation of 85,000 linear feet of storm sewer ranging in size from 8 to 60 inches.

Due to a shortage of material and manpower, work progressed slowly until a 3,000 man camp for German war prisoners was constructed at the model site and for nearly three years, the prisoners prepared the land and shaped the terrain to represent approximately the contour of the Mississippi watershed.

Molding of the model, the streams and floodplains was begun in 1947. The surface of the model is accurately molded in concrete to linear scales at ratios of 1 to 2000 for horizontal dimensions and 1 to 100 for vertical dimensions. These scales are the same as those of a model of the Lower Mississippi River, located at Vicksburg, which has been in use since

Standing in the vicinity of Angola, La., these visitors take a look at the lower Mississippi River flood control model. The densely folded screen wire along the river is to obstruct the flow of the river out of its banks just as trees, fences and vegetation do during flooding.



This intricate piece of equipment was devised to simulate reservoir operation and measure river fluctuations as new flows are introduced. The folded screen can again be seen in the river bed to retard the flow of water so that it moves at the same speed as the real river.

1935 to study flood-control plans for that portion of the river.

The water discharge ratio of the basin model is 1 to 1,500,000. Operation of the complete model as a unit requires about 1,000 gallons of water per minute but under some conditions, this need rises to 8500 gpm.

Water is supplied to the model from a recirculating system, consisting of a large sump, two 2500 gpm pumps, a 50,000-gallon elevated storage tank, supply lines to the inflow pumps on the various streams, and return lines to the sump from the outflow points where the water is diverted from the model. About 30,500 feet of fresh-water supply and return lines of 4 to 30-inch pipe are used.

Realizing that it would take a staff of about 250 to manually operate the total system, the engineers decided to use an automatic system centrally controlled.

In preparation for a test, the timer and calendar which operate in model time, and the programmers that control inflows and recorders are set; then by means of a single switch, all instruments in the control house and on the model can be started. As the waters are introduced to the system they simulate those that are actually flowing in the river basin and automatically charted. From instrumentation and compilations, engineers are able to predict flood levels, areas where levees are inadequate and where flooding will occur.

In April of 1952 the model dramatically demonstrated its value as a forecaster of flood levels. It operated 24 hours a day for 15 days relaying information and calculations to flood fighters along the Missouri and Mississippi, issuing warnings where areas would be flooded and shoring up hopes of workers who prayed that the water levels would stay within the banks of the river.

The model, however, is not used primarily in flooding situations. Its first use is to demonstrate the functioning of flood-control works already constructed and those in the planning stage. It can be operated as individual river basins, and each division of the Corps of Engineers can use its portion of the model to study problems concerning the rivers under its jurisdiction.

As soon as a whole section of the model was completed, it was verified and adjusted until floods of record were accurately reproduced under model conditions similar to the natural conditions existing during real floods.

To make these adjustments, the surfaces of the model channels had to be roughened with either square metal pegs placed in a geometric pattern or concrete ridges running around the wetted perimeter. Timbered areas that could be covered by flood waters are simulated by means of densely folded screen wire. All levees, pertinent railroads and highways are constructed on the model, some with removable sections to permit the reproduction of breaches and washouts.

During recent weeks the Mississippi River and some of its tributaries have been on a rampage and causing damage in a seemingly unchecked fashion. The work of the Corps of Engineers through such facilities as the Waterways Experiment Stations and the models available there has made possible great strides in controlling The River.

These stations, the models and activities are used and built by the U.S. Army Corps of Engineers, but the facilities are owned by the millions of citizens who pay taxes and who reap the benefits of their work.

California Mother Demonstrates

THE POWER OF WOMAN

UNDEPENDABLE water supplies, contaminated water and no fire protection are the kinds of things that get a housewife and mother upset and calling for corrective action. Sure, these get men riled too, but there is nothing like an irate mother to take up a cause.

These were the unpleasant conditions in south central Shasta County, California, that prompted a housewife and mother, Mrs. Charles W. Castor, and a number of other interested citizens to campaign for the formation of the Cascade Community Services District.

The district was legally formed March 28, 1960, and five directors were named. Also, Shirley Castor was named recording secretary and six months later she was named manager. Little did this mother of two realize that this job would take her to Washington to confer with legislators and to meet the late President Kennedy, or force her to add such words as "horsepower", "saline producing strata" and "bonding power" to her household vocabulary.

We say household vocabulary because for the next three years her home was the office for the District. Mrs. Castor believed so strongly in the project that she offered her home and services without charge because "the needs of the District were so very great that I felt anything I could do to help was nothing more than any public spirited person would do."

The efforts of Mrs. Castor, the Board of Directors and residents have not gone unrewarded because today the district has a new fire station and district office, a new fire truck, an auxiliary fire truck, while a domestic water system, including fire hydrants, is nearing completion.

"Believe me, those red fire hydrants are the finest adornment this district has seen in many years. Fire hydrants to us mean fire protection and low insurance rates, two items we have never had. We have seen a dream come true," Mrs. Castor said.

In the formational stages of the District, it must have seemed like a dream because the realization of the goals of the District appeared so remote.

Soon after the formation of the District, the Board of Directors hired the engineering firm of Clair A. Hill & Associates of nearby Redding, Calif. This firm investigated all possibilities of water sources and distribution and drew up plans for the proposed project, but this took money, just like everything else the District needed.

In January, 1963, the District turned to Washington for help and made application for a government grant of $600,000 which would be matched by the district for the construction of the water system.

The voters of the District accepted their portion of the bargain

Mrs. Shirley Castor turns on a new Mueller fire hydrant in the Cascade Community Services District of Shasta County while members of the Board of Directors look on. Members from left, are: Harry Siefken, John McShane, Marvin Shultz (chairman) and John Letsinger. Absent when the photo was taken was James Branstetter.

and passed a $750,000 bond issue on Sept. 17, 1963, to be sure there was more than enough to meet the cost of the $1.2 million system which included the sinking of wells, construction of a reservoir tank, and the laying of the pipe network.

In November of 1963, Mrs. Castor was sent to Washington to confer with authorities and to present the case for the District and the $600,000 request. Included in the trip was an opportunity to meet with the late President Kennedy.

A local newspaper reported Mrs. Castor's trip to Washington in the following manner: "A trip to Washington by an energetic woman may have saved the residents of the Cascade Community Services District $600,000."

In January, 1964, the District was notified that the grant had been approved and an already busy life for Mrs. Castor became hectic.

The final plans had to be completed, the project put out to bid, contracts signed and work started by May 29. The deadline was met as contractors got to work on the 26th.

The completed water project will include 28 miles of pipeline, 400 fire hydrants, a 1,000,000-gallon steel reservoir, five deep wells and 1,000 paying customers.

The population of the District in 1960 was 3,300 with estimates climbing to 4,700 in 1970 and 10,400 in 2000. The area of the District is 2,800 acres with much room for expansion which will cause greater water demands.

Full-time members of the District now include a steno-clerk, Mrs. Castor and Robert Proplesch, who is the water works superintendent.

You may wonder how Mrs. Castor has time for any outside diversions, but she enjoys playing bridge, working as assistant leader of a Blue Bird group, doing volunteer work for the American Cancer Society as well as belonging to Beta Sigma Phi sorority and the Redding Soroptimist Club.

"In my spare time I bake cookies for my 19 year old son in the Army Engineers," she adds.

If that weren't enough, she enjoys wallpapering and re-decorating her home. Then there is a nine year old daughter, "J.F." a toy poodle and a sorrel mare named "Flicka" as well as the man of the house who all compete for her time.

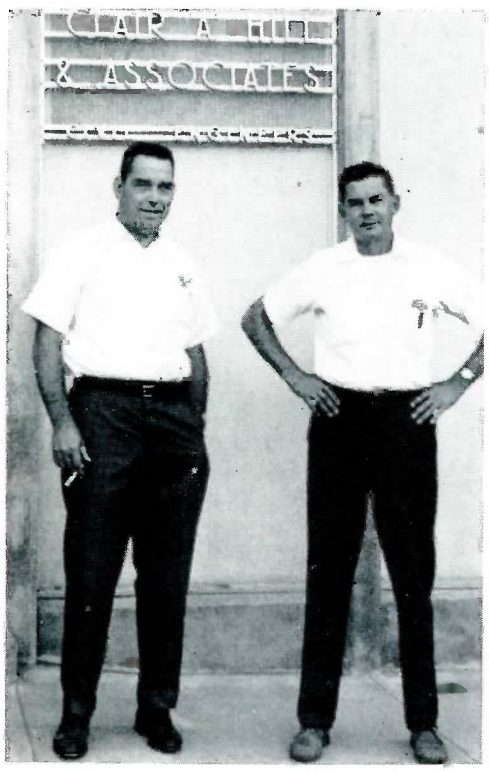
Mrs. Castor says that if credit is due anyone for her work with the District, it is her husband, Charles, who is a television engineer. "He has never objected to the time donated, or the fact that the house for three years was overrun with files, adding machines, etc., or that many evenings were devoted to meetings and work. His 'baby sitting' hours amount to several hundred. Without his support of my interest in this district, I could not have made it."

She is quick to add that the District's five directors "have always given me the encouragement and help I needed. I am very grateful to them all."

As the coaches say, "It was a team" effort, and there is no question that such an undertaking can only come about through the efforts

(Cont. on next page)

District engineers for the Cascade project were Melvin Landis (left), project engineer, and John A. Jensen, chief engineer, of Clair A. Hill & Associates of Redding, Calif.



Kirkwood-Bly Inc., of Santa Rosa, Calif., installed 25 miles of distribution main for the project. From the contracting firm are, from left: Cass Bly, Jim Kirkwood and Bud Bartram.

(Con't. from Page 15)
of hundreds, but there is usually one moving force. The prime mover in this case has to be Mrs. Castor.

Melvin P. Landis, assistant chief engineer (sanitary), was project engineer for Hill & Associates and pretty well sums up Mrs. Castor's work.

He says: "Every successful project, whether it be a super rocket installation or a sandbox in the backyard, requires the special attention of someone, not just the technical or business outlook alone, but the personal touch.

"I became project engineer for the District after it was established, but it was nothing more than a group of people trying to determine how to accomplish the aims of the District.

"All of the Directors were busy with the everyday chores of making a living, and Shirley was my one contact I could count on to get information.

"It is interesting to me that you usually don't find women interested in hydraulics and horsepower and all of the other ramifications that go into planning a water works system, but Shirley always asked questions and wanted to know why and how much. She didn't question my technical ability, she just wanted to know so that she could pass the information along to other people.

"To make a long story short, the Cascade Community Services District's water works system was designed and constructed, and had it not been for Shirley it might still be in the planning stage. She gave it the personal attention that it required and made it much more pleasant for all working with her."

It has been an enlightening association for Mrs. Castor too, as well as rewarding and pleasant she says. "For many years water was an item that you obtained by turning on a faucet. If you were fortunate in this District, you always had water from that faucet. If your well went dry or became contaminated, that was another story. In four years I have learned water is not something you automatically purchase. It is a commodity that takes a lot of hard work by a lot of people." she concludes.

She should know, because she is one of them.

Around the Water Industry

85th ANNUAL AWWA SESSION

"Better Tools for Better Service" . . . . is the theme of the American Water Works Association's 85th annual conference which will attract about 4,000 men and women in Portland, Ore., June 27 through July 1.

A busy six-day schedule of activities will include 21 technical sessions, covering subjects as varied as "Pesticides in Human Beings" and "The Use of Modern Computers and Systems Analysis in Treatment Plant Design."

During the technical sessions, more than 100 leaders in the field will discuss the basic problems facing the water industry, and will bring to the attending utility men all the latest information available pertaining to the solution of these problems.

On June 27, more than 100 manufacturers and distributors of water utility equipment and chemicals, will hold an "Exhibit Preview," providing a first look at the newest developments in technological and engineering equipment available to the water utility whether is serves a small community or a metropolis.

Mueller Co. again will take an active part with a modern, attractive display showing the "best tools for better service." Sales and Engineering personnel will be on hand at the Mueller booth to discuss and answer questions about the newest Mueller products which will be presented to the trade.

Also included in the sessions will be the installation of AWWA officers for 1965-66. President-elect is Samuel S. Baxter, water commissioner for the City of Philadelphia. He is currently vice president of the 17,000 member association.

Leo Louis, president of Gary-Hobart Water Corporation, Gary, Ind., has been nominated vice president, and Hubert F. O'Brien has been renominated treasurer. Mr. O'Brien is president and director of the A. P. Smith Manufacturing Co.

"Man of the Year" award goes to N. T. Veatch, past president of AWWA and partner in the engineering firm of Black and Veatch of Kansas City, Mo. He will receive the John M. Diven Memorial Medal at the annual conference.

The award is presented each year, as circumstances warrant, to the member who has rendered the most outstanding service to the association during the past five years.

OUT OF STYLE WITHOUT HER NEW COAT

Except for Mueller salesmen, fire hydrants are seldom referred to with the warmth and tenderness displayed in the following exchange of letters between a Pittsburgh attorney and the Hampton Township Water Authority. One hydrant was overlooked during a painting project and led to the following letters:

The attorney writes:

> On the main line at the highest, yet least conspicuous spot sits an undressed plug. She was forgotten when her sisters were given their new fineries and top coats.
>
> Her anguish should be assuaged so that she too may join without embarrassment the glamorous protection-parade of her more fortunate kin.

In response to the attorney's letter the authority's office manager replied, in part:

> We are happy to report that our little lost "sister" has been found and will receive the same kind attention her relatives are all receiving.
>
> It is very gratifying to know that our new "glamor protection" catches the eye. And, we are sure Mother Nature will heartily approve.

Thanks to Mueller salesman Dick Kahl for sending this information along, and we assume that this hydrant's bonnet was properly decorated for Easter.

Del Bagenski

Three promotions have taken place recently in the Decatur Sales office.

Delmar E. Bagenski, former Sales Department Assistant for the gas products section, has been named Sales Service Manager for the water products section. He fills a vacancy created by the promotion of Charles O. Bafford to Manager—Inside Sales.

Bagenski started with Mueller Co. in 1950 in the Shipping Department and worked there until January, 1962, when he went into the Sales office.

Lyle McWard, who has been customer service correspondent, succeeds Bagenski in the gas products position. McWard started in the Mueller factory in 1958 and in 1961 he went into the Sales Division.

Succeeding McWard is Max B. Justice who has been order expediter. After working a year in the factory, Justice went into the sales office in 1962.

Brea Plant Wins "Top Ten" Award

Mueller Co.'s plant in Brea, California has been named one of the "Top Ten" United States manufacturing plants of 1965 by FACTORY magazine.

The plants were chosen for their overall excellence in planning and construction facilities from a list of more than 1500 entries nominated by architects, engineers, builders, chambers of commerce, development commissions and others.

The Mueller plant houses both a brass and an iron foundry for the production of fire hydrants, gate valves, steel forgings and other products for the water and natural gas industries.

The two-level main building at the Mueller plant has about 13,700 square feet of office space on one level and about 148,000 square feet of manufacturing area on the lower level. It has a structural steel frame, precast concrete tilt-up walls and a lightweight insulating concrete roof.

Construction was started on the Mueller plant in September of 1963 and full production began in early 1964. The facilities were designed and engineered by Sverdrup & Parcel of St. Louis.

Among the criteria for screening the nominees were such points as adaptability to changes in production methods and processes, provisions for growth and expansion, plant electrical services, maintenance, and the appearance of buildings and grounds.

In their final determinations, FACTORY'S editors evaluated each entry on over 150 engineering specifications and construction details. Cost, size of parking lots, location, methods of handling wastes to avoid water and air polution, ventilation, medical and health facilities, noise suppression and community relations are just a few of the qualifications that were reviewed.

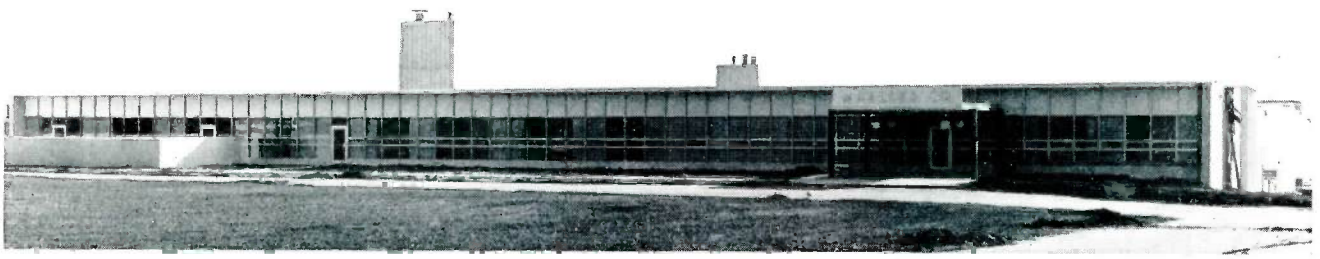
HARRY V. SEEVERS, FORMER SALESMAN, DIES

We regret to report that retired Mueller Co. sales representative Harry V. Seevers died in March in Ottawa, Kansas. He was 71 years old.

Mr. Seevers joined Mueller Co. in 1917 as a sales representative and was assigned to cover the state of Kansas. At the time of his retirement late in 1958, he was still traveling Kansas as well as parts of Iowa, Nebraska and South Dakota.

Funeral services were held in Ottawa.

Survivors include one son, Dick, who is Mueller sales representative in Colorado.



Mueller Co. plant in Brea—a member of the "Top Ten".

Strictly *Off the Record*

A newly-rich woman returned from her first trip to France and was making it known as widely as she could. "And Paris," she gushed, "Paris is marvelous. The people are all so educated and cultured, nothing crude as in this country. My dear, even the street cleaners speak French!"

* * *

Little Junior, who hadn't spoken a word in all of his six years, finally blurted at breakfast: "Mom, the toast is burnt."

His amazed mother shrieked joyfully, hugged him and said: "Junior, why haven't you spoken to us before this?"

"Well," replied Junior, "Up to now everything's been O.K."

* * *

"My husband," explained Mrs. Smith, "is an efficiency expert for a large company."

"Imagine that!" exclaimed Mrs. Brown. "But what exactly does an efficiency expert do?"

Mrs. Smith gave the matter a moment's thought. "Well, you see," she said, "if women did it, it would be called nagging."

* * *

At a party, two men struck up a conversation.

"Gosh, I'm all in," said one to the other.

"I think I'll flirt with some good-looking chick so that my wife will take me home."

* * *

"Well," sighed the weary traveler, "have you ever spent two weeks in a station wagon with those you thought you loved best?"

* * *

Man to pilot: "How are we doing?"

Pilot: "We're lost, but we're making good time."

A little girl was telling her teacher about losing her baby teeth. One tooth was loose and she already lost three. "Pretty soon I'll be running on the rim."

* * *

Customer—"Yes, I'm looking for a cashier."

Employment Manager — "But didn't we send you one last week?"

Customer—"You sure did—he's the one I'm looking for."

* * *

Mrs.—"No, don't get me anything expensive for my birthday. I'd rather have something you made yourself."

Mr.—"Such as what?"

Mrs.—"Money!"

* * *

Hubby—"Dear, you'll have to give up that idea of a new spring suit this month. Money at the bank is awfully low."

Newlywed—"I know you are a good businessman, honey, but if I were you, I'd certainly put our account in a bank that had plenty of money."

A man went to see his physician for advice as to how to be cured of the habit of snoring.

"Does your snoring disturb your wife?" asked the M.D.

"Does it disturb my wife?" echoed the patient. "Why, it disturbs the whole congregation."

* * *

"Dad," asked a young upstart, reading the local paper, "do political plums grow from seeds?"

"No, my son," replied the wise parent. "They are more the result of clever grafting."

* * *

An American in England was giving some illustrations of the size of his country.

"You can board a train in the State of Texas at dawn," he said, impressively, "and twenty-four hours later you'll still be in Texas!"

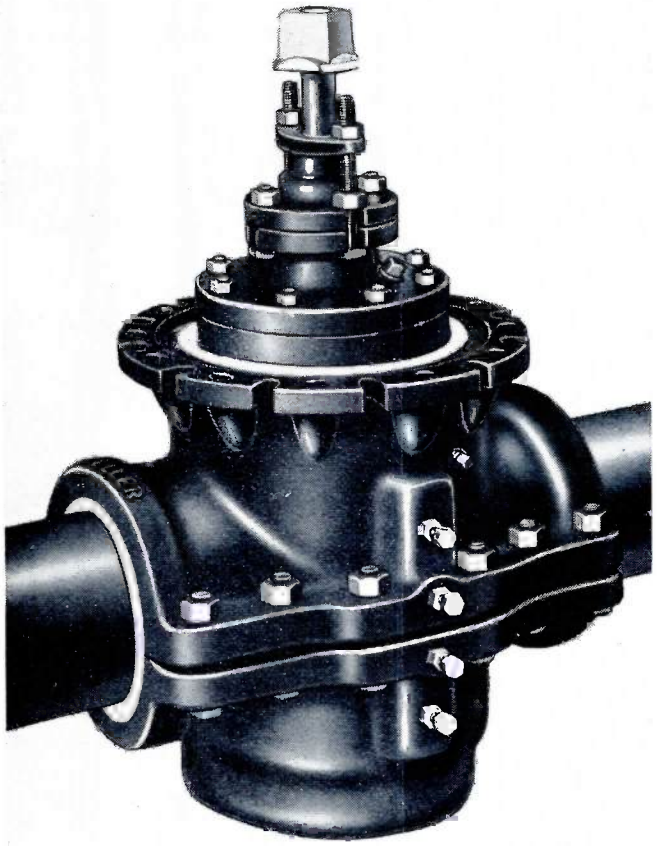
"Yes," said one of his English listeners with feeling. "We've got trains like that here, too."

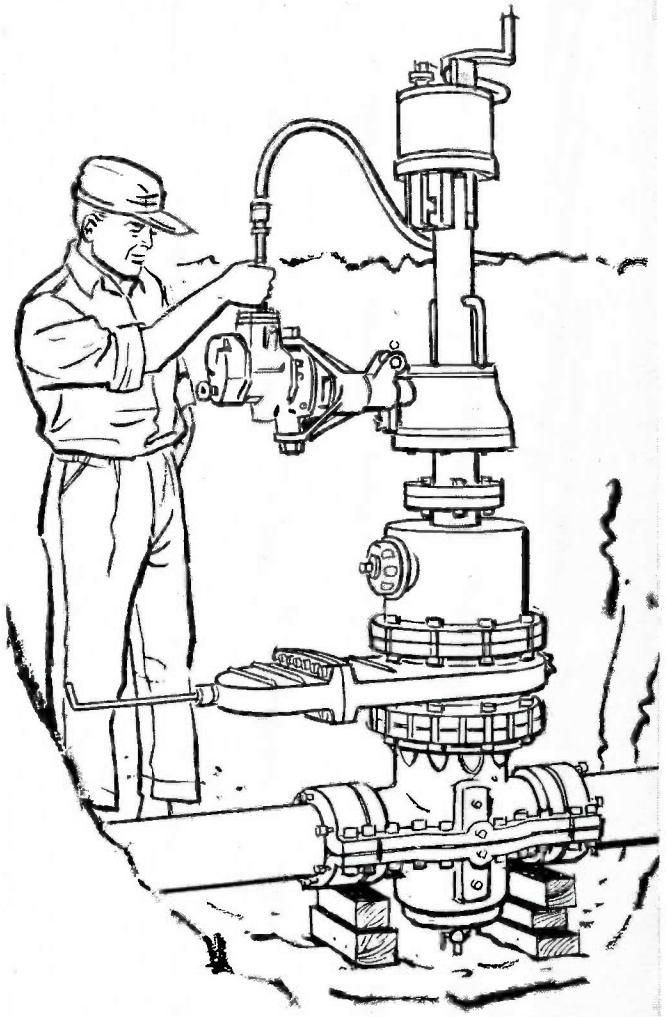
* * *

Trying to sell a housewife a home freezer, the salesman said, "You can save enough on your food bills to pay for it."

"Yes, I know," the woman agreed. "But we are buying our car on the bus fare we save. Then we are paying for our washing machine on the laundry bills we save, and we're paying for our house on the rent we save. We just can't afford to save any more right now."

You seem to have caught me at a bad time—I'm in.





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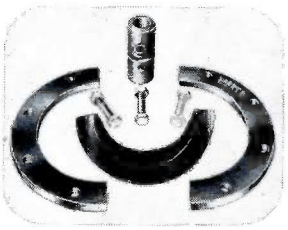

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