MUELLER Record







THIS MONTH'S COVER

Miss Lou Johnson is the only woman to become a licensed water and sewage plant operator in the State of Texas. For a report on her interesting career, see pages 16 and 17.

MUELLER Record

June • 1956

WALTER H. DYER, Editor LOUISE COLE, Assistant Editor

MUELLER Co.

MANUFACTURERS OF WATER AND GAS DISTRIBUTION AND SERVICE PRODUCTS

FACTORIES
DECATUR, ILL. LOS ANGELES, CALIF.
SARNIA, ONT. CHATTANOOGA, TENN.

NEW YORK CITY SAN FRANCISCO

TRADE MARK

MUELLER

Reg. U. S. Pat. Off.

Member Industrial Editors Association of Chicago and International Council of Industrial Editors



Recording Our Thoughts

Of the 2,536 persons registering for the American Water Works Association convention, probably none was happier to arrive at Kiel Auditorium than Stanley F. Gotter.

Mr. Gotter, a Director for the Utilities Instrument Division of Computer Measurements Corporation in North Hollywood, California, arrived two days late—with a concussion, 12 stitches in the back of his head, four stitches in front, a broken front tooth, and

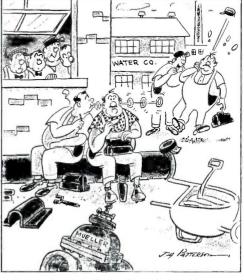


MR. GOTTER

memories of a new automobile that was a complete loss.

Those two days—May 5 and 6 (manufacturers' exhibits were set up May 5, the day before the convention opening) will linger for a long time in Mr. Gotter's mind. He was driving outside Miami, Oklahoma, enroute to St. Louis when an

(Continued on page 22)



...'I wouldn't believe it at first either ... but look!!!"



Although many persons contributed to the success of the 75th Anniversary of the AWWA meeting in St. Louis, a large share of the credit goes to these three. At left is Harry E. Jordan, AWWA secretary, and at right are Miss Dorothy Dimmers and John G. Stewart, secretary and manager respectively of the Water and Sewage Works Manufacturers Association.

CONVENTION HIGHLIGHTS

THE 75th Anniversary of the American Water Works Association, held May 6-11 in St. Louis, was attended by 2,536 registered delegates, the second highest number ever to attend an AWWA convention.

On this and the following pages are 52 pictures showing many of the water works people who attended. We hope you will enjoy seeing your own picture or those of your acquaintances in this annual post-convention issue of the Mueller Record.



Among the first to register were, from left, A. P. Kuranz, manager, Water Works, Waukesha, Wisc.; Blaise G. Camel, finance commissioner, East Jefferson Water Works, Metairie, La.; H. B. Foster, sales administration manager, Darling Valve and Manufacturing Co., Williamsport, Pa.

These men were on hand for the convention's first technical session. From left, Harry Bartholomew, manager, Water Works, Muncie, Ind.; Max K. Jones, manager, Huntington Water Corp., Huntington, W. Va.; Guy Waldrop, mechanical engineer, American Water Service Co., Philadelphia; John Lipinski, secretary; Charles J. Alfke, executive vice president; Joseph J. Domas, chief of design and construction, all three of the Hackensack Water Co., Weehawken, N. J.







Mueller Co. President Albert G. Webber, Jr., receives the plaque from Harry E. Jordan, AWWA secretary, commerating the company's 74 years service to the water works industry. Mueller Co. was one of 33 firms honored for having served the industry 50 or more years.

AWWA Honors 33 Member Companies

THE American Water Works Association honored Mueller Co. and 32 other firms as Senior Associate Members at the AWWA's 75th Anniversary, observed at the 1956 convention in St. Louis, May 6-11.

President Albert G. Webber, Jr. was present to receive a plaque citing Mueller Co.'s 74 years service to that organization. The presentation was made by Harry Jordan, Secretary of the AWWA.

Four other firms have been members for 74 years, joining the year after the

The banquet scene showing the three head tables. More than 1500 persons attended this final event at which time new officers were installed and 33 manufacturers honored.



AWWA was formed in 1881. They are Bingham & Taylor Corporation, Hays Manufacturing Company, The Ludlow Valve Manufacturing Company, and the National Meter Division of Rockwell Manufacturing Company.

Other firms honored were The Bourbon Copper & Brass Works Company, The Chapman Valve Manufacturing Company, R. D. Wood Company, Worthington Corporation, James B. Clow & Sons, Inc., National Tube Division, United States Steel Corporation, Eddy Valve Company, Division of James B. Clow & Sons, Inc., Hersey Manufacturing Company, Rensselaer Valve Company,

Division of the Ludlow Valve Manufacturing Company, Inc., The Thomson Meter Corporation.

Also The Farnan Brass Works Company, U. S. Pipe & Foundry Company, Neptune Meter Company, The A. P. Smith Manufacturing Company, Pittsburgh Equitable Meter Company, Division of Rockwell Manufacturing Company, Lead Lined Iron Pipe Company, B-I-F Industries, Inc., General Chemical Division, Allied Chemical & Dye Corporation, The Central Foundry Company, Badger Meter Manufacturing Company, Dresser Manufacturing Division, Dresser

(Continued on page 22)

At the President's Reception





Talking to outgoing AWWA President Frank C. Amsbary, Jr., who is Vice President and General Manager, Long Island Water Corp., Lynbrook, N. Y., are Henry Wilkens, left, District Manager, Texas Water Co., Houston; and Victor Weir, President, St. Louis County Water Co., University City, Mo. At right are, from left, Mrs. Lewis Finch, Indianapolis; Mrs. Leo Lewis, Gary, Ind.; Mrs. Melvin Williams, Dubuque, Iowa; Mr. and Mrs. T. H. Thorpe. He is president of Thorpe Well Co., Des Moines, Iowa.

Shown at the reception, below left, are C. E. Trowbridge, Consulting Sanitary Engineer, American Water Service Company, Philadelphia; M. A. Stearns, Manager Kokomo Water Works Co., Kokomo, Ind.; Lewis S. Finch, Vice President and Chief Engineer, Indianapolis Water Co., Indianapolis, Ind.; E. H. Aldrich, Chief Engineer, American Water Service Co. At right are, from left, Raymond Rutt, Secretary, Northern Illinois Water Corp., Chicago; Henry Wagner, Manager, Illinois Water Service Co., Pontiac, Ill.; Ted R. Dyer, Chief Client Operator, Northern Illinois Water Corp., Champaign and Urbana, Ill.; Mr. and Mrs. Mike Zihal, Supervising Engineer, Northern Illinois Water Corp., Champaign.







LeRoy J. Evans, Mueller Co. Vice President in Charge of Eastern Sales; Joe H. Gardner, President, Bingham and Taylor Corp., Culpeper, Va.; Albert G. Webber, Jr., President, Mueller Co.; Lloyd Logsdon, Executive Consultant, Mueller Co.



Thomas J. Skinker, Water Commissioner, St. Louis, and Mrs. Skinker; Mrs. Clay H. Henning and Mr. Henning, Division Engineer, St. Louis Water Division.



Mr. and Mrs. E. J. Masemer, Hanover, Pa., and A. D. Parks, Mueller Co. Southeast Sales Manager. Mr. Masemer is Manager, Hanover Municipal Water Works.



Tate Dalrymple, Washington, D. C., and Andy Anderson, Jackson, Miss., both with the United States Geological Survey, and Richard D. Kitchen, Mueller Co. Southwest Sales Manager.



J. A. Bielski, a Director, Borough of Ambridge Water Authority, Ambridge, Pa.; Jack Leahy, Mueller Co. Sales Representative; J. Z. Columbia, Manager, Ambridge Water Authority; A. M. Andrews, St. Louis; Clarence McCanley, Joseph C. Bacon and Michael F. Serene, all members of the Ambridge Board of Directors.

MUELLER RECORD

Frank H. Mueller, Mueller Co. Vice President and Director of Engineering; Frank C. Amsbary, Jr., outgoing AWWA President; W. H. Hipsher, Mueller Co. Executive Vice President; Morris Cunningham, former AWWA President and Superintendent and Engineer, Oklahoma City Water Department; R. H. Morris, Mueller Co. Vice President and General Sales Manager.

Jim McClintick, Mueller Co. Sales Representative, and Russell Graham, Superintendent of Water Department, Peoria Heights, Illinois.

Carl Jacobson, meter repairman, Theodore Long, tapper, and Henry Jacobson, foreman, of Galesburg, Ill., Water Department, and Russ Jolly, Mueller Co. Midwest Sales Manager.

LeRoy Evans, Mueller Co. Vice President in Charge of Eastern Sales; Nelson Butura, Consulting Engineer, Morristown, N. J.; Ralph E. Bentley, Secretary-Treasurer, Passaic Valley Water Commission, Clifton, N. J. Mrs. Lawrence Diamond, and Mr. Diamond, Commissioner, Passaic Valley Water Commission.

Buddy Bass, Manager, Water Department, Jerry Burdine, Foreman, Albert Jacquet, Outside Superintendent, and Wilbur Swansine, Outside Foreman, all of Biloxi, Miss., Water Department; and Jack Leahy, Mueller Co. Sales Representative.

JUNE • 1956





Henry Dabney, State Health Department, Austin, Tex.; Luis Mantilla Fernandini, Dean of the Faculty of Sanitary Engineering, National University of Engineering, Lima, Peru, and Lloyd Logsdon, Mueller Co. Executive Consultant.



M. L. Voss, Transite Pipe Instructor of Johns-Manville, Clayton, Mo., operates a Mueller "B" tapping machine to demonstrate his product for, from left, E. W. Spinzig, Sales Engineer, Johns-Manville, Kansas City, Mo.; E. R. Watson, Servis Van Boren and Hazard and Hazard, consulting engineers of Topeka, Kan.; and H. L. Dooley, Superintendent of Water Department, Gainesville, Ga.



Samuel B. Morris, Consulting Engineer, and recently retired General Manager and Chief Engineer of the Los Angeles Department of Water and Power, visits with Robert H. Morris, Mueller Co. Vice President and General Sales Manager.



Mr. and Mrs. Robert Ireland and Mr. and Mrs. Larry Schingel. Both men are Plant Engineers for the Interstate Water Company, Danville, Ill.



Raymond Perkins, foreman of the Water Department, Columbia, Mo.; and Lane H. Mashaw and W. D. Hays, both Engineers with Warren and Van Praag, Decatur, III.

MUELLER RECORD

Lloyd Logsdon, Mueller Co. Executive Consultant, and Mr. and Mrs. George C. Sopp. He is Assistant Manager and Joint System Head of the Los Angeles Department of Water and Power.

Mrs. Warren Schuster and Mr. Schuster, member of the Board of Public Affairs, Sylvania, Ohio; Cecil E. Powell, Superintendent, Sylvania Water Plant; Dan R. Gannon, Mueller Co. Western Sales Manager; and Mrs. Powell.

Mr. and Mrs. M. C. Fangmeier inspect a Mueller "C-C" drilling machine. Mr. Fangmeier is Superintendent of Water Department, Waverly, Iowa.

W. H. Hipsher, Mueller Co. Executive Vice President, and Frank H. Mueller, Mueller Co. Vice President and Director of Engineering, visit with Paul L. Weir, newly elected AWWA President, and General Manager, Water Department, Atlanta, Ga.

Angelo Stone, Assistant General Superintendent of Utilities, and Elmer Smith, General Superintendent of Utilities, Owensboro, Ky., examine a Mueller Improved fire hydrant.

JUNE • 1956











Bill Bennett, Commission Member, Plainview, N. Y., Water District; F. H. McLaughlin, City Clerk, Red Oak, Iowa; Tim D. Sullivan, Office Manager, Plainview Water District, and Spencer Holland, City Engineer, Red Oak, Iowa.

Mr. and Mrs. Fred Martin seem to be enjoying Mueller Co.'s Social Room in the Jefferson Hotel. He is District Engineer for Infilco, Inc., Houston, Tex.

Mayor Leo W. Morrison of Galesburg, Ill.; Jim McClintick, Mueller Co. Sales Representative; and George C. Lofgren, Superintendent of Galesburg Water Department. Seated are Mrs. Morrison and Mrs. Lofgren.

William Ulbrich, Chairman, Water Commission, Wallingford, Conn.; Charles Reich, Water Superintendent, Oak Lawn, Ill.; John Nugent, Superintendent of Public Works, Midlothian, Ill.; Jack Leahy, Mueller Co. Sales Representative; Earl Ohlendorf, Water and Street Commissioner, Caseyville, Ill.

Melvin Graff, Water Department, Earl Ohlendorf, Water and Street Commissioner, and Irvin Haig, Village Clerk, all of Caseyville, Ill.; Jack Leahy, Mueller Co. Sales Representative; E. A. Weinel, owner, Weinel Supply Co., Caseyville, and Arnold Dickinson, Water Commissioner, O'Fallon, Ill.





Mrs. Roy Ellis, Oskalousa, Iowa; Mrs. C. W. Hamblin, Mason City, Iowa; Mrs. J. J. Hail and Mrs. M. W. Williams, Dubuque, Iowa.



Bill Henderson, President of Ellis and Ford Manufacturing Company, Ferndale, Mich., and Lynn Miller, Michigan Department of Conservation, Lansing.



M. W. Williams, Chief Engineer, Dubuque, Iowa; Roy Ellis, Water Superintendent, Oskalousa, Iowa; C. W. Hamblin, Superintendent Public Works, Mason City, Iowa, and J. J. Hail, Superintendent of the Dubuque, Iowa, Water Department.



Ed Aniol, Superintendent Water Department, Allen Park, Mich., and Mr. and Mrs. Stanley Wagerson. He is Superintendent of Water Department, Dearborn, Mich.



John C. Smith, Corps of Engineers, Washington, D. C., and Mrs. Smith visit with Ed Farmer, Consulting Engineer, Black and Veatch, Kansas City, Mo.

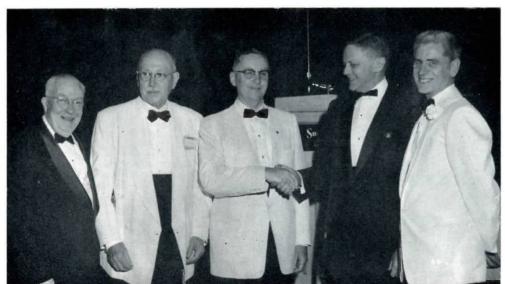


Achievements

DR. ALVIN PERCY BLACK, Head, Department of Chemistry, University of Florida, is congratulated upon being awarded Honorary Membership, by Frank C. Amsbary, Jr., and Raymond J. Faust, AWWA Executive Assistant Secretary. Dr. Black has been a member of the Association since 1929; President of the Association in 1950; Director for the Florida Section 1936-39; Recipient of the Fuller Award in 1939, the Goodell Prize in 1950 and the Diven Medal in 1955.

THOMAS JULIAN SKINKER, Commissioner of Water, St. Louis, Mo., was awarded Honorary Membership. Congratulating him are Mr. Amsbary and Mr. Faust. Mr. Skinker has been a member of the Association since 1924 and a Life Member since 1954. He was a director for the Missouri Section in 1931-32 and was the recipient of the Fuller Award in 1948.

FRANK C. AMSBARY, JR., second from right, outgoing AWWA President, congratulates Paul L. Weir, center, the new president, and other officers elected at the 75th Anniversary meeting. Mr. Weir is General Manager of the Atlanta, Ga., Water Works. Others are, from left, Harry E. Jordan, Secretary; W. W. Brush, Treasurer, and Editor of Water Works Engineering; and Fred Merryfield, Vice President, and Professor of Sanitary Engineering, Oregon State College, Corvallis, Ore. Mr. Amsbary is Vice President and General Manager of the Long Island Water Corporation, Lynbrook.



Earn Tribute

WILLIAM VICTOR WEIR, President, St. Louis County Water Company, University City, Mo., was one of four men to receive Honorary Membership. He is congratulated by Mr. Faust and Mr. Amsbary. Mr. Weir has been a member of the Association since 1924. He was President in 1951 and Director for the Missouri Section from 1946-49. He was a recipient of the Diven Medal in 1940, the Fuller Award in 1943, and the Goodell Prize in 1950.

HENRY FRANCIS CRONIN, right, Chief Engineer of the Metropolitan Water Board in London, England, was awarded Honorary Membership. He is congratulated by E. Sherman Chase, Consulting Engineer, Metcalf and Eddy of Boston, and Paul L. Weir, newly elected AWWA President. Mr. Cronin has been a member of the Association since 1944. The award was presented in recognition of his many contributions to the Water Works profession. He was cited in particular for his devotion to duty during the Blitz of World War II.

Ed. Note: Photographs of the winner of the Diven Medal, Fred Guyon Gordon, Assistant Chief Engineer, Bureau of Engineers, Chicago, and of H. S. Swanson, H. J. Chapton, C. L. King and E. D. Nelson, Engineers with the Department of Water and Power, Los Angeles, winners of the Goodell Prize, were not available.

WILLIAM J. ORCHARD, a member of the Board of Directors of Wallace & Tiernan, Inc., Belleville, N. Y., was presented with the Harry E. Jordan Achievement Award. The award is in recognition of his boundless public spirit manifested by his long record of unselfish services to the region in which he lives. He is shown as he was congratulated by Mr. Faust and Mr. Amsbary.





Phil W. Smith, Director of Public Works, St. Louis Park, Minn., and Mrs. Smith visit with Mrs. Ben Woehler and Mr. Woehler, Superintendent of Utilities, Edina, Minn.



Jim Fuller, Auditor, Muscatine, Iowa, Water Works; T. James Palmer, Manager, Algona, Iowa, Municipal Utilities; and Walter W. Molis, Superintendent, Muscatine Water Works.



Dan R. Gannon, Mueller Co. Western Sales Manager; Mrs. R. E. Polenske and Mr. Polenske, Vice President and Assistant General Manager, Arizona Water Company, Phoenix.



T. H. Collins, Distribution Superintendent, Birmingham, Ala., Water Works, Mrs. Collins, and E. Clinton Smith, Assistant Manager, Birmingham Water Works.



Herbert Grove, General Manager, Stillwater, Minn., Board of Water Commissioners; Leslie Halladay, Water Works Engineer, Minneapolis, Minn., and C. M. Bach, Superintendent of Water Treatment, Minneapolis.

MUELLER RECORD

Veteran Waterman Leon Smith Dies At Convention

A man who had spent 40 years as a water superintendent and an active member and officer of the American Water Works Association, who grew to be one of the nation's foremost authorities on water problems, paradoxically died while attending the AWWA convention in St. Louis, May 10.

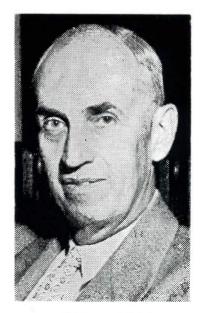
Leon A. Smith, known, recognized and many times honored as "Mr. Water Works" in his home city and state, Madison, Wisconsin, entered a St. Louis hospital May 9 after suffering an illness and died Thursday evening, May 10. He was 66

Mr. Smith claimed to have fallen in love with Madison when he came there in 1908 to attend the University of Wisconsin, where he was graduated with a degree in engineering. He left only briefly to do surveying in northern Wisconsin, and then returned to become assistant city engineer. He was appointed water superintendent in 1916 and continued in that position until his death.

He is credited in Madison with helping its growth from a town of 25,000 to a city of 100,000 by planning ahead for Madison's water needs. In 1941 he published a booklet, "Madison, A Fine City in Which to Live"; the text originally was given by Mr. Smith in a talk before the Madison Rotary Club.

The American Water Works Association honored Mr. Smith in 1952 for 25 years of service as division association secretary. Delegates from seven states presented him with a television set in recognition of his service. At the time of his death, Mr. Smith was completing his 30th year as secretary-treasurer of the organization, the longest served by any division secretary in North America.

The Wisconsin section of AWWA presented Mr. Smith with the first Fuller



LEON A. SMITH

Memorial Award in 1938 for distinguished service in the water supply field.

In Madison the Board of Water and Sewerage Commissioners in 1953 commended him for his "highly efficient and economic" handling of his position, praising him for his ability "to detect and correct trouble before it occurs".

In 1949 Mr. Smith received a citation from University of Wisconsin President E. B. Fred, at the end of an Engineer's Day on the campus, for accomplishments in the field of engineering. The citation was voted by the engineering school faculty and approved by the Regents.

Mr. Smith was a devoted civic worker throughout his lifetime. He served at one time as president of the First Congregational Church Board of Trustees, and of the Madison Rotary Club, Blackhawk Country Club, Wisconsin Engineering Society, Madison Technical Club, and the Wisconsin section of the American Water Works Association.

He was also a Mason and a member of the Board of Directors of the City YMCA and the Madison and Wisconsin Foundation.



The executive staff of the Willow Bend Utilities, Inc., located in Willow Bend, a subdivision of Bellaire, Tex., is made up of Miss Lou Johnson, Secretary-Treasurer and Water and Sewage Plant Operator; E. L. Whiddon, Plant Superintendent; and, seated, is Everal West, Owner and President. With them is Miss Johnson's American Pit Rulldog

It's A Woman's World

Miss Lou Johnson Successfully Enters 'All Male' Fields

A NOTHER story in the endless saga of America and its heritage is being written in a tiny Houston suburb, Willow Bend, by 26-year-old Miss Lou Johnson, a versatile and hard working young woman.

Five years ago Miss Johnson was a ward of the State of Minnesota. Today she is office manager, secretary-treasurer and water and sewage plant operator for Willow Bend Utilities, Inc., and a building contractor.

Miss Johnson and her eight brothers and sisters were orphaned when she was eight years old, and placed in a Minnesota orphanage. At 13 children are "put out to work" from the orphanage, though they remain wards of the state until they become 21. The step into the world at 13, however, means separation from, and usually losing contact with, other members of the family.

In Miss Johnson's case, it was 13 years before she was reunited with her brothers and sisters. Last summer, after following leads for years, she was finally able to locate them, and they had a happy reunion in Minneapolis with all but one present.

Lou is a Texan by choice. She was living and working in Denver when she made friends with several people from Texas. Later, she visited them in Texas spent more time with them the next year, and decided to move there.

She began her many-faceted career in Houston selling real estate to building contractors in the Willow Bend subdivision. After being so close to the construction of new homes, she was convinced that she could do what anyone else could, and started building. The first house proved successful and she built two more. From then on it was "Lou Johnson, Building Contractor"; She has 35 homes to her credit now, including the one in which she lives.

Willow Bend was started by Everal West, former mayor of Bellaire, another Houston suburb. The first resident moved in in October of 1953, and the subdivision was sold out within a year. Within two years houses were built on most of the lots in the area. With the development of the subdivision came the problem of utilities. Existing utility lines were too far away, so the developers had

to form a utility company to service the homes with water and sewage facilities and stand drainage.

As soon as the development was built, Mr. West's partners sold out their interest in the utility corporation to him, and he needed help. Miss Johnson became his "man Friday."

The State of Texas requires that such utility systems have a licensed operator in charge of the plant. Nobody had a license at Willow-Bend Utilities, Inc., and Lou elected to study for the exam. In her characteristic manner she went at the job whole-heartedly. She believes that any job worth doing is worth doing well. and when a week-long "short course" for water and sewage operators was offered at the all male colony of Texas A & M College she didn't falter. It was a novelty to have a girl in the class, and Lou was the only one. However, Lou was graduated without difficulty and became the only woman to be a licensed water and sewage operator in the State of Texas.

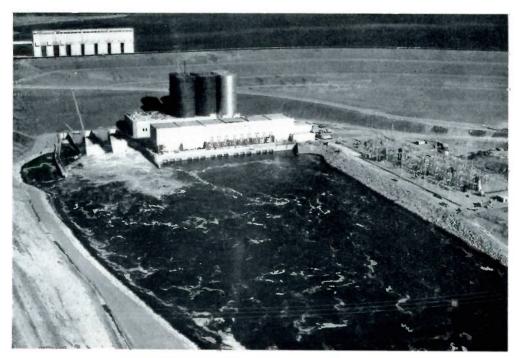
Since then, Lou has found that for a busy building contractor and utility plant operator there aren't enough hours in the day. It became too much for her, since the utility company continued to grow, E. L. Whiddon, formerly water superintendent for the City of Bellaire, was added to the staff as plant superintendent of Willow Bend Utilities, Inc. Mr. West is president. Young as it is, Mr. West's little utility company is experiencing growing pains.

After the Willow Bend sub-division was built up and sold, two additional subdivisions were begun, one on each side of the first. These are Willow Brooke and Willow Meadows. The two subdividers have contracted with Willow Bend Utilities to extend utility service to them. In a period of about three years 950 homes have been built, representing a population of approximately 4,000, and are served by Willow Bend Utilities.

Being a big part of all this, Lou lives in Willow Bend in one of the lovely homes she built with her huge American Pit Bulldog. Purple Ribbon Moss Red Rover Ripper II, Ripper for short, is her constant companion and watch dog.

Miss Johnson is shown with her dog in front of her home, one of 35 she has built. Her dog, named Purple Ribbon Moss Red Rover Ripper II, is her constant companion.





An aerial view of the Garrison Dam project under construction by the U. S. Corps of Engineers in North Dakota.

\$294,000,000 Reservoir, Dam Transforms North Dakota Area

A massive reservoir and a two-mile long dam are being constructed by the Corps of Engineers, U. S. Army, on the Missouri River 77 river miles north of Bismarck, capital of North Dakota. This cost is presently estimated at \$294,000,000.

At maximum normal operating pool, the reservoir will contain 23,000,000 acre-feet of water (7,494,573,000,000 gallons). When full, the reservoir will be a huge man-made lake 200 miles long, better than 14 miles wide at some points, and about 200 feet deep along the former river channel upstream from the dam.

The shoreline, approximately 1500 miles long, will surround a surface area of 390,000 acres.

This mammoth project is Garrison Dam and Reservoir, one of a system of six multiple-purpose reservoirs on the Missouri River included in the general comprehensive plan for the development of the water resources of the Missouri River Basin.

Objectives to be achieved by the project are: to provide for control of floods and prevention of flood damages downstream from the dam; to provide water for irrigation in the Dakotas; to provide

water for improvement of navigation depths on the Missouri and Mississippi Rivers during natural low water periods; to provide for the production of hydroelectric power; to provide water for improvement of health and sanitation conditions during the natural low water periods on the Missouri River and adjacent water sheds; and to provide facilities for recreation and for fish and wildlife preservation.

The Garrison Reservoir will impound the flood waters from the 180,940 square miles of the Missouri River Basin and release the waters in controlled amounts for producing electric power, for maintaining a minimum low water flow on the lower Missouri in the interest of sanitation and stabilization of municipal water supplies, in addition, provide facilities for recreation and for wildlife preservation.

The job of harnessing the Missouri River and its tributaries to serve man usefully has been assigned jointly to the Corps of Engineers and the Bureau of Reclamation under the comprehensive "Pick-Sloan" plan. Other Federal and

state agencies such as the Federal Power Commission, the Department of Agriculture, National Park Service, Fish and Wildlife Service, Public Health Service, Bureau of Indian Affairs and Public Roads, as well as the Water Conservation Commissions of the various states, are cooperating to assure development and coordination of all inherent benefits of the unit.

Although development of the Upper Missouri River was considered and investigations for suitable dam sites were initiated by the Corps of Engineers prior to 1900, it was not until 1944 that Congress authorized the Garrison Dam and Reservoir Project.

Progress on the dam to date is on schedule, with closure of the dam and diversion of the river completed in 1953, and production of the first power in January 1956. The flood control effect of the dam began to be felt in 1954, when impoundment of water was begun.

The town of Riverdale was built to house the personnel engaged in the design and construction of the dam and appurtenances thereto. The town housed

Exterior view of the giant intake structure, a 260 foot concrete shaft, housing the machinery for operating and controlling the flow through the tunnels.



about 4,000 persons at construction peak; now 2,200. It is modern and equipped with proper facilities; such as recreation building, stores, churches, hotel, doctor's office and first aid station, fire and police station, school, telephone exchange and administration and office buildings.

The dam and town are located about 60 miles south of Minot, North Dakota. The government town of Riverdale may be reached by automobile from Bismarck or Minot via U. S. Highway 83 to the Soo Line Railroad Station at Riverdale Junction, and then west 11 miles on the access highway.

On Oct. 4, 1947, the first shovel of dirt was turned on the excavation of the dam proper. This was preceded by approximately one year of preparatory work, during which some temporary housing, the connection highway and railroad, and the construction bridge were built. By September, 1952, the project was more than 50 percent completed. This

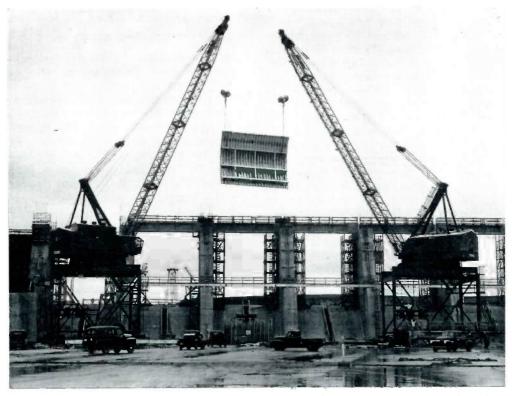
spring the project is nearing 90 percent completion.

Garrison Dam stretches across the Missouri River Valley for more than two miles. It rises more than 200 feet above the river bed, contains about 70,000,000 cubic yards of carefully selected and segregated materials, faced with approximately 650,000 cubic yards of rock to protect against wave erosion, has 525,000 square feet of steel sheet piling driven 85 feet below the foundation earth to prevent underseepage and to carry two relocated state highways on its crest.

The Spillway on the east abutment, has its crest at elevation 1825 feet above mean sea level and will be able to discharge at maximum pool elevation over two times the discharge of the greatest flood on record. This feature will adequately prevent any possible combination of floods from endangering the dam. There are 28 tainter crest gates, each 29 by 40 feet, along the 1444 foot crest

This is the interior of one of the five tunnels (power) which has an interior diameter to the concrete lining of 29 feet.





One of the 28 tainter crest gates, each 29 by 40 feet, being lowered into place along the 1444 foot crest of the ogee type concrete spillway.

of the ogee type concrete spillway. Controlled discharges from the spillway weir will flow along a chute about 3200 feet long into a stilling basin where most of the moving energy of the water will be dissipated.

driven Eight tunnels have been through the west abutment for the release of water in the operation of the reservoir for flood control, navigation, irrigation, power development and other purposes. The five tunnels (power) have an inside diameter to the concrete lining of 29 feet, while for flood control and other purposes there are two 22 foot and one 26 foot tunnels. The intake tower, a 260 foot concrete shaft, houses the machinery for operating and controlling the flow through the tunnels.

Below the downstream portals of the five power tunnels, is the powerhouse, essentially completed. Between the tunnel portals and the powerhouse, for preventing sudden changes of pressures within

the penstocks, have been built the surge tanks. Three 80,000 kilowatt generators, initially installed in the powerhouse, will have an installed capacity of 240,000 kilowatts. Ultimately it is planned that two more units will be added, making a total of 400,000 kilowatt installed capacity. Generator No. 1 went on the line in January of 1956. The other two generators, initially installed, are scheduled to go on the line during 1956.

The Garrison Dam captures the waters of the Missouri River which is formed by the junction of the Jefferson, Madison and Gallatin Rivers at Three Forks, Montana. From this point, the river flows eastward through Montana and North Dakota and is joined by the Yellowstone at the North Dakota State Line. The augmented river then flows easterly and southeasterly to the damsite where it turns sharply southward toward Bismarck, the North Dakota State capital.

More than one-third of the drainage

area of the Missouri River is above the damsite and the dam will actually control nearly one-third of the total volume of flow of the Missouri River at its confluence with the Mississippi River. Maximum and mean discharges at the damsite are approximately 350,000 and 25,000 cubic feet per second.

The two periods, March and June, of each year are the usual times of disastrous floods. The earlier flood is caused by rain and snow melt on the southward reaching tributaries and by ice jams on the main stem. The June floods are occasioned by snow melt in the Rockies coincidental with the rainy season on the prairies.

The Garrison Dam, together with the other main stem units of the comprehensive plan and local protection works will prevent recurrence of the disastrous floods such as have occurred in the main valley of the Missouri five times within the period between 1943 and 1952.

Retired Mueller Co. Salesman Dies in L.A.

W. L. (Bill) Jett, a sales representative for Mueller Co. for 45 years before his retirement in 1949, died Thursday, June 7, in Los Angeles, California. Funeral services and burial were in Inglewood, California June 9.

Mr. Jett, who is survived by his wife, the former Lena Alice Pritchett of Niantic, Illinois, began work with Mueller Co. in the Shipping Department of the Decatur plant, April 22, 1904.

He received salesman training in the Chicago office and was later transferred to the Pacific coast, where he became well known in the plumbing, water works and gas industries, developing a wide circle of friends and acquaintances.

Besides his wife he is survived by two sons, W. L. Jett, Jr., and R. B. (Bob) Jett.

AWWA Honors

(Continued from page 5)

Industries, Inc., Allis-Chalmers Manufacturing Company, Buffalo Meter Company, American Cyanamid Company, National Water Main Cleaning Company, The Pitometer Associates, Inc., American Cast Iron Pipe Company and Glamorgan Pipe & Foundry Company.

Recording Our Thoughts

(Continued from page 2)

elderly man, about 75, driving west suddenly turned his automobile in front of him. The two cars crashed and Mr. Gotter, who according to police was not at fault, was thrown from the car.

Taken to a Miami hospital on May 5, the injured man, who had barely escaped losing his life, was up, aboard a plane and in St. Louis Monday morning, May 7. His display was in place and he was greeting customers at noon.

Mr. Gotter's firm manufactures Detectron Pipe detection equipment.

The growth of the American Water Works Association in recent years may be reflected by the number of persons attending the annual nationwide convention. The 1955 convention in Chicago was the largest in the Association's history, although the recent St. Louis convention was attended by only a few less persons.

Records dating back to 1943 indicate that the convention attendance increases nearly every year.

The year, site of the convention, and number attending since 1943 is as follows:

lows.		
1943	Cleveland	1,131
1944	Milwaukee	1,356
1945	No Convention Held	
1946	St. Louis	1,517
1947	San Francisco	1,546
1948	Atlantic City	1,707
1949	Chicago	1,967
1950	Philadelphia	2,007
1951	Miami	1,906
1952	Kansas City	1,986
1953	Grand Rapids	1,987
1954	Seattle	2,063
1955	Chicago	2,587
1956	St. Louis	2,536

Nero was talking finances with one of his officers in the amphitheater in Rome. "We aren't making much money from this building," Nero said. "Any idea why?"

"Yes, I know," replied the officer. "The lions are eating up all the prophets."

Pedestrian: A man who has two cars, a wife and a son.

Mueller Co., 105 Others Are Honored As Charter National C of C Members

Mueller Co. was one of 106 companies to receive recognition as a charter member of the United States Chamber of Commerce recently at the 44th annual meeting of that organization.

Representing Mueller Co. at the Washington, D. C., meeting were W. H. Hipsher, Executive Vice President, Mrs. Charlotte Mueller Schluter of Princeton, New Jersey, a member of the Board of Directors, and Don E. Radcliffe, Assistant to Mr. Hipsher.

The National Chamber published a book containing pictures of company presidents in 1913 when the Chamber was organized, and today's presidents, together with statements by the latter

telling why the company they represent first became a member and has continued active

Albert G. Webber, Jr., is President of Mueller Co. which has plants in Decatur, Ill., Chattanooga, Tenn., Los Angeles, Calif., and Sarnia, Ont., Canada.

Mr. Hipsher is the national councilor representing the Decatur Association of Commerce and also represented the Illinois Manufacturers Association of which he is a member of the Board of Directors at the meeting.

Mr. Radcliffe attended the meeting as a representative of the Decatur Association of Commerce.

Jest for Fun

A young doctor hung out his shingle, then sat back and waited for his first patient. Some days later one appeared, covered from head to foot with a danger-ous-looking rash. The puzzled young medico frenziedly consulted his textbooks but could find no help there. Finally, he turned and asked, "Did you ever have this affliction before?"

"Yep, twice," answered the patient.
"Well," diagnosed the doctor, "you've got it again."

Psychiatrist to patient: "When did you first discover that you enjoyed paying your income taxes?"

A camel is an animal that looks as if it had been put together by a committee.

A drunk finally finds the keyhole and enters the house, stumbling around looking for the lights. Wife pipes up: "That you, Henry?"

No answer. A big crash of glass.

Wife: "Henry! What in the world are you doing?"

Henry: "Teaching your goldfish not to bark at me."

Sophomoric Analysis

"When I first came to college I was one of the most conceited boys you ever saw. But that was knocked out of me in a hurry, and now I'm one of the most popular boys on the campus."

A Scotsman came upon a bad automobile accident. Walking up to a man lying beside the highway he said, "Has the insurance mon been here yet?"

"No," replied the injured man.

"Weel," said the Scotsman, "I'll just lie doon here beside ye."



" AS YOUR BOSS, I'M ENTITLED TO BE SOMEWHAT UNREASONABLE AT TIMES! ?

MUELLER



CORPORATION STOPS for any main

A complete line of Corporation Stops with a broad combination of inlet and outlet threads makes it possible to tie into any type main. Mueller Corporation Stops are manufactured of the highest quality water works bronze, field proved by years of satisfactory service. Key and body are precision machined and key is individually lapped into the body assuring full contact around ports with no leakage. Stop is carefully inspected and air tested under water – all exposed threads are covered for shipment. All Mueller Corporation Stops can be inserted in the main under pressure with the Mueller "B" or "A-2" Tapping Machines.

Check with your Mueller Representative or write direct for information on the complete line of Mueller Corporation Stops.

