# MUELLER RECORD

FEBRUARY • 1951

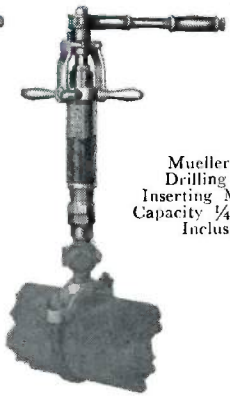
# FOR THAT EXTRA MARGIN OF

# SAFETY

## USE MUELLER NO-BLO SERVICE TEE


Mueller H-17500 Welding Tee Complete with Plug and Cap

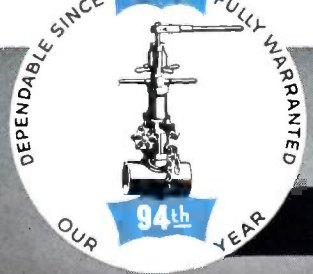
Mueller D-4 Drilling and Inserting Machine Capacity 1" to 2" Inclusive



Mueller E-4 Drilling and Inserting Machine Capacity ¼" to 1" Inclusive

There's an EXTRA margin of safety when you use Mueller H-17500 NO-BLO Service Tees because they eliminate any necessity of the gas blowing or escaping when used with the Mueller E-4 or D-4 Drilling and Inserting Machine. These Tees have both an INSIDE and an OUTSIDE thread at the top. The Tee is first welded to the main and the service line completed. A Valve and the Drilling Machine are screwed on to the OUTSIDE thread of the Tee, the main drilled through the Tee and then a plug inserted into the INSIDE thread. The Machine and Valve are removed and a cap put on the OUTSIDE thread to effect a double, leak-proof seal. In these Tees, a machine-inserted rubber shut-off tool may be placed, stopping off the service under pressure with complete safety. The work is all done with the line under pressure and with complete control at all stages of the operation.

Mueller Welding Tees will handle Low, Medium or High Pressures and are made in sizes ¾" to 2" inclusive. Be sure to specify size and type of inlet and outlet connections when ordering.




# MUELLER CO.

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# MUELLER RECORD

Published
at Decatur, Illinois, by

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Sarnia, Ontario
BRANCHES
New York, San Francisco





February • 1951
Vol. XXXVII No. 3
HERMAN E. JACKSON, Editor


CONTENTS



## *Just Between Us...*

WHILE WRITING up the railroad story in this issue, I kept remembering little experiences of my own adventure into railroading. About a year after I finished high school I went to work as an electrician for the old Terre Haute, Indianapolis, and Eastern Traction Company whose lines fanned out, spider-like, from Indianapolis and covered a good bit of central Indiana.

I was pretty green about electricity, especially this 650-volt kind. The first day on the job I came within an inch of getting electrocuted through improper handling of a hot wire test pole. Fortunately, due no doubt to Divine intervention, I was not even shocked. But this event scared me thoroughly, and from that day on I had a genuine respect for electricity. And though I worked up to head electrician on the Eastern division during the four years I worked there, I never took any chances.

*(Continued on page 20)*

# J. Wilbur Simpson

September 26, 1883 - - - January 16, 1951

Mr. J. Wilbur Simpson, executive vice-president of the Mueller Co., died of a heart attack while at work on the morning of January 16. Thus ended a long career with the company which began in his early teens under the guidance of Hieronymus Mueller, the founder of Mueller Co.

His death was a shock to his many friends and associates because it was so unexpected. He was seated on a chair at the desk of Hugh L. Baker, general sales vice-president, and he was discussing routine matters with Mr. Baker and Otto C. Keil, company secretary. About 9:15 a. m. he became ill suddenly and fell from his chair unconscious. He was rushed to a hospital, but was pronounced dead upon his arrival.

Mr. Simpson had completed 51 years of work for the company. After the trying war years, he had expressed a desire to retire when he reached 65. Later, he decided to work another year and get the coveted 50-year service pin. This was awarded him at the company-wide meeting held in December, 1949. Somehow he never got around to retiring, and he passed away while on the job.

His death marked the end of a Horatio Alger type of career. Young Simpson began working with the Mueller Co. in 1899 when a boy not yet 16. His first job was as errand boy for Hieronymus Mueller. He worked on the original automobiles which were being developed by the founder. At the death of Mr. Mueller in 1900, he became messenger for the plant.

Showing an aptitude for handling mail and correspondence, he was made a filing clerk. Always having an eye on the job ahead, he persuaded the office manager to promote him to order writer. This led to a job as pricing clerk. The next step was sales correspondent. In 1916 the late Mr. Adolph Mueller, then president, made the aggressive, young Mr. Simpson assistant to the president in a sales capacity. In 1917 he was made general sales manager of the company. In 1928 he was elected to the board of directors, and in the following year was named vice-president in charge of sales. In 1947 he was elected executive vice-president of the company. Just the day before his deah he had, at the annual company meeting, been re-elected to that post for the fifth time.

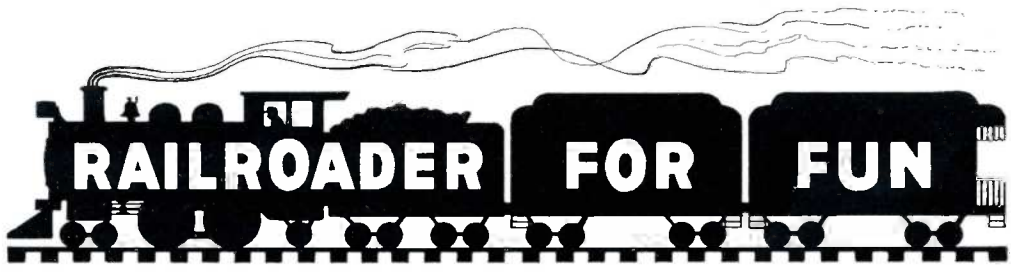
Mr. Simpson was the last link between the founder and the present company officers. After the death a few years ago of Barney Marty, he was the only one remaining with the company who had worked with Hieronymus Mueller. Only recently he remarked about how "things have changed over the years," and he helped to change them. In 1899 there was but one small plant in Decatur. The company has grown extensively so that there are now two factories in Decatur, a southern factory in Chattanooga, a western factory in Los Angeles, a Canadian factory in Sarnia, Ontario, and two branches in New York and San Francisco.

Some sage once wrote these words: "Great men show their greatness by how they treat little men."

That line amply describes Mr. Simpson. In spite of his high position, his private office, and all that goes with it, he never lifted himself above the people he dealt with. He was human, and any employee could go to him with a problem with complete confidence that he would get an honest answer. In his earlier years he attended many of the conventions, and was widely known throughout the trade. He knew many customers by their first names and had the knack of making them know that his friendship was sincere. He inspired the men under him. He was a capable executive whose services to the company will be greatly missed.

Mr. Simpson leaves his wife and six children. They are: J. W., Jr., Albuquerque, N. M.; Mark H., a student at the University of Illinois in Champaign; Gene W., Monterey Park, Calif., who is employed with the California factory of Mueller Co.; Mrs. Frances Lepard, Springfield; and Mrs. Kathryn Bradley, and Mrs. Mary S. Cussins, of Decatur.

CHRISTMAS HAS COME and gone, and we are through with kidding the fathers about monopolizing the electric trains they gave their sons for Christmas. But laying all jokes aside, there are a lot of adults who go in for model railroading as a hobby. There are clubs in many cities, and a magazine entitled "MODEL RAILROADER." But of all the train hobbyists, the biggest operator of them all is Byron P. Hiatt of Creston, Iowa. Possessing an amazing skill with blue prints and tools, putting in seventeen years of hard work, and having always had a desire to own a railroad, this man has almost single handed made two steam powered trains that really run. In this pint-size railroad are two locomotives, a passenger car, a mail and baggage car, a box car, a caboose, and 3,200 feet of track complete with four trestles.




Upon investigation, we found that Mr. Hiatt, who is one of our customers, owns the Hiatt Bros. Plumbing Shop. In his working day he is a plumbing and heating contractor. On Sundays and holidays he is engineer, fireman, brakeman, and general manager of the BYRON LINE, the name he gives his railroad.

It all began years ago when, as a boy, young Hiatt fell in love with railroads. After high school days he went to work for the Burlington Railroad. Once a man gets railroading in his blood he cannot get it out. And so Hiatt never was satisfied until he had started on one of his own. Up every morning at 5:00 a. m. he would work two hours before going down to the shop. He gained an extra day a week by doing this. Often he worked evenings. He made many of the parts himself. Some he had a machine shop make for him. He obtained the track from a coal mine. The ties were bought from the Burlington line. The track is two-foot gauge, and the roadbed is made of crushed rock, not cinders as many real railroads use. The roadbed alone cost $6,400 or two dollars a foot. The passenger and freight cars were once used to advertise the Burlington road. These he bought and rebuilt.

Everything is accurately built to scale. The engines are eight feet high at the smokestacks and 36 feet long including the coal tender. It takes three or four hours to build up a head of steam to the 150 pounds required for their operation. One of the trestles is of reinforced steel and some 70 feet across. Another spans a ravine over 80 feet wide. Hiatt has all four numbered so that the passengers can tell how many there are as they ride over the line.

By 1939 Hiatt, who then lived in Pacific Junction, had one locomotive done, and a small circle of track had been built for making test runs. The war interrupted his work. He spent eight months in the U. S. Army. After the war was over he needed more room to expand, so he moved to Creston where he secured a ten-acre plot of ground in 1945.

Now 41, Hiatt insists that it still is only a hobby. He does not expect to get rich although he does charge for rides. It costs a passenger 14 cents to ride in the coach. This holds 18 people inside and four more on the observation platform. A trip in the engine cab is 25 cents. The baggage car has benches, but he does not like to have passengers ride there.

Hiatt has no idea how much his hobby has cost him. He just spent a little at a time so he never missed it. But he is still improving his little park. He has


WIDE WORLD PHOTOS

**Left: Byron Hiatt, 41-year-old Iowa plumber, leans out of the cab of the scale-model engine he built. It is 36 feet long and eight feet high.**

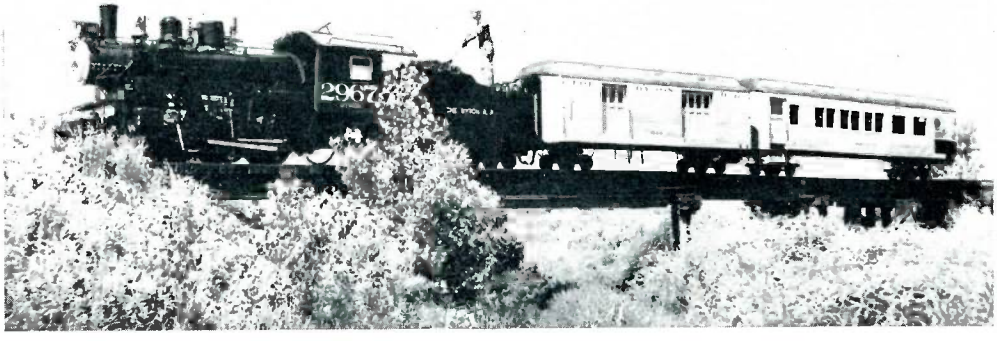
**Right: Mrs. Byron Hiatt flags down the train to give her engineer-plumber husband his train orders: "Come in to dinner."**

added a merry-go-round, kiddie ride, and several other rides to make it more interesting.

He told us that last summer when the road was officially opened that he had huge crowds every Sunday that the weather was nice. Many tourists drive for miles just to take a ride on his train. Next spring he will open up again, and the trains will be operating on Sundays and holidays from 1:00 p. m. to 9:00 p. m.—weather permitting. Stop in and see him and his trains if you get a chance. He says he always likes to make new friends.

Mr. Hiatt informed us that he is a MUELLER booster. He said that he has been using MUELLER PRODUCTS for a number of years. He pointed out that he has never had to return as much as one defective fitting. He said that he uses a lot of MUELLER Water Service Fittings. But the thing that surprised us most was the fact that he has used MUELLER FITTINGS in the injectors of both his locomotives. We feel that our products are pretty good. We know that some items are rather versatile, as we have solved some unusual problems with them. But somehow, it just never occurred to us to look for them on a locomotive.

WIDE WORLD PHOTO




**Hiatt pushes down a little coal. The train has stopped on a trestle he built with his own hands. He has two complete trains.**

# KING-SIZE FISH POND

RECENTLY, we spent an evening with friends who had been on a trip to Florida. They showed us some kodachrome slides, and among them were a number in full color showing an oceanarium at Marineland, Florida, eighteen miles south of St. Augustine. Here was something a little different in aquariums, so we were naturally curious.

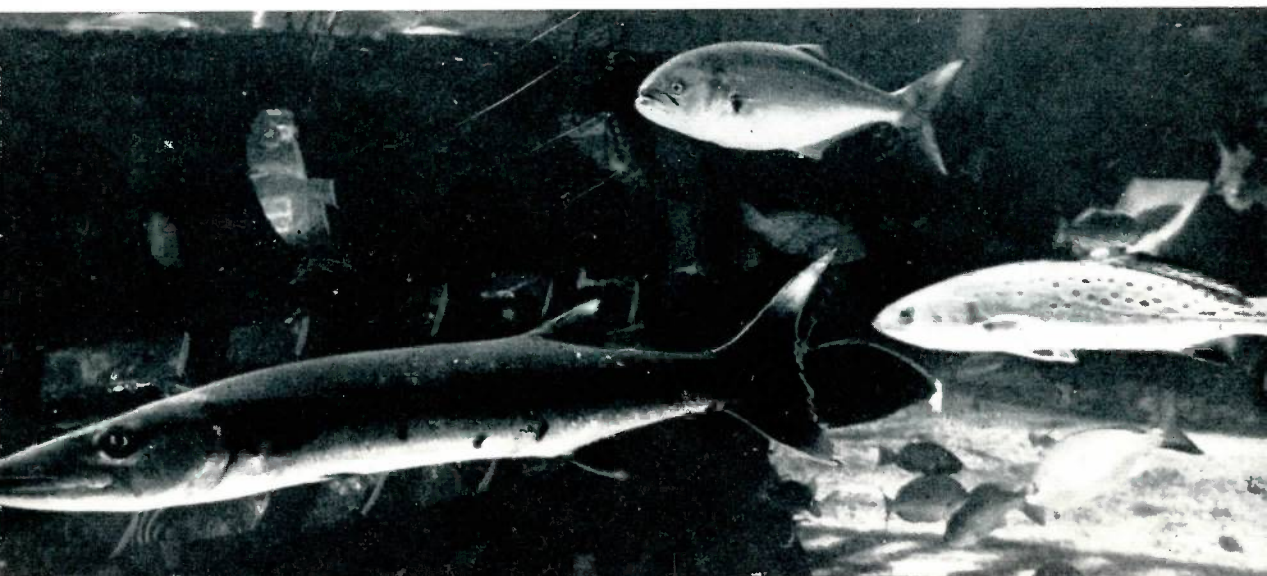
We learned that here many kinds of both large and small specimens live together in the huge central tank. When the news was first released that this was to be attempted, skepticism ran rampant in the field of marine biology. An aquarium where fish of all kinds and sizes would live together as they normally did in the open sea? It couldn't be done. Many said that it wasn't even plausible. But it WAS done when the Marine Studios opened its doors in 1938, and it has been successfully done ever since—except for the war years when the oceanarium was closed. Marine life is not segregated by species in the main tank, but is placed together as it exists in the open sea. Naturally, violent deaths are a frequent occurrence in the oceanarium. The Marineland staff is ever searching for new specimens to replace the old—the result being a changing panorama of marine life from day to day.

The aquariums are specially designed to permit under-water photography. So we find that here the camera enthusiast can shoot colorful scenes duplicated nowhere else in the world. Two giant tanks, one a rectangular tank 100 feet long and 18 feet deep; the other a circular tank 75 feet in diameter and 15 feet deep, comprise the oceanariums. More than 200 observation portholes have been placed in strategic positions in the sides and bottom of the two tanks, affording a clear picture of the parading, colorful, undersea world.

### Many Varieties Here

Tarpon, porpoises, rays, giant sharks, turtles, reef and tropical fish pass in bright review. In one end of the huge rectangular tank over seven tons of coral, seafans, and plumes are used to duplicate a coral reef. Here gay, little tropical fish, sporting every color of the rainbow, find protection from their predatory enemies. In the center of the large tank, resting forlornly on the sand-

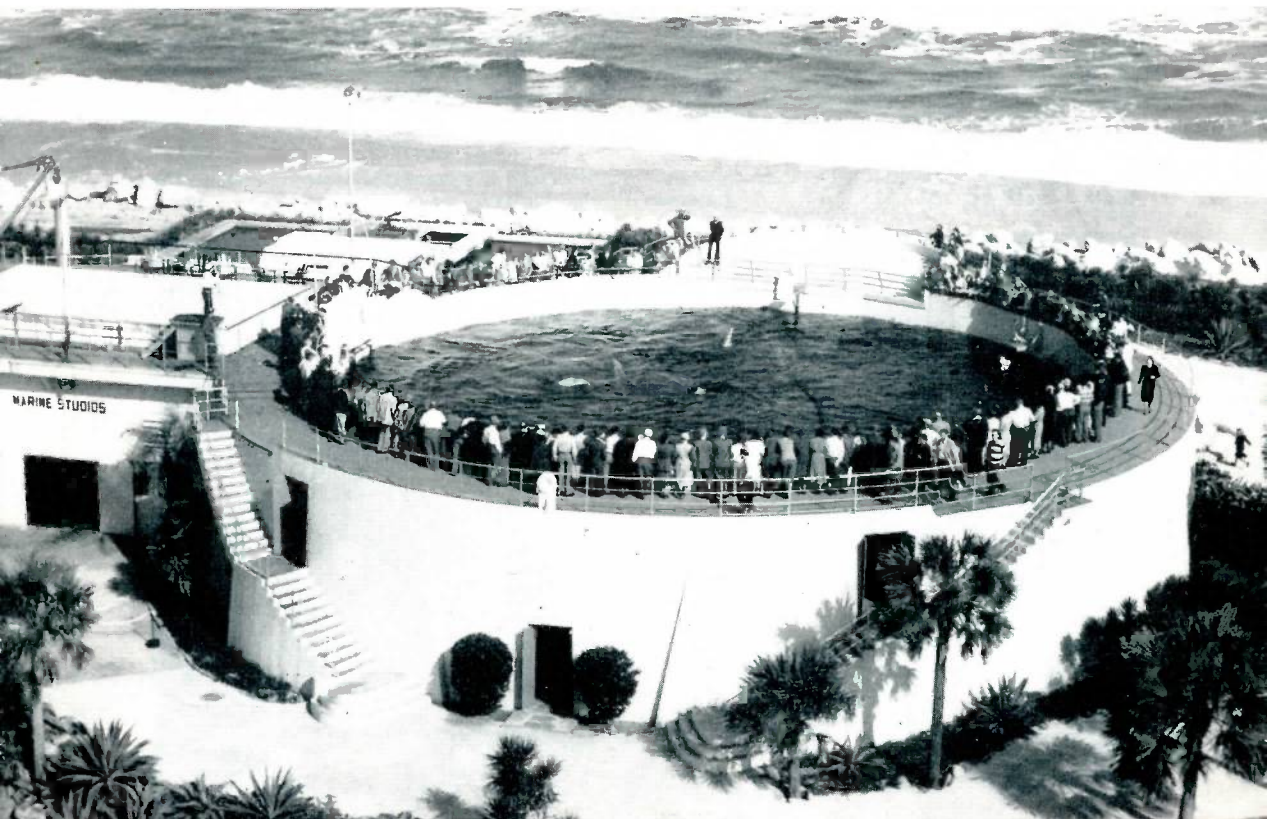
In the foreground a long, silvery barracuda is followed by a spotted sea trout, and overhead by a jack crevalle. Other specimens and the remains of a sunken ship are in the background.



Here a staff diver is shown feeding some of the ever-hungry porpoises. These fish like to dart in, and actually think they are stealing the food from the diver. All of which is good, clean fun until one of them gets over-enthusiastic and nudges the diver with his 450 pounds of weight. This sends the diver sprawling to the floor of the tank.


This is one of the famous jumping porpoises as it leaps from the water to accept its food from the hand of the feeding attendant. These mammals are friendly and intelligent. They learn to leap from eight to ten feet out of the water in just a short while after being placed in the tanks. This one gracefully seizes a blue runner as it is offered to him.

Aerial view of Marine Studios on Sunday afternoon. Hundreds of visitors crowd the 75-foot circular tank to watch one of the fast-moving and exciting feed shows. In the corridors below are 200 windows through which one may view all kinds of undersea life. In the background is the Atlantic ocean.



covered bottom lie the remains of a sunken ship—its barnacled ribs offering shelter for sheepshead, jewfish, and drum. There is an old rusting anchor to lend "atmosphere" for pictures.

It really is an attractive place. As one approaches the giant tanks we see that they are built along the ocean front. To the east extends the broad expanse of the blue Atlantic. Westward, the ground rises in lumpy contours of sand dunes and shell mounds, and rolls away to the Intra-Coastal Waterway which shimmers in the bright Florida sunlight. Countless palms wave a friendly greeting, and the white of the sand dunes is softened by the cactus, yucca, and seagrape.

The main entrance is at the south end of the big tanks. As one steps into the lower corridor, soft blue lights show the way from porthole to porthole, and through these windows of wonder one gazes in awe as the fascinating, colorful undersea world passes for inspection. The blue-green water, pumped from the ocean at the rate of five million gallons per day, is iridescent and clear.

### The Sharks Are Real

Large porpoises rise gracefully to the surface to breathe through the curiously shaped blow-hole in the top of their heads. A great 300-pound turtle lumbers lazily over the coral reef, and great schools of small, shiny fish follow in his path with the hopeful expectancy of finding a few scraps of food the big fellow might leave behind. From the stern of the shipwreck the long, sinewy shape of a shark electrifies the scene and many of the smaller fish scuttle for cover. A large ray grotesquely flaps his way over the coral gardens while a spotted moray suspiciously eyes his passage from a safe sanctum in the rocks.

At many intervals during the day, the Martian figure of a diver may be seen as he walks in "slow-motion" along the floor of the huge tanks. Great schools of fish cluster about as he scatters scraps of food for them. His appearance seems grotesque, as a cloud of bubbles cascade upward from his helmet. His job is to inspect the giant tanks, and feed their inmates daily.

The idea behind the Marine Studios was originated by W. Douglas Burden of the American Museum of Natural History. He had been in Africa filming scenes of wild animals in a giant corral, and wondered why this couldn't be done with the specimens of the sea. Ilia A. Tolstoy, grandson of the Russian author, Leo Tolstoy, an explorer of considerable note, helped greatly in the further development of the plan.

That it has been a success is attested to by the big crowds of people who visit the spot. Moving picture cameras are encouraged at all times. So are still cameras. Information about the proper methods to be used for getting the best results is readily supplied. No wonder it is popular! For here man may have for the first time an opportunity to peer into the mysteries of the deep and to observe and photograph many unanswered riddles of the open sea. Truly, it is the "ocean floor through 200 portholes."

One of the desperadoes of the sea. Note the big jaws and the many teeth of this man-eating shark. There are over 125 species of undersea life in this man-made ocean.

# THE STORY OF FLAME GAS dramatized

## Chicago utility company presents $100,000 exhibit to museum

IF YOU HAPPEN to be in Chicago with a little time to spare, stop in the Museum of Science and Industry. While nearly everything in this temple of wonders will interest you, the feature most attractive to visitors now is the new 21-unit exhibit which tells the story of flame gas. Given to the museum by The Peoples Gas Light & Coke Company of Chicago, the exhibit was conceived as a fitting way to mark the centennial of the first turn-on of gas service in the city of Chicago.

The Story of Flame Gas occupies a full room on the ground floor of the museum and utilizes 2,400 square feet of floor space. The exhibit, designed to appeal to visitors of all ages and interests, presents its educational story in a comfortable atmosphere that has been achieved through a pleasant combination of color, normal flowing architectural lines, and cheerful functional lighting. Comparatively simple colors have been employed to good effect. Wedgewood blue and a lighter shade of blue are the dominant colors used to provide a pure and clear background which emphasizes the details of the display units. Reds are used for cheerfulness. Other darker-toned colors have been applied for architectural purposes to give certain details strength of outline.

The exhibit has been constructed at an approximate cost of $100,000, the figure which was set in early estimates for the project. Harry Swenson, director of the company's display and home planning bureau, co-ordinated and directed the project from its beginning. Working closely with Swenson in planning and building the exhibit's units were Herbert C. Hanson, technical assistant to Swenson, and Robert O. Moriarity, construction engineer in the company's operating division.

The company's purpose in sponsoring the exhibit has been to provide the people of Chicago with a permanent display which explains in an interesting and authentic manner the important phases of the gas industry. By employing varied and thoroughly modern exhibit techniques, The Story of Flame Gas portrays man's earliest encounters with the flame and with natural gas phenomena and moves on into a dramatic depiction of the processes of modern gas production and the myriad uses to which gas is put in America's homes, commercial businesses, and industries.

### The Exhibit in Brief

The gas industry exhibit consists of twenty permanent display units and one temporary centennial unit which sketches the 100-year history of gas service in Chicago since September 4, 1850, the day when gas was first used there for lighting the city's streets.

To explain more easily an industry that is interesting but still somewhat technically complex, the permanent units are divided into five segments: historical, production, utilization in all of its phases, the research and testing, and distribution.

To achieve the broadest possible interest among the public, strong emphasis has been placed on the utilization phase of the industry. Care has been taken to show the spectator many of the representative uses for gas in the home, in the commercial establishment, and in industry. Modern appliances and processes are demonstrated.

The visitor is given a classical intro-


Left: Illuminated cut-away model of typical gas holder of 15,000,000 cubic feet capacity. Right: An actual demonstration of the heat treating of steel is seen by just pressing a button.

duction to the exhibit by a six-foot sculptured figure of Prometheus, legendary benefactor of mankind, carrying stolen fire to the human race.

The most spectacular of all the units, perhaps, is an authentic three-dimensional pictorama that reproduces plants, installations, and equipment required to operate a far-flung integrated gas system. Built to a scale of ⅛ inch to one foot, the pictorama presents tiny gas wells in the heart of the Texas Panhandle field, a dual pipeline system carrying the natural gas to Chicago, compressor stations, metering stations, a gas manufacturing and distribution plant such as the Crawford Station of Peoples Gas in Chicago, a distribution system with underground mains and pipes carrying mixed gas to the users in a large city, and model gas holders which store the gas until it is used.

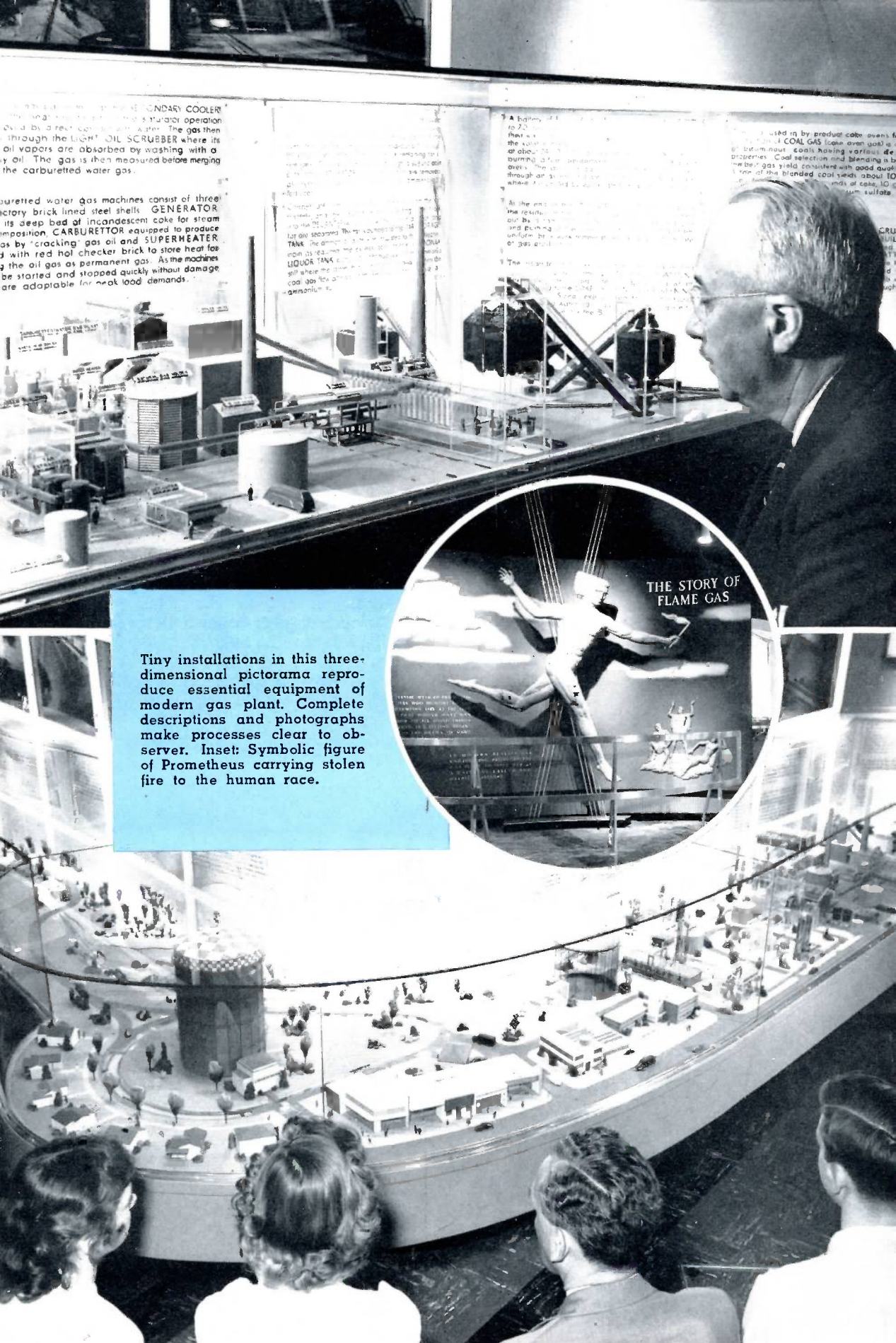
Highlights of the 100-year history of uninterrupted gas service in Chicago are related in five pictorial units which make up unit twenty-one. These sketch the more dramatic phases of Chicago's gas service from September 4, 1850, the day the city's first street lights were turned on, up to the present.

The exhibits are remarkably accurate and authentic. We can see how valuable they would be to a new gas employee or to a college student who is seriously considering the gas field for his vocation. A very complete picture of the whole business could be quickly obtained. Since some of the units have spectator-controlled demonstrations, the various principles could be more readily understood than would be possible from merely reading a book.

To the laymen not specifically interested in gas operations there still are units which are important to them. Men will want to watch the heat-treating experiment in unit seven. The gas-fired residential air conditioning demonstration in unit eight actually plays warmed and cooled air on the viewer as it operates. Unit eleven shows how a modern automatic water heater operates.

Women will be interested in the operation of a gas refrigerator shown in units eleven and twelve. The completely modern kitchen in unit thirteen with gas-operated appliances is every woman's dream. A cutaway model of the gas range used in the model kitchen features unit fourteen. Here the housewife

*(Continued on page 15)*




Tiny installations in this three-dimensional pictorama reproduce essential equipment of modern gas plant. Complete descriptions and photographs make processes clear to observer. Inset: Symbolic figure of Prometheus carrying stolen fire to the human race.

# United Lays A Tough One

## Mud Lake project makes new gas source available

THE UNITED GAS Corporation recently completed the 23-mile, 16-inch Mud Lake pipe line project—their newest link in the Texas gulf coastal region. It was no easy task, and called for some ingenuity to overcome the difficulties of sandy beaches and swamp land. We felt that this feat would be of interest to our readers. We are indebted to United Gas Log for the excellent photos and the important details used in this article.

The new pipe line was built to help meet mounting demands for fuel in the bustling Beaumont-Orange-Port Arthur area. It extends from the new gas supply sources near the Gulf of Mexico in Cameron parish, Louisiana, to Port Arthur, Texas, a distance of 23.4 miles. The line will transport gas produced by Magnolia Petroleum Company in four coastal fields—Mud Lake, East Mud Lake, Holly Beach, and Cameron Meadows—to the site of the Gulf Oil Corporation's refinery in Port Arthur, where it connects with the terminus of United's existing 18-inch Goodrich-Port Arthur line.

Gas from all four fields will be taken at a common point purchase station erected by United at Magnolia's plant in the area of Johnson's Bayou in Cameron parish. Beginning there, United's line extends westward across some 15 miles of sandy beach ridges and swampland, then under Sabine Lake and the Intracoastal Canal before terminating in Gulf's plant yard.

### Headaches Aplenty

The Mud Lake Line offered plenty of construction challenges. The accompanying photos, taken during construction, show some of the various pipelining methods which had to be used to lay the 16-inch line across the 23 miles of coastal country.

Less than a quarter of a mile from

Pipe shoving operation during construction of the Mud Lake line which connects an additional gas supply source with the Beaumont district system.

where the line begins at the Magnolia plant, United engineers faced their first problem in laying across a stretch of back beach land of the Gulf of Mexico. For some 10 miles the line's route roughly parallels the gulf at distances ranging from one-half to two and one-half miles inland. To the eye the flat, open country looks like ideal pipelining terrain, but it isn't.

The soil, consisting of a loose, unconsolidated mixture of sand and shells deposited years back as the waters of the gulf moved out, makes a treacherous bed for a pipeline. During the rainy season the water table in the area sometimes rises to within inches of the ground surface, and special precautions were necessary to guard against the possibility of the line being floated out of the ditch.

Two ten-foot lengths of four-inch channel iron serve as a huge fork to pin the pipe in place. These anchors are slipped through grooves in cushioned pipe saddles and are driven down with an air hammer.

Because of the low holding power of the soil, some type of anchorage with a large bearing area was needed. It had to be both effective and economical. United engineers went to work on the problem and came up with a special anchoring technique to meet the unusual characteristics of the soil.

The 16-inch pipe was welded together, section by section, and shoved down the ditch by "cats."

Ten-foot lengths of four-inch channel iron were criss-crossed over the line and driven into the ground at 50-foot intervals to hold the pipe in place. Each set of two irons has the effect of a huge fork pinning the pipe in its ditch. The anchors are guided through grooves in cushioned saddles on top of the pipe and driven into the ground with air hammers. They are driven down until the small lugs welded near the top end of each piece of iron catch on the grooves in the saddle. In this manner the anchors grip the pipe firmly, and the short sections of iron that extend above the line are covered when the ditch is filled.

### Shove Through Swamp

At the end of the 55,400-foot stretch of beach land, the route of the line turns northwest and extends several miles through typical coastland marsh country which prevented the use of normal land construction tactics. This section, reaching to the eastern edge of Sabine Lake, was ditched by dragline, and the pipe was shoved into place from a ramp on the eastern end of the swamp. Con-

*(Continued on page 17)*

## Boy Scouts Celebrate

On February 8 the Boy Scouts of America observed their 41st anniversary. The doings of our Boy Scouts, Cub Scouts, and Explorers received quite a bit of publicity during Boy Scout Week. And in all this, everyone was unconsciously paying tribute to the genius of the man who first conceived this fine program for our youth. This man was Lord Baden-Powell of London, England.

Baden-Powell first formulated the principles of Scouting when, as a Lieutenant General in the British army, he organized the South African Constabulary. The basic unit was a patrol. A group of eight young men under the leadership of one of their number. This leader taught them various skills through "learning by doing." This system worked so well that Baden-Powell saw in it a workable program for boys of twelve to eighteen years of age. In the summer of 1907 he took 24 boys to Brownsea Island off the coast of England where he held his first scout camp to test his theories. They worked! So well that he compiled six pamphlets

## Liverlip and Leo


*"Now there's a water man that really has the Village Board behind him"*

entitled "Scouting For Boys". This was the first Scout manual, and gave full instructions for organizing troops. The program spread like wildfire. Soon there were Boy Scouts everywhere. Today, one may find Boy Scouts in nearly every country on the globe except those behind the iron curtain.

The program is unique in that it appeals to the boy, and satisfies the very urges which he has. In these days the trend is toward the push button age. To do the things that require the least effort. It is heartening to see a troop of Scouts tramping down the highway with packs on their backs. No autos for them! They sleep right on the ground. Cots are left at home. They are encouraged to do real pioneer cooking — biscuits, kabob, imu. None of this canned bean and hot dog stuff! They are not supposed to use paper, coal oil, heat-tabs, or other artificial aids to start their fires. Otherwise, how could they learn to build them when these aids weren't around? They go hiking every month of the year—winter and summer. As one Scout put it, "We do everything the hard way in our troop."

Thank God for the Scoutmasters who have the vision to do things the "hard way." It will help mold young men of character who are resourceful and self-reliant. In the days ahead we may need many of them. The record of the Boy Scouts during the last war was really impressive. And, if need be, they can do it again, for their motto is "BE PREPARED."

■ ■ ■

## The Story of Flame Gas

*(Continued from page 10)*

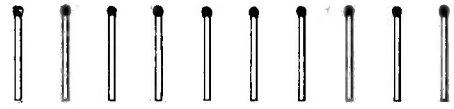
may see just how her own stove functions.

Unit twenty is a large mural which presents an artist's synopsis of the history of flame gas. The eleven vignettes give the historical highlights in the development of the gas industry. This unit is very educational.

The Peoples Gas Light & Coke Company is to be commended for making available to all people this remarkable exhibit. As we said in the beginning, if you ever go to Chicago, by all means see this display if you can.

# THE PUZZLE BOX

Our Puzzle Box fans are showing a real interest in this column. We asked them to send in their favorite puzzles. We are pleased to print in this issue a match puzzle from one of our loyal readers in Olney, Texas. He is Mr. T. W. Boone, local manager of the City Gas Co. of Olney. Below is his puzzler.



1 2 3 4 5 6 7 8 9 10

Place ten matches in a row. Pick up a match, jump over two matches, and place it beside another match. Continue jumping, remembering that the two that are jumped may be two neighboring matches or two which are side by side as the result of a jump. Only single matches may be picked up.

The object is to end up with five piles of two matches each. The answer will appear in our April issue.

**Answer to Last Puzzle**

The seven chair puzzle given last month stirred up a lot of interest. If you haven't tried it at a party, then do so. Your editor has livened up many an occasion with it. We give you the solution below.

The correct moves are as follows: C to 4, X to 3, Y to 5. C to 6, B to 4, A to 2. X to 1, Y to 3, Z to 5. C to 7, B to 6, A to 4. Y to 2, Z to 3, A to 5.

Join in the fun. Send in your puzzle to the editor. Be sure to enclose the solution.

**THOUGHT OF THE MONTH:**

**The fool speaks without thinking.**

**The hasty speak before thinking.**

**The jackass speaks without saying anything.**

**The cautious think before speaking.**

**The wise think without speaking.**

Richard F. McLean

## Water Superintendent Retires

At the completion of 49 years with the city water department of Walla Walla, Washington, Superintendent Richard F. McLean retired on December 31, 1950. He began work in 1901 as the water registrar. He has worked continuously as a public servant. Appointed the superintendent in 1910, McLean has seen the city grow from a little over 10,000 population to something like 24,000 today, with many more outside the city limits who are supplied water from the municipal plant. The progressive growth of the water system has been due to his careful planning. But in spite of all this, the city has increased in size and population much faster than was expected. He states that they have completely outgrown the sewage disposal plant.

Although officially retired at the end of December, he remained at his desk. He felt that he should make out his annual report. The man who was to succeed him probably would not know where to start. That little detail reveals the character of the man. He very reluctantly says anything about himself as he prefers to stay out of the limelight. But he is proud of the work of the water department. He will spend considerable time explaining about the precautions taken to keep the water at a high state of purity.

### A Civic Minded Man

McLean has continued to take an active part in the work of the Pacific Northwest division of the American Water Works Association. In 1943 he served as vice-chairman, and the following year when Walla Walla was host to the annual convention he was chairman.

His work has not been his only interest. He is a 25-year member of the Kiwanis Club and has continued his interest in Kooskooskie, the Kiwanis camp on upper Mill Creek. This is operated for the youth of the community. He has kept up his interest in the history of the area through the activities of the Walla Walla Pioneer Association. McLean is one of the two 33rd degree Masons in Walla Walla, and is in demand throughout the state for conferring the rituals of the lodge on members.

He is enthusiastic about the out-of-doors, and is familiar with most of the Blue mountains where he has hunted and fished for years. He still enjoys a game of golf at the Country Club. But his main interest has always been in his work.

Paul Meyer, superintendent of streets, is acting as head of the water department until a successor is chosen.

■ ■ ■

## Error Slips Through

In our December issue we misspelled the name of Eldon M. Vass, City Engineer of Fredericksburg, Maryland. It was an error in proofreading which we failed to catch. This may prove that even editors are human, and make mistakes the same as other people do. We apologized to Mr. Vass right away. Apparently he isn't too mad at us, for last week Del Parks, the Mueller representative in the Baltimore area, wrote us that Mr. Vass had given him a very large order. Perhaps we should misspell a few more names in coming issues!

## Mud Lake Project

*(Continued from page 13)*

crete coated pipe was used for the first 10,000 feet and half-inch wall pipe with somastic coating was used for the rest of the distance to provide sufficient anchorage. Accompanying pictures show "cats" shoving sections of the 16-inch pipe out into the marsh.

The swamp construction extended to the east bank of Sabine Lake. The lake crossing, itself approximately five miles long, was installed from a shove ramp erected on the opposite bank of the big body of water. The line was shoved from there to the east bank. The 16-inch pipe was welded together, section by section, and put across by "cats" pushing down the shove ramp and barges pulling on the head end out in the lake. After the line was across the lake, a trench was jetted down several feet in the lake bottom for the pipe to rest in.

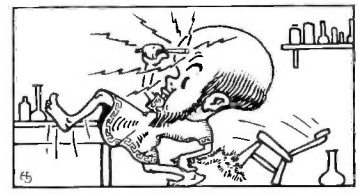
Less than 1,200 feet from the west bank of the lake the line crosses the Intracoastal Canal and then extends for approximately three more miles across the flat lowland of the gulf country before terminating in the plant yard of the refinery. There it ties into the 18-inch Goodrich-Port Arthur line.

Addition of the Mud Lake line to the Beaumont district system provides a new source of natural gas to supply the expanding demands of a rapidly developing area.

■ ■ ■


# NUTSHELL NOVELS

BY SKIPPER



## EUREKA

Demosthenes Dody was in his laboratory, laboriously laboring over his work bench. He had worked and labored all night in his laboratory performing experiments with an amber rod and a piece of pussyhide. (Editor's note: We Americans call it cat fur.)

The sun had now passed noon, and Demosthenes was still experimenting. After rubbing the amber rod for more than an hour with the pussyhide without stopping, Demosthenes stopped long enough to wipe the streams of perspiration from his brow with the back of his hand. The amber rod, being awkwardly held, touched his forehead, and discharged the stored up electricity. He received such a shock that he was knocked silly. (That is, sillier than he had been.)

After he had recovered he jumped up and ran outdoors crying, "Eureka! Eureka!" (Greek for: "I have found it.") For fifteen minutes he ran around the house crying, "Eureka!" Then he rushed up town, his toga flying in the wind, still yelling, "Eureka! Eureka!" Then he rushed to the town pump. "Eureka! Eureka!" he cried.

"Here I am," cried his wife, dashing out of the stadium. "What do you want?"

"Eureka, darling," he said, "I have discovered that water increases the strength of an electric shock. Let's celebrate." So they bought a sack of potato chips at the delicatessen, and, going over to the public square, sat down on the oracle and made whoopee until dark.

# Off the .. Record ..

The little six-year-old was making her first visit to the country. The farmer's wife was taking her around the farm showing her the place. She saw the chickens, the garden, the barn, and ended at the pig pen where an enormous sow was reclining in the sun.

"Big, isn't she?" asked the farmer's wife.

"And I know why," replied the girl. "When I saw her yesterday, she had nine little pigs blowing her up."

■ ■ ■

Overheard in a night club: "Hands off, Columbus, you've discovered enough for one night."

■ ■ ■

A grumpy householder was awakened at 3:00 a. m. by a drunk who pounded insistently on the door. The sleepy man opened the bedroom window and shouted to him, "Go away. You're trying to get into the wrong house!"

"Oh, yeah?" called the inebriate. "An' how do you know you're not lookin' outa the wrong window?"

**International Dialogue**

Hobo: "Hawaii. Could I get a bite to eat?"

Cy: "Are you really Hungary?"

Hobo: "Yes, Siam."

Cy: "Wait till I call my wife. Alaska if she will Fiji."

Wife: "How would a little cold Turkey do? Or a bowl of Chile?"

Hobo: "I'll take the Turkey, ma'am, but could you warm it in a little Greece? I get Spain and India-gestion when I eat cold things."

Wife: "That's all right. If you die I'll have Siberia in the family graveyard."

Cy: "We're glad to help you, but don't break her China plate or I'll Russia out of here faster than you came in."

■ ■ ■

**Mueller Minstrel Show**

Mr. Bones: "Say, Mr. Interlocutor, when is the best time to pick apples?"

Interlocutor: "Oh, that is an easy one. When they are ripe, of course."

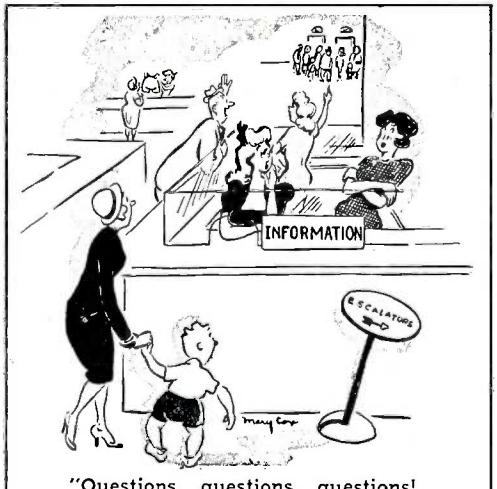
Mr. Bones: "No-o-o, indeedy! The best time to pick apples is—when the farmer ain't looking. Hyak! Hyak!! Hyak!!!"

■ ■ ■

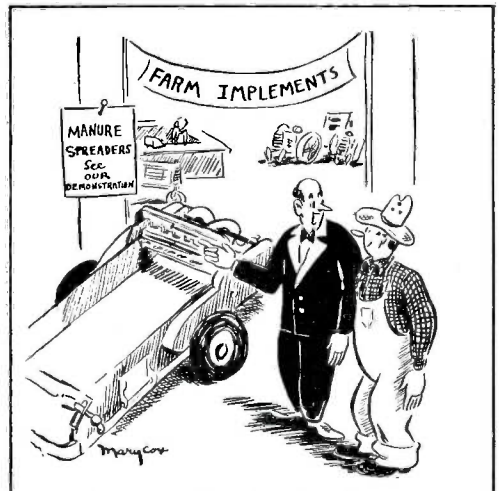
Blonde applicant: "I don't know how to answer this question."

Interviewer: "What does it say?"

Blonde: "It says, 'Who was your mother before she was married?' I didn't have any mother before she was married."




"Questions, questions, questions! All day long, all people ask is questions!"




"It's the only thing in the store we refuse to stand behind, Sir!"


"You can remodel it into a dream house for about $20,000!"

"Are there any more stomachs waiting to see me, Miss Smith?"

### Man Without In the Country

Breathes there a man with soul so punk
Who moves not when he smells a skunk
  Playing in its native haunt;
A road that ne'er beneath him burned
As homeward he his footsteps turned
  From wand'ring on his daily jaunt?

■ ■ ■

"Oh," gurgled the city girl as a couple of calves cavorted over the pasture. "What pretty cowlets!"

"Sorry to disappoint you, miss," said the old farmer. "Them's bullets."

■ ■ ■

Gladys: "Where, my dear, did those beautiful pearls come from? I hope you don't mind my asking?"

Nellie: "Not at all. They came from oysters."

■ ■ ■

Little Terry was in the grocery with his mother when one of the clerks gave him some candy.

"What must you say, Terry?" asked his mother.

Terry hesitated a moment and then replied, "Charge it."

■ ■ ■

Astronomy professor: "Has anyone in the class ever seen any shooting stars?"

Student: "I saw two. Gene Autry and Roy Rogers."

### Famous Bills

Grocery ——. Duck ——. Two dollar ——. ——board. Board ——. —— Bryan. ——yus.

■ ■ ■

Daughter: "Father, did you know that on account of the national emergency dresses are going to be shorter this year?"

Dad: "Yes, and so am I."

■ ■ ■

Two little boys were discussing the grandmother of one of them. The visitor asked, "Why does your grandma spend so much time reading her Bible?"

"I dunno," replied the other. "I think she is cramming for her finals."

■ ■ ■

Clerk: "These are especially strong shirts, sir. They simply laugh at the laundry."

Customer: "I know. I had some returned from the laundry with their sides split."

■ ■ ■

It was his first day at school. Suddenly the small boy started sobbing bitterly.

"What's the matter, Edgar?" asked Miss Primly, his teacher.

"I don't like school," he wailed, "and papa says I have to stay here until I'm sixteen."

"Don't cry," snapped the teacher. "I've got to stay here until I am sixty-five!"

## *Just Between Us . . . .*

*(Continued from page 1)*

The few shocks I received were all accidental.

Railroading got into my blood and it really has never left me. I was loyal to the traction lines and never rode a train or a bus anywhere if I could take the interurban to my desination. The improvement of highways and automobiles sounded the death knell of the traction car. Most of the lines in Indiana folded up. The last car to leave Indianapolis on our division was draped in black and the motorman sadly tooted his whistle as he went through each town.

The tracks are all torn up and little remains to remind one of the real service the traction lines gave before automobiles came into their own. The train crews, shop men, and others have an annual reunion, where they reminisce about the old T. H. I. & E. I haven't been to one now for some time, but I always enjoyed them.

■ ■ ■

### The Early Bird Club

When Byron Hiatt told me how he got up each day a couple of hours earlier than usual to work on his railroad, I was reminded of a similar thing I have done over the years. I joined the EARLY BIRD CLUB. I first read about it in a magazine, and I heartily recommend it to any of our readers who want to get things done, but never seem to find time to do them. Here is how it works.

Suppose that you are studying a correspondence course, or working on an invention, or want to build a picket fence around the house. If you are in the habit of getting up at six in the morning, then get up tomorrow morning one hour earlier—at five. Wash your face to get yourself awake and put on the minimum of clothes needed. Don't do anything else. Pitch right in on the task that you have assigned yourself. You will be surprised to find how fresh you feel. How clear your mind is at that hour. Work just sixty minutes. THEN, go through your usual routine of shaving, dressing, breakfast, and off to work.

Skipping Sunday mornings, you will discover that you will accomplish more in these six hours of effort than in many more hours at other times in the evening. You are wide awake, nothing competes for your time or attention at that hour, and your will power is at its best then. Whenever I have a special project that I never seem to find time to do, I always get in the EARLY BIRD CLUB again.

■ ■ ■

### Decatur's Aquarium

The Oceanarium story in this issue recalls to mind the little aquarium here in Decatur.

Some years ago the employees of the local water works set out upon a beautification program. A fair size plot of ground between the plant and Lincoln Park drive was marked for improvement. They laid walks of flagstone, built fancy arches, gateways, and planted flower beds. The central feature of Water Works Park, as it was called, was six or seven large circular pools, each about ten feet in diameter. The large one in the center held several alligators. The others were stocked with various kinds of fish native to the region. It was very popular and attracted many visitors each summer. The employees were very proud of their little park. With the advent of war, the park was closed for security reasons. Then subsequent improvements to the water works made its removal necessary. It wasn't an expensive project, but improved greatly the public relations of the water works department. Other communities might well consider something similar. The Spartanburg story in the December issue is a more elaborate example.

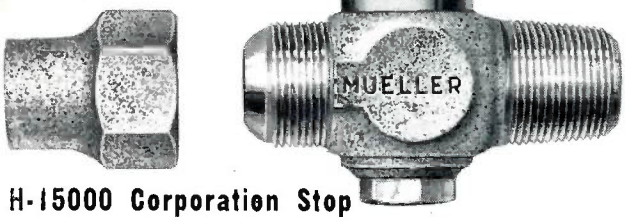
■ ■ ■

### Our Cover Picture

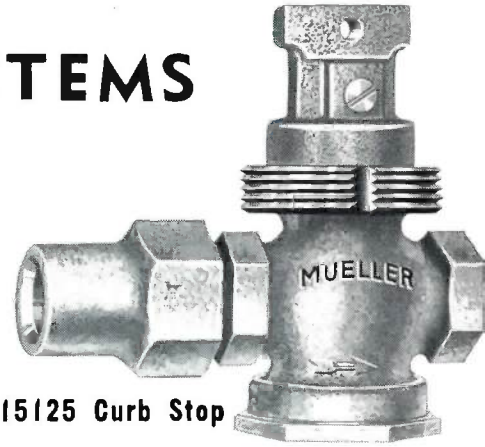
The snow scene used this month is another taken by Walter Bowan of our Engineering Staff. It shows the icy waters of Stevens Creek as it flows through Fairview Park at the western edge of Decatur. In view of the kind of weather we have had this winter, the picture is quite appropriate. This is another of Walter's salon prints and we wish to thank him here for letting us use it.

# WHEN YOU USE
# COPPER SERVICE PIPE

## YOU'LL NEED THESE ITEMS




H-15000 Corporation Stop

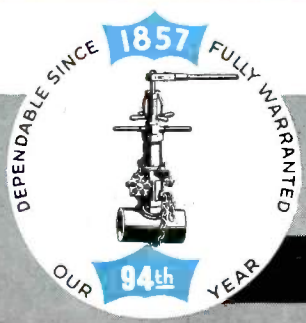



H-15125 Curb Stop

Mueller Corporation and Curb Stops for use with Copper Service Pipe have a Flanged Connection that is made without the use of solder. The pipe is cut to length and the coupling nut placed over the pipe and the end of the pipe is then flanged. A convex surface in the nut opposes a convex surface in the spud that gives a line contact initially but does not compress the end of the flange. Since the end of the pipe is not compressed, it maintains the full pipe thickness and gives a tight joint that is highly resistant to pulling out. The extra long skirt on the nut gives added support to the pipe and prevents leaky joints. The Stops are cast from heavy bronze with each key ground and lapped into its body to insure easy turning and a tight seal.

Mueller Extension Service Boxes are designed with upper sections that slide freely up and down in the base so that "frost heave" or any impact to the upper section does not damage the curb stop or the service pipe. There are many sizes and types available. Write for full information.


H-10300 Service Box




# MUELLER CO.

MAIN OFFICE AND FACTORY.....DECATUR, ILLINOIS
OTHER FACTORIES: *Los Angeles, Cal.; Chattanooga, Tenn.; Sarnia, Ont. Canada*

# THIS STOP


# IS QUICKLY INSTALLED

**MUELLER H-11400**
**(WITH DRESSER COUPLING)**

Nothing equals these stops for a quick installation and they are permanent installations too!! No threads to cut—just cut the pipe to the approximate length, slip on the stop and tighten the nuts. The Dresser Compression Ends grip the pipe securely, yet the rubber gaskets allow for expansion, contraction, strains, shocks, ground settlement or shifting of pipes without danger of leakage. The body is made from high quality close-grained gray iron and the key, washer and nut from high copper content red brass. Each key is precision *ground and lapped* into its own body to give a leak-proof seat and is easily turned. Before shipment, each stop is inspected and thoroughly tested on high air pressure while submerged. Write for further information.

DEPENDABLE SINCE 1857 FULLY WARRANTED OUR 94th YEAR

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