

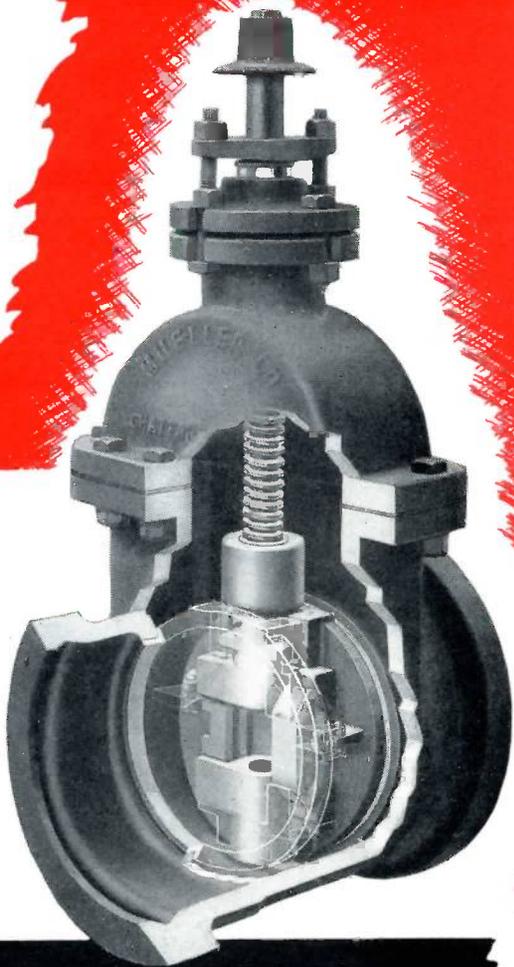
MUELLER RECORD



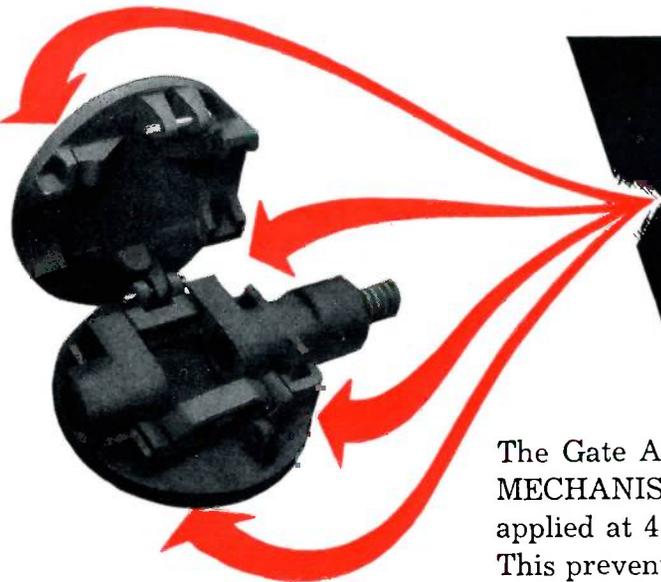
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MUELLER RECORD

Published
at Decatur, Illinois, by

MUELLER CO.

MANUFACTURERS OF WATER AND GAS
DISTRIBUTION AND SERVICE PRODUCTS



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August • 1951

Vol. XXXVIII

No. 1

HERMAN E. JACKSON, Editor

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Member Industrial Editors Association of Chicago
Printed in the U.S.A.



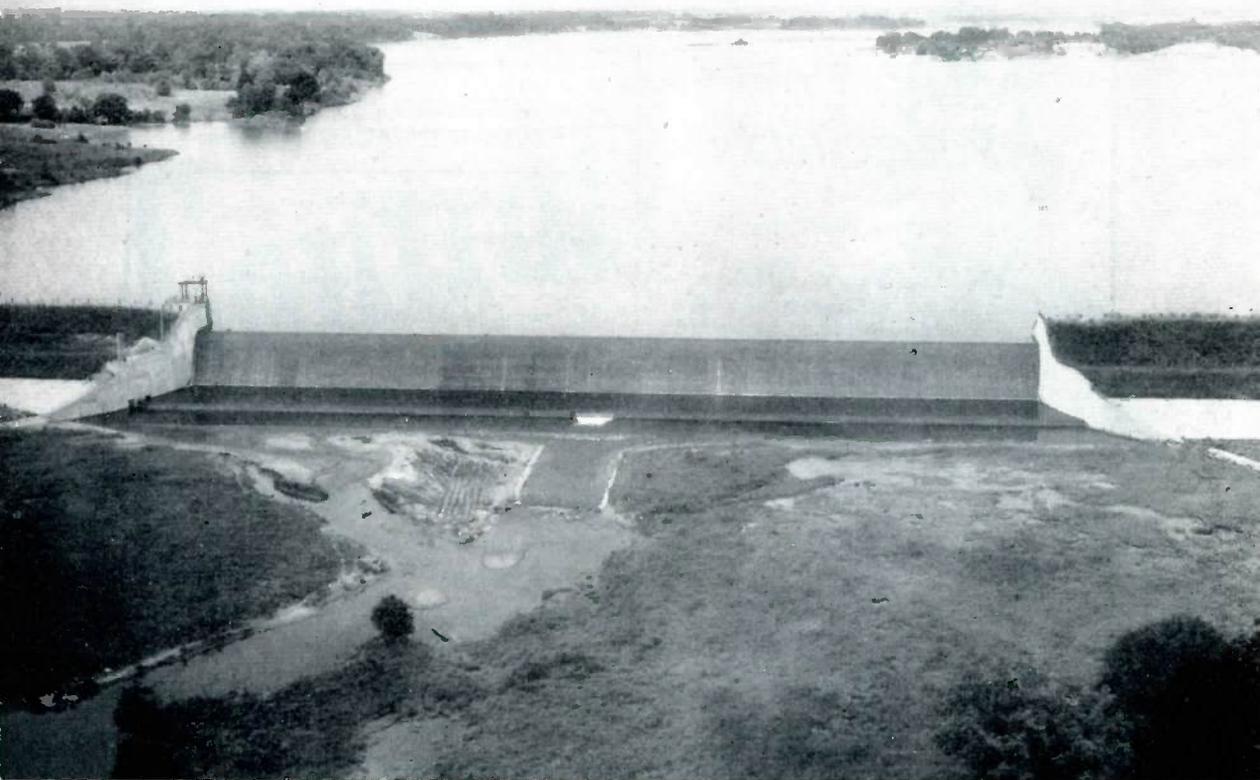
Just Between Us...

RECENTLY I STOPPED at the R bridge which overlooks the dam and the Decatur water works, both of them being at the lower end of Lake Decatur. Sea gulls were soaring gracefully back and forth with an eye to a tempting morsel in the waters beneath. While there aren't many sea gulls around our little inland lake, those which are here seem to thrive very nicely. As I watched them there came to my mind an article on gulls which appeared in the Fort Lauderdale (Fla.) Daily News.

In St. Augustine, Florida, the people are desperately trying to save the gulls that are left. A city-wide effort is being made to round up table scraps and movie popcorn to tide the birds over until they can once more learn to feed themselves.

But naturalists aren't too sure what will happen. They are puzzled over the apparent complete loss of the sea gulls'

(Continued on Page 20)



Aerial view of Geist Reservoir showing dam and spillway.

Plenty of Water for Indianapolis

MANY CITIES, faced with a vastly increased consumption of water and, in some cases, a dwindling of their water supply, have turned to artificial lakes as a solution to their problems. Geist Reservoir, northeast of Indianapolis, Indiana, is one such reservoir. Located on Fall Creek it supplies the Fall Creek Purification Plant. This is adjacent to the Fall Creek Pumping Station which, in turn, delivers water to that portion of Indianapolis north of 30th street and east of Keystone avenue and Rural street. Two elevated water tanks and two booster pumping stations are on that side of the system also.

The reservoir was first conceived in 1921 when a consulting engineering firm worked with the water company's engineering staff to plan the future water supply of the city. Two sites, or rather possibilities, for water reservoirs were

named: the above and one on White River.

As the city's growth seemed to point north and east, Fall Creek was selected for the first reservoir. (The other is under way with the purchase of land now going on.) All land was purchased and plans for Geist Reservoir were ready in the Thirties, but the depression deferred the work.

Work Began in 1941

In 1940-41, the Fall Creek Purification Plant was built. Then in May 1941, work began on the new reservoir. Work progressed rapidly, and by March 17, 1943, it was filled to capacity. Two months later it received its baptism by flood—the second greatest flood on record in that area. But only a year later, approximately one-third of its capacity was utilized during the drought year, and the water level lowered five feet.

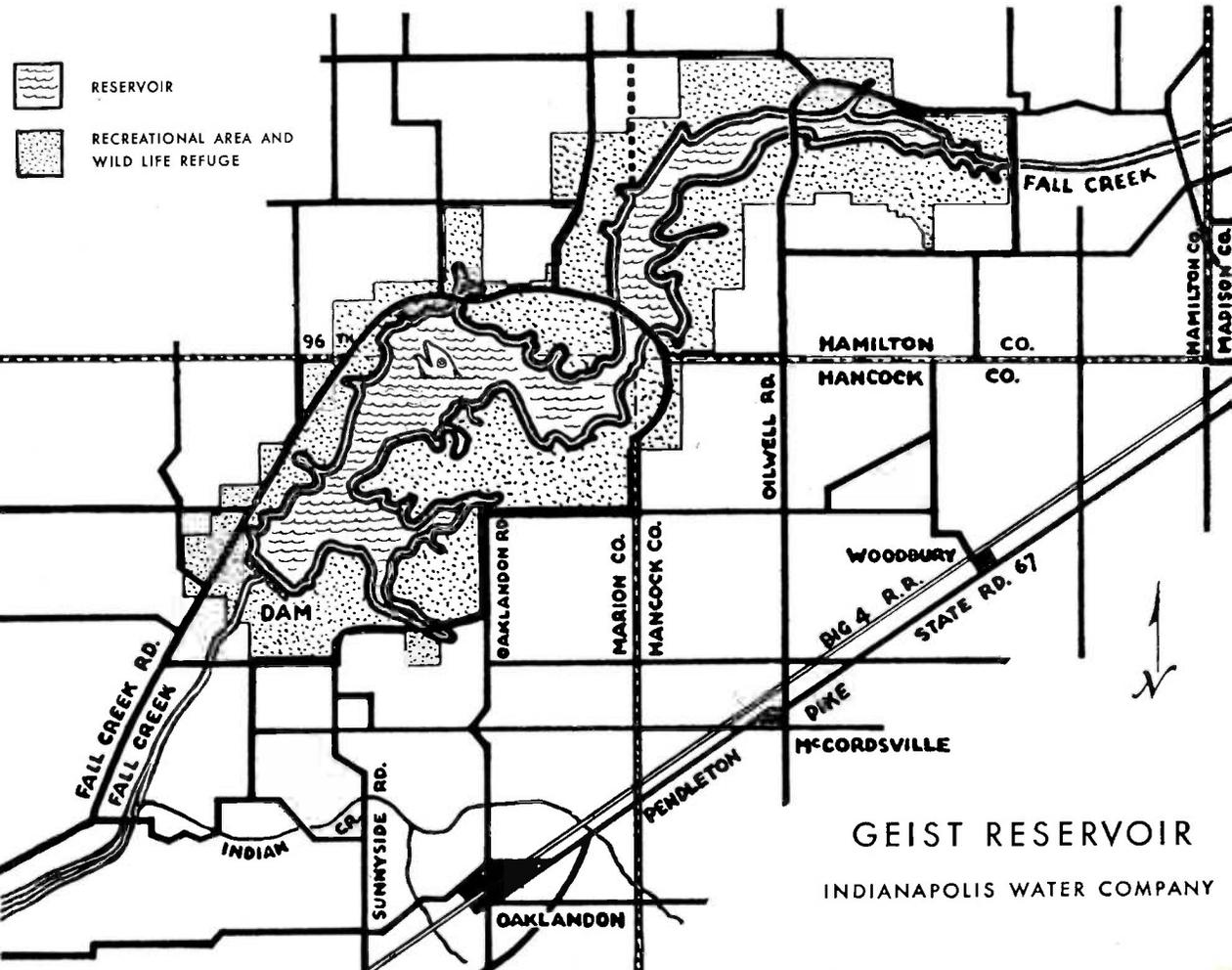
A dam was built in Fall Creek some distance above its junction with Indian creek. The dam is 1,900 feet in length and it has a spillway 500 feet long. The lower end of the reservoir is in Marion county. It runs northeast along the irregular bed of Fall Creek into Hamilton county. At one point it just touches the northwest corner of Hancock county. It ends not far from the Madison county line. The actual area of the water when the reservoir is full is 1,800 acres. The land area surrounding the lake covers another 3,800 acres, making a total of approximately 5,600 acres controlled by the water company.

The reservoir is seven and one-half miles long. At its widest point it is one and one-third miles across. There are 35 miles of shore line. When the reservoir is full the depth of the water at the dam is 25 feet. Its capacity then is seven billion gallons. A glance at the map will give some idea of the size of this project.

Wild Life Refuge

The officials have seen fit to make a game refuge of a portion of the land area. This is well posted, and people are instructed to remain outside of the places reserved for the wild life in the region. In a protected area, such as this fish are certain to be plentiful. Fishing is permitted, but only from the banks. No fishing from boats is allowed. In fact, no boats of any kind are permitted on the lake. There is no hunting, no swimming, no building of fires. To help protect the wild life none are permitted to run or exercise dogs in the area.

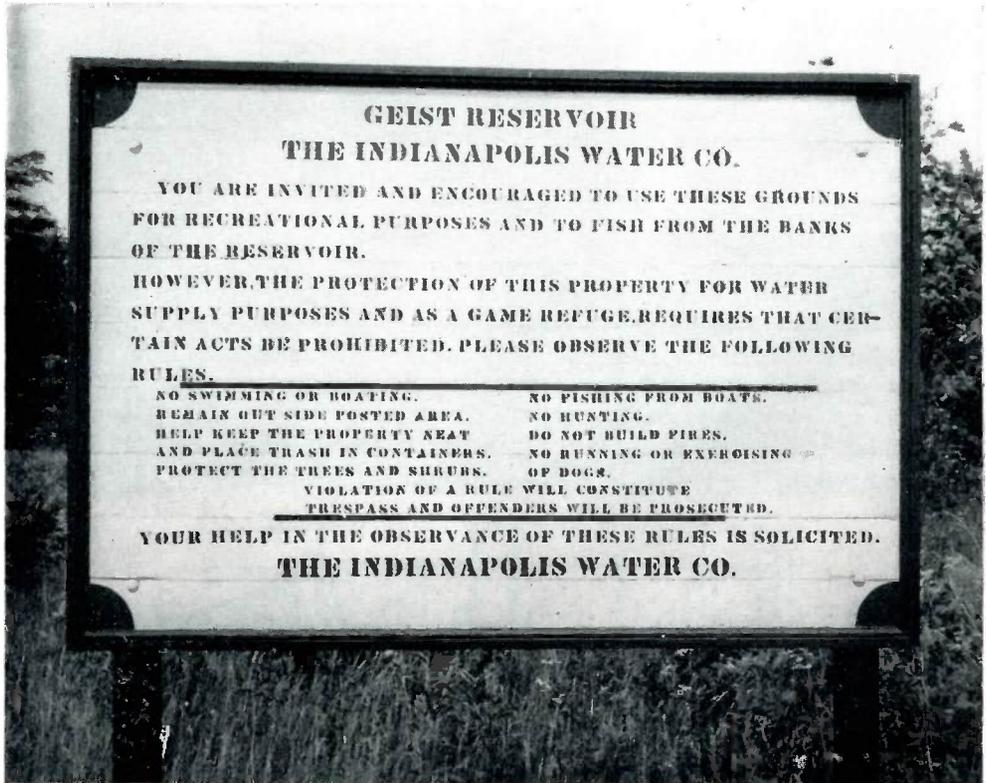
The water company from the beginning has carefully controlled the area. None were allowed to build cottages or other habitations on the shores of the lake. The spot is beautiful, and those who are pleasure bent may feel that the restrictions are harsh. But it is just this policy that has kept the area free



from man-made contamination. The more pure the water is at the source, the easier it is to treat it.

The reservoir has been invaluable to the city. The increase in the number of industries and the rapid increase in the population of Indianapolis and its environs has made heavy demands upon the water supply. Water consumption

in 1940 was ten billion gallons annually. In ten years this figure has doubled, and this year it should exceed twenty billion gallons. According to John E. Kleinhenz, publicity director for the Indianapolis Water Company, the project has been well worth the cost of it. The new reservoir on White River will prove equally valuable as the city continues to grow.



Signs like this are posted about the property to tell the public about the reservoir, and to inform them of the regulations governing its use.

Miss Your RECORD?

For a week following the mailing of the MUELLER RECORD to our readers, we receive a number of copies which have been returned to us by the post-office. Some are marked with: "No such address", "Removed", and other similar notations. Now we want you to receive our little magazine. But there is nothing we can do if the address on the envelope is wrong.

If you are not receiving your copy regularly, let us know. If the magazine is now going to some one in your organ-

ization who has changed positions or is not now in your employ, please send us the name of his successor. Or if the addressee is deceased, and the magazine is no longer serving a useful purpose, let us know and we will remove the name. When notifying us of a change of address, be sure to give us the correct name, title (if any), firm name, street address or box number, city, zone number (if any), and state. Be sure to cut out the old address from the mailing envelope and return it to us. Otherwise, we may have difficulty locating the old addressograph plate.

77-YEAR OLD MAIN STILL UP-TO-DATE

WESTFIELD, MASSACHUSETTS, is an old city. Under the name of Woronoco it was settled in 1640. It was incorporated in 1669, and at that time its name was changed to Westfield. We do not know when the first water system was started, but a photograph recently sent us brings to light some interesting facts.

Some time in the past, apparently in the seventies, the water department undertook some improvements to the water system. And as part of this progressive step a 14-inch cast iron main was laid. We show here a photo of it. The date on the pipe is clearly seen to be 1874.

Recently it was desired to run an 8-inch branch line from this larger line. The conventional procedure is to put on a tapping sleeve, bolt a tapping valve to it, attach a Mueller drilling machine to this, and make the cut into the old main. When the machine is removed the branch line is coupled to the valve. Now

all this is simple enough, but the officials of the Westfield Water Department were a bit skeptical about undertaking the operation. Knowing that much of the pipe in the early days was pit cast, they were aware that there could be considerable variance in the diameter and the thickness of the pipe if this main were pit cast. There was much concern as to whether a Mueller tapping sleeve could be made to fit without leaking or loosening up in time.

The water department of this progressive city has been a regular user of Mueller products for a long time. So a Mueller 14" x 8" tapping sleeve was obtained. Mr. George Brew, foreman, supervised the making of the tap. When the sleeve was bolted up and caulked it was found to fit perfectly, the special Mueller construction allowing for any variation in this 77-year-old main. And as the photograph shows, when the connection was completed it made a neat-looking, water-tight job.



George Brew, foreman, is holding the coupon cut from this 77-year old main. See how clean the cut is. Note, too, that the tapping sleeve fits the old pipe perfectly and that there are no leaks.



THE BEAR FACTS . . .

By BART LEIPER

THERE ARE 52 KINDS of fur-bearing animals native to the Great Smoky Mountain National Park, but to the motoring public Mr. and Mrs. Black Bear and cubs take precedence over them all.

This is not only because of their commanding size, or—in any case of the cubs—of their antic ways, but also because so many of them have fallen into the beguiling habits of the panhandler.

Not even a red light or a stern traffic cop can bring a car to an abrupt halt with the speed it happens when members of the bear tribe appear along any of the overlook parking spots upon the over-the-Smokies highway connecting Tennessee and North Carolina.

The passive, almost pet-dog demeanor of the bears at times often lulls the unsuspecting into unwise actions, for the animal is never tame. Its mood can switch in a twinkling from meek supplicant to powerful aggressor if it feels aggrieved.

Despite the numerous warning signs placed by the National Park Service to deter visitors from feeding or molesting the bears, this warning goes for naught with many. As a result, increasing numbers of these favorite denizens of the Smokies quickly learn the arts of panhandling, standing erect in supplication or with paws placed against your car, anticipation written all over the rugged jowls.

Real Danger Cited

Aside from the matter of law violation, real danger in bear feeding, the experts point out, comes largely from holding food in the hand as it is offered; or, in running out of food too quickly; or, again, in parcelling it out in a stingy manner, which may lead Bruin to retali-

ate with a sturdy slap by a mighty paw, ringed with knife-like toenails.

The unrehearsed antics of one, two, or even more cubs can be quite as amusing as a Walt Disney comic, plus the fact that no admission is charged. So tame do the youngsters appear that misguided visitors are sometimes tempted to pat or hug them, which usually is misinterpreted by a watchful mother who can make that displeasure known by startling throaty growls and a sudden lunge. The way in which unsuspecting sight-seers take off would lead to the suggestion that the scouts for an Olympic track team might well hang around in the Great Smokies.

Many other humorous situations also arise—that is, humorous for those not in on the play—as related in the gateway resort town of Gatlinburg, Tennessee, by visitors just back from exploring the Smokies afoot or by car.

One visitor, sporting a brand new convertible, paused at one of the parking overlooks for a bite of lunch which he brought with him. After spreading it beside him on the front seat, he opened the right-hand door to admit the breeze, but in addition, admitting a huge bear. Out flew Mr. Motorist, slamming the door on his side as he went. In making his entrance, the bear in some manner hooked a claw in the door handle so that the other door was closed. This mattered little so long as food remained.

(Continued on Page 14)

On opposite page: upper view. When Mamma Bear and her cubs appear, traffic stops and cameras click. Center: Here two black bears do the Tennessee Waltz to the tune of "On Top of Old Smoky." Lower: Page Goldilocks! Here are the Three Bears setting forth on a bit of adventure. On this page: a close-up of a native black bear posing for a visitor.

Photos by Paul A. Moore, Tennessee Conservation Dept.



Baltimore Water Engineer Retires

ON JULY 1 OF THIS YEAR Leon Small, Water Engineer of Baltimore, Maryland, retired after nearly 40 years service to the Bureau of Water Supply.

Beginning as a draftsman in February 1911, he has seen the water supply grow from a little over 68,000,000 gallons per day in 1912 to 190,000,000 gallons per day by last December. Nine important pumping stations were built and the Prettyboy Dam completed. He directed the building of the Thirty-third Street water tunnel from Lake Montebello to Druid Lake, the water tunnel from Loch Raven to Lake Montebello, and the new 17-mile tunnel from Patapsco River to the same lake.

Mr. Small (his friends call him Captain Small) has had a varied career. A year after he began working with the Bureau of Water Supply he moved to



Leon Small

the Filtration Division as a designing engineer. He designed the mechanical and electrical installation at the Montebello filtration plant. He designed the first electrically operated pumping station in Baltimore.

In 1917 he entered the Construction Quartermaster's Department of the Army and was employed on the con-

struction of ordnance depots and similar works, continuing in this capacity until the early part of 1919. Resigning from the government service, Mr. Small was engaged in a number of private enterprises for over a year, and during this year he took up the study of law at the University of Maryland.

Back in Baltimore

But engineering was his real interest. In 1921 he returned to the service of the city of Baltimore. First, as Assistant Mechanical Engineer of the Water Department; later becoming Mechanical Engineer in charge of the design, construction and operation of pumping stations, repair shops, construction equipment, and all mechanical and electrical features connected with the water supply system.

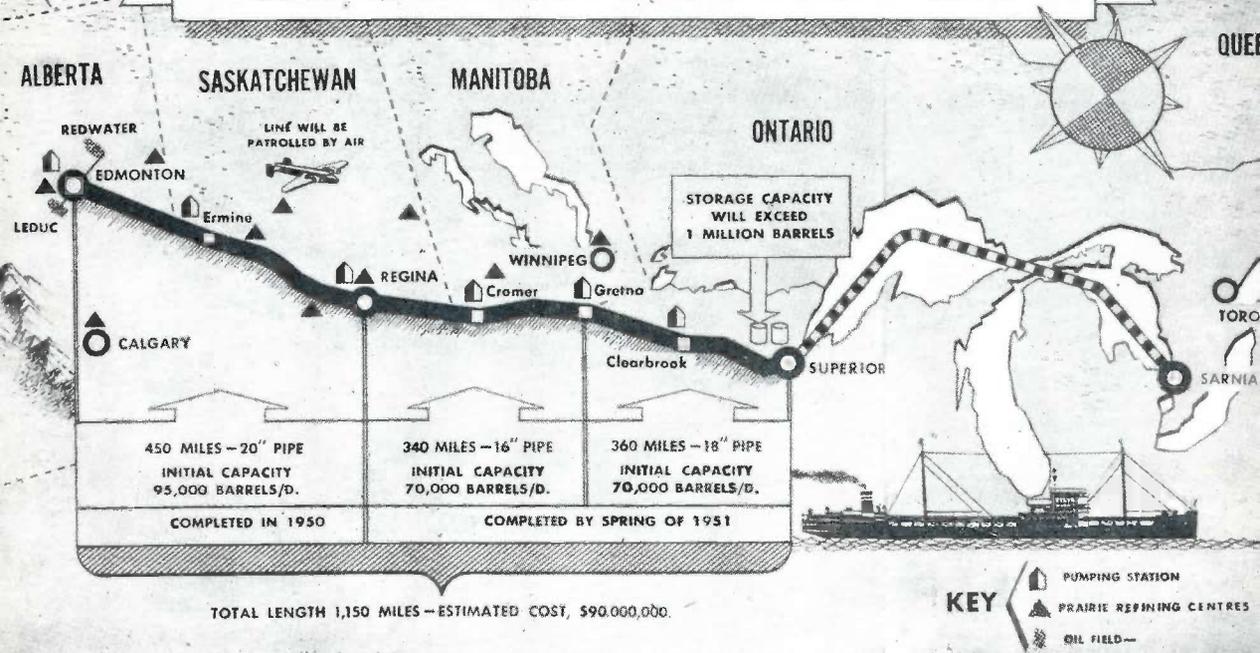
In 1929 he was transferred to the Bureau of Mechanical-Electrical Service of the city in the position of assistant to the Bureau head in charge of the Engineering Division. Captain Small was mechanical engineer when the Mount Royal pumping station, the last steam pumping station, was supplanted by the electrically operated Mount Vernon pumping station in Druid Hill Park. That was in May 1931.

In October 1931 he was appointed Water Engineer by Mayor Jackson. He has held that position for 20 years. When he first took over, Baltimore had 1,466 miles of mains. Today there are 1,876 miles. That is a lot of mileage—the distance from Baltimore to Boston.

"I thought about quitting four years ago," Mr. Small stated, "but the mayor wanted me to remain until the Patapsco tunnel was completed. It is now finished, and so am I." Captain Small admits that he has been in a lot of fights. He continually insisted on the extension of Baltimore's water system to meet the needs of a rapidly growing city. Naturally he met opposition—especially when he proposed in 1942 a \$32,000,000 water loan. But the people eventually saw things his way, and real progress was achieved over the years.

Mr. Small will retire to his 85 acres "of the most splendid weeds in Montgomery county to live a quiet, resigned life." The farm is between Baltimore and Washington. We envy him, and wish for him all the riches of retirement.

EDMONTON - GREAT LAKES PIPE - LINE



Canada's "Big-Inch"

by Paul B. Rodney

Editor-in-Chief Oil-Heat & Propane World

WITHOUT FANFARE or undue flag-waving Canada's first major crude oil pipe line went into partial operation last October 4, 1950. Today this newest addition to the transportation industry of Canada links the bountiful western oil fields with the ever-hungry markets in the east.

Since the petroleum pipe lines are regarded as vital to the economy of any nation using more and more oil products, it goes without saying that the new Interprovincial Pipe Line Company system is particularly important to Canada, where thousands of miles separate the areas of crude oil supply and the millions of ultimate consumers of petroleum products where low-cost water traffic is not possible.

Through the 1,127 miles of the new pipe line will flow the production from Alberta's rapidly expanding oil fields to refinery centers across the prairie and to the Great Lakes from where it can reach the refineries in Eastern Canada.

Following the Leduc discovery in 1947, successful development drilling pushed western Canadian oil reserves to over one million barrels. This put Canada in a position to produce about one-half of all the oil she uses, but Canadians could not get this full production because of marketing difficulties.

Because of transportation costs, the marketing of Alberta crude was limited to the prairie region. To make western crude more widely accessible, it was decided to build a large-diameter pipe line which would provide the lowest cost transportation to the more distant markets in the east.

Initial Planning

Soon after the Leduc discovery, the line as originally projected was to carry crude from the Edmonton area to Regina. Any demands east of there were to be supplied by rail. The first planning was done on that basis.

An aerial survey of the proposed route was the first step. Several flights



Here is a long section of welded and primed pipe line as it waits the application of protective materials by coating and wrapping crews. Following the wrapping it will be lowered into the ditch and covered with three feet of dirt for adequate frost and farming protection.

were made to find the most favorable route which would avoid major ground contours, lakes, and difficult terrain. Then followed an aerial photographic survey to provide stereos and mosaic prints for close study. These were used to locate major obstacles such as farm buildings and other permanent structures on the route. From the mosaics, maps were made up showing the route of the pipe line. The detailed ground survey was carried out in the spring, summer, and fall of 1949. By the end of the year complete plans were presented to the Board of Transport for approval of the route selected.

In the meantime the engineers were working on the technical problems. As a result of all these studies, it was decided to use a 16-inch pipe. The terminal point was to be Regina since developments up to that time had not indicated a longer line would be feasible.

Unique Steel Exchange

About this time a search for steel was started. This soon assumed international proportions as negotiations went on in Canada, United States, Britain, and Europe. Most steelmakers would not promise deliveries before 1952. The final solution stands as a fine example of cooperation among steel manufacturers in different countries and the customers who depend upon them for steel.

British manufacturers agreed to ship 30,000 to 40,000 tons of plate to Canada. Though this was not suitable for pipe rolling it was satisfactory for other purposes. In exchange for this plate The Steel Company of Canada agreed to release from its Hamilton plant enough special pipe line steel plate to

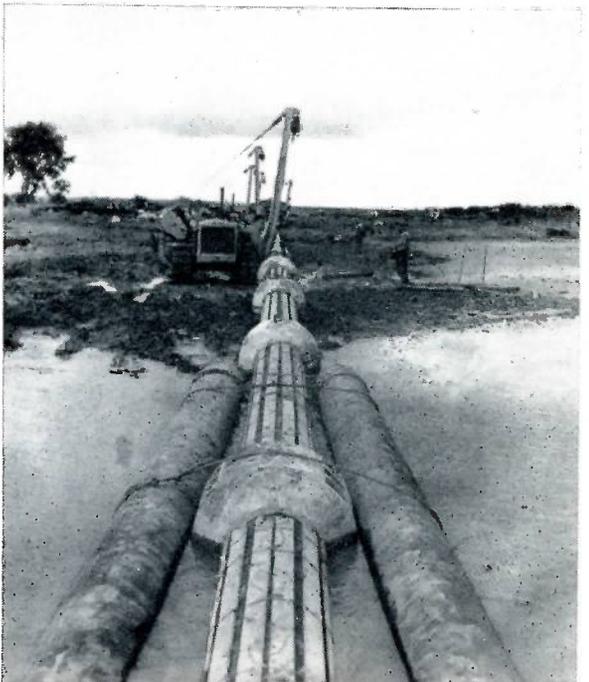
allow Page Hersey Tubes Limited to produce the pipe. Customers who would have used that special plate agreed to the slight inconvenience and were protected against any increased cost.

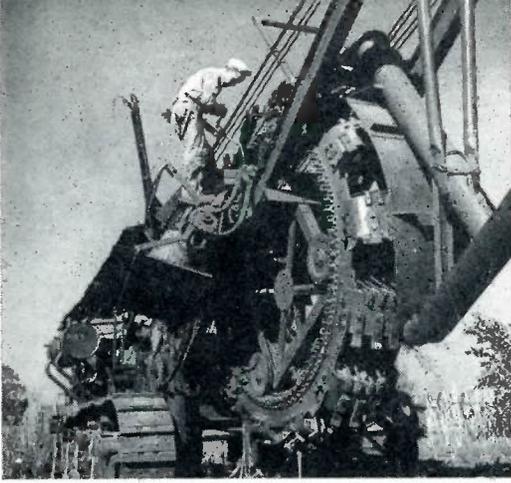
Select Superior Terminal

About this time drilling at Redwater, 30 miles northeast of Edmonton, indicated another major oil strike. The additional reserves provided would make a pipe line east of Regina economically sound. Now the greater part of the Sarnia refinery's requirements could be supplied by Alberta crude.

After much study it was proved that the most economical route would be direct to Superior, Wisconsin. To build

Floating the pipe across the southern Saskatchewan River.





Left: Big rotary machines cutting a trench 5 feet deep and 3 feet wide. Right: Sideboom tractors and welders stringing steel pipe joints along the right-of-way.

to a Canadian port on Lake Superior would have cost \$10,000,000 more, and operating costs would have been increased by 10 cents a barrel.

By increasing the pipe size from 16 to 20 inches O.D. the maximum throughput would be increased to 145,000 barrels daily at the same 1050 pounds pressure. Only four instead of eight pumping stations would be required.

Pipe Sizes Determined

High test steel pipe was used. It was made in 40-foot lengths with the ends beveled ready for the welders on the right-of-way. It was decided to coat the line with coal tar enamel, reinforced with a fibre glass material and with a coal tar impregnated asbestos wrapper. The enamel, known as Bitumastic 70-B enamel, is produced in Canada.

The plan now was to build the pipe line as follows:

Edmonton to Regina: 439 miles of 20-inch pipe, of which 82 miles has a wall thickness of 11/32" and the balance 5/16".

Regina to Gretna: 336 miles of 16-inch pipe with 9/32" wall.

Gretna to Superior: 322 miles of 18-inch pipe with 9/32" wall.

Pump stations would be at Edmonton, Alta., Kerrobert and Regina, Sask., and Clearbrook, Minn.

The six stations along the route (planned for construction this year) would keep the oil moving with an initial capacity of 90,000 barrels a day from Edmonton to Regina, and nearly 70,000 barrels a day in the sections east of there. This could be increased 50 per cent by adding six more stations.

Heavy Pipe Under Rivers

Special attention was given to the pipe and its protection at river crossings. Pipe with one-half inch wall was selected for these crossings, and concrete river weights were added to keep the pipe in the river bed and prevent movement or floating during flood periods.

To move the oil through the line, three complete pumping units, operating in series, provide the greatest flexibility of operation under all load conditions. Each unit comprises a diesel engine of sufficient horsepower driving through a speed increaser to a single stage centrifugal pump.

Edmonton and Kerrobert stations have four units consisting of four dual fuel engines, each rated at 1080 horsepower at 600 r.p.m., driving four 8 x 10 x 16 centrifugal pumps. This provides a standby unit at all times. At Regina and Cromer stations there are three units rated at 810 h.p. with provision made to install a standby unit. Gretna station has three 540 h.p. units and Clearbrook has two 810 h.p. units to handle the initial load.

First Construction Details

Before construction started a new company was organized, called the Inter-provincial Pipe Line Company, to own and operate the proposed pipe line system. Officials of Imperial Oil Limited made the first moves, but that company was not then and is not now interested in getting into the pipe line business as such.

But as one of the major producers of crude in the new oil fields, Imperial has a major stake involved in the new outlet to market. Imperial, therefore,

promoted the organization of Interprovincial, but retained only a one-third ownership in the new company. Twenty-five per cent interest rests with other oil companies and private interests, and 42 per cent is in the hands of the public.

No Permanent Obstacle

Building the line across farmland meant no permanent obstacle to normal farming operations since the pipe is buried under three feet of earth.

Brush and small timber had been cleared from much of the right-of-way during the winter and ground surveyors had staked out the exact pipe line route. Soon about 1,500 construction workers were on the job working at a number of points along the route. Early in May the work was in full swing in the two divisions in Canada and by early June work had started in the United States section.

The schedule called for completion of the pipe line in 150 days. All contractors met that stiff timetable with a few days to spare, making the job the fastest major pipe line undertaking ever built. The schedule was met despite a national railway strike in Canada, the worst floods in many years in Manitoba and part of the U. S. section, and the loss of many days work due to poor weather conditions in early spring.

An Exacting Task

Bending machines shaped the pipe to fit ground contours. Welders handled one of the most exacting jobs in the project by welding together the 40-foot joints into a continuous tube. A self-propelled machine scraped and brushed the welded pipe to clean it and applied a paint-like coating of primer. Then another and more complicated self-propelled unit applied a hot coat of coal tar enamel, wrapped on a covering of fibre glass and an outer wrapping of coal tar impregnated asbestos felt.

Behind the coating units, came electric devices to test for flaws in the coating and wrapping. Then the protected pipe was lowered into the ditch, backfilled with earth, and the right-of-way finally cleaned up by removal of stones, etc. The land was restored as nearly as possible to the condition it was in before construction started.

While work continued on the pipe line, steel workers were busy at both ends of the system building storage facilities for crude. At Edmonton there are six storage tanks which hold 140,000 barrels each. At Superior 12 tanks which hold 217,000 barrels each. The total storage is 4,400,000 barrels of oil.

Crude Reaches Superior

First phase of Interprovincial's operations started on August 25, 1950, when crude was turned into the system at Redwater field. When storage was built up at Edmonton, a valve was opened on October 4 and the first Alberta oil started for Regina. The oil travels at a speed of 17 miles a day. By October 23 the oil was east of Regina. On November 13 it crossed the border into North Dakota. And on December 4 it reached Superior where it was held until this spring when Great Lakes navigation opened up.

During this summer the schedule calls for about 95,000 barrels daily out of Edmonton with about 55,000 barrels daily reaching Superior after refineries across western Canada have received deliveries. A dispatcher in Edmonton maintains teletype communications between the Redwater and Leduc fields and all pumping stations along the way. In this manner he can control the flow of consignments to refineries across the prairies and into Superior.

In addition to being a vital cog in Canada's drive toward self-sufficiency in petroleum, the 90-million dollar pipe line is also an essential factor in the preparedness program, and is therefore bound to play an ever increasing role in Canada's economic life.

THOUGHT OF THE MONTH:



Never forget your friends of
former days as a little loyalty
is worth much cleverness.

Personnel Changes Announced

WITH THIS ISSUE we are pleased to announce two promotions and one addition to the sales division of our organization.

On July 5, Robert K. Levey was made Promotional Engineer. This position comes as recognition of his twenty years with the Mueller Co. He held his first position in the Chicago office. Three years later he was assigned the Ohio territory where he was field representative. This was followed by nine years service in the Chicago area. His enviable record in this position led to his appointment in 1947 as Assistant Sales Manager. In his new position, Mr. Levey will continue to direct the Gas Short Course and will still conduct the No-Blo demonstrations for interested gas executives.

At the same time, Robert H. Morris was made Assistant General Sales Manager, succeeding Mr. Levey. Mr. Morris, upon his graduation from the University of Illinois, worked with an accounting firm in Decatur. He dropped this to enter active duty in the Navy in April, 1943. He saw considerable combat duty as the navigation officer of an LST. Later, he served as operations officer in England during the rocket bomb attacks. He returned to inactive duty in January, 1946.

In his first position with the Mueller Co. Mr. Morris was assigned to the Florida-Georgia territory. He served well in this area, and his many friends in these states will be pleased to hear of his promotion.

This move created a vacancy in our field service staff. To fill it, Frank B. Miller was named to the territory formerly covered by Mr. Morris.

Mr. Miller, upon completing his schooling, entered the contracting business. Just prior to the war he served two and one-half years in Panama. When war came, he became Chief Warrant Officer in the Navy. He served five years in all four theaters. Upon return to civilian life, Mr. Morris set up his own contracting business.

He is married and has one daughter who was recently graduated from high school. His chief hobbies are hunting and fishing. His headquarters will be Jacksonville Beach, Florida, where he owns his own home. Frank recently completed an intensive factory training course to prepare himself for his new work. He left July 11 for his new territory. When he calls upon our customers we know that they are going to like him. Frank's big smile and friendly attitude have already won for him a host of friends.



Robert K. Levey



Robert H. Morris



Frank B. Miller

THE BEAR FACTS

(Continued from Page 7)

But when the lunch was downed, the bear started searching for an exit, and while so doing let a heavy paw descend upon the car horn which was new and loud. Out went the bear as abruptly as the driver before him, but through the convertible top.

Bear Shreds Cushions

Another Smokies visitor, also driving a new car, left both doors open following a family picnic in the car. While they strolled at some distance, a bear entered and smelling what to him appeared to be hidden treasure in the form of food, started methodically to rip the car cushions into shreds. Maybe he thought he was inventing a new type breakfast cereal.

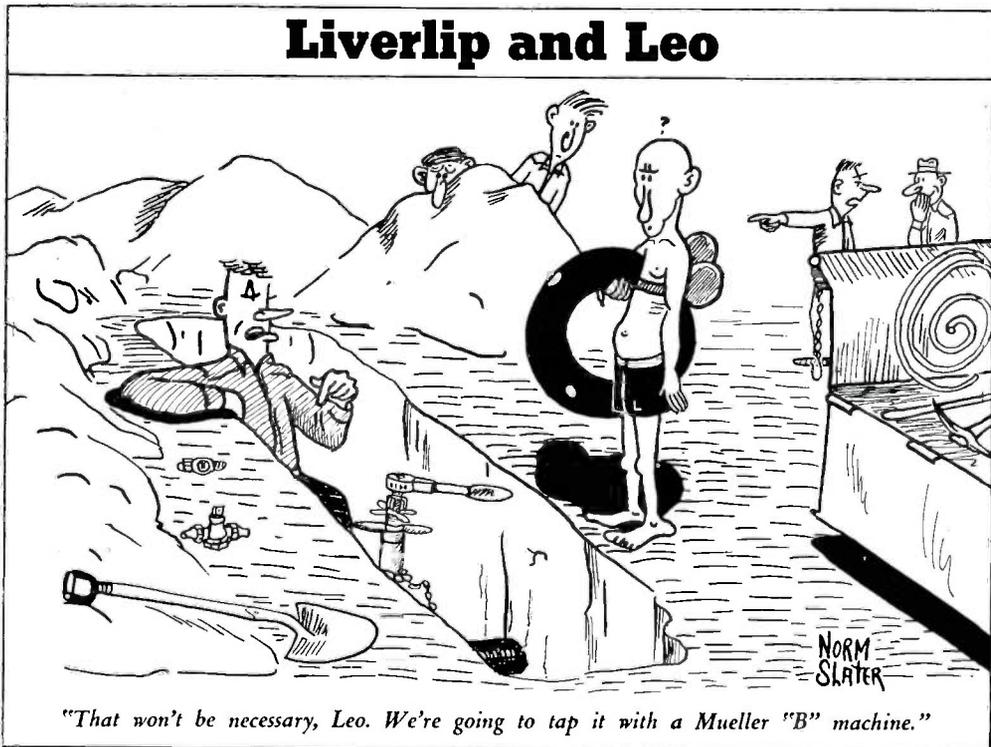
It is seldom if ever before that a man treed by a bear in the wilderness has been able to telephone for help. But that happened in the case of a hiker who had ascended one of the fire towers scattered at strategic points on mountain tops of the Great Smokies. Tired of waiting his descent, the rest of his

party hit the trail. When finally he started down the ladder, he found a huge mother bear and cub reaching up the ladder for him.

How was he to know that the food he had stowed in his pack was really what they sought? Because it was early spring and getting late, the hiker began to shake and shiver with cold. At last a flash of inspiration came over him: the telephone on top of that tower! Up he scrambled to call for help, the park rangers answering his frantic plea.

Bold Intruder

Jack Huff, of Gatlinburg's Mountain View Hotel, also operates Mt. LeConte Lodge, the only eating and sleeping guest accommodations within the Park, permitted because this lodge was in operation before the government took over supervision of the Great Smokies. This Lodge is located on the spectacular mountain that overlooks Gatlinburg from an elevation of 6,593 feet. A huge black bear sort of "took up" near the lodge, entertaining the Huff youngsters by putting on greased pole act, in effect, in the effort to scramble up a skinned tree to secure edibles placed on top.



Later the bear decided a simpler way to get the eats would be to break into the lodge kitchen each night, which he proceeded to do several times, to the consternation of those in charge. After that, the perishables were placed in a steel drum and stuck into a hole in the ground with large rocks to weight the lid down.

Several nights later a terrific din awakened the family and guests. In the moonlight they observed the bear tossing great rocks aside and finally dragging the steel drum out. It was only after an electric fence had been constructed that the bear became thoroughly disgusted, taking off down a mountain trail, slashing and biting at unoffending saplings for more than a quarter mile.

Very Small at Birth

In "Believe it or not" class is the fact that bear cubs, at birth, weigh less than one pound, and compared with the size and weight usually attained in later years, are among the smallest animals at birth. They are born in the Smokies in January, blind and naked, clinging closely to the mother bear without stirring about until late March, at which time they are only about five pounds in weight. They remain in the company of the mother bear for about 18 months, or until another crop is on the way, when the mother no longer finds interest in the present offspring. Many arguments can be started as to whether the bears of the Smokies really hibernate, but the Park naturalists are willing to assert that they remain more or less dormant during the severe winter months.

■ ■ ■

"Dad, what is a necessary evil?"

"That, son, is the one you're really fond of."

■ ■ ■

Examiner: "Did you ever belong to an organization that is trying to overthrow the government?"

Applicant: "Yep. I sure did."

Examiner (surprised): "You did! What organization was it?"

Applicant: "The Republican Party."

THE PUZZLE BOX

This month we offer a nice, cool puzzle to cool off your brain these hot August days.

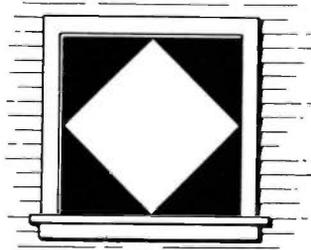
ICE CREAM PUZZLE

Two fathers and their two sons were strolling through the park one hot evening when they saw a refreshment stand. They all wanted some ice cream, so they stopped at the stand. Unfortunately, the supply was almost sold out. The clerk informed them that there were but three one-pint boxes of ice cream left. The men bought these, and proceeded to divide them. However, each man wanted a full pint for himself. And, odd as it may seem, that is exactly what each one got. How was this accomplished?

ANSWERS TO JUNE PUZZLES

The first puzzle was about the **Salesman and the Clerks**. The correct answer is \$8.75 which the salesman had in his pocket when he went into the first store.

The **Window Puzzle** was quite a teaser. The diagram below shows how the architect opaqued half the window and still had a square of clear glass four feet wide and four feet high.



Here is the **Numbers Game** solution. What is it that you can get by paying 25c for 1; 75c for 100; and 50c for 57? House numbers!

The **Apple Salesmen** puzzle called for a little deep thinking. In the solution we learn that the boys sold the apples for 10c a dozen, and the odd ones left over were sold for 5c apiece. This figures out that each boy had 45c after the apples were sold.

Please continue to send us your puzzles (and the answers with them). We will print as many as we have space for.



T. C. M. Mauch

Teddy Mauch Retires

Forty-three and one-half years of service with the Indianapolis Water Company ended on February 1, when T. C. M. "Teddy" Mauch retired from active duty.

Mr. Mauch had been Superintendent of the Pumping Department since March 13, 1913. He was not a superstitious man, but just a few days later the disastrous flood of 1913 began its destruction. At noon on March 25, the Riverside Station (the larger of the two in service at that time—and still the primary pumping station) went out of service. There was five feet of water on the floor of the pumproom and all the boilers were flooded.

After 56 hours, the water receded enough for planks to be put on the boiler grates. Fires were built on these and soon the pumps were going again. Teddy Mauch was proud of his record. The Indianapolis Water Company was the last public utility to go out of service, but it was the first one back in service after the crest had passed. No doubt the recent floods in Kansas and Missouri brought to mind the difficulties he experienced in those early years.

Mr. Mauch first began work as an engineer on well operation at the plant on June 1, 1907. Later he helped to dismantle the old boilers and pumps at the city's first pumping station, the old

Washington Station. He helped install the hydraulic turbines, and later took charge of that station. In due time he was made assistant at the Riverside Station where he stayed in complete charge of all pumping activities.

Teddy Mauch has witnessed a lot of changes in his time. In 1907 when he went to work for the city, Indianapolis had a population of around 216,000. Today, the population served by this progressive company is near 480,000 as the utility mains extend far into the county. Water mains numbered 279 miles in 1907; today, more than 900 miles. Fire hydrants grew from 2,304 to over 8,500. Pumpage went from six and one-half billion gallons annually to almost 20 billion gallons.

We congratulate Teddy Mauch for having given such long and interesting service to his company. We hope that his retirement will be equally pleasant and satisfying.

■ ■ ■

THE TAX SITUATION

by L. H. Simerl

Dept. of Agricultural Economics
University of Illinois

WHAT KIND OF NEW TAXES?
Uncle Sam has ordered a lot of stuff to be sent out C.O.D. This is especially true of the military departments. Defense Mobilizer Wilson says that by next June deliveries of military material will be running four billion dollars a month. That will be about three times the rate of deliveries in recent months.

As deliveries increase, the U. S. Treasury will need more money. The President wants 10 billion dollars a year more. Congress is working on a bill that would hit us for a seven-billion-dollar increase. Most of us do not like taxes, but actually we have only three choices: (1) more taxes, (2) less federal expenditures, and (3) inflation.

Individually none of us want to pay more taxes. Some want inflation. All of us want the government to cut out all "unnecessary" federal expenditures. But we cannot agree on what these "unnecessary" expenditures are.

In the meantime it looks as if Dr. Congress will prescribe more taxes. The big question is: What kind of taxes? Here

again we can all agree that the money must come from those who have it. But no one admits to making any money nowadays. At least we all think that we are stripped when the tax collector gets through with us.

It is a simple fact that taxes on the few big incomes are about as high as it is practical to put them. Tax experts agree that the biggest part of any increases in taxes must come from the 60 million people with medium and small incomes.

In recent years most federal taxes have been on **income**. Income is generally the result of **production**. So income taxes are really taxes on production. If they are pushed too high, they discourage and reduce production.

But we now need not less, but more, output. More output is needed to maintain our standard of living and to provide a strong national defense.

Although we need a high level of production, we do not need a high level of private spending. So some folks suggest that we should increase taxes on spending rather than on earning.

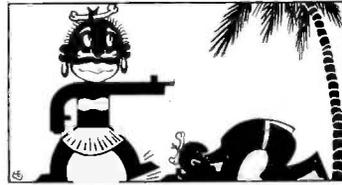
We already have several taxes on spending. Our Illinois state "sales" tax is really a tax on spending. If we spend less, we pay less tax. Other taxes on the spending side are those on gasoline, cigarettes, liquor and amusements. All the proposals for additional taxes on spending would exempt purchases of food. Some would also exempt low-priced clothing and other "essentials."

A good stiff tax on spending would reduce the demand for many items. Thus it would release men and materials for defense work. And isn't that just what we want?

Of course, a tax on spending would not taste good. There would be lots of bitter complaints. But for what ails us there are no sweet-flavored medicines. What we need to do is try to discover, and adopt, the least bitter mixture. For that purpose an increase in taxes on spending should be worth our careful consideration.

NUTSHELL NOVELS

BY SKIPPER



A Fijian Tale of Romance

*(Printed in Fiji for the benefit
of our Fijian readers.)*

Spoofa Glob yah velly luff das puddy Arrah Spec, filia keed off Mud Pye en Figi. Sowin norder parlay er Spoofa Glob drapt en pee em two sea. "Arrah, puddy est en yarh luff mooch. Putten tak dese." E dum tiz junk awn kyar pet. A pern squaren cum pus gajj comin gavelle. Yet nik sam see jule ree wail moler. Albut diper ahn wah stik. Shee jip tim ansay mewedd Shamrock Boob.

Hottip: No pasout tree zure tu mebbe femme leshee AM bet turr off.

*(The English translation below used
by permission of the Fijian author, Hyra
Mabiff.)*

Spoofa Glob was deeply in love with the beautiful Arrah Spec, the only daughter and thirteenth child of Chief Mud Pye, the Fijian ruler. So in order to win her, Spoofa Glob called at the Royal Mud Hut to see her. "Arrah, most beautiful in all the world, I love you. To win you I give you all these." And so saying, he spread before her all his treasures: including his string of Samoan eyes, his whale tooth necklace, his chest of gold and silver,—in fact, everything he possessed except the clothes he wore and his war club. With the grace of an angel she took them all into her hut, and then told him that she was already engaged to marry Shamrock Boob.

Moral: Never give anything to your prospective bride until she IS your bride.

Off the .. Record ..

She was only a tree surgeon's daughter, but she sure had beautiful limbs.

Ode To Brevity

A pretty, young miss named Rose
Purchased some nylon hose.

Though her stockings were neat,
All you saw were her feet;
So now she has shortened her clothes.

1st Hoodlum (to jail cellmate): "In
dat last job da boss had us pull, I got
three thousand bucks. What did you
get?"

2nd Hood: "Twenty years."

Science Professor: "What always re-
sults when a body is immersed in
water?"

Coed: "The telephone rings."

This summer a young man dated a
girl a few times, and then went back
to college. After some weeks, the girl,
wishing to further the acquaintance, sent
a telegram reading: "Dead, delayed, or
disinterested?" A wire promptly came
back: "Hunting, fishing, or trapping?"



Daffynitions

Love: The illusion that one woman
is different from all others.

Mama Mosquito: "If you children are
good, I'll take you to a nudist camp
tonight."

Professor: "Who was the greatest
road builder?"

Engineering Student: "I think it was
that Frenchman by the name of De Tour.
I've seen his name on more highway
signs than any other man I know."

"Do you believe in Darwin's theory
of evolution?"

"No. I think some woman made the
first monkey out of man."

Mueller Minstrel Show

Interlocutor: "Say, Mr. Bones, you
seem to know all about women. Do
you know what women stand for?"

Mr. Bones: "Yes, indeedy! I sure do.
They stand because the men have all
the seats. Hyak! Hyak!! Hyak!!!"

There is one job where you start at
the top—that's digging a hole.

Mistress: "Cecile, when you wait on
my guests at the table tonight, please
don't spill anything."

Maid: "Don't you worry, ma'am. I
know enough to keep my mouth shut."





"Hello, dear. What's overcooking for dinner?"



"He says he wants to see you about some death insurance, sir!"

Famous Spots

Ink —. Hot —. —sylvania.
— light. On the —. Out, damned
—, 7 or 11.

America was better off when we had more whittlers and fewer chiselers.

The jury filed back into the courtroom. "Have you reached a verdict?" asked the judge.

"Not yet, your honor," replied the foreman. "Before we render the verdict we want to ask the defendant one more question. Does he want AC or DC current?"

Carpenter: "Hurt myself? Naw, I got a nail in my shoe."

Foreman: "Why don't you take it out?"

Carpenter: "What! On my lunch hour?"

Appearances are deceiving. Whenever you see a big house without any plumbing, there is usually something behind it.

Lawyer: "You say that you were ten feet and one-half inch from the point of the accident? How can you be so sure?"

Witness: "I figured some silly fool would ask me a question like that so I measured it."

Song Parody

"The Size of Taxes Are Upon You."

She: "Oh, there's the place mother told me to stay away from. I thought we'd never find it!"

Old Grad: "Professor, now that I'm a millionaire, I want to do something for old Siwash. Tell me what studies I excelled in."

Professor: "Frankly, in my class you slept most of the time."

Old Grad: "Splendid! I'll build a dormitory."

There was a young man named West
Who loved a young lady with zest.
So hard did he press her
To make her say, "Yes, Sir,"
He broke three ribs in her chest.

Curious Civilian: "Is it true that wild beasts in the jungle won't harm you if you carry a torch?"

Explorer: "That all depends on how fast you carry it."

No wonder a hen gets discouraged.
She never finds things where she laid them.

Gal: "Isn't it dangerous to drive with one hand?"

Pal: "You bet it is. More than one man has run into a church doing it."

Just Between Us

(Continued from Page 1)

natural fishing instincts. Some believe the cycle will be completed without the gulls ever recovering their natural fishing ability.

It's a strange paradox that Nature thus gives us. Here we have some of the most independent creatures of the Universe, who were given marvelous talents to take care of themselves, victimized because they succumbed to the "something for nothing" lure. They became dependent on unnatural conditions to such an extent that parents apparently forgot to teach their offspring how to get along otherwise. Now with the free food gone, the offspring of the indolent parents are paying the penalty.

We wonder if people aren't a great deal like the sea gulls of St. Augustine. We wonder how many Americans have swallowed the idea of the welfare state to the point where they think it is no longer necessary to teach their offspring that the day of government handouts and security for all may sometime draw to a close. And then we wonder how many Americans may be left like the gulls—puzzled and bewildered because their sustenance has disappeared and they have no resources of their own to fall back on.

Isn't there something of a moral for the American people in the story of what is happening to the sea gulls down in St. Augustine now that the shrimp fleet has left that area for Key West?

It seems that the sea gulls there have forgotten how to catch fish for themselves. For many years they have been depending for their food on the scraps and waste thrown overboard from the shrimping fleet. It was a sort of super welfare state for the birds. Free dinners made it unnecessary for the gulls to depend on their talents to secure food.

But suddenly the shrimp fleet went away. New and more productive fishing grounds were located off Key West and the shrimp boats deserted St. Augustine.

The sea gulls haven't been able to adjust themselves to the new situation. The reeds and shores around the city

are lined with long, silent rows of gulls with their dark eyes turned prayerfully out to sea—waiting for the shrimp fleet and the free meals that won't return.

Nature has played a dirty trick on the sea gulls. As generation after generation of gulls learned to depend on the shrimp fleet instead of their own resources to obtain food, parent gulls apparently forgot to teach their little ones the age-old method of catching fish. So today the gulls are starving. They are no different in physical makeup than the sea gulls around Decatur. But whereas our gulls have to exist through their own efforts, those of St. Augustine are starving by the hundreds because their welfare state suddenly disappeared, and with it went their ability to fend for themselves.

■ ■ ■

THOSE STRAIGHT HIGHWAYS

In our June issue we raised the question of where is the longest straight pavement in America. From Mr. J. E. Shobe, Superintendent of the Northern Oklahoma Gas Company of Ponca City, Oklahoma, comes word that there is a section of U. S. 66 in New Mexico that is longer than the 69 miles we gave. Six miles west of Santa Rosa the highway turns and runs straight west for 74 miles, ending at Morarity. "I have driven this road," says Mr. Shobe, "and, believe me, it seems like 174 miles instead of 74."

Since then, we have learned from Mr. Wayne Heyer, a reader who used to live near Rantoul, Illinois, that Route 136 at a point just west of Rantoul goes west toward Havana, Illinois, in an unbroken straight stretch for a distance of 77 miles.

Does any reader know of a straight highway that is longer?

■ ■ ■

OUR COVER PICTURE

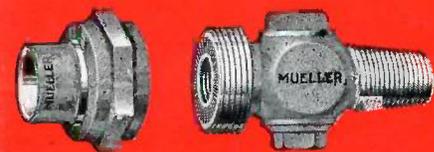
Nestling under towering Mt. LeConte, the most spectacular mountain in Eastern America, the resort town of Gatlinburg serves as the northwestern gateway to the Great Smoky Mountain National Park. The scene looks so inviting and restful. Can't you just smell the tangy odor of pine? If you have not yet taken your vacation, why not go to the Smokies? You will never regret it.

What Type Connections Do You Need?

**MUELLER THREAD INLET
WIPED JOINT OUTLET**



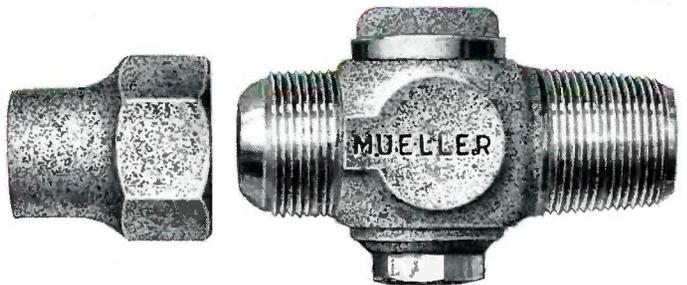
**MUELLER THREAD INLET
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“ HOW WE SOLVED IT ”

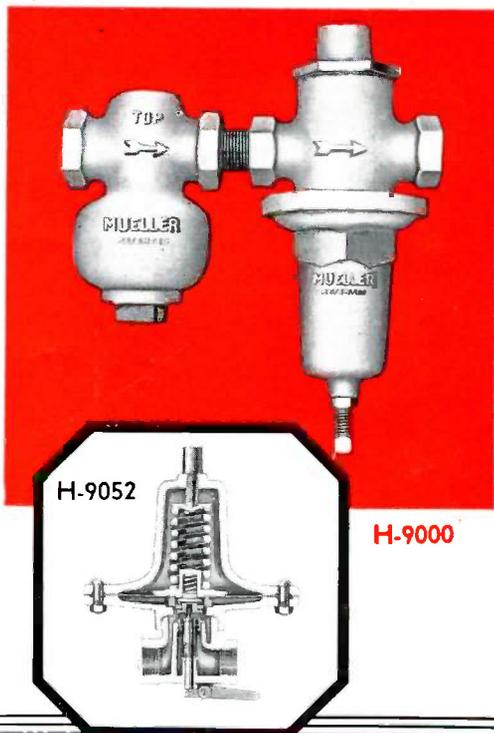
We were proud of our new house—all but the plumbing. The pipes knocked and banged. The faucets splashed water. The seat washers and packings leaked. The constant drip-drip at night annoyed us no end. And the water bill went up. —“I’ll tell that plumber a thing or two!” I told my wife. —And I did! . . . Then the plumber showed us the cause of the trouble. The water

pressure was too high. We needed a MUELLER Pressure Regulator. He had recommended one when we first built, but we wouldn’t listen and said, “No.” —We’ve spent more than the few dollars one cost on seat washers, headache tablets, and the damage to Aunt Emma’s dress, —not to mention the embarrassment when company came . . . But that is all over now. We put on a MUELLER Pressure Reducing and Regulating Valve right away. We’ve saved money, embarrassment, and worries.

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The large seat opening provides full volume of water at regulated pressure. The special composition diaphragm will withstand a pressure of 800 lbs. per sq. in., assuring long life. The seat disc is unaffected by hot water. All working parts subject to wear can be replaced with the regulator in the line. Accurately set and fully tested before shipping.

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