MUELLER RECORD





Figure I. Toward the north is Santa Barbara and Goleta. Line-up crew is lining up and welding the pipe.

Figure II. Handling one of the bends with a sidearm Caterpillar. Rough terrain made operations difficult in this area.



Keeping Abreast of Southern California's Natural Gas Requirements

By C. F. Briscoe Manager of Engineering Services Southern Counties Gas Company of California Los Angeles, California

SOUTHERN CALIFORNIA, land of glamour and adventure, straining at its seams from the growth of its population and industry, requires fuel, and the two gas companies which serve the area are providing natural gas to meet this need. The Southern California Gas Company and the Southern Counties Gas Company of California are able to keep abreast of the gas supply problem only by forward planning and a continuing program of construction, including such improvements as the 20-inch Goleta loop line just recently completed.

Briefly stated, the problem is not only one of securing a supply adequate to meet the annual usage, but also one of insuring sufficient capacity for peak load demands. Peak load demands are met by storing gas during relatively low usage and then withdrawing at high rates during times of greatest need.

Underground Storage Used

The Goleta storage reservoir is used for this purpose. It is situated some 90 miles northerly, along the coast from Los Angeles, near the resort city of Santa Barbara, and is a typical small California natural gas field. The gas is injected into the underground structure at high pressure and released into the gas transmission pipe lines when needed. The 20-inch Goleta loop line was installed for the purpose of increasing the withdrawal rate from the Goleta storage reservoir and transporting it to the metropolitan area of Los Angeles and the neighboring cities. This 20-inch pipe line is called a loop line, because it parallels or loops an existing 16-inch pipe line for a portion of the 16-inch line's length. The 20-inch pipe line will eventually extend the entire length of the existing line when future gas supply demands make the additional construction necessary.

The section just completed is approx-

imately 18 miles in length and extends from a point near the town of Carpinteria through the citrus and truck farming area of the coastal strip for about 6½ miles to the boundary line between Santa Barbara and Ventura counties. At this point the line crosses Rincon creek and continues for 11½ miles through a rugged, mountainous area to terminate at the Ventura river near the city of Ventura.

The pipe used in the mountainous section of this project is 20 inches in outside diameter, seamless steel, having a tensile strength of 75,000 pounds per square inch, a minimum yield strength of 45,000 pounds per square inch, and a minimum wall thickness of 3/8 of an inch. It is designed in accordance with the American Standards Association code for pressure piping, Section II, Division II. The section along the coastal area is the same type of pipe, having a tensile strength of 60,000 pounds per square inch, a yield strength of 42,500 pounds per square inch, and a minimum wall thickness of To of an inch, and is designed in accordance with Section II, Division I of the same code. All fittings and valves are American Standards Association 600 pound class.

Joints Were Welded

Plain electric butt welding without backup rings was used to join the random 40-foot lengths of pipe. All welders were required to pass a qualification test before being allowed to perform any welding work on the pipe line. In this manner and by close inspection in the field as the work progressed, a uniformly good quality job was assured.

One of the most difficult aspects of the job was the handling of equipment on the long and extremely steep side slopes of the canyons traversed. It was necessary to use large Caterpillar tractors, with cable winches attached to the trenching machine, in order to excavate the trench into which the pipe was installed. Since the normal depth of cover is 30 inches, the trench depth was in excess of 4 feet and it was very difficult to make the pipe properly fit the crooked trench.

Figure I is a picture looking northerly toward Santa Barbara and Goleta. In the foreground is shown two welding trucks and two sidearm Caterpillars working with the line-up crew, which is lining up and welding the 40-foot lengths of pipe into the line as its construction progresses. Figure III shows the uneven and crooked right-of-way with the coated pipe being tied in preparatory to being lowered into the trench.

Bending Was Difficult

A power-driven bending machine was used to bend the pipe to fit the trench. Figure II shows a sidearm Caterpillar tractor handling one of the bends, and an already completed bend is shown in the left foreground. Considerable skill and practice are required to operate the bending machine, so as not to damage the pipe by kinking, and so that the piece, when welded into the line, will fit the trench and lie with an even bearing along the trench bottom. The bending machine operator on the mountainous section of the pipe line worked with an observer inside the pipe who kept careful watch to see that the inside of the bend did not buckle as the pipe was bent to the desired angle. For angles in excess of 20 degrees, the contractor was furnished 3-diameter radius welding ells. This pipe line was the second in the country in which 3-diameter welding ells were used. Southern Counties Gas Company engineers prevailed upon the manufacturers to produce the new extra long radius ell for its first use on the company's 16-inch Marino-Rainbow transmission line delivering gas to the city of San Diego.

The extra long radius welding ell is now available for use to the industry over the entire country. One of the main advantages of the extra long radius ell is the ease with which it permits the passage through the completed pipe line of an internal cleaning device known as a "scraper" or "pig." The purpose of the "pig" is to make certain that there are no pipe skids, jack rabbits, paint

buckets, coveralls, rocks or other construction equipment or debris remaining in the pipe line when completed which would impair its gas flow efficiency. The "pig" consists of rubber cup rings and steel wire brushes mounted on a short spindle. When the "pig" is slipped into the line and gas pressure equal to a few pounds per square inch in magnitude is placed against it, the device moves forward through the pipe line. removing any foreign objects and polishing the interior of the pipe. With the rust and scale removed from the interior surface, the pipe line efficiency or increase in capacity is improved in some cases to as much as 10 per cent. All rust and dust not swept out by the "pig" is blown out of the line by gas pressure following the pigging operation.

Radium Locates "Pig"

It would be of interest to know that in order to facilitate the location of the "pig," should it become lodged in the pipe line, a small capsule of radium is attached to the spindle of the "pig." By walking along the top of the covered pipe line at ground level, a Geiger counter will show the "pig's" location and the line can be uncovered and cut if necessary. Fortunately, it has not been necessary to resort to the remedy of cutting the pipe line to dislodge the "pig," since there were no cases in which the "pig" became stuck.

During the welding operation, a powerdriven water fog type fire-fighting apparatus and a fire crew were kept constantly on the job to guard against the danger of grass and brush fires. Such fires strip the protective cover of the area and serious erosion and flood damage could occur should a heavy rain fall before the area has regained the protection of brush and grass cover.

The line is coated with coal tar primer, one coat of coal tar enamel, and a layer of coal tar impregnated asbestos felt wrapper. In addition to the application of this high quality coating, upon completion the pipe line was placed under cathodic protection in order to eliminate soil corrosion. These precautions mean that the life of the pipe line will be extended an indefinite time into the future and maintenance costs will be held at an absolute minimum.



Figure III. Tying in the pipe preparatory to lowering in the trench. Note the crooked, uneven right-of-way which hampered operations.

. . WOODEN MAIN

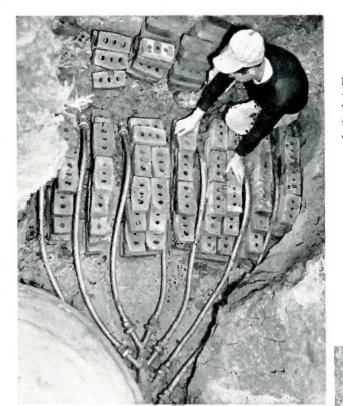


Photo at left shows the stops where they enter the main. Workman is piling bricks between the pipe to prevent damage to the pipe.

Photo at right shows workman opening gate valve to put branch line in service. The 8-branch connection is clearly seen here.



CREATES A PROBLEM

A REMINDER of the problems on the home front during World War II was uncovered recently. George S. Walker, contracting plumber of Decatur, Illinois, was called to the Illinois National Guard Depot near Springfield, Illinois, to connect a three-inch branch line to a twelve-inch water main. When the trench was dug the men did not find the cast iron main that they expected. Instead, they uncovered a wooden water main.

During the war the area was known as the Illinois Ordnance Depot. Because of increased needs for water a twelve-inch main was laid. Cast iron was not available, so a new type of substitute—a wooden water main was installed. The pipe was made of laminated wood staves, not unlike a barrel. These staves were tautly wrapped with wire.

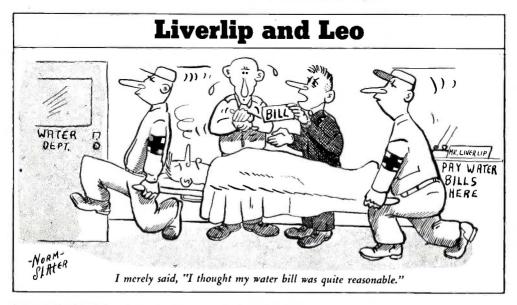
When George Etchison, journeyman plumber for the Walker firm, arrived on the job he had planned to use a 12-inch tapping sleeve with a 3-inch outlet and a Mueller drilling machine. These are standard equipment for this kind of work. When the main was discovered to be of wood, this posed a new problem: How could a three-inch cast iron main be connected to a twelve-inch wood pipe.

The Mueller Co. was called in and a

practical solution worked out. It was decided to make eight taps and put in one-inch corporation stops. These were to be coupled up to an eight-branch connection. At each place where a stop was to be inserted, the wire wrapping had to be spread apart to permit the holes to be bored into the main. The eight holes were then bored with a brace and bit. These stopped just a bit short of the inner surface of the main. Eight special 1-inch corporation stops with extra coarse wooden main threads were screwed into the holes. With the key in the off position, these were forced through the remaining thin section of the main.

The outlet ends of the stops were connected to short lengths of copper pipe. These in turn were attached to an eightbranch connection. The connection was hooked onto gate valve and main in the usual manner. When the eight stops were opened, a full supply of water was available. All of this was done without any loss of water or drop in pressure.

It is not often that unusual problems like this turn up in the day's work. But this proves that water works men, as always, are able to cope with any situation when it arises.



Hit-and-Run Driver Escapes

NO ONE HAS ANY sympathy for a hit-and-run driver. But this time it was different, according to Mr. L. E. Wallis, superintendent of the Water and Light Department of Elberton, Georgia. This time no one was hurt, no one was inconvenienced, and little actual damage was incurred.

Recently in Elberton, some erratic driver was prowling the streets of that city late at night. No one knows at what hour, but sometime during the night a car, apparently out of control, struck one of the city's fire hydrants. The barrel parted at the middle and fell harmlessly to the ground. The stem coupling spread open and the stem came apart. No water came gushing out, so the driver, presuming no serious damage had been done, went on his way without reporting the accident.

Now any water works man knows what happens when an old type hydrant is struck. The barrel is broken, and the stem is bent. The valve is thrown out of line or completely opens. Thousands of gallons of water spurt yards high like a geyser; streets and often basements are flooded. Sometime ago we received a report of such an accident which occurred at 1:30 a. m. in Indianapolis. Police were one and a half hours locating a man who knew where the nearest gate valve was. Because of the deep water and darkness it took this man another thirty minutes to locate the valve box.

But this was not an old type hydrant in Elberton. It was an improved type Mueller-Columbian with the breakable safety flange and stem coupling. Mr. Wallis said that he shuddered when he



L. E. Wallis (left), Elberton Water Superintendent, and M. M. Chapman (right), representative of Grinnell Co. of Atlanta, Georgia, inspect the safety thimble which opened automatically when the hydrant barrel was knocked over.

thought of what that accident could have done to his water supply. To quote him further, he said:

"The Mueller-Columbian Improved Fire Hydrant has been in use here since the first ones came out. We have had a good many fire hydrants of the old type pushed out of place and the water wasting away. A 'knocked over' fire hydrant is much easier repaired with a cheap bolted ring and valve stem nut at the ground level than it is to dig and replace a whole plug, waste water, and disturb water customers without any warning. The Mueller-Columbian Improved Fire Hydrant has proved highly satisfactory over a good many years."



-Photo courtesy Kansas City Police Dept.

Here is what happens when an improperly designed fire hydrant is broken off. How many thousand gallons of water do you think were wasted before the water was shut off?

In the picture opposite, the ground level was so near the safety flange that one cannot see the lower barrel for the grass. Mr. Wallis is pointing with a rule to the opened safety thimble still attached to the lower half of the stem. The pieces of the safety flange are down in the grass and do not show.

The hit-and-run driver caused no serious damage at the time. The hydrant was later reassembled as good as new in less than half an hour. But had there been a fire in the vicinity soon after the accident, valuable time would have been lost running hose lines from a more distant hydrant while this one was being put together again.

Because of this hazard, every driver ought to report a broken hydrant even though no apparent damage is done. Although no water is lost, every hydrant should be readied for service immediately—whether it is day or night.

Record Editor Resigns

Mr. Gene J. Kuhn, former editor of the MUELLER RECORD, resigned June first to accept the post of City Editor of the Champaign-Urbana Courier, in Urbana, Illinois. He first entered news paper work upon his graduation from the University of Kansas. Later he was Managing Editor of the Kansas Government Journal. Mr. Kuhn came from Olathe, Kansas, and joined our organization as editor in April 1947.

Mr. Kuhn had what newspaper men call "a nose for news", and he was able to uncover some mighty interesting stories about the water, gas, and oil industries. He delighted in delving into history, and came up with some fine articles on early operations in these fields. His most recent one was the series concerning the first automobile race—in which a Mueller entry took second; and a resume of early models of that day. He made a special trip east in that connection.

Gene made a host of friends while with us. Many letters from our readers and customers testify to the quality of magazine he edited. He was a member of the famous "49 Club" which is composed of Mueller salesmen and key personnel.

When he left us, it was to return to the thing that he loved best—a newspaper. We join with all our readers in wishing him all success in his new work.

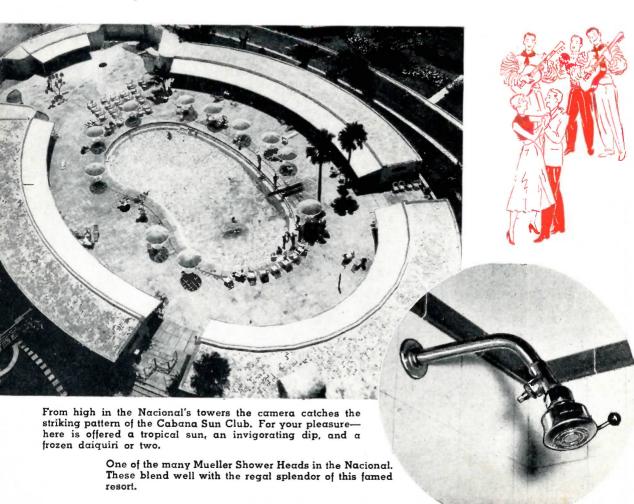
THOUGHT OF THE MONTH:

Remember.—when you point your accusing finger at someone else, you have three fingers pointing at yourself.



The Hotel Nacional de Cuba dominates the Havana skyline. Morro Castle is seen in the distance at the right.

Key to a LATIN-AMERICAN HOLIDAY





Mirrors and a rotation of flowering plants add to the charm of La Arboleda Room. Here one may dine and dance to irresistable Latin rhythms.

EED A VACATION? Want to get away from it all? Then go to Havana—queen of a sparkling, tropical realm, and the brilliant center of Latin-Continental society. Havana has ideal all-year-round climate and Havana is always in holiday mood. Only hours way from the States, either by boat or plane, one can quickly reach this fascinating place where old-world charm blends so subtly with modern Cuban life.

Here in the center of things—grande hostess to all of Cuba, the island's one most famous place—is the Hotel Nacional de Cuba. Here is where the statesman and his entourage stays. Government receptions are held in the grand lounge at the invitation of the Presidente. Cuban society gathers nightly in the beautiful La Arboleda Room.

For sheer pleasure—restful, gay, exhilarating holidays—the Nacional is preeminent. It has luxurious appointments, incomparable cuisine by world-famous chefs, and delightful sports facilities. The strikingly smart, new Cabana Sun Club and Swimming Pool with its invigorating salt water and spacious terrace of heat-deflecting canto stone make this a favorite spot for refreshments, cards, and leisurely living. In another location is the formal Venetian Pool. Both swimming pools, by the way, are eighty feet

Close-up of the Cabana Sun Club and Swimming Pool. A gay rendezvous for cards, conversation, or sunbathing.

long and are fed by a subterranean salt water river. And speaking of water— Havana has an abundant supply of wonderful pure water.

Set down in a thirteen-acre park, the Nacional dominates the breeze-swept heights of the Gulf, and is across from famed Morro Castle.

With all its vaunted splendor, there is a practical side-your personal comfort. Nothing has been spared to give you the utmost in comfort—a Kirkeby Hotels tradition. Each room is equipped with a shower bath; and each shower is -yes, you guessed it—a Mueller Self-Cleaning Shower Head. A turn of the handle will give you a soft, drenching rain patter or a stinging needle spray. But more to the point (although you may not be aware of it) is that at each turn of the handle twenty-eight stainless steel pins punch out all lime and corrosion, thus preventing clogging of the holes in the head.

The Nacional has provided the best, and the Mueller Co. is proud to have supplied this additional feature for your comfort at the Nacional. Should you go to Havana this winter, or any time, you will find at the Nacional the finest in conveniences as well as the best in the more showy things such as recreation and entertainment.

How You Can Help Your Community

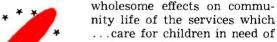
T HIS FALL, usually in October, there will be conducted all over America campaigns to raise the necessary funds to enable the Community Chest agencies to carry on their vital work for another year. In 1,250 cities and towns

something like 15,000 appeals will be combined into one ocean-to-ocean effort. More than a million volunteer workers will be striving to make their local Red Feather campaigns a success. They need your help!

"Everybody Benefits"

Social studies have shown that about 40 out of every 100 families in a Chest city use Red Feather services in a given year. Members of these families receive medical care in hospitals and clinics; they use family counseling services; their youngsters belong to the Scouts, the "Y's", the neighborhood centers. These are people who benefit directly from Red Feather services.

Less directly, but just as surely, everybody in town benefits from the



home, of love

...steady and strengthen family life

...safeguard health and wellbeing; provide medical care

...surround youth with happy and wholesome outlets for their energies and direct these energies into the paths of useful citizenship.

There's one more benefit, too, and maybe it's the biggest of all. And that's the sense of oneness, the spirit of community teamwork that sweeps over a whole town when the citizens, whatever their creed, color, or politics, really roll up their sleeves and go to work together for a cause they believe in with all their hearts.

It Makes Sense

The Community Chest ideal was born because community teamwork made



"Here's another one who didn't give to the Community Chest."

sense to the American people. It still makes sense. In more than thirty years of experience, the Chest idea of planning, budgeting, and fund-raising has demonstrated in city after city that it

- ... substitutes order for the chaos of multiple appeals
- ... guarantees effective use of funds
- gives the community an annual accounting of stewardship
- ...conserves the time and energy of volunteers
- ... gives the contributor some basis of

judgment as to the relative needs of different organizations

- ... raises more money
- ... secures more contributors
- ...eliminates wasteful and costly competition in fund raising
- ...provides for balanced growth of services.

So, let each of us get behind the local Red Feather campaign. Give as much money as you can. Be a worker if you will. Remember . . . everybody gives because everybody benefits.

RED FEATHER FABLE

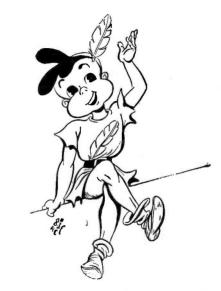
FOR AS LONG as the children could remember, the great chest, scarred but still sturdy, had been in the village. It stood in an easily accessible spot in the town hall and the lid was never locked. Everyone made use of its contents at one time or another, and learned to help himself. Old people found comfort there, the crippled found crutches and the sick found the means to health. Children were constantly taking things out of the chest with no thought of putting them back. For, as everyone knew, there was something miraculous about the chest. No matter how much of its contents was removed, the chest was never empty.

No one had ever seen what was at the bottom of the chest, but everyone in the village knew the secret of its endless capacity. Everyone except one person, only one person in the entire village. He was a dull-witted man, incapable of accepting explanations based on faith.

"There is no miracle about the chest," he said. "Only a fool would believe it cannot be emptied." He swore that he would find out what was at the bottom of it.

So one night he stole into the town hall and began haphazardly to throw things out of the chest. He had not worked long when he came upon an object he could not remove. It was a stone, small but incredibly heavy. He heaved and strained, but he could not lift it out. He could not empty the chest.

Without restoring any of the contents of the chest, he slammed the lid shut in



disgust and went out into the village street.

He met an old man entering the town with a package under his arm. "Your legendary community chest has a stone at the bottom of it," he told him jubilantly. "That is why it cannot be emptied!"

"Everyone puts into the community chest at least as much as he takes out," the old man replied. "At the bottom of the chest is the heart of each of us. That is why it cannot be emptied."

-Glenn M. White

(Courtesy of The Ladies Home Journal)

OLD TIMER SETS RECORD



Lawrence J. Newell

ANYTIME WE BOOST any of the Mueller Co. products in this little magazine, some readers are sure to say, "Oh, that is just so much sales talk." The truth is that we very definitely avoid anything that sounds like boasting or bragging. But the following story, which was sent to us voluntarily by

one of our customers, is far better testimony to the merit of our products than any amount of sales talk could be.

This customer is the Water Department of the Borough of Morrisville, in Bucks County, Pennsylvania. The superintendent is Mr. Lawrence Newell, Sr., and it was he who gave us the story.

It all began when this progressive water department bought a Mueller "B" Drilling and Tapping Machine. At the same time they ordered nine three-quarter inch drill and taps and two in the one inch size. Of course, the corporation stops and other fittings used were also of Mueller make. Over a long period of time this machine was used to make a total of one thousand taps, all of them in cast iron pipe. Ninety percent of these taps were for three-quarter inch connections and ten per cent were one inch taps.

Recently, Mr. Walter Neumann, superintendent of distribution, felt that the faithful "B" Machine needed a few minor repairs. The accompanying picture was taken at the time the machine was being packed for return to our factory. It was at this point that these men looked up the record of this ma-

chine. We give it to you just as it was told to us.

Of the nine three-quarter drill and taps, five are still in good condition and still in use. The other four were discarded due to the points being broken on the tap. The two one inch drill and taps are still in service. Mr. Newell told us that he personally feels that the damage to the four discarded tools was due to rough handling by the workman making the taps, and not due to any fault of the tool.

We believe these figures are interesting, and they may be a record. If others of our readers have had similar experiences of long or unusual service with any Mueller products, we will be very pleased to hear from them. We would like to pass their stories along to our readers.



Mr. Walter Neumann, Superintendent of Distribution, is shown with the "B" Machine and tools laid out for packing.

THE AMERICAN'S CREED

I believe in the United States of America as a Government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect Union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

I therefore believe it is my duty to my country to love it; to support its constitution; to obey its laws; to respect its flag; and to defend it against all enemies.

Written by William Tyler Page, Clerk of the U.S. House of Representatives. Accepted by the House of Representatives, on behalf of the American people. April 3, 1918.

In these days of conflicting "isms" and ideologies it would be well for every American to rededicate himself to the above Creed. For we may, in our complacency, lose the very freedom of which we boast.

THE PUZZLE BOX

With this issue we introduce a new feature — THE PUZZLE BOX. Our observations have revealed that a lot of folks are interested in puzzles and enjoy working them. (There isn't any puzzle about Mueller products, though!) By running one each issue, we feel that it will help to keep the RECORD from being too technical or dry. After all, the wives of our readers and the children, too, read our little magazine. The "Off the Record" pages provide the light touch through cartoons and humor. The Puzzle Box will give your mental powers a little stimulation.

Our readers may want to send us their favorite puzzles along with their solutions to the editor. We will print as many as we can use.

And now for our first puzzle which is not so simple as it looks.

Three cats can catch three rats in three minutes. How many cats can catch a hundred rats in a hundred minutes?

The answer will be printed in the next issue going to the trade.

Is your Address Correct?

Every effort is made to keep our mailing list up-to-date, but it is possible that several inaccuracies exist.

If your address is incorrect, please make corrections in the space below and return to us, enclosing the incorrect address from the envelope in which you received the Mueller Record. Please type or print clearly.

MUELLER RECORD

512 W. CERRO GORDO ST.

DECATUR, ILLINOIS

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Please address correspondence to the Editor



Lon W. Woodson



Frank R. Seevers

Join Mueller Sales Force

 $\Gamma^{\, \text{OUR NEW MEN}}$ have been added to our sales staff. We are pleased to introduce them on these pages.

Lon W. Woodson comes from Ballinger, Texas. For ten years he worked for the Well Machy. & Supply Co. of Fort Worth selling Mueller products. He is a veteran, having served three years in the South Pacific and the Philippines as a member of the 100th Battalion, U. S. C. B.'s. His headquarters will be in Lubbock, Texas and he will cover west Texas.

Frank R. Seevers is the son of Harry R. Seevers of Ottowa, Kansas who has been selling for Mueller Co. for 33 years. Frank is also a veteran, serving in the Air Corps in the European theater. He is a graduate of the Univerity of Kansas. He will cover Iowa territory.

Ray Roarick has been with us for 17 years. He began when 14, working summers as a bell hop. Stepped up to Tool Room draftsman, was made tool maker, and finally assigned to the Experimental division of the Sales department. Ray is married and has two children. His territory will be San Antonio and southern Texas.

A. F. (Art) Hutchingame will call on our Canadian customers. He formerly was with the W. H. Cunningham & Hill Co., Toronto for eleven years, two of them as manager of the Montreal branch. He served three years in the Canadian army, with 31 months overseas. He is married and has three children. He will cover plumbing jobber accounts and will have headquarters in Montreal.



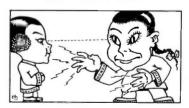
Ray Roarick



A. F. Hutchingame

NUT/H€LL

BY SKIPPER



Once Too Often

Chu Sum Gum, an industrious laundryman in old New York, had been saving up his money for ten long years. He had promised his beautiful, young wife, Peh Nee Gum, when he had left China ten years before that as soon as he had made enough money he would return to China. He would make her happy the rest of her days.

Ever since boyhood Chu Sum Gum had possessed the ability to hypnotize, and he had often amused his fellow laundrymen with this power.

It also happened that while in America, Chu Sum had acquired a liking to the American type of girls and much preferred them to the yellow daughters of his own country.

As was said before, Chu Sum had accumulated a large sum of money which in China would be a lot of cash, so he bought a steamship ticket to China.

When he reached home he was as happy to see his patient, little wife as she was to see him, but he wished she was like the "Melican Lady" in New York.

"Jrx!" he cried. "Me got it. Me hypnotize her. Make her Melican lady." So Chu Sum hypnotized little Peh Nee, and made her think that she was an American woman.

As soon as he had done this, she, after the manner of American wives, took his money away from him, made him do all the work, kicked him all around the house, and made him so miserable that he took Chinese poison tea and died, leaving his wife to live happily ever afterward.



Off the ..Record ..

The city feller was talking to his country cousin.

"Nice bunch of cows you have there."

"Not bunch; you mean herd."

"Heard what?"

"Herd of cows."

"Sure I've heard of cows."

"No, I mean a cow herd."

"What do I care if a cow heard. I never said anything to be ashamed of."

Joe: "Man! I wish I could afford a swell car like yours!"

Jack: "You and me both!"

A Muellerite who spent her vacation in Atlantic City wrote on a card which she sent to the gang in the office:

"Having a wonderful time. Wish I could afford it!"

- - -

First Hobo: "What're youse doin' now, Pete?"

Second Hobo: "I'm Ike's chief assistant"

First: "What's he doin'?"

Second: "Nothin'."



FAMOUS LAST WORDS:

I never pay any attention to these stop signs. No one is ever out on the streets this late at night.

Oh, happy little moron Who doesn't give a dang. I wish I were a moron— My gosh! Perhaps I am!!

Thirsty One: "What is it a sign of when one drinks water all day and still cannot quench his thirst."

Second Thirsty One: "It's a sure sign that the town is dry."

Sunday School Teacher: It says in the Bible that Lucifer was the Prince of Hades.

Smart Boy: The devil he was!

Waiter: "Mr. Brown left his umbrella again. I believe he would leave his head if it were loose."

Manager: "Yes, I guess you're right. I heard him say yesterday that he was going to Arizona for his lungs."

Coed: "Oh, professor, what you must think of me now that I've kissed you!" Professor: "You'll pass."





DAFFYNITIONS

Moron: A motorist who thinks that by loudly blowing his own horn that he can start the stalled engine of the car just ahead.

Student: "I hear the board of trustees is trying to stop necking."

Coed: "That so? First thing you know they'll be trying to make the students stop, too."

The old man stopped to talk to the small girl who was making mud pies on the sidewalk. "My word, little girl," he exclaimed, "you're pretty dirty, aren't you."

"Yes," she replied, "but I'm prettier clean."

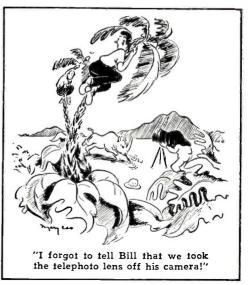
"Does my practicing make you nervous?" asked the considerate but persistent saxophone player.

"It did when I first heard the neighbors talking about it," said the man next door, "but now I don't care what happens to you."

Father pulled the car off the road at a beautiful roadside park. The children scampered into the woods. Mother spread out the luncheon cloth and put on the food.

"This is an ideal spot for a picnic," she said.

"It must be," father growled. "Fifty million insects can't be wrong."



SMOKER'S LAMENT

Tobacco is a filthy weed—
I like it.

It satisfies no normal need—
I like it.

It makes you thin, it makes you lean, It takes the hair right off your bean, It's the worst darn stuff I've ever

I like it.

Here is the way one school teacher explained the school situation to us:

The teachers are afraid of the principal, the principal is afraid of the superintendent, the superintendent is afraid of the school board, the school board is afraid of the parents, the parents are afraid of their children, and the children aren't afraid of anybody.

"Are you keeping a hope chest?"
"With a chest like mine there is no hope."

Learn from the mistakes of others. You don't live long enough to make them all yourself.

First G.I.: "The touch of the nurse's hand cooled my fever instantly."

Second G.I.: "Yeah, we heard the slap all over the ward."

Just Between Us . .

(Continued from page 1)

More About Auto Racing

Our recent articles featuring the first automobile race and other early models have brought many interesting letters. The most recent one came from Mr. W. F. Crawford, president of Edward Valves, Incorporated of East Chicago, Indiana. We quote part of his letter here:

"My father was the first manager of the old Chicago Automobile Club who sponsored a number of road races, the most famous being the Cobe Trophy Race which was held near Crown Point, Indiana around 1907-08 (if my memory is correct). He also knew many of the racing teams during these early years.

"As a matter of further interest, my grandfather was at one time superintendent of the South Park Systems in Chicago. He went to work for the Park Board around the time of the Chicago World's Fair of 1893. He did some early work on the design and construction of macadam roads. He was in attendance at Jackson Park at the start and finish of the famous Chicago Times-Herald race on Thanksgiving Day, 1895.

"Incidentally, there was a "re-run" of that old race in Chicago a few years ago and I enjoyed seeing the interesting old cars. After the race, they were exhibited for some weeks at the Chicago Museum of Science and Industry."

The Haynes Experience

It may interest some to learn that the parents of your editor had an experience with America's first automobile — the Haynes. It was around 1893 that Elwood Haynes, of Kokomo, Indiana built his first horseless carriage. It was a buck-board type of vehicle with wire wheels and pneumatic tires. A single handle in the center was used to steer it.

At that time my parents had a farm located about two miles west of Kokomo on Jefferson Pike. One day Mr. Haynes drove out past the farm on an experimental run, and when a little way down the road the car broke down. After

tinkering with the mechanism without success, Haynes walked back to the farm and asked my father if he might leave the car in our barn a few days until he could get new parts.

Three days later the inventor returned with the necessary parts and some tools and made the repairs. The car was pushed out into the barn lot. The engine was cranked, and it started off at once. The noise scattered the chickens and stock in every direction. Mr. Haynes climbed into the buggy-type seat, threw the car in gear, and with a clatter and a roar, chug-chugged down the highway in a cloud of dust, headed back for Kokomo.

At the time, my father thought little of the event, but twenty years later when the automobile was coming into its own, he took a great deal of pride in telling how America's first car was in our barn three days.

The same car today is in the Smithsonian Institute at Washington. The inventor eventually went into the manufacture of automobiles. But this was not his only claim to fame. He discovered various alloys: as tungstenchrome steel (1881), alloy of chromium and nickel (1899), alloy of cobalt and chromium (1900), and alloys of cobalt, chromium, and molybdenum (1911-12). He patented stainless steel in 1919.

An interesting sidelight to the above story comes from my mother who is still living. She told me that every Saturday she drove to Kokomo in a buggy and sold eggs and fresh country butter. Mrs Elwood Haynes was her best customer. In these days of high food prices, what do you suppose she got for her wares and all her trouble? The eggs sold for 12c a dozen and the butter was 12c a pound.

OUR COVER PICTURE

The picture used this month is a salon print entitled "Spotlight On The Waters". It was taken on Lake Decatur by Walter Bowan of our Engineering Staff. He is a member of the Decatur Camera Club and has exhibited widely. This beautiful scene has been in numerous exhibits in other cities and we are indebted to him for letting us use it on this month's cover.



MEANS

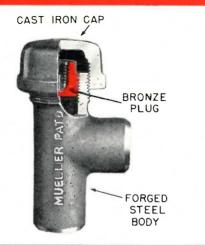
SAFETY . ECONOMY PERMANENCY

FOR MAKING CONNECTIONS ON HIGH. MEDIUM OR LOW PRESSURE LINES TWO TYPES OF INLETS

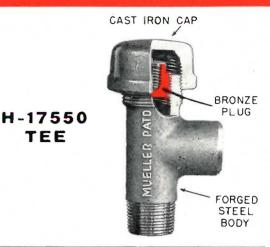
WELDING INLET

H-17500

TEE

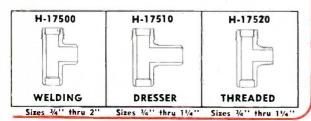


THREADED INLET



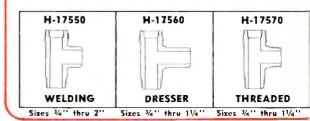
PES OF OUTLETS ...

TEE



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