

MUELLER RECORD ¹⁹³⁰



PAINTING BY FRANK HOFFMAN

MARCH

SPRING NUMBER

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The Record Cover

The Record cover this month is taken from a painting by Frank Hoffman and was the original of one of our advertisements in the Saturday Evening Post, and by many of our friends and patrons regarded as the best of a series of very attractive pieces of art work used in advertisements and reproduced for Record covers. The figure of the chemist is outstanding, and the tenseness of his face as he gazes into the test tube depicts a natural interest that cannot escape attention. The thought back of this picture is our own laboratory, where all metals used in Mueller products are tested. We know about the various qualities of all metals before they are made into Mueller products and we know the qualities, the tensile strength, breaking point, etc., of those products when they come from the foundry. In this way we keep a record and are able to maintain a standard of quality which is not possible under hap-hazard methods governing most foundries. It is one of those carefully thought out precautions which have given Mueller brass products a name and a fame upon which our patrons safely depend, and a reputation for careful manufacturing processes in which we take a very considerable pride.

THE MUELLER RECORD

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AS OTHERS SEE US

Sometimes, in fact most of the time we take ourselves too seriously. A flurry in the stock market, a slight hesitation in business, or any diverting influence turning us momentarily from our goal of ambition and wealth makes us believe we are about to "faw down and go boom." We are either floating on summer seas of pleasure or deep in the slough of despondency. Occasionally some stranger calls us back to the reality of our greatness and our opportunities.

One such is Lord Rothmere, a distinguished Englishman and recent visitor. Going home he tells England that "America triumphantly survived the last stock market crash." He says.

"We have (the U. S.), and are entitled to have unspeakable confidence in enduring prosperity because of our inexhaustible supply of the principal raw materials. These are developed by a combination of "extremely high executive capacity with the most intelligent, hard working and ambitious labor in the world." His lordship says further that we have every asset that makes a nation rich—men, money, materials and markets.

He found in America the utmost confidence among leaders that within two years the United States will establish new peaks in every branch of national activity.

That's what a stranger thinks of us. If we think as much of ourselves as this keen student and observer we will do all and more than he tells us.

"The observance of law comes from the fruits of the law; not from the fear of penalties for violations of the law." So writes the attorney general of Indiana on "law observance." We are taught that it is wrong to violate laws. The majority accept this as a guiding principle and adhere to it through life. If they did not this country would not be a very desirable or safe place to live. It is knowing right from wrong and from principle doing what is right that upholds laws. The attorney general cites the value of example using Benjamin Harrison, noted

lawyer, and former president of the United States, to illustrate the point.

"On one occasion," he writes, "the ex-president refused to follow a companion over a grass plot in Indianapolis as a short cut to the street. He knew that crossing that grass once would not injure it, but he knew if others did the same the plot would doubtless soon be destroyed. His habit of being concerned with the effects of his example caused him to refrain from doing even so trifling a thing. The principle involved in the act concerned him. If each of us will bear in mind our own responsibility as to observance of law, the task of officials in enforcing the law will greatly decrease."

Do It Now. The old slogan has been worn threadbare in the past, but do it now was never more applicable than NOW. The unemployed need employment. Thousands of persons able to make improvements have been thinking that some day they will do so. They belong to a class which can have this work done at any time without financial inconvenience. Do it now. Carry out your long delayed purpose. Help put the unemployed at work. It will help increase prosperity.

ELYSIUM

Think of living in a city in which you did not have to pay taxes. Seems impossible and yet its true if good municipal papers are to be believed. They say that Colby, Kansas, a little town of 1900 inhabitants has not collected taxes from its residents since 1928. The profits of the Municipal Water and Light Company have made this possible and been responsible for a surplus of \$49,000.

To have done anything by which you earned money merely is to have been truly idle or worse. If the laborer gets no more than the wages which his employer pays him, he is cheated; he cheats himself.—Thoreau.

THE MUELLER RECORD

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Manufacturers of Vital Spots Products for the
Plumbing, Water and Gas Industries.

C. N. WAGENSELLER, Editor.

LIGHT READING FOR SUMMER

Once more revolving seasons bring us to spring and the open country and how we welcome it—the clear stretch of road ahead, the rich green fields on either side, the lazy contented live stock browsing on the pasture, the little towns and villages teeming with their community life, the filling stations and hot dog stands with their town characters, dirty faced children and worthless curs hanging about to watch the cars go whizzing by.

But better than all this is the opportunity to resume our literary pursuits. Winter reading becomes tiresome. The poets and prose writers may increase our stock of knowledge and give new mental stimulus, but lacks the zest and the zip of these wayside authors, who produce such gems as these:

"We don't know where Mom is but we've got Pop on ice."

And when you get hold of him he generally is a "warm baby."

Or that alluring gem on a small four room house:

"Tourists is kept here."

And still another displayed by a man who deals in fish bait:

"Drive in worms."

And a host of others that might be recalled such as:

"Sandwiches" which some female attendants "model" by appearance.

"Gasoleen that gits you their."

"Better pies than mother makes."

"Bar-B-Q sandwiches."

"Shorty's snappy soup."

"Welcome. Speed limit 10 miles. Close your cut outs. Population 45."

And going out of the city about 100 yards further on:

"Glad you came. Come again."

And still another:

"Observe the speed limit, 10 miles, or talk to the judge tomorrow"—a veiled threat of passing the night in the "hoosegow."

Learn from Daruma

"The diverting Japanese God Daruma is that amusing egg shaped fellow often represented in a child's toy which when pushed over, persists in rolling back to an upright position, thereby symbolizing unflagging aspiration. 'Down seven times—up eight times', the Japanese say of Daruma."—Julian Street.

Ants Carry Parasols

Parasol ants derive their name from a habit of biting off pieces of leaves much larger than themselves and carrying them over their heads.

PHAT PHOLKS



The Thin One—Nobody loves a fat man.
The Heavyweight—No, nor a fat girl either.

ASH WEDNESDAY AND EASTER

Easter is a movable feast day beginning with Ash Wednesday and ending on Easter Sunday. From 1801 to 2000 the earliest it has begun—that is Ash Wednesday—or will begin, was February 4th. The earliest Easter has or will fall in that period is March 22 and the latest April 25th. It will be noted that there is a variance here of 35 days.

This year Ash Wednesday comes on March 5th and Easter Sunday on April 20th.

The present method of determining Easter has been followed since A. D. 325, but all nations do not observe it, different ones having a forty day fast or festival during the spring season.

ORDER MATERIAL NOW

Spring work will be well under way in many sections of the country when this Record reaches its readers. In another month it will be going full speed ahead all over the country. Water mains and gas mains will be going into the earth, street services will be laid, extensions made, service boxes set, and other activities will be engaging attention.

Have you the material with which to do the work?

If you have not you had better order now. Get in with your order before the big rush beats you to it, and compels you to delay work.

We never were in better shape to fill orders promptly.

Not a Bad Law

An old law of Japan ruled that if a dog barked at night, the owner was to be arrested and sentenced to work for a fixed time for the neighbors whose slumbers the dog had disturbed.

ON THE LINKS

Western Gas Presents Cartoon of Our Pacific Coast Manager.

Everybody—that is nearly everybody in the plumbing, water and gas brass goods business—knows Tom Leary, our Pacific Coast manager. Should you be one of those who do not, we want to introduce him by proxy for Western Gas which paper recently printed a cartoon and article concerning Mr. Leary.

We have no comments to make except that we are impressed by Tom's la-da-dah



poise and his nonchalant expression as he is about to swat the ball. And we are willing to bet a "two-fer" that he missed it entirely. Here is what Western Gas had to say:

"If sticking at one line of work over a number of years is the way to become a qualified expert in that line then Tom Leary, genial Western Division Manager for Mueller Company, is entitled to that recognition. There was a time, it is rumored, when the height of Tom's ambition was the ownership of a modest little plumbing shop on a side street. That ambition was achieved before he became of age and Tom was mighty proud of his tidy shop in Rock Island, Illinois, where he was born and raised. But someone in the Mueller organization hunted him out and gave him a chance to sell plumbers' brass to his fellow plumbers throughout the Middle West.

Five or six years of successful selling qualified him for the management of the New York office, which he opened and had charge of for several years. In 1912 the Mueller organization asked him to open a Western Branch office in San Francisco. Two years ago he was given charge of Mueller sales in the territory west of Denver.

Intimate friends of Leary will tell you that he is seen to best advantage togged out for fishing and beamingly happy to be about the really important job of whipping a trout

stream. On the other hand, his golfing friends will tell you that he is a keen companion on the fairway. Be that as it may, there is only one Tom Leary, though his friends are legion."

A NEAT NEW NAME

"In this journal the other day," says the London Times, "a writer spoke of the ancient Athenians looking down on a world filled with barbarians. When the proof reached the editorial scrutiny the last word of the phrase was printed 'carbarians.' It seemed a shame to alter it. If only the context had permitted, what a service to the English language to present it with that word! But the gift was only delayed. We offer it now—carbarian—as the perfect name, a name which only genius or accident could have invented, for those who 'drive to the danger,' those who lack the manners of the road and defy the tradition of the road, the young carbarians all at play in their motor-coaches, the innumerable divisions of the class inadequately named road-hog."

What a \$3 Ad Did

An Oklahoma girl advertised for a husband, and landed one within a very short time. The advertisement cost \$3. She paid the wedding expenses, \$9. In less than a year the husband died, says the Atchison Globe, and left his widow an \$11,000 insurance policy.

Now will you admit that it pays to advertise?

To Judge From Appearance

"Yes," said Salkover, "the audience was very enthusiastic over my speech. When I got through they yelled, 'Fine! Fine!'"

"Well," replied Doberg, "It's a good thing you quit when you did. If you had spoken any longer they would have yelled 'Imprisonment!'"

FELT AT HOME



"He started out to be a geologist—has he been successful?"

"No, he went on the rocks."

I'm Tellin' You



We've observed that people who "like winter best" are always the first to want to meet up with spring.

Had we realized an early ambition we would today be a policeman or a motorman. Good thing destiny is not left entirely to the individual to shape.

The dries grow drier, and the wets grow wetter as the argument grows hotter.

If Commander Byrd went to the South Pole because he likes cold weather he overlooked a good bet by not heading into an Illinois winter.

Thousands of Americans recently crawled out of bed at 5 a. m. to hear King George's speech on the radio. But the next morning when Big Ben spoke they turned over for another nap. And Big Ben was really telling them something—get up and get busy.

The month of March I like best
Of all months in the year;
It gives one so much pep and zest
For spring that's almost here.

So let the old lion growl and roar,
Spit snow and slop and ice and sleet.
His numbered days will soon be o'er
When April smilingly usurps his seat.

Then come the bees and fragrant flowers,
Called back to life by April showers.
The sun sails high, and all serene
The golfers seek his favorite green.

And every day from now till fall
He'll shirk his job to swat the ball;
Which, like ignis fatuus lures him on
To 18th hole, his locker, and his "cawn".

Transportation has passed through many phases, involving waterways, highway, railway, and air-way, and if there is "any other way" we inquisitive mortals will eventually find it out.

Last month we celebrated the birthdays of two great Americans. In the preceding month occurred the birthday of another one-time distinguished American patriot—Benedict Arnold—but no one remembered it. And why?

Without automatics and automobiles the gangsters could not keep up their carnival of killing. They would go back to whence they sprang—hoodlums and plug-uglies.

Some beautiful weather to date, but its permanence is not a safe bet until St. Patrick's Day has passed.

COLONEL CAMPBELL DEAD

Popular Superintendent of Altoona Water Works Passes Away.

Colonel C. D. Campbell, superintendent of Altoona, Pa. Water Bureau, died on Feb. 13th at his home, age 56 years, after an illness of about three weeks.

Colonel Campbell's death was due to complications of diseases.

He had long been identified with the Altoona Water Works in various capacities until 1914, when he succeeded to the position which he filled at the time of his death. He had been through nearly every phase of the water works industry and acquired an expert knowledge of hydraulics. He built up and maintained a splendid organization, and like all practical men in any business, he was always with his force on the firing line. Col. Campbell stood very high in the esteem of his associates and the citizens of Altoona, as well as with the water works men of the United States. He had a very complete and thorough knowledge of the Altoona Water Works System and its problems, which accounts for his very marked success as superintendent.

His successor is Mr. Stanley Ale, who is finely equipped for picking up the work of Mr. Campbell. He is a young man of 35 years, professional engineer, and has a wide experience in hydraulic engineering, which includes construction and operation of water works systems.

The Echo

A gentleman, well perfumed, picked up the telephone:

"Hello! Hic! Hello!"

"Hello," returned the operator.

"Hello!"

"Hello."

"My gosh!" said the gentleman, "how this thing echos!"—Army and Navy Journal.

And How

In China, a square mile of soil is capable of supporting 4,000 people.

"RADIO" OR "RAD-DIO"

Distinguished Scholar Says Alfred E. Smith Has It Right

They laughed at Al Smith during his presidential campaign when he referred to the "rad-dio". According to one authority Al was right. Whether he knew it is of small moment now. According to the vote he was wrong about everything else, although there are those, however, who refuse to believe this even now.

W. C. Sibley whose column in the Chicago Journal of Commerce, is the one bright spot to those who care nothing about markets and finance. Quoting from his column:

"Along comes Nathan Haskell Dole, nearing 80, an author with many literary works to his credit, an art, literary, and musical editor, an essayist, and a translator of Russian and French books into English, and tells the world Mr. Alfred E. Smith was correct when he pronounced 'radio' as if it were spelled 'rad-dio', with the short sound of 'a'. He bases his conclusion on the Latin word radius, in which he says the letter 'a' is short, as proved by a line in Ovid's Fasti, where it appears as 'radio' in the ablative case. To this he adds: 'There seems to be no more sense in 'raydio' than there would be in changing rad-i-cal to ray-dical.'"

The editors of Websters and Standard dictionaries disagree with the distinguished Nathan Haskell Dole and with Mr. Sibley makes a total of three.

We are neutral but can't resist paraphrasing an old saying: "When scholars fall out let ignorant men beware."

Following Legge's Advice

Many examples of failure due to cautious hesitation could be cited, but the whole story is told in the anecdote of the Georgia cracker who sat, barefooted on the steps of his tumble down shack, smoking a corncob pipe.

A stranger stopped for a drink of water. Wishing to be agreeable, he said: "How is your cotton coming on?"

"Ain't got none," said the cracker.

"Didn't you plant any?" asked the stranger.

"Nope," said the cracker, "'fraid o' boll weevils."

"Well," said the stranger, "how is your corn?"

"Didn't plant none," said the cracker, "'fraid there wasn't goin' to be no rain."

The visitor was abashed, but cheerful still. "Well, how are your potatoes?"

"Ain't got none; scairt o' potato bugs."

"Really, what did you plant?" asked the stranger.

"Nothin'," said the cracker, "I jest played safe."

Growth of Air Mail

Growth of the air mail is indicated in the fact that a total of 4,541,000 pounds was flown in 1926; 5,141,000 in 1927, and 7,670,000 in 1928.

Half the joy of life is made up of little things, taken on the run. Let us run if we must—even the sands do that—but meanwhile see that nothing worthwhile escapes us and everything is worthwhile if we try to grasp its significance.

—David Starr Jordan.

As the train pulled into a station, a traveling man stuck his head out of the window, and, calling to a small boy standing near, said: "Here, sonny, bring me a sandwich and here's another dime; get one for yourself."

Just as the train started to pull out the boy returned, munching a sandwich, handed the man a dime and shouted: "Here's your dime, mister; they only had one."

Not so long ago a man living in a small community saw an article in a mail-order catalogue that he decided to buy. This man possesses quite a stack of shekles and anybody would be glad to sell him and charge it. He wrote the mail-order house this: "Send article. If good will send check."

In due time he received the following: "Send check. If good will send article."—Sunnyside Sun.

In Cochin, China, stale eggs are much preferred to fresh ones.

HINTS FOR HOUNDED HUSBANDS



"It's wise to pick up a pin that's laying on the floor, but if it's a rolling pin it's wiser to dodge it."

THE AUTO INDUSTRY

Has A Far Reaching Influence on Many Other Lines

A survey of the automobile business for 1929 is most interesting from two angles—first the size and extent of the industry itself and second its relation and importance to other industries. The total production of cars and trucks in the U. S. and Canada was 5,651,000 which consisted of 4,846,000 cars and 805,000 trucks. The closed car continues the favorite with the public totaling 4,218,000 or 87% of the whole. The wholesale value of cars was \$2,952,900,000 while that of trucks was \$531,000,000 or a total whole value of cars and trucks amounting to \$3,483,900,000. The average retail price of the cars was \$812 and of trucks \$877. The wholesale value of parts and accessories for replacements and also service equipment was \$920,000,000. Tire production in the United States, 75,000,000. Wholesale value of rubber tires for replacement \$600,000,000.

Relation to Other Business

The relation of the automobile to other business as reported by the general manager of the Automobile Chamber of Commerce shows its great importance in 1929. The number of carloads shipped was 3,600,000. The percent of various materials used is given as follows. Rubber 85%, plate glass 67%, iron and steel 19%, copper 15%, hardwood lumber 18%, lead 27%, gasoline 80%, crude rubber pounds 913,920,000; gasoline used by motor vehicles (bbls. 42 gallons) 297,000,000; cotton fabric used in tires (lbs.) 287,000,000.

Distribution of Ownership

Registration of motor cars in U. S. 23,030,000, trucks, 3,370,000. This is a gain of 8% over 1928. The world registration of motor vehicles is 34,700,000 of which 76% is in the United States. The farmers of the U. S. have 5,800,000 of the total.

The Highways

Another item relative to the auto industry which undoubtedly is largely responsible are improved highways, made necessary by the general use of autos. The total of surfaced highways is 660,000 miles while our total highway mileage is 3,016,281. The expenditure on highway and streets in 1929 totaled \$2,000,000,000. The auto industry gives employment to 4,300,000. It is the cause of a gas tax of \$415,000,000 and a total tax of \$925,000,000. Incidentally, retail business has been increased as follows: Car and truck dealers 56,300, public garages 51,200, service stations and repair shops 95,800; supply stores 76,000; filling stations 320,000; gasoline pumps 610,000.

Who'd Athunk It

Benjamin Franklin is said to have introduced the game of poker in Paris.

DEATH OF JOHN A. QUINN

John A. Quinn died at his home in Philadelphia, January 24, 1930, at the age of 54 years. He was a master plumber in that



The late John A. Quinn, president of the National Assn. of Master Plumbers, who passed away January 24th.

city and at the time of his death was the president of the National Association of Master Plumbers, having been elected to that office at the convention held in Buffalo, New York, last June.

Mr. Quinn was a man of fine ideals and sterling character. He reflected credit and honor upon the business in which he was engaged and would have done the same thing in any other line of endeavor.

He was a fine, clean cut gentleman, fair and square with all whom he came in contact. His cheerful, robust disposition and his unflinching good humor and courtesy made him a favorite wherever he went. He was successful in his business and an untiring worker for the upbuilding of the plumbing industry.

He attracted wide attention through his sponsoring a movement to provide ways and means of educating young men of the right type for the plumbing business.

At the time Mr. Quinn launched his educational work there were practically no schools for apprentices. Today there are more than 130 where plumbing is taught, and these have a total enrollment of over 7,000 apprentices and 3,000 journeymen.

His death was due to pernicious anemia, and though warned by close friends who noted the inroads of the disease, he stuck to his duties with characteristic energy until his strength failed him.

The plumbing industry can ill afford to lose a man of such splendid attributes.

Exercise on Shipboard

A walk of three-quarters of a mile can be enjoyed around the promenade deck of the new Orient liner, the Orontes. There is also an open-air swimming bath on board.

Queer Taxation

Sark, one of the English channel islands, has many curious local taxes, one being paid in fowls by each house according to the number of chimneys it possesses.

Gorilla's Brain

The brain of a baby gorilla at birth is almost as big as a human baby's, but it develops much more slowly through infancy.

Ecuador is famous for its diamond mines.

COPPER NOT INJURIOUS

After Long Experimentation Authorities Say It Is Not Harmful

The use of copper in homes has in the last few years greatly increased. Copper is one of the oldest and most useful of metals. It forms the major part of the alloy known as brass which is one of the most generally used metals. Our grandmothers did a lot of cooking in copper and brass utensils in the pioneer days, and no one pointed the finger of suspicion at these useful and serviceable vessels which seldom wore out. They were not thought to contribute anything deleterious to health or physical well being. Quite the contrary. There are those living today who partook generously of the good apple butter and preserves made in a brass or copper kettle and will contend to this minute that the product was better than any obtainable today. The pioneers of that time gave no thought to the question and the record stands that these people were an exceptionally hardy race, living to a good old age.

With a more general resumption of copper in household engineering, however, there has been much discussion as to its injurious effect on the human system. Many wild-eyed and wall-eyed scare articles have been written on the subject. Copper has been under a close and careful surveillance for several years and the professors, doctors, and chemists have had quite a bit to say on the subject. While there have been a few dissenters, preponderance of evidence is to the effect that copper is harmless.

The Literary Digest recently published an article on this subject. The departments of Industrial Hygiene and Pathology of Columbia University has completed an exhaustive study of this subject under the direction of Drs. Flinn and Von Glahn. Innumerable experiments were made on humans and animals with careful diagnosis and examination of vital organs, such as the liver, supposedly most susceptible to ill effects of copper. The conclusion is that the use of copper is not harmful, the report ending with this paragraph.

"As the evidence now exists, the quantities of copper that are found in our food and drinking water will not injure any human organ. In fact, evidence is accumulating showing that small amounts have a beneficial effect on the blood in anemia."

The Machine Age

Machines have taken the place of men to such an extent that several millions of people are seeking employment. Since 1920 the railroad concerns alone have reduced their forces 250,000 men.

Lapland's Climate

Much of Lapland is above the arctic circle and the climate is correspondingly severe. At Kiruna the average annual temperature is about thirty-four degrees.

NO CHANGE WILLIAM

Idly rambling through Wordsworth the other evening we came across this gem:

The World Is Too Much With Us

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers:

Little we see in nature that is ours;
We have given our hearts away, a sordid boon!

This sea that bares her bosom to the moon;
The winds that will be howling at all hours,
And are upgathered now like sleeping flowers:

For this, for everything, we are out of tune;
It moves us not,—Great God! I'd rather be
A pagan suckled in a creed outworn;
So might I, standing on this pleasant lea,
Have glimpses that would make me less forlorn;

Have sight of Proteus, rising from the sea;
Or hear old Triton blow his wreathed horn.

Wordsworth, you know was a one time poet-laureate. His place in literature is secure. He lived in the late 18th and early 19th centuries when life was not so hectic as now. Still it is very much the same and somewhat more so, especially when it comes to "getting and spending and laying waste our powers." But when it comes to seeing nature we do quite a bit of that in our automobiles, but alas and alack, and too true, we "don't see much that is ours" in the spirit and the mood of such great minds as Wordsworth and Bryant, and a host of other inspired immortals. And its too bad that we do not. Our only solace lies in the fact that neither did the people of Wordsworth day. They likewise were getters and spenders. The world may change, but the people in it are basically the same in all generations.

Law for Sleeping

Nine hours' sleep, four hours off duty every day, and special inspectors for food and sleeping accommodations will be compulsory for German domestic servants if a bill to go before the German parliament becomes law.

LOAD TOO HEAVY



"What broke Smith down so and caused his death?"
"The heavy life insurance he carried."

IN ADDRESSING NEW YORK

Metropolitan Government Makes Complications That May Defeat Deliveries.

The difficulty encountered by transportation companies in making deliveries in New York City and environs is explained by "The Express Messenger", the company publication of the American Express Company.

It is evident that many persons doing business in this eastern territory have no conception of its geographic complications. Five Boroughs constitute Greater New York, Manhattan and Bronx constitute what most people accept as the city proper. Then there are two boroughs, Queens and Brooklyn on Long Island, and the fifth, Richmond on Staten Island. Staten Island is five miles across the bay from the tip of Manhattan and is in New York State. It is 16 miles long and ten miles wide. Long Island is no small territory. It is 100 miles long and at some points 20 miles wide. Both Staten Island and Long Island have many small communities. In the case of the latter, beyond the boroughs of Queens and Brooklyn are two counties of New York state extending to the most eastern tip of the Island. Each of these counties contain many sizable towns. Knowing this it is easy to understand why the express company cannot deliver packages which are addressed to "Staten Island" or "Long Island" no more than they could deliver a package addressed to some one living in any particular county in North Dakota.

"A destination address," says the Messenger, "given merely as 'Staten Island, New York City' is incomplete, even though the street address is provided. The name of the community or town on the Island is absolutely essential for making deliveries."

There are duplications of names in the different boroughs, and consequently deliveries where the address gives the street but not the borough furnishes a predicament which the express experts can't solve. The name of the borough must be mentioned. In regard to the two counties on Long Island the Messenger says: "In these counties there are hundreds of communities and towns. It is not necessary in the latter cases to mention 'Long Island' at all in an address, as 'New York State' is sufficient. Many people do, however, but the vital item of such addresses is the name of the town. The Company has agencies at many of the larger points on the Island and no trouble is encountered in making prompt deliveries to Long Island points, when the town names are given."

French Auto Industry

France is second to the United States in the production of motor cars. Some 500 makes are manufactured in that country.

The Queen Bee

One bee-hive usually contains a queen, 300 to 400 drones, and 40,000 workers.

THE TRUE CRITERION

"A slender acquaintance with the World must convince every man that actions, not words, are the true criterion of the attachment of friends; and that the most liberal professions of good will are very far from being the surest marks of it."—George Washington.

THE USELESS REVOLVER

New York Magistrate Would Limit Them to Army, Navy and Police

There is a movement in Congress to legislate against interstate traffic in firearms. Some of the congressmen are of the opinion that too many persons are toting guns, and they are right about it.

A lot of half-baked boys and men think a revolver tucked away in their hip pocket is necessary to their personal safety.

William McAdoo, chief city magistrate of New York City, takes an opposite view. He says a revolver is of no value as an instrument of defense in the hands of an honest citizen because of the element of surprise—that is to say that the robber or stick-up man in pursuit of his unlawful occupation always has the drop on his victim. Any motion or indication that said victim makes to draw a gun is a signal for the robber or stick-up man to pull the trigger.

Judge McAdoo was the victim of a hold up himself, and says he is glad he did not have a gun. He says the hold up men would probably have taken it away, beat up on him and thrown him in the Hudson river. He argues that revolvers are useless and should be restricted to the army, navy and police. There are a great many persons who will agree with him. The average man has no real use for a revolver.

Centuries ago the Hindus played with round playing cards.

CASH CALCULATOR



"Have you ever had anyone tell your fortune?"
"Yes my wife often tells me the amount of money I have to the cent."

AUTO LINE



Yes, Women Are That Way

A woman is some one who wonders why all the cars are coming south on the one-way street while she is driving north.—Detroit News.

Shifting Gears

Hasenpfeffer—Schultz must be planning to buy a new car.
Beerbaum—What makes you think so?
Hasenpfeffer—I see he is letting his wife drive the old one.

Deferred Payment Plan

Voice from Under Hood—No, I've never paid a cent for repairs on this car.
Voice from the Seat—Yes, that's what the man who repaired it for you told me."
—Louisville Satyr.

Lost Control

"You say you lost control of your car?"
"Yep—I couldn't keep up the payments."

Painfully Frank

"Please send me the amount of your bill," wrote the garage man to the motorist who was chronically slow with the cash.
"Certainly," answered the slow guy, "it's \$136.72."

Those Soft Ones

"Which do you like better, balloon tires or high-pressure tires?"
"I like balloon tires better."
"What kind of a car do you drive?"
"I don't have any; I'm a pedestrian."
—Tid-Bits.

Fully Accounted For

District Visitor—To what do you attribute your great age?
Oldest Inhabitant—Well, for the first 70 years of my life there wasn't no motor cars, an' for the last 30 I've been confined to the house.—Montreal Gazette.

Knock-Knock

"You sell anti-knock gas?"
"Yes, sir."
"Let me have a pint. I want to rub some on my girl's knees.—Detroit Motor News.

Which Kind?

Father—You kept the car out rather late last night, son. What delayed you?
Son—Had a blowout, dad.
Father—Huh! Tire or roadhouse?

Warns Trains

"Is he a careful driver?"
"Oh, very. He always toots his horn before crossing a railroad track."

Frenzied Finance

Smith—Are you getting a new car this year?
Jones—Yes. That is, as soon as I've paid for the one that I had before the one I've got now.—Life.

Suspicious Character

Customer—I want to pay cash for this car.
Salesman—Yes, sir. But it's so unusual that I'm afraid you'll have to give us a reference or two.—Life.

Solving a Traffic Problem

Oh, bury him deep
In some shady bower—
He drives in the middle
At ten miles an hour.
—Buffalo Evening News.

Revised to Date

Beside the filling station now,
The Village smith he stands,
And many dollars fall into
His large and sinewy hands.

Wrestling Match

And from the depths of the sedan
There came a muffled curse
He was trying to fold a road-map
Same as it was at first.
—Buffalo Evening News.

At Last, the Amphibious Auto

Some time ago another car with its driver plunged into the basin at this point, but swam ashore.—New Orleans Times Picayune.

NO RESPONSIBILITY FOR PASSENGERS

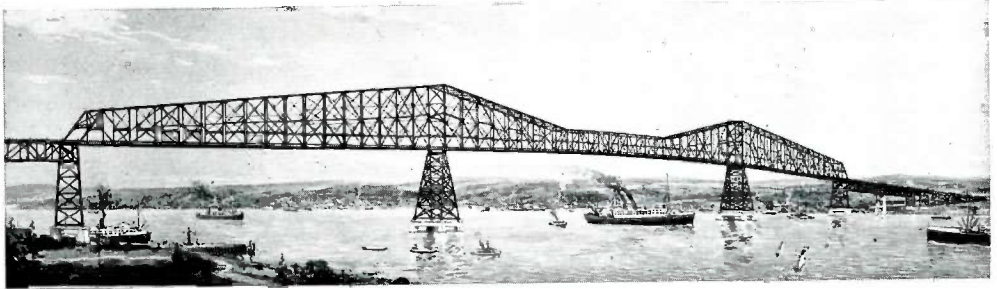
The Kentucky legislature is considering a bill which most automobile owners will approve. It has been favorably reported and passed first reading. The bill provides that owners of motor vehicles be released from responsibility for injuries to passengers within said vehicles.

A person accepting a ride in a vehicle of this character, knowing the danger and liability of accident should be willing "to take what's coming" if it happens to come.

There might be an amendment to the Kentucky and other laws.

Make the passenger sign a release before he is allowed to get in the car.

President Hoover to Press Key



On March 29th President Hoover at the White House in Washington, D. C., will press the golden key now opening the \$5,800,000 Columbia River-Longview bridge between Longview, Washington, and Rainier, Oregon. This remarkable engineering achievement has interested the president, who is an engineer himself of international fame.

At the time he presses the key he will have as witnesses the senators and congressmen from Washington and Oregon, as both of these states are vitally interested in the completion of this bridge which brings the beaches of northwestern Oregon more than one hundred miles closer to the Puget Sound country. The people of the northwestern territory, as well as all those who take even a passing interest in bridge building, marvel at the speed shown in the building of this great connecting link of steel and concrete.

The center steel spans of the bridge were joined on Feb. 13th. This was just eight months from the beginning of the structure work. Nothing now remains to be completed except the concrete decking, which will be ready for use when the bridge is formally opened. From that moment there will begin a continuous stream of motor vehicles which will find a new route between British Columbia and Old Mexico. The motorist will find a new and interesting road to Portland, which for fifty miles follows the west bank of the great Columbia River from a point where it swings west to the Pacific, to the mouth of the Willamette. It is one of the most scenic stretches of modern highway in America. This road also parallels that part of the Pacific Highway on the Washington side extending south from Kelso to Vancouver.

When the president signals for the opening of the structure, the center of the bridge will be occupied by governors of Oregon and Washington, accompanied by the chief executives of British Columbia, Idaho, and California. These distinguished visitors will be augmented by public and civic leaders from far and distant points in the west.

The celebration committee is composed of members of the Lower Columbia Associated Chambers of Commerce which look hopefully forward to a crowd exceeding any hitherto

gathered on the Lower Columbia. Motor caravans from motor associations, Chambers of Commerce, lodges, service clubs, and communities, will add to the colorful pageant. When the gigantic American flag breaks forth and daylight fireworks announce the opening of the bridge, snowy white carrier pigeons will flutter away with messages to distant points.

The Columbia River-Longview Bridge has a center suspended cantilever 1,200 feet long, with a clearance of 194.5 feet above low water. The maximum height of the bridge is 340 feet and including all wooden approaches is 8,342 feet long.

The bridge was designed and its construction supervision was under the watchful eye of the Strauss Engineering Corporation, represented by its president, J. B. Strauss, as chief engineer. Others who had part in this great accomplishment were: C. E. Paines, vice president and in charge; J. S. Watson, resident engineer. The Bethlehem Steel Company was general contractor, with George F. Beckerley of Oakland, Calif., engineer in charge. J. H. Pomeroy and Company, with J. H. Pomeroy in personal charge, erected the steel work. Pomeroy's crews completed their task in exactly eight months with the remarkable record of not a single serious injury to a workman. The subcontractors were: Pacific Bridge Company; Lindstrum and Feigensen, timber approaches and concrete floor deck; Olympic Construction Company, road grading; F. W. Clearman and Company, toll houses; Charles Langlais, lighting system; Wallace Bridge and Structural Steel Company, steel fabrication; J. H. Pomeroy and Company, erection; F. S. Booth and Company, fenders.

The bridge is a toll span privately owned by the Columbia River-Longview Bridge Company. The superstructure contains 12,500 tons of structural steel, which was hoisted into place from barges on the river, and the entire 1,200 foot center suspended span was erected without scaffolding or false work, without interference with the heavy commerce that passes continually up and down the Columbia River.

The roadway is 27 feet wide with 3

foot sidewalks on either side. The bridge is designed to accommodate two 20-ton trucks passing abreast from one end to the other. The substructure contains 25,000 cubic yards of concrete. There were 124,000 cubic yards of excavation; 350 tons of reinforcing and 63 tons of steel embedded in the concrete; 1,000,000 b.m. of timber cribbing; 10,000 cubic yards of riprap around piers, and 436 piling.

A light weight deck material being desired, a volcanic cinder from the Bends of Oregon was selected, as it had showed very high test results.

No doubt many persons who read this article in The Mueller Record will some day have the pleasure of driving across the magnificent bridge and through a country rich in scenic wonders.

THE TRUE SPORTSMAN

And now we are coming to the season of outdoor sports. There are many codes of honor governing athletic contests and all kinds of games. The principles governing these is mostly the same. One of the best codes is that of the University of Illinois, which is herewith reproduced:

A True Sportsman

1. Will treat all athletic opponents as guests and friends.
2. Will refrain from hissing or booing a player or official.
3. Will not question decisions of officials.
4. Will not use language unbecoming a lady or gentleman.
5. Will applaud any athlete who makes a good play or shows good sportsmanship.
6. Will not attempt to rattle a player such as a football player place or drop kicking, a player attempting to make a free throw in basketball, or a pitcher in a baseball game.
7. Will play according to the rules of the game.
8. Will play the game only for the love of playing.
9. Will have a good word for opponents regardless of who wins.
10. Will observe the Golden Rule.

THE FARM QUESTION

If the farmers want relief they should modernize. Those who do this make money. At a recent meeting of Ohio farmers the latest group of Master Farmers was selected.

In announcing his selections, one of the judges made the statement that the winners' farms were especially efficient from the standpoint of equipment, which no doubt explained why they could average \$7,000 a year income.

Every one of these master farmer homes has the benefit of electricity, with running water and modern bathrooms.

Don't You Bite Me Rover!

Dogs have been successfully fitted with false teeth.

WATCHES AND CLOCKS

Railroads Have to be Particular But Others Do Not.

A railroad neglecting accuracy in watches and clocks would not last very long. Wrecks and damage suits would swamp them. Some individuals are meticulously careful to keep personal time pieces accurate but an equally large number does not bother about reliability in a time piece of any character. One of the frailties of man is to boast of the accuracy of his watch. This has always been true regardless of the cost of the article or its actual operation. Owners of automobiles are much of the same character.

Watch in Law Case

Going back to watches reminds us of a witness in a locally celebrated murder case, when much depended upon the place a certain witness was at a certain hour. He swore by his watch, which, upon examination, proved to be out of time as well as somewhat crippled in gear, indicating hands, dials, numerals, and a few other things, but perfectly dependable otherwise.

"But how could you tell the hour with that watch," demanded the attorney.

"Easy enough," answered the witness. "When the hour hand pointed to 5 and the minute hand 6 minutes past 12 I knew it was 7:20 o'clock."

The only good that came of this testimony was a good laugh, including the court.

Life of Railroads

Going back to the railroads, correct time is their very life. It must be absolutely correct at all points on the system for the safe operation of trains. It is not a little detail—it is an enormous responsibility. On one division of the Pennsylvania there are 600 clocks and they keep an expert on the jump all the time. This railroad has a large clock maintenance force and pays thousands of dollars annually to keep the time pieces in first class order. These men are all experts traveling from station to station regulating, adjusting and repairing.

SELLING SCHOOL BOOKS

Marion county Indiana of which Indianapolis is the county seat has gone into the sale of school books as a result of arrangements made by the county superintendent and the school board. Mr. Gladden, the superintendent, estimates the county will net the schools annually from \$12,000 to \$14,000.

The county board of education adopted this policy to save the pupils from the bother of buying at book stores and the profit of \$60,000 to \$70,000 which is the amount estimated from Marion county. Under the new system purchasers will save about 10 per cent. The plan provides for the sale of books at each school.

New York's first electric street light was installed in 1882.

Durango's Water Supply



Durango, Colorado, went places and did things. The city's water works proved inadequate. A year ago this month the citizens voted on and carried the proposition to make improvements and extensions. In November the work was completed which is characteristic of the feverish west, of course, but still an achievement to be proud of. Now they claim to have "the finest system in the United States and a filtration system that is unexcelled anywhere." It was the crowning achievement of the city of Durango.

Durango is a city of about 8,000 inhabitants and is the large town of the San Juan Basin, which is claimed to be a region richer in natural resources than any other area of equal size on earth. Everything the heart of man can desire is obtainable in this section. The climate, the productivity of the soil, the scenery, and the people combine to make it a most desirable place in which to live. There is much natural wealth in San Juan regions to which the brain and brawn of man has been applied in the utilization of its great mineral wealth. The coal is said to be the highest grade west of Pennsylvania. There is an abundance of natural gas and the highest gravity oil yet discovered. All of these gifts were easily turned to man's advantage until it came to the problem of the application of water to the land and for domestic use. Here was a problem that was worthy of man's best intellectual talents.

Got Along Some Way

For many years the city struggled along with a poor and inadequate water system, maintaining a wood stave pipe line at a great expense. In the fall of 1929 A. L. Kroeger, engineer, was engaged by the city of Du-

rango to investigate, make a report and recommendation upon the city's future needs for an adequate water supply. Mr. Kroeger's recommendation was the construction of a new diversion works with a cast iron pipe line from these works to the city reservoir. This reservoir is situated on a high mesa about 350 feet elevation above the city, which gives to the city excellent fire pressure at all times. He recommended, also, the replacement of wrought iron mains where they were in use in the city with cast iron and the enlargement and extension of many mains in the city. This report contemplated about eleven miles of main line construction and about five miles of new mains in different sections of the city and a new diversion works at the river. The total estimated cost of the undertaking was \$350,000.

The Usual Discussion

As is usual in smaller cities, there was much discussion pro and con relative to this report. The city commissioners were of the opinion that such an expenditure should not be made without further advice. While Mr. Kroeger's ability was generally recognized there was a feeling that being a local man, he should be backed up by an outside expert, a hydraulic engineer. This gentleman was secured and independent of Mr. Kroeger's action, went into the question and his conclusions corroborated Mr. Kroeger's, except that he did not recommend a cast iron line throughout. His estimated cost of the work was over \$400,000. Mr. Kroeger still maintained the work could be done for \$350,000 and the city reposing confidence in him gave him complete charge of the undertaking.

(Continued on Page 16)

GOLF



WHAT IS THIS GOLF?

Golf is a form of work made expensive enough for a man to enjoy it. It is a physical and mental exertion made attractive by the fact that you have to dress for it in a \$200,000 clubhouse.

Golf is what letter carrying, ditch digging and carpet beating would be if those three tasks had to be performed on the same hot afternoon.

Golf is the simplest looking game in the world when you decide to take it up, and the toughest looking after you have been at it 10 or 12 years.

It is probably the only game a man can play as long as a quarter of a century and then discover it was too deep for him in the first place.

The game is played on carefully selected grass with little white balls, and as many clubs as the player can afford. These balls cost from 75 cents to \$25 each, and it is possible to support a family of 10 people (all adults) for five months on the money represented by the number lost by some golfers in one afternoon.

A golf course has 18 holes, 17 of which are unnecessary, and are put in to make the game harder. A "hole" is a tin cup in the center of a "green." A "green" is a small parcel of grass costing about \$1.98 a blade, and usually located between a brook and a couple of apple trees.

The idea is to get the golf ball from a given point into each of the 18 cups in the fewest strokes, and the greatest number of words.

The ball must not be thrown, pushed or carried. It must be propelled by about \$200 worth of curious looking implements, especially designed to provoke the owner.

Each implement has a specific purpose, and ultimately some golfers get to know what that purpose is. They are the exceptions.

After each hole has been completed the golfer counts the strokes. Then he subtracts six and says: "Made that in five. That's one above par."

After the final or 18th hole the golfer adds up his score and stops when he has reached 87. He then has a swim, sings "Sweet Adeline" with six or seven other liars, and calls it the end of a perfect day.—Exchange.

Putt It There

Abe—Do you play golf vit knickers?
Levi—No, vit white people.

A friend of ours—a beginner at golf—when asked how he came out on the first day on the links, replied that he made it in eighty.

"Eighty," ejaculated Buck, "that's really remarkable. Most old timers would envy you that score. You'll surely be an enthusiast from now on."

"Yes," said the novice, condescending, "I'm going back tomorrow and try the second hole."

ANCIENT ATHENS

Will Be Very Much Modern When Water Works Are Completed.

Readers of The Record may remember an article appearing some months ago describing the big contract taken by an American firm for the building of a water works system for Athens, Greece. Ulen & Co., of New York, are the contractors. The improvement will cost \$11,000,000. The Greek National government floated bonds to that amount to insure payment.

A recent development in the work is the decision to make the top of the big Marathon dam an automobile roadway, which will provide for traffic across the valley. The practice of using the top of dams for this purpose has become standard in America. Nearly all of the big dams constructed in the west are thus equipped and thereby eliminate miles of mountain driving.

The Marathon dam has one feature, however, which makes it unique in dam building. It is faced with marble on both the up and down stream side. This idea, however, was not actuated by any aesthetic motive. Nature provides the marble in vast quantities and it was handy at the point where the dam was built. Being convenient and cheap it was used, and therefore does not reflect extravagant taste or love of the beautiful.

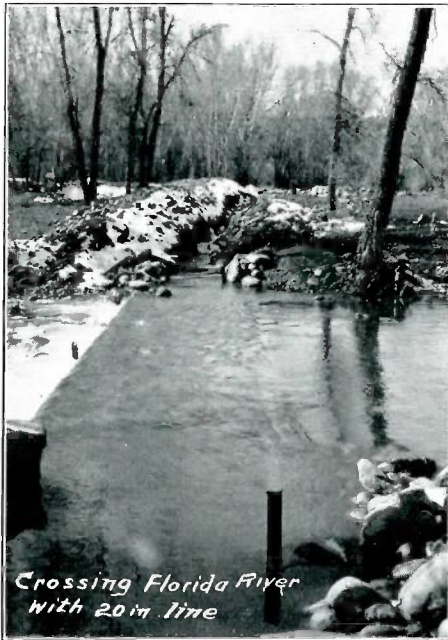
The Marathon dam is built so as to impound the waters of the river Hadrada and Varnava. It is 180 feet high and nearly 6000 feet long. It will create Lake Marathon with an area of 2,400,000 square feet and a capacity of 41,000,000 cubic meters of water, which will create an inexhaustible supply, something Athens has never had. At some points the lake will have a depth of 175 feet.

We Still Vote for Fulton

A Connecticut Yankee, named John Fitch, and not Robert Fulton, is said to have built the first steamboat.

Hawaii's Rainfall

An annual rainfall of 452 inches was recorded on the summit of Mount Waialeale Kauai, Hawaiian Islands, in 1922.



(Continued from Page 14)

Early in March, 1929, an election was held on a bond proposition and was carried by a majority of about five to one. The bonds were sold at par bearing $4\frac{1}{2}\%$ interest and the bidding was spirited, there being fifteen finance companies anxious to secure the bonds.

The Work Commenced

As soon as the bonds were sold detailed surveys were made, plans drawn, and specifications prepared for contracts for material and work.

The contract for the pipe was let to the Hendrie and Bolthoff Mfg. & Supply Co., of Denver, Colo., as was the contract for some of the fire hydrants, valves, and Mueller fittings. Crane O'Fallon Co. of Denver, Colo., were also awarded a contract to furnish some of the fire hydrants, valves, and fittings.

The pipe used was DeLavaud cast iron pipe and furnished to Hendrie & Bolthoff by the National Cast Iron Pipe Co. of Kansas City, Mo. The contract for doing the work in the city was let April 18, 1929 to Wood, Morgan & Burnett, local contractors, they being the low bidders.

It was late in April when the improvement got under way. The specifications called for the completion of the entire job Nov. 1st, 1929, and the system was in operation on Nov. 3rd. The completion of the job in such record time was a marvel to the citizens of Durango and vicinity, many of them having entertained the idea that it would take two years to complete the work. The speedy completion of this job is something to wonder at when one takes into con-

sideration that eleven miles of the mains were laid in a rough mountainous country where vexing engineering difficulties were encountered. Also the season proved a rainy one and there was considerable hindrance on account of the weather. The Florida river from which the city gets its supply, is a torrential mountain stream furnishing an abundance of pure snow water, but heretofore the city had always had considerable difficulty in operating its intake system owing to muddy water when the river was in flood stage, floating leaves in the fall, and slush ice in the winter obstructing the flow into the headgates.

New System of Filtration

Mr. Kroeger worked out a system of filtration at the intakes which is far superior to anything heretofore developed along this line of construction. Five laterals of perforated galvanized piping were buried beneath the river bed and adjacent thereto. These pipes were perforated and covered with selected materials and all laid above a dam and across the river channel itself and above a cutoff wall extending beyond the river channel. The dam and cutoff wall reach bedrock so that no underground flow can pass them. In this way the underground flow is gathered up by the system of perforated piping and delivered to the 20" cast iron line. This line has been in operation for some time now and the water delivered to the city is clear and free of all foreign matter. For twenty years the city has had two men to care for the headworks and the main lines at a cost of about \$2,400 a year, which expense has been entirely eliminated and it won't be necessary to visit the headworks except to turn more water on or off.

It is Mr. Kroeger's opinion that with the present system the city can take care of a population of 15,000 at least and by the expenditure of \$30,000 for additional storage reservoirs, it can take care of a population of 30,000 with the present pipe line.



The intake well to the Main Line.

BRINGING BACK THE BIRDS

Give Them a Decent Layout and They'll Be With You All Summer.

The birds are coming back. The formal opening of spring is March 21st, but the feathered tribe does not follow the calendar. They open the concert season informally anytime between the first and the fifteenth. Everybody welcomes them. Even the house cat is pleased. Bird lovers do not like cats and the owners of the felines do not care much about birds, a situation responsible in many instances for enmity between neighbors and not infrequently the cause of minor law suits, and life long hatred.

In recent years bird lovers have increased and Audubon clubs are now common in most cities. Bird pools and bird houses have become a part of the landscaping of nearly every yard, even though it be a small one.

If you want birds for your door yard visitors show them that they are welcome and encourage them to become familiar by providing them with bird houses, baths and material for nest building.

A Crock Will Do

If you do not want an ornate bath keep a crock of water in the yard. Anyone can build a bird house, or they can be purchased at a small price. Bits of string, narrow strips of muslin, hair, etc., left in the yard will be greedily carried away for nests. Some of the best known song birds will thus be encouraged to make their summer home near by you. Among them the blue bird, robin and wren.

Of course there are birds which we all know about in a way that must have shrubbery for nesting but this is a part of most yards and they will find a place.

The organization of Audubon Clubs has done a vast amount of good in bringing back to us the familiar birds, despite the rapid growth of the cities.

Mechanical Marvels

Bird students bring to attention some of the mechanical marvels achieved by the feathered tribe in nest building. Few human eyes find these bird habitations while trees are in leaf. When the fall and winter winds bare the limbs and twigs of tree and shrub we are surprised to find nests in trees in the yard or perhaps in shrubs growing at our very doors. Deft as flexible human fingers are they are awkward and incapable of doing what the birds do in nest building with the inflexible twin horns of their beaks.

Some unknown mysterious instinct gives to birds a skill beyond man's superior intelligence of originating or duplicating.

The tiny humming bird builds its nest of milkweed in shrubs in the door yard, veneering it with green lichens so adroitly that even when trees and shrubs are bare the nest is likely to escape detection.

An Oriole's hammock-like nest in an elm tree is so staunchly built that it hangs through two or three years.

The familiar robin's nest in a lilac bush, although mud lined, will withstand a winter's storms. The intricate interweaving of grasses and twigs carefully cemented baffles us in trying to take it apart and reconstruct it. Even though one possessed the ability to do this it could not be done so as to withstand for a day the wrecking influence of storm and wind.

"We may solve the mystery of flight," says a writer, "but birds still possess gifts which we do not understand, and this recalls that—

"God moves in a mysterious way
His wonders to perform."

SMALL TOWN WATERWORKS

Many Towns of Less Than 300 Have Very Good Systems.

Talking with the representative of a magazine of national distribution, he was surprised to know that towns of 200 or less had waterworks. His idea that distribution of water was confined to cities not smaller than 5,000 or 6,000 inhabitants. This seems to be a common impression among persons unfamiliar with the trend of the industry.

The state of Kansas alone has seventeen cities of less than 300 population having water systems.

The smallest of these is Manter with a population of only 148, but has a new water system which cost \$7,500.

This is what you would call enterprise and also modernism. If every one in the little city, however, contributed \$50.67 the cost of the plant was covered.

Such improvements as this, electric lights, radios, milking machines, etc., indicate the trend of rural life, now rapidly approaching all comforts and conveniences of the city dweller.

HEART DISEASE CURE



Clare—Say, Tom, don't you know smoking slows down the action of the heart.

Tom—You bet, that's why I call to see you—to get it started again.

MANUFACTURING PROBLEMS

Changes in Machinery and Processes Bring Many Annoying Complications.

Those not engaged in manufacturing have little or no conception of the difficulties encountered in this era of changing conditions and methods. Naturally in a big plant machinery is always wearing out and needs replacing. This of itself makes a never ending expense against the business. Not infrequently a machine becomes obsolete before it has given anything like the service for which it is installed. A new or better machine or a new or better method may make it a bunch of junk over night. In a radio address recently Dr. Julius Klein, assistant secretary of commerce, gave some illuminating facts on this subject. He said:

"American ingenuity, American far-sightedness, can win smashing and conclusive victories over this menace of obsolescence," he added.

A sweeping change may be near in machine tools, said Dr. Klein, telling of the introduction some years ago of tungsten steel which he said, made obsolete most of the machine shop equipment then existing in this country.

"Recently, however," he stated, "new cutting materials have appeared which may repeat this situation through the introduction of tungsten carbide. Technicians can not say definitely as yet whether its reaction will be serious—but at least we have the threat."

Speaking of revolutionary changes of the past, Dr. Klein said: "A well-known American company recently built three factories for one of its products. Before any one of these plants turned a wheel, they were rendered useless through the development of a new process."

MORE TAXES

Some day law makers will run out of things to tax, but not soon. The latest tax is proposed by a New Jersey legislator who proposes to put a tax of 5c per square foot on bill board advertising. Other restrictions are proposed. There is an annual license fee of \$500. Any company outside of the state must post a bond of \$1000 to guarantee observance of the regulations. Bill boards or other advertising devices are to be prohibited within 500 feet of highway intersections.

Needless to say that the advertising company will not pay the tax—the consumer as per usual will be the goat.

MUELLER SERVICE BOXES REPAIR LIDS

Mueller service box lids will make your service boxes good as new. Fit either old or new type Buffalo service boxes. When you attach a Mueller repair lid it is there to stay.

Coal of Vegetable Origin

All coal is an impure form of the chemical element known as carbon, and is supposed to be of vegetable origin.

BUSINESS

It's bound to be good. From all parts of the country come reports of big corporations having planned the expenditures of hundreds of millions of dollars in extensions, betterments and additions. Back of these come state and municipal governments ready to loosen the purse strings for public improvements and then the building programs of private citizens. It's been a long hard winter which hesitates to release its grasp. But spring is only a few weeks distant and then industry of all kinds will begin to hum. The following verse tells you how to help:

Be Ready!

Though business, right now, may be just a bit slack,
The days of good business are sure to come back!
But whining and growling at things that are wrong,
And spreading dark rumors, won't help things along.
It's no time for quitters, whose courage is slight,
But action is needed—and fighters who'll fight.
And those who are twiddling their thumbs while they wait
For times to get better—will lose—sure as fate!

For while they are waiting for bright sunny skies—

The fellow of action runs off with the prize.
So, be like the sprinter who's ready to run—
All ready to leap, with the crack of the gun!
Look over your factory, for ways and for means

To better your product—with men and machines.
And then when the clouds begin breaking apart,
Be not merely planning—be ready to start!

Have faith in the future—and what YOU can do—

Have faith in your business, and stick to it, too!

Have faith in the country,—your country and mine,

In all of her crises, be in the front line!

And, too, as you struggle for glory, or pelf—
Hold tightly, forever, to faith in yourself!

So, face not the future, with worry and dread—

Get busy, get ready—good days are ahead!

C. S. Kinnison,

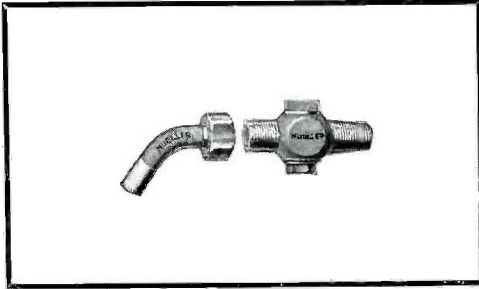
From Fuels & Furnaces, Jan. 1930.

Biggest Rodent

The South American capybara is the largest rodent in the world. It sometimes attains the weight of 150 pounds.

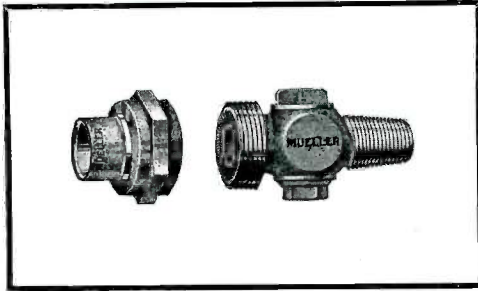
Peru Grows Everything.

Peru has such a diversity of elevations and climatic peculiarities as to be able to grow almost any product that is known to man.



G-10001 Corporation Stop for
Mueller Machines. Mueller
C S thread inlet.

Distinguished service - - -



G-10002 Corporation Stop for
Mueller Machines. Mueller
C S thread inlet.

A corporation stop performs a very distinguished service. It is obvious that, to meet the demands made upon them that a stop must possess three qualifications, high quality metal, accurate machining, and keys that function perfectly. Mueller Corporation Stops fulfill all three. With a foundation of laboratory controlled metal, accurate machining and perfectly ground keys complete the perfect Mueller Corporation Stop.

MUELLER CO., Decatur, Ill.

[Established 1857]

Canadian Factory: MUELLER, Ltd., Sarnia, Ont.

Branches: New York Los Angeles San Francisco Dallas Atlanta



The Hon. Victor J. Miller,
mayor of St. Louis.

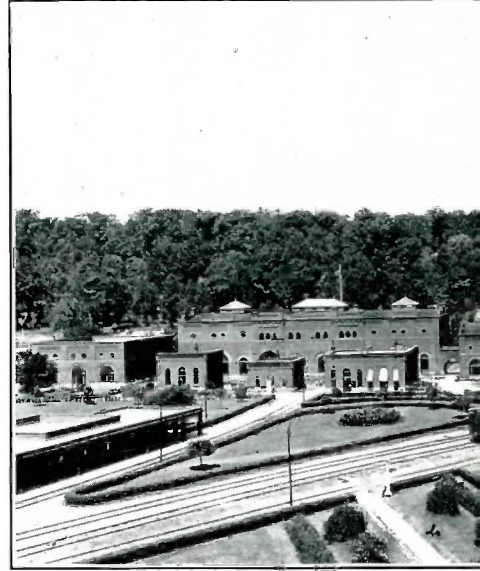
ST. LOUIS WATER WORKS

The annual convention of the American Water Works Association will be held in St. Louis, June 2-6, 1930.

This convention will bring together the men devoted to the water works industry which includes managers, owners, superintendents, hydraulic engineers, college professors, technical and practical men and manufacturers of appliances—the very best there is in brains directing the most vitally important industry in the United States. It is only through the control and distribution of water that industry and the people of the United States occupy their position of pre-eminence among nations. This is not an extravagant statement. Without water works there could be no great centers of population such as St. Louis, Chicago, New York, Los Angeles, or even medium sized cities and towns. Neither could the gigantic industries operate efficiently. Production, as we know it today, would be impossible. Without water works we would slip back to the days of the well and cistern and the pump. Disease and epidemics would ravage the country. We would live—or more likely die like flies—under conditions which would be little better than the dark ages. Familiarity breeds contempt or dulls the sense of appreciation which is the reason why the average person fails to grasp the potential significance of water works.

The Spirit of St. Louis

It is appropriate that this meeting should be held in St. Louis, just entering the second hundred years of water works history. The progress of this staunch old metropolis stands out clearly and distinctly in the history of American cities. It was a small town when the first water works was authorized on September 27, 1829, but it was even then an important city—the gateway through which flowed the endless exodus of migrating pioneers to the unoccupied empire of the west. It was the "big city" of the Mississippi Valley, the seat



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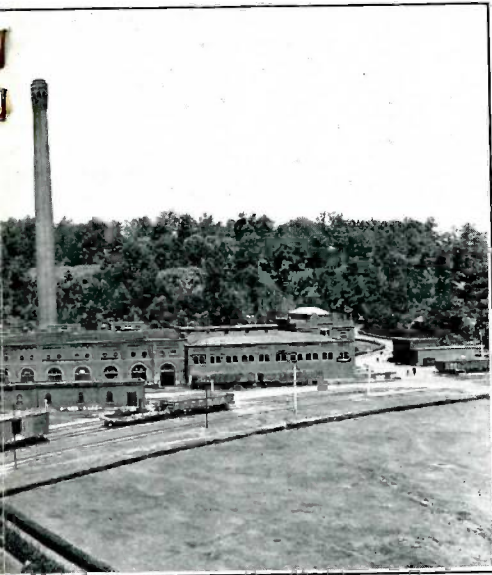
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WORKS INTERESTING TO MEMBERS OF AMERICAN W. W. ASSOCIATION



Leonard A. Day, Water Commissioner of St. Louis.



of wealth and culture and a city of great commercial importance as it remains today. "The Spirit of St. Louis" even then was manifested in the hopes and ambitions of its residents. The story of the growth of the water works is marked with trial and tribulation, disappointments and financial difficulty. But the march has always been forward and upward until today the city offers to the visiting members of the American Water Works Association, a system which stands high in the world of achievement.

First Franchise

On September 27, 1829, John C. Wilson and Abraham Fox were given a 25 year franchise for a water works with a bonus of \$3,000. The ground for the engine house was purchased from the government. As the work progressed Mayor Page gave his personal note for \$2,309 for pipe. Wilson and Fox were good mechanics but lacked capital, and during the first few years expenses greatly exceeded the receipts. The first water was turned into the mains in 1831. The interests of Messrs. Fox and Wilson were purchased by the city in

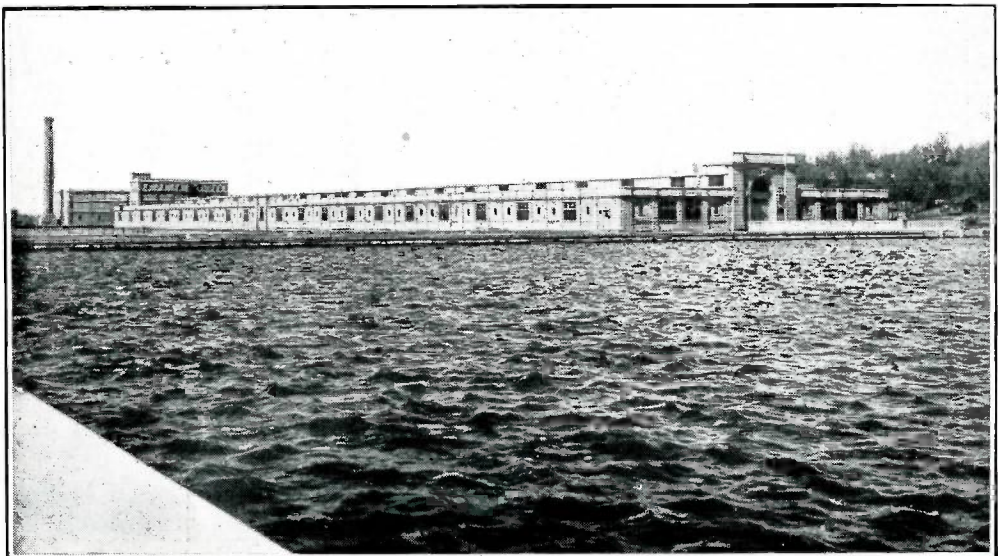
1835 and up to that time the cost had been \$54,294.01 but from this point the development was more rapid and regular, although many readjustments and changes in financial policy were necessary.

A history of the water works has been compiled by Thomas E. Flaherty covering the period from 1829 to 1868. Mr. Flaherty's chief source of information was a manuscript of Thomas J. Whitman who was chief engineer from 1867 to 1876. Reading through this history one finds many things which are amusing in the light of the present highly developed water works practice.

The builders of the pumping engines gave their products such high sounding names as the "Ajax", and "Hercules" and they seemed worthy of the names, the latter having been



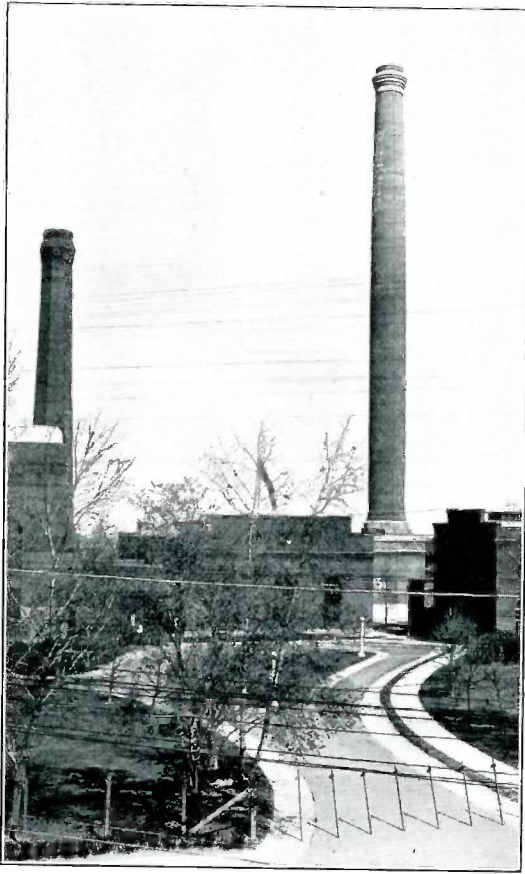
Thomas J. Skinker, Engineer in Charge of Distribution, St. Louis, Mo.



Center—Pump and beautiful Chain of St. Louis.

Left—Interior of Pump at Chain of St. Louis.

Right—Exterior of Pump at Chain of St. Louis.



Pumping Station at Baden

installed in 1852 and not dismantled until 1875.

The storage system, considered good in that day would not be countenanced now.

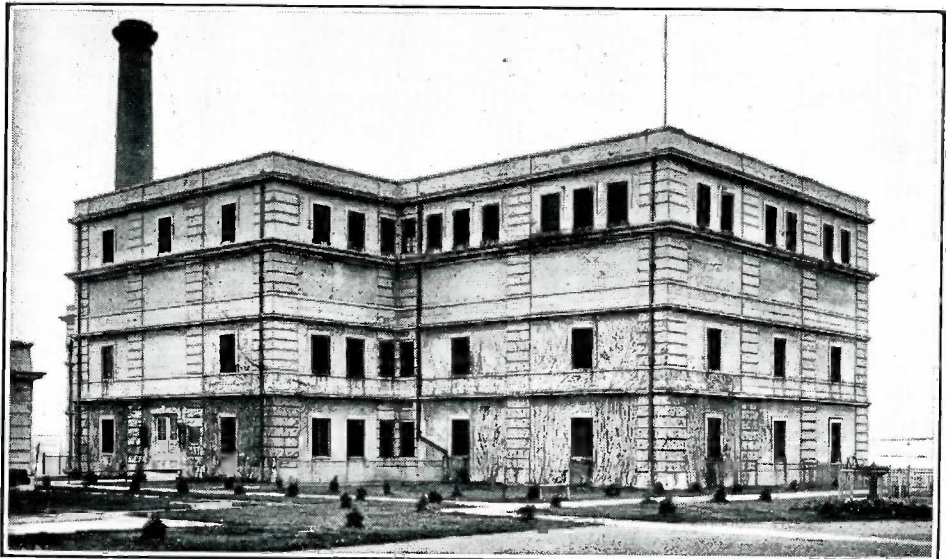
Describing the first reservoir built, we read:

"The pump delivered the water through a six-inch cast iron main into a reservoir situated at the corner of Bates and Collins Streets. This was the first reservoir used in St. Louis for the storage and distribution of water. It was constructed partly in excavation and partly in embankment. The bottom was paved with brick laid on a floor of thick plank, tongued and grooved, driven together, and fastened to sills. The main walls were of stone masonry lined with brick. The dimensions of the reservoir were 62 by 55 feet, the depth of water to be 15 feet, giving a capacity of about 350,000 gallons. The elevation of the high water line was 90 feet above the city directrix."

For many years the work of supplying water, plumbing to private house, street services, etc., was handled by the city. This practice was discontinued in 1847. At one time the city manufactured the lead in making these attachments.

Superintendent Got \$800

The first superintendent of the water works was Abraham Fox, who had originally been given the franchise. He was elected by the city council in 1832 at a salary of \$800 a year.



Head House at Chain of Rocks

The location of the first engine house was at the foot of Smith Street. The water in those days was pumped into the reservoir direct from the river with the result that sediment occasioned a great deal of trouble. In 1867 this sediment had reached a depth of 20 feet. Mr. Whitman recommended the use of a dredge to get rid of this, but the plan was only moderately successful, although thousands of yards of sediment was removed.

It is not surprising but it is interesting to know that the St. Louis Water Works became entangled in the meshes of the Civil War. The summer of 1861 work was commenced by the United States government on the western corner of the reservoir embankment in preparation of mounting artillery there. A remonstrance by city authorities caused the government to suspend this undertaking.

In 1862, General Scofield, commander of the department, removed Daniel H. Donovan as superintendent of the works. No reason is given in the history for this action, but one might draw his own conclusions. Willis R. Pritchard succeeded to the superintendency and remained in charge until 1871.

The Second Stage

The second stage of development of the St. Louis Water Works dates back to 1863 when the Missouri legislature passed a law enabling the city to extend the service. Under this law the council authorized the board of water commissioners. This was in 1863. The commissioners organized in 1865, and named James P. Kirkwood as chief engineer of the new water works.

In that year the chief engineer was instructed to make a survey with a view to

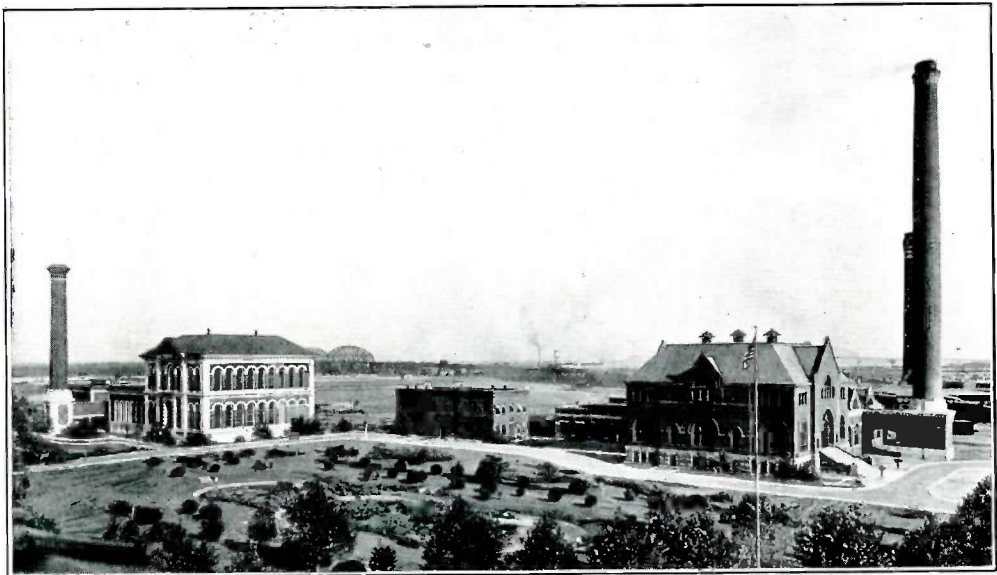
establishing the plant at the Chain of Rocks, five and one-half miles above the north city line. The plan worked out by Mr. Kirkwood was approved by the commissioners, but rejected by the council, which conducted its own survey and ended in recommending the plant be located at Bissell's point. Mr. Kirkwood resigned and Thomas J. Whitman was named his successor. Mr. Whitman had felt that Mr. Kirkwood's selection of the Chain of Rocks was correct, but the imperative need of water left no time for further investigation. The city engineer assured him that if the plant were located at the chain the city would be out of water because of a diversion of the water which had been undertaken at this point. Mr. Whitman says: "To my mind this settled the question. Without money enough to go to the chain we could not go higher than Bissell's Point, so that there was but one thing to do."

After 63 Years

At about this time the proposition of a plant on the Missouri river was discussed also.

In his interesting annotations, Mr. Flaherty speaking of Mr. Kirkwood's espousal of the Chain of Rocks locations says: "His locations were substantially the same as those finally adopted for the works (1924) except that the higher service station is about seven-eighths of a mile further south and the stand pipe three miles further south," and "finally after 63 years the proposal to pump water from the Missouri river at a point near St. Charles will be realized through a bond issue of \$12,000,000 for water works on the Missouri River."

(Continued on Page 24)



Pumping Station at Bissell's Point.

New St. Louis Water Works

By Leonard R. Day, Water Commissioner, St. Louis

As far back as 1911 the Water Commissioner of the City of St. Louis called attention to the steadily increasing demand for water and from this time on preliminary surveys, estimates and investigations were made from time to time by the Water Department's engineers with a view of building a new plant. After exhaustively investigating all feasible plans for extension a decision was finally made to locate the new plant on the Missouri River, at a point called Howard Bend, 37 miles above the mouth of the river and 20 miles on an airline from the Court House.

Twelve Million Bond Issue

On February 9, 1923, the citizens of the City of St. Louis, by a large majority, voted for the approval of a request for a \$12,000,000.00 bond issue to cover the cost of building a new water works. This being accomplished the engineering organization of the department immediately set about to prepare detailed plans and specifications and with this came the award of contracts. The first contract was for the improvement of the river, then followed, in rapid succession, contracts for roads, buildings, etc. The plant was started in February, 1929, and after a considerable amount of tuning up, in May, 1929, it was finally put in continuous service, approximately five years after the first contract was let.

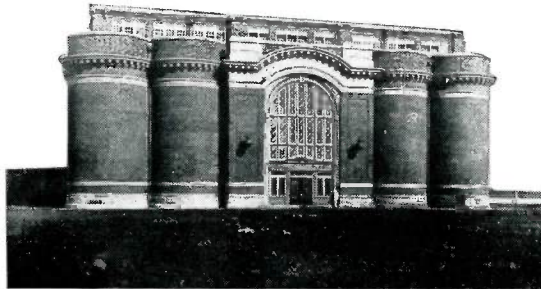
Fifty-five Million Daily

The new plant is capable of producing and delivering to the city mains 55,000,000 gallons per day of safe drinking water. It comprises a shore intake,

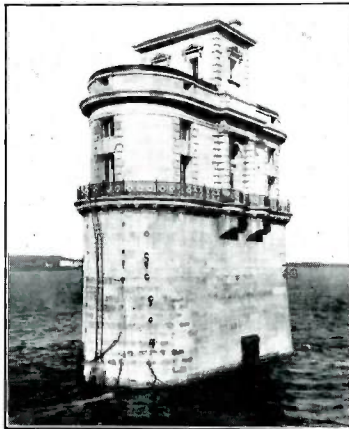
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The West Intake at Chain of Rocks



The Coagulant House at Chain of Rocks



The East Intake at Chain of Rocks.

equipped with traveling screens and built into the channel of the Missouri River, the channel being confined by hurdle dikes and revetments above and below the intake; a low service pump pit and house built integral with the intake; a high service pump pit and station house, the house adjoining the low service house and the pits connected by tunnel; a boiler house connected by an inclined belt conveyor to a coal receiving and crushing station; a 275 foot chimney of 13 foot bore, and housing in its base a carbon dioxide plant; four 150 foot settling basins provided with mechanical means of continuously removing sludge therefrom; two sludge pump houses; a coagulant house for the storage of chemicals and for their preparation for admixture with the water; mixing conduits and reaction chambers; two large coagulation-sedimentation basins; a carbonating chamber; filter plant; head house and chemical laboratory; covered clear water basin; and the 100,000,000 gallon covered storage reservoir at Stacy Park.

Besides these obvious units, are two 36 inch trunk sewers; concrete conduits an dipping connecting various units; the 60 inch steel pipe line from the plant to the city; a steam heating tunnel; a manifold chamber and the railroad switch track with three spurs. The plant site comprises 194.57 acres and the adjoining park between Olive Street Road and the Rock Island tracks, 50 acres. A 150 foot right of way is owned between the plant and the reservoir,

(Continued on Page 25)

MAW AND PAW



Time Alters

Bachelor—Does your wife treat you the same as she did before you were married?

Married Man—Not exactly. Before we were married, when I displeased her, she refused to speak to me!

Knew His Lines

"Did you give the man the third degree?" asked the police officer.

"Yes, we browbeat him, and badgered him with every question we could possibly think of."

"What did he do?"

"He dozed off and merely said now and then, 'yes, my dear, you are perfectly right.'"

The Better Half

"I call my wife my 'better half'."

"Why?"

"Because she's always saying, 'You better half that tire patched' and 'You better half your tooth fixed' and 'You better half this' and 'You better half that'."

Oversupply

"I hear you advertised for a wife. Any replies?"

"Yes. Hundreds."

"Good! What did they say?"

"Oh, they all said, 'You can have mine.'"

—Leicester Chronicle.

Knew Better

Simpson—These reporters tell awful fibs.

Sampson—What do you mean?

Simpson—One of them interviewed my wife and said that she had nothing to say.

Expert Switching

Head of the House (in angry tone)—Who told you to put that paper on the wall?

Decorator—Your wife, sir.

Head of the House (mildly)—Pretty, isn't it?—Capper's Farmer.

That's Our Guess, Too!

Woman—I was to have met my husband here two hours ago; have you seen him?

Shopwalker—Possibly, madam. Anything distinctive about him?

Woman—Yes, I imagine he's purple by this time.

Can You Name The Winner?

Peddler—I wish to see the head of the house.

Maid—You'll have to wait a minute—the Mr. and Mrs. are trying to decide it.

No Wrap—No Darn

Hubby found some holes in his stockings. "You haven't mended these," he said to his wife.

"Did you buy that coat you promised me?"

"No—no."

"Well, if you don't give a wrap, I don't give a darn."

Perpetual Motion

Judge—Why didn't you speak to your wife for a whole year?

Prisoner—I didn't want to interrupt her.

Poor Shot

Hubby—I miss the old cuspidor since it's gone.

Wifey—You missed it before—that was the trouble.

Shot Gun Courtesy

Bang! Bang! Then up pops a man in the blind.

"Say," he yells, "you almost shot my wife."

"Well," says the hunter, "to show you there are no hard feelings, you can take a shot at mine."

Good Waiter

"My wife will never go to bed before two o'clock in the morning—I can't break her of the habit."

"What does she do all the time?"

"Waits up for me."

Just Like Father

"Mother," asked the little boy, "when the fire goes out where does it go?"

"I don't know, dear," answered the Mother, "you might as well ask me where your Father goes when he goes out."

Such Dirt

1st Mother—Do you know I have the time of my life keeping dirt out of my children's ears.

2nd Mother—It's just the same with me. My husband doesn't seem to care what he says in front of the children.

In 1909 a Frenchman made the first flight across the English channel in a monoplane.

Gas and Its Uses

DALLAS OFFICE OPENS

Offices of the Natural Gas Department of the American Gas Association, recently transferred from Pittsburgh, have been re-opened by E. J. Stephany, secretary, at Dallas, Texas. The department's address now is 724 Allen Building, Dallas.

CROSSING THE HUDSON

An 8 Inch Gas Main Connects Gas Plants on Opposite Banks.

A fine bit of engineering and construction work was completed recently when the Central Hudson Gas Company, Poughkeepsie, N. Y., crossed the Hudson river with a mile of Oxwelded 8" high pressure main. This improvement ties together three plants of the company and provides for extension of service to several new communities. Two of the company's plants are on the same side of the river and connecting them presented no unusual obstacles. It was in laying a mile of 8" pipe on the bed of the Hudson river that taxed the ingenuity of the engineers and the construction company, but the task was accomplished. The actual laying of the line was completed in 11 days despite storms and rough water. The careful planning and the method of doing the work form the most interesting part of the job. A car ferry 280 feet long was used as a work shop where all preliminaries were completed. Two forty-foot lengths of extra heavy pipe were welded together to make an 80 foot length. At every joint a sleeve of 9" pipe 36" long was carefully welded on, giving additional protection to the joints. All joints were tested. There were some 72 eighty foot lengths of pipe when all this work was finished. Many special devices had to be worked out for handling and lowering the lengths when finally made into a complete line. pontoons were used to keep the line from sinking too rapidly. When it at last rested on the bottom divers using hydraulic jets cut a channel for the pipe at points where there were abrupt changes in the river bed, particularly near the shores and at the sides of the dredged navigation channel. The completed river crossing was tested by applying 150 lbs. per square inch pressure, and requiring the line to hold this pressure for 12 hours without loss being shown on a recording gauge attached to the line. This crossing furnishes additional evidence of the value of procedure control in solving difficult welding problems.

Atlanta, Ga., now has natural gas. It reached there January 21 from the Monroe

and Richland fields in northeastern Louisiana. The event was fittingly celebrated by officials and business men of Atlanta. J. H. White, president of the Southern Natural Gas corporation opened the valve for flowing out the last section of the inter-state transmission line which has been constructed from Louisiana, through Mississippi, the Birmingham, Alabama district to Atlanta. It is one of the longest single high pressure natural gas transmission lines in the world.

Including branch and feeder lines the Southern Natural Gas Corporation's system will comprise over 900 miles of pipe line, and for the first time will make natural gas available for domestic and industrial consumption in many of the most important sections of the industrial southeast. The cost of the initial system exceeded \$25,000,000.

THE FIRST GAS HOLDER

After 121 years the first gas holder ever built still stands at Smethwick, England. It was erected in 1808 by William Murdock, the founder of the manufactured gas industry. He died in 1839. A bronze memorial tablet to his memory was recently unveiled by the present gas company. The American Gas Association Monthly is authority for the statement that the first gas company in America was established at Baltimore in 1816 and the second at New York City in 1823, which should be accepted as correct although the claim has been made that the first gas company was instituted in Philadelphia.

AT NEW ORLEANS

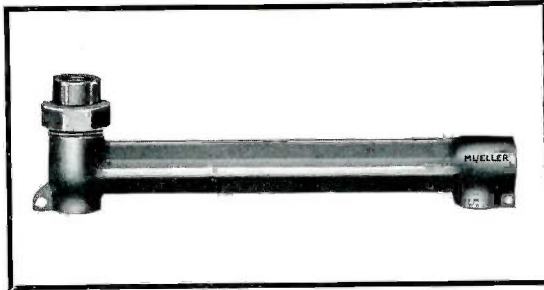
The annual convention of the Natural Gas Department of the American Gas Association will be held in New Orleans, May 5-8.

While this convention will be known as "The Western Natural Gas Convention" it will be open to all natural gas men in the country. The program will feature outstanding problems and subjects of interest to the Natural Gas Industry, but there will be no exhibit of appliances. The headquarters will be at the Roosevelt Hotel. A program committee has been named consisting of: N. C. McGowan, Shreveport, La.; H. L. Montgomery, Bartlesville, Okla.; T. J. Strickler, Kansas City, Mo.; L. Fitzpatrick, Salt Lake City, Utah; George Wehrle, Denver, Colo.; W. A. Dunkley, Memphis, Tenn.; A. E. Merchant, New Orleans, La.; A. C. Howard, Houston, Texas; F. L. Chase, Dallas, Texas.

Speaking of the extension of natural gas lines from Texas to far distant points, W. F. Hardy, of the Decatur Daily Herald, says editorially:

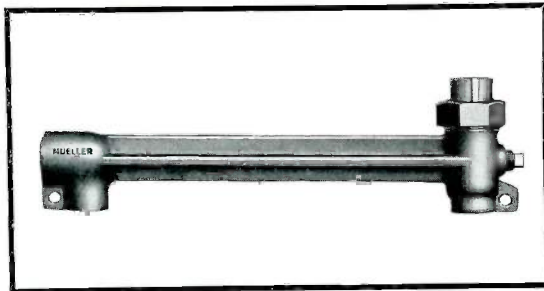
"The time when millions of feet of natural gas was permitted to go to waste every day in Texas fields, because there was no large consumption demand near, is at an end. All

(Continued on Page 30)



G-11211 Rigid Bar
Meter Hanger with
end inlet and top
Brass to iron union
outlet—with test plug.

TRADITION —



G-11250 Rigid Bar
Meter Hanger with
end inlet with lock
wing stop and top
union outlet.

One of the outstanding policies of this company, in the manufacture of its products is the careful consideration given the problems of its customers. Consequently, during their 72 years of close contact with the gas companies of the United States and Canada the problems relating to meter installation have been reviewed many times and it has become a tradition among Mueller employees to uphold that 72 year old reputation of sincere customer cooperation.

We offer you the Mueller Meter Connection as our contribution to the accurate and efficient hanging of the gas meter.

MUELLER CO., Decatur, Ill.

[Established 1857]

Canadian Factory: MUELLER, Ltd., Sarnia, Ont.

Branches: New York Los Angeles San Francisco Dallas Atlanta

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and a 100 foot right of way between the reservoir and the city.

Employees working three 8-hour shifts are transported to and from the north and central districts of the city by three large highway motor busses owned by the department.

Attractive Buildings

The group of nine buildings and the chimney at the new plant are all unusually attractive structures of monumental type which cannot fail to arrest the attention of the visitor. They are built of native lime stone, rubble masonry, the style of work being known to the craft as "pitched-face broken ashlar at random," laid with one inch beds of cement mortar and pointed up to inch and a quarter with white Medusa cement. The drab monotony of many limestone buildings has been happily avoided by the purposed use of stone from three or four quarries, showing decidedly different but harmonious colors, ranging from white and gray through blue to yellow and brown. Window arches, sills, copings, cornices and quoins are of Bedford cut stone, and the base course is of gray granite cut stone. Metal frames and sash are used throughout. A classic Roman type of architecture is employed in every case, the Roman motif being particularly evident in the boiler house and high and low service pump buildings, where large, high, round arched windows are used. The coagulant house, boiler house, coal receiving house and low service pump buildings have standard gauge railroad track entering through large openings equipped with electrically operated rolling steel doors.

Steel and Concrete

The coagulant house and filter plant have concrete skeletons, the boiler house and pump house skeletons are of steel, but the other buildings being small structures are of the simple unframed type. All foundations are of reinforced concrete, resting on precast square concrete piles, varying in length from 25 to 75 feet, the longer ones being driven to rock. Because of the sandy nature of the soil most of these longer ones were driven with the aid of a water-jet. The intake and low service pit, the high service pit and all the basin walls are enclosed by steel curtain walls of sheet steel piling. In general, the interiors of the building are lined with gray enameled brick, to ensure good light and cleanliness and yet not be glaring to the eyes. The interior trim around windows and pilasters in buff colored, floors are variously of ceramic tile, rubber tile, terrazzo, cement and asphalt. Excellent illumination of the semi-indirect and Holophane types is provided, and the main entrances to all buildings have heavy ornamental bronze lighting fixtures bracketed to the walls.

The Heating System

Every building on the ground is heated by thermostatically controlled steam radiators

with vacuum return, steam at 35 pounds pressure being bled from the turbines driving the generators and piped through a tunnel and trenches interconnecting the various buildings. The total radiation for the entire plant is 34,000 square feet. One hundred and eighty-four electric motors ranging in size from 1/100 H.P. chronometer motors to 100 H.P. boiler feed pump motors, totaling 1200 H.P., are actually connected to the power lines from the generators in the engine house. Twenty inter-communicating telephones and ten electric clocks, controlled by a master clock, are installed through the several buildings. The whole plant is replete with automatic indicating and recording devices intended to render operation almost fool-proof, and no useful safety or precautionary appliances have been omitted.

The chimney has a square Bedford cut stone base up to the entrance way of the breeching, above which the exterior material is buff brick and of circular section.

All basins, reservoir, conduits and tunnels are constructed of reinforced concrete. All sluice gates of greater area than 6 square feet are either electrically or hydraulically operated.

New and Unusual Materials

Many new and unusual materials and devices have found employment in this wonderfully modern plant, such as evaporators for boiler feed water, new check valves in the discharge lines of high service pumps, acromium nickel-steel valves, furnace air preheaters, flue gas for carbonating water before filtering, mechanical basin cleaners, lead-lined pipes, valves and tanks, synchronous motor chronometers, pneumatic chemical conveyors, sink traps, chromium plated hardware and plumbing fixtures, rubber tile floors, electric refrigerators, hard rubber pipe, lead covered sheet metal, Monel metal, barborundum brick and many others of equal interest.

The grounds around the plant have been converted into a beautiful park, with trees, shrubs, sunken gardens, lagoons and roadways, and an outdoor lighting system.

A NIMBLE WIT

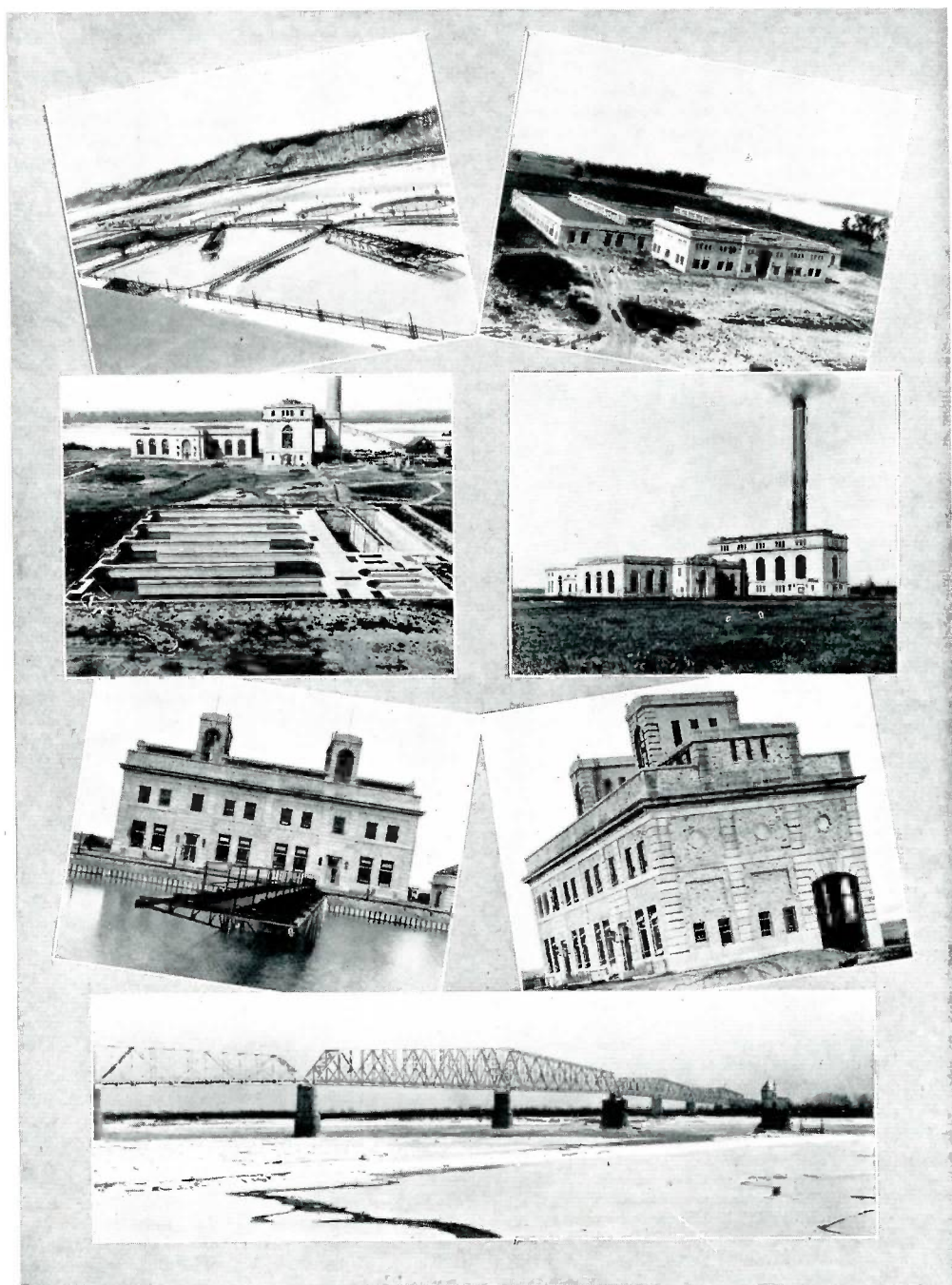
The M. K. & T. Employes' Magazine for March publishes the best joke of the month, with credit to Miss Leola Lyons, of the accounting department at Dallas, Texas. It follows:

"Everybody's heard the story of how Lot's wife turned to a pillar of salt. Well, the age of miracles isn't past.

The other day Leon Woods and Manuel Stone were talking on the corner of Akard and Main, when a beautiful girl passed. The result was miraculous! Stone turned to Wood, Wood turned to Stone—and they both turned to Rubber!"

Escape from Death Penalty

A man on his way to execution in Arabia is safe from punishment if he can lay hands on the skirts of a woman.



Upper Left—View of secondary sedimentation, pre-sedimentation and primary coagulation basins, taken from the Coagulation House, looking south. Upper Right—View of Filter Plant. Center Left—View of secondary Coagulation and Carbon Dioxide Basin, taken from Coagulant House looking north. Center Right—View of Engine House, Boiler House and Chimney. Lower Left—View of Coagulant House. Sludge Pump House to right. Dorr Clarifier mechanism in Secondary Sedimentation Basin. Lower Right—Coagulant House; chemicals are stored and prepared for treatment of raw water in this building. Lower Panel—View of Chain of Rocks Bridge. East and West intakes just above the Chain of Rocks Water Works. This is St. Louis' newest bridge opened to traffic last fall.

(Continued from Page 26)

natural gas found in the future will be profitably used, though it be in cities hundreds of miles from the wells.

Nor is the transportation of natural gas the only possibility of the new distribution method. Anybody can see the economic waste involved in hauling gas coal from Kentucky to Decatur, and oil from Texas, and here converting the heavy raw materials into a finished product lighter than air. The thrifty manner in which to conduct such a business naturally would be, to use the raw materials near the point of their origin, and transport the light finished product, which can be sent hundreds of miles through pipes at trifling cost.

Dwellers in villages and even on farms have an interest in this development, no less than that of the cities. This is for the reason that long-distance transportation of gas has one great advantage over the electric transmission systems. A high-tension electric transmission line can be tapped, for local service, only by the use of a sub-station costing from \$25,000 to \$75,000. In order to connect a village or a farm home with a cross-country gas line, nothing more is needed than a pressure-reducing valve, costing a few dollars.

Thanks to the recent technical advances in this field, there is reason to hope that gas fuel in the near future will be produced upon a far larger scale, will be more widely distributed, and at a lower cost. It is a development devoutly to be wished for."

Mr. James Robertson of San Jose, California, sends us copy of papers describing a big explosion of natural gas at Santa Clara. Four persons were seriously burned and injured while the Mead Jewelry Store and adjacent buildings were wrecked. Among these were Floyd Rankin, who hunted for the leak with matches. He found it, but his success in locating a gas leak proved disastrous and expensive.

COMPETITION IS KEEN

Big Steamship Companies in Race for Supremacy—Queens of the Sea.

Super-Transatlantic liners is the ambition of the big companies at the present time. European travel fell off after the war for several years. More recently it has come back stronger than ever, increasing in volume every year. It used to mean something when a person proudly announced that he was making a trip to New York City. It does not mean much more now than local travel, and a European trip no longer causes one to marvel at the daring tourist. The race now between steamship companies is for speed with increased comfort and luxury.

Big liners are being built in several different countries.

Two competing Italian companies have each ordered vessels of 47,000 tons with a speed of 27 to 28 knots per hour.

The French line is planning a 50,000 ton liner—over 6,000 tons larger than any present French liner.

The Cunard line is not to be outdone. Plans are forming for a gigantic liner of 75,000 tons. This proposed ship is to be 1,000 feet long, while the Canadian Pacific is building the Empress of Great Britain, a 45,000 ton ship.

The United States does not appear to be so strong on size but is looking for speed and orders have been placed for 6 vessels of 36,000 tons which are expected to make the crossing in four days.

Speed supremacy of the sea is as old as the sea itself. The honor has been most frequently divided between England and Germany.

In passenger carrying ships records have been broken from the first steamship. England set the first notable record, under nine days, when the Scotia, a little boat of 4,000 tons, crossed in 8 days, 2 hours and 48 minutes. This was considered a marvelous achievement and was. The smallness of the ship, the kind and character of its engines and machinery still stamp the trip in the time mentioned as a remarkable performance. Those who today board any one of the great liners with the best and most modern machinery, with every equipment for service equalling high class hotels, would think twice, or be urged by extreme necessity, before they would set foot on board a vessel like the Scotia.

Since that the more important Atlantic ocean records are:

City of Brussels, 1869—7 days, 22 hrs. 3 min.

Baltic, 1873—7 days, 20 hrs., 9 min.

City of Berlin, 1875—7 days, 15 hrs., 48 min.

Arizona, 1880—7 days, 7 hrs., 23 min.

Alaska, 1882—6 days, 18 hrs., 37 min.

Etouria, 1888—6 days, 1 hr., 55 min.

Majestic, 1891—5 days, 18 hrs., 8 min.

Lucania, 1894—5 days, 7 hrs., 23 min.

Lusitania, 1908—4 days, 15 hrs.

Muratania, 1910—4 days, 10 hrs., 41 min.

The above records were between Queens-town and New York. Distance 2,780 nautical miles.

Then along came the Bremen in 1929 and smashed all records both ways, Cherbourg to New York, 4 days, 17 hours and 42 minutes, and on a return trip 4 days and 14 hours. Distance 3,163 nautical miles.

While foreign ships may have won the majority of speedy trips, don't be downhearted. Take consolation in the fact that the first steamer to cross the Atlantic was the Savannah, 350 tons, built in New York and sailing from Savannah, Ga., May 24, 1819 and reaching Liverpool 26 days later using her side paddle wheels 18 days and sails the remainder of the time.

And don't forget that we've outsailed every cup challenger in a century.

PARTIAL PROGRAM

Important Subjects to be Discussed by Water Works Convention.

The program for the meeting of the American Water Works is only partially completed, we are advised by Mr. F. G. Cunningham, chairman of the program committee. Below is given the list of papers that have been accepted. It relates to the general sessions of the association. At this time there is no information on papers for the Water Purification, Finance and Accounting Divisions. There will be the usual Superintendents' Round Table discussions. The local entertainment features have not been announced, but is quite likely that the visiting members will be enabled to visit the city water works.

The papers mentioned above as having been accepted are as follows:

1. History of Steel Cylinder Reinforced Concrete Pressure Pipe in Europe. Author: Major Peter C. Bullard, District Engineer, U. S. Engineer Office, Duluth, Minnesota.

2. Sand Spun Pipe and Its Methods of Manufacture. Author: Mr. Warren A. Brown, Engineer R. D. Wood & Co., Philadelphia, Pa.

3. Wastefulness and Its Correction in Operation of Pumping Stations. Author: Mr. A. P. Pigman, Mechanical Engineer, American Water Works & Electric Co., New York City.

4. The Advance Planning and Operating Results of Pumping Facilities at Chicago. Author: Mr. Loran D. Gayton, City Engineer, Chicago, Ill.

5. Air Lift Pumps vs. Electrically Driven Pumps for Wells. Author: Prof. C. N. Ward (Daniel W. Mead's Off.).

6. Hydraulics of Deep Wells. Author: The late L. R. Balch.

7. Purification of Highly Turbid Waters. Author: Mr. John D. Fleming, Asst. Chem. Engr., Water Divn., St. Louis, Mo.

8. Training Operating Personnel for Small Purification Works. Author: Prof. J. S. Whitener, Raleigh, N. C.

9. Recent Water Borne Disease Epidemics. Author: Not definitely selected.

10. Private Cross Connections and Similar Menaces to Quality of the General Supply. Author: Mr. Joel I. Connolly, Chief Bureau of San. Engng., Chicago, Ill.

11. Automatic Chlorinator Controlled by Residual Chlorine Content. Author: Representative of Wallace & Tiernan Co.

12. Recent Advances in Water Purifica-

tion. Author: Mr. Abel Wolman, San. Engr., Baltimore, Md.

13. Importance of Good Finance and Accounting Methods in Water Works Practice.

14. Results of Machine Methods of Handling Customers' Accounts. Author: Finance and Accounting Division.

15. The Development of Railway Water Supply Practice. Author: Mr. C. R. Knowles, Supt. Water Service, Illinois Central Railroad, Chicago, Ill.

16. Serious Problems in Fire Protection for Air Ports. Author: Mr. A. C. Hutson, Natl. Bd. of Fire Underwriters, New York City.

17. Diesel Engines as Applied to Water Works Service. Author: Mr. R. D. Hall, Worthington Pump & Machinery Corp., New York, N. Y.

18. Cast Iron Pipe 260 Years Service in Gardens of Versailles, France. Author: Mr. Burt B. Hodgman, New York City.

19. Steel Trunk Lines with Bell and Spigot Joints. Author: Mr. William W. Hurlburt, Water Distribution Engineer, Los Angeles, Calif.

20. The Development of a Water Distribution System for Greater Detroit. Author: Mr. F. H. Stephenson, Engineer of Water System, Detroit, Mich.

21. Disaster Preparedness Plans for Waterworks. Author: Mr. George Pracy, Supt. Spring Valley Water Co., San Francisco, Calif.

22. Obtaining Water Level Readings by Automatic Telephone. Author: Mr. Radcliffe, U. S. Engineer Office, Washington, D. C.



J. A. Hinman, Jr., of Iowa City, Ia., president American Water Works Association



Geo. H. Fenkell of Detroit, V. P. Am. W. Wks. Assn. and nominated to succeed Mr. Hinman as president.

JAILS FOR SALE

If the tariff is not too high, a splendid opportunity is offered to purchase a couple of good substantial jails from England. There seems to be a demand for more and better jails in the United States, and this may be a bargain worth considering.

According to press reports, one of these jails is the "Maidstone Prison" which was formerly used for first offenders under the age of twenty-one years, and "Pentonville Prison," which is of some historical interest because it was the prison where the Irish patriot, Sir Roger Caseman, was shot in 1916.

The same press report says that the English are so law-abiding that the number of British prisons has been reduced by twenty-seven since 1911.

Kelp, a seaweed, has been known to attain the length of 900 feet.

DARKTOWN STUFF



A darky porter on a Pullman was approached by a bridegroom whom he had helped on with his baggage. He said, "Now, George, I've got two dollars here for you. I don't want anybody else on this car to know that we were just married."

"All right, boss, jes' leave it to me."

So the following morning when the mister went into the diner followed by the missus, there was a great craning of necks and the missus started to blush and the mister apparently saw what was taking place. She said: "George, everybody is staring at us. I thought you fixed it up with the porter so nobody would know we have just been married."

He said, "Well, I'll get him."

So he got the porter over in a corner and said, "Say, when we got on here there wasn't anybody but you knew we were married. Now I can tell by the expression on everybody's face that they all know it. You're the man to blame, now."

The porter said, "No boss, you can't blame me 'cause that 'ge man over there with that shepherd's plaid suit on come up and said to me 'Bride and groom over there?' I says, 'No, suh! Those people are not married a-tall!'"

Yes and No

Caddie—Ain't yo' got some shoes up yander in yo' locker yo' don't want? I need some bad.

Golfbug—Maybe so; what size do you wear?

Caddie—Ah donno, sah, 'case Ah ain't never bought none that way, Ah either kin git in 'em, or Ah cain't.

L'il Carbon Copy

L'il pickanniny,

Looks just like his poppy;

Don't know what to call him.

'Less it's Carbon Copy.

Flies After Him

Two colored gentlemen who had just reduced the population of a farmer's hen roost were making a get-away.

"Laws, Mose," gasped Sam, "why you 'spose them flies follows us so close?"

"Keep gallopin', nigger," said Mose, "them ain't flies. Them's buckshot!"—S. O.

Heard The Fall of Rome

Boss—So you remember way back to the Revolution do you?

Sambo—Yassa, De Revolution and gen'l Washington an' all them.

Boss—Perhaps you were a witness of the fall of Rome?

Sambo—Nossa, Ah didn't exactly see it, but ah recollect hearin' somethin' drop."—Exchange.

Less Light, More Liberty

A young colored couple was sitting at the foot of the Statue of Liberty. Henry was holding Mandy's hand.

"Henry," said Mandy, "does you all know why dey has such small lights on the Statue of Liberty?"

"Ah dunno," replied the Ethiopian swain, "unless it's because de less light, de mo' liberty."

One Chance for Mistake

Liza was on the witness stand.

"Are you positive," inquired the prosecutor, "that you know where your husband was on the night this crime was committed?"

"Ef Ah didn'," replied the witness firmly, "den Ah busted a good rollin' pin ovah an innercent man's haid, dat's all!"

LAW AGAINST CHAIN STORES

Nebraska is possibly the first state in the union to attempt restriction of chain stores by law. It would seem a rather difficult thing to do, but in some states there are laws which other states might consider unusual or whose residents had never felt called upon to ask protection against competition. It appears that Nebraska has a law of this character. It prohibits the sale of products in one locality at prices lower than in other localities for the purpose of putting competitors out of business.

It may or may not be applicable to chain stores. It's a question that courts and lawyers will have to solve.

A committee of butchers and grocers of Nebraska have rediscovered this law and have asked the attorney general of the state to bring an action against the chain stores. The attorney general has promised to make an investigation.

Licorice Root

Although more licorice root is extracted in the United States than in any other country, none has been grown here except on an experimental scale.

THE MACHINE AGE

And New Methods of Business Changing Service and Buying Habits

The machine has gone the Piggly-Wiggly style of merchandising one better. At Rye, N. Y., there is a grocery store completely equipped with machines which serve standard goods, make change, and even say "Thank you" or repeat a firm's slogan in a raucous tone. The people seem to like it. The patronage is large and regular. This is said to have been the first automatically operated store in the country. The second has been installed by a large chain cigar store at Bridgeport, Conn. These stores have one virtue to be appreciated. As yet they cannot talk and induce customers to buy more than they need or something they do not want.

Houses to Order

It is now possible to go to at least one company and place an order for a house completely furnished and ready for occupancy on a specified date. All the purchaser has to do is to show title to a building lot.

We do not know where the company got the idea but it does not differ much from Mark Twain's when he built his home at Hartford, Conn. After giving an O. K. to the plans he gave instructions to never mention the house to him again until dinner was served and the billiard room ready for his evening game.

Miniature Plans

The company above referred to has home and grounds laid out in miniature complete even to landscape gardening. The customer selects the model appealing to his fancy, picks his building materials from a large cross section samples, selects rugs, furniture, etc. and then he is done. Should any change be desired in details of construction the company has architects to attend to that. When the house is finished and furnished the buyer moves in and begins his installment payments, hoping of course that he will live long enough to make the last one, and also that the house will endure until that happy day.

Behind all this plan is the sale of furniture in which the company deals.

Something of a roundabout way to sell furniture, but it is claimed the plan is working out successfully.

Beating Euclid

According to some automobile manufacturers, the shortest distance between two points is a straight eight.—Life.

Made the Wheels Go Round

The rotary engine was invented by George Westinghouse at the age of fourteen.

The herring fishery, the most important branch of deep-sea fishing, averages an annual catch of more than 600,000 tons.

THE CHINAMAN'S EGGS

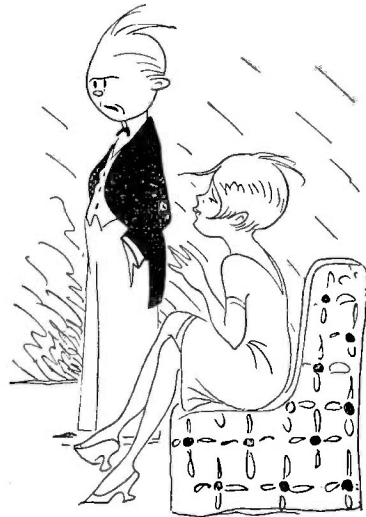
When spring comes on there is always an increase in demand for fresh eggs. To the American these have a more appetizing flavor than at any other season of the year. Just to show the radical difference in gastronomic dainties, the Chinese would probably turn up his nose at fresh eggs which the American so highly prize. The Chinese likes his eggs old and strong. The older the better.

In order to satisfy what we would call a perverted taste, he immerses fresh eggs in a pickle consisting of a thick mixture of lime, salt, lye, and tea leaves. After three months they are drained and coated with a mixture of clay and rice husks. According to the Chinese idea it is still a fresh egg at the end of a year. The yolk has turned a brownish green and is of a pasty consistency. The white is amber color with the consistency of jelly. At ten years of age, when the eggs are considered in prime condition and are most delectable, the yolk and white both are a deep brown. At this age they are reserved for special occasions by those Chinese who are fortunate to have them in stock. They eat these eggs raw, taking a mouthful of egg and a mouthful of pickled ginger. We presume their theory is to let these two fight it out by themselves. We have tried the pickled ginger, but leave the eggs to the Chinaman. These eggs are said to be good after two hundred years. That is, good for Chinese.

Polite Little Person—I'm afraid you're in the wrong seat, sir.

Burly Individual (reassuringly)—You've got nothing to be afraid of, mister, so long as you don't try to move me.

SAME OLD STORY



"Have you had many proposals?"
 "Thousands of 'em."
 "And what did you tell them?"
 "Just what I'm going to tell you."

Beautiful City Halls

In many municipalities city halls are the vogue. Among some beautiful illustrations of this class of public buildings which we have seen is the municipal building in Danville, Va., and in our own state, the beautiful and substantial structure at Alton, Ill. While these buildings are expensive, they add to the beauty of the city and beyond question create lasting favorable impression on visitors. The visitor may forget everything else that he has been brought into contact with in a city, but he is not apt to ever forget beautiful public buildings. In fact, all cities are distinguished and remembered for their public buildings. In this way they become an asset which is invaluable to the community. Every citizen of a community takes personal pride in structures of this character and we have all had the experience of a resident of a municipality pointing out to us the outstanding architectural features of any particular building, and generally with an observation of a sudden swelling of the resident's chest.

Historic Predecessor

The city hall at Alton which everybody admires, was built at a total cost of \$250,000. Its location is most advantageous, occupying an eminence which overlooks the mighty Mississippi river. This structure was reared to replace the old city hall quarters which burned down in 1924. The city financed the undertaking by the issuance of bonds which sold at a premium. The accretion of interest up to its complete expenditure totaled \$224,000 and this sum was augmented from other sources to the total of \$250,000 so that at the end of the fiscal year there was no hangover indebtedness.

The building consists of a fine basement and two upper stories with nine office rooms on each upper floor, besides necessary public toilets, the city court room, and an auditorium seating 600 people. The city council chamber is also on one of these floors. In the large basement is located the police department, the police court, the jail and five additional offices. In this way, not only are the various branches of public service cared for, but additional civic interest is created by an auditorium.

N. S. Spencer and Son, Chicago, Ill., were

the architects, and the building was erected by J. J. Wuellner and Sons.

Famous Men in Old Building

The old city hall and market house was a building of stately architecture with a fine record of many historical recollections, which began with its completion in the year 1858. Perhaps the proudest memory of the old building lies in the fact that Lincoln and Douglas completed their series of debates in that building. Among other distinguished men who spoke there were President Fillmore, C. E. Hughes, Champ Clark, Richard Bland, and W. J. Bryan. There

were many other men of national reputation who made the walls of the old building ring with their oratory or evoked cheers from the crowds by their fiery political speeches.

Legal Complications

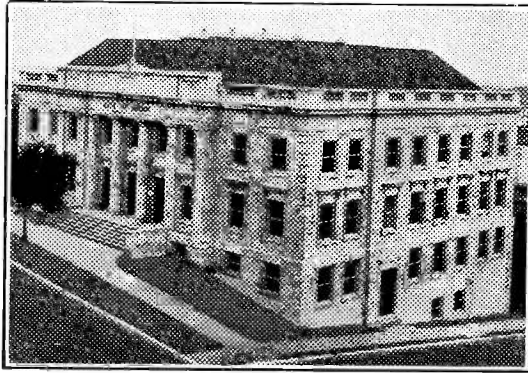
The new building was not erected without legal complications. Someone secured an injunction to prevent the use of the land where the old building had stood, because the land had originally been dedicated as a public common, but had been occupied for sixty years by a city hall. The court sustained the injunction and the new building was located on a lot purchased with the insurance money on the old building. The old site is now a parking place. At the last general assembly of Illinois an effort was made to erect a monument to the memory of Lincoln and Douglas on this site, but it failed of passage by a narrow margin. A renewal of this effort will come later.

From the above facts concerning this fine municipal improvement at Alton, we are indebted to Mayor Thomas Butler.

IDEALS

Ideals are like the stars; you will not succeed in touching them with your hands. But, like the sea-faring man on deserts of water, you choose them as your guides, and following them you reach your destiny.

—Carl Schurz.



City Hall, Alton, Illinois

SAFEGUARDING THE SEA

Revenue Cutters Ordered to the Ice Fields Much Earlier Than Usual Because of Icebergs.

Coast Guard Cutter Service has something else to do beside control rum row and chase bootleggers. Many people would seem to think that chasing the liquor smugglers is the one thing which this service has imposed upon it. This is probably due to the frequency with which attention is called to this branch of the navy by the newspapers.

One of the many important duties of this cutter service is to patrol the North Atlantic and keep close lookout for icebergs. The Coast Guard Cutter "Tampa" was ordered on Feb. 8th to proceed to the Grand Banks and take up this duty. Icebergs have already been noted in that locality, which is much earlier than usual. The moment that the massive mountains of ice separate themselves from the main field and head into the lanes of trans-atlantic steamers, it becomes necessary to use these patrols as a protection.

Anyone thirty years of age can remember the appalling fate of the "Titanic" on her maiden voyage, April 14, 1912. Speeding through icy seas on a perfectly clear night, the bottom of the ship was ripped out by a submerged iceberg and 1500 of the 2200 people on board went to icy graves.

International convention for the safety of life at sea provides for these patrols where extra hazards are offered. These cutters must maintain a constant patrol, keeping in touch with the icebergs and field ice to determine their set and drift, and report their presence and location to the Hydrographic Office of the Navy, and to also broadcast the information by radio for the protection of shipping. It is by this means that an extra safeguard is thrown along the trans-atlantic lines. Generally the service of patrolling the north seas does not begin until April.

No systematic patrol system of this character had been maintained until 1912. In fact, the "Titanic" disaster was responsible for the present service because that overwhelming catastrophe brought forth an almost universal demand for a patrol of the ice zone. Since its establishment, its efficiency and value is demonstrated by the fact that there has been no loss of life in the area which is so carefully guarded by the cutters.

"Good Morning"

Do you always remember to say "Good morning" in your most cheerful manner when you come into the office or the workshop? It is a little thing, but it is powerful to smooth the way for a pleasant day. How often we need to be reminded that it is the little things of life which go to make up happiness.

I remember one morning I was in an establishment on a business errand when the manager arrived for the day. With a cold

stare he passed near several of his assistants, but without a word of cheer for the day. He walked up to one of the men and began talking business—a criticism within the hearing of others. Conversation ceased in the room, and the very atmosphere of the place seemed chilled—as if a north window had been opened in winter.

Many times have I contrasted that incident with the spirit which I am glad to say prevails in many other offices—a spirit of cordial welcome and friendly fellowship, where "Good morning," "Good night," "Thank you" and "Please" grow like flowers in the genial tropics.

How little some men seem to realize the effect of their words on others! The spirit manifested by the head of a business permeates the establishment as surely and as completely as sugar sweetens tea. This important fact needs to be more generally understood. When it is, there will be more cheerful greetings of "Good morning" to start the day in the right spirit.—City Club Bulletin, Memphis, Tenn.

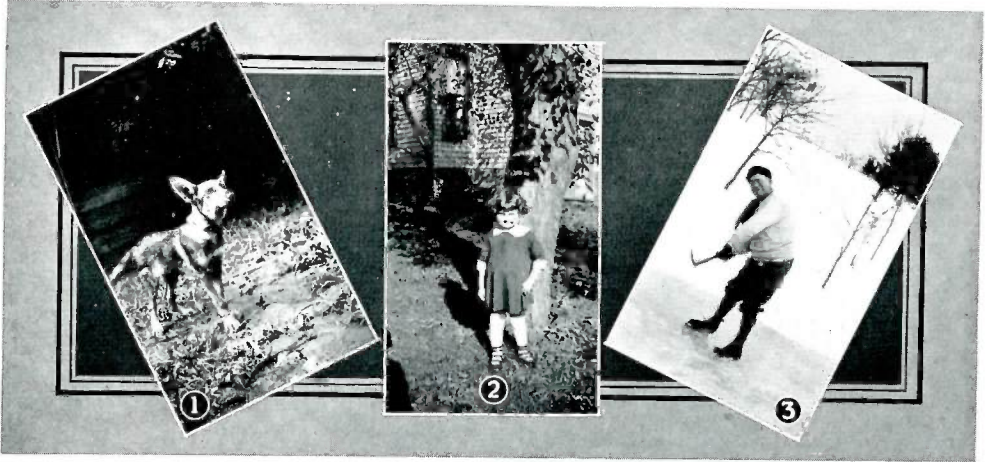
GOVERNMENT'S NEW SYSTEM

The method of the government in making purchases of supplies is to undergo a change in accordance with the Wood Act which was passed by Congress some time ago. The system will be put into use as soon as the necessary appropriations have been made. There will be a warehouse erected on a railroad siding in Washington, and much of the buying instead of being on annual contract, as has previously been the policy of the government, will be on a fixed quantity basis. It is thought that this system will effect some saving, and that on the fixed quantity basis, sellers will receive payment more promptly for their goods.



May—Sweetheart, would you die for me?
Tom—Wouldn't do you a bit of good. I'm not insured.

The Camera Club



The pictures shown here were the winners of the February Camera Club contest, the subject of which was "Miscellaneous." More pictures were turned in and more persons represented than in any contest held for some time. Pictures were judged by Mr. T. C. Kingston of the Osgood Engraving Co., and he made the following selections:

1st prize—Mary Wilkin.

2nd prize—Marian Richards.

3rd prize—Eloyse Dickson.

The subject for March is "Pictures Taken at the Mueller Lodge" and for April will again be "Miscellaneous." Pictures must be turned in to Ollie Springer by the 10th of the month.

The committee appointed to select the judge each month is now made up of the following: Ollie Springer, Mary Wilkins and Paul Jacka.

MARIE QUILTS

Marie Eagleton for six or seven years telephone operator has left the company's service and has been succeeded by Miss Sylvia Barnes, who is an experienced operator, having received her training in the local office of the telephone company. Mrs. Ollie Springer put in a couple of days introducing the new operator to the mysteries of the Mueller board.

ALBRIGHT-CURRY

Flora Albright and Mervil H. Curry were married Feb. 8th by Rev. D. J. Gretinger, pastor of the First Presbyterian Church in Bloomington, in the parsonage. The attendants were Mr. and Mrs. P. S. Gubser of Detroit, Mich. The bridegroom is employed in the Production Control Department of the foundry. They will live at 540 N. Edward street.

OUR FOREMAN'S CLUB

On the evening of March 7th the members of the Foreman's Club met at Mueller Lodge. It was strictly a business meeting. The attendance was large and the proceedings were of interest holding close attention of all present throughout the evening. Addresses were made by Joe Cheetham, L. W. Mueller, E. H. Langdon, W. E. Mueller, Robert Mueller and Adolph Mueller.

The talks were all along business and industrial lines as related to office and factory, and we have never had a meeting where closer attention was given to every utterance.

C. W. Hathaway, president of the club, had charge of the program.

AN EMERGENCY TRUCK

Something new in water works practice has been introduced at Portland, Oregon, in the shape of an emergency motor truck. Its purpose is just what the name signifies, a specially equipped truck to take care of emergencies.

It weighs 1¼ tons. On each side is a tool box which also serves as a seat for workmen when the truck goes out on a call. It is equipped with a two thousand Watt automatic electric generating plant operating three 250 Watt search lights. These have been proved valuable as the truck answers secondary fire alarms in a certain district. In addition to regular emergency repair and fire department work it has proved valuable in assisting automobiles mired in ditches or soft earth where work has been in progress.

Stop It

Crossing the knees while sitting is said to be an early factor in the forming of varicose veins.

DEATHS

CHAT WINEGARDNER

Chat Winegardner died suddenly on Feb. 11th at his home at the age of 62 years. He had not been feeling just right for several days, but on the day of his death he came to the factory, visited different departments, greeted his friends in his usual affable manner, none of whom suspected that he was so near the end of his journey. That afternoon he was stricken with apoplexy and died within a short time. Few deaths within the last few years have caused so much real sorrow, because of Mr. Winegardner's long connection with the company and a personality that immediately attracted all those who came in contact with him. He joined the organization on Feb. 14th, 1890, and while his service had been broken, he completed twenty years continuous service in 1918. In all, his term of service amounted to 33 years and during that time he was connected with the pattern room, was made assistant superintendent, and afterwards general superintendent. In all these positions he proved himself capable and dependable. He had quite a sympathetic nature and was a patient listener to all matters brought to his attention, and his judgment was generally correct. Authority in no way changed his character or disposition, and he was respected by company members and employes alike.

He is survived by his wife, one married daughter, and two sons, Samuel and William. Mr. Winegardner was known locally as an enthusiastic fisher and hunter, and during the life of the late Philip Mueller was quite frequently his companion on excursions of this character.

The funeral was largely attended and the floral offerings were very beautiful. He carried group insurance.

W. C. McCLANAHAN

W. C. McClanahan died Feb. 22nd after a long illness. He was born May 22, 1860, and had he lived to May he would have been 70 years of age. Originally he devoted himself to farming, but since March 28, 1914, he had been a member of this organization. He remained with us until May, 1928, when he was compelled to leave on account of the condition of his health. He was connected with the night force and was a good and reliable worker. He was a member of the group insurance plan, and is survived by four grown children.

LOUIS OFFNER

Louis Offner, a member of the force of the grinding department, died Feb. 15th on his 64th birthday. His death was due to heart failure. Mr. Offner had been with this organization for fourteen years and was a faithful employe. On May 12, 1925, while at lunch in the cafeteria, he suffered a stroke of paralysis which had incapacitated him for work.

ADVERTISING EXPENSE

Two Billions Spent in Furthering Publicity Last Year.

The country spent \$2,000,000,000 in advertising in 1929. It's a lot of money but it had something to do with selling some 40 billion dollars worth of goods. Just how much no one is able to say with absolute authority. Advertising is recognized as a powerful stimulus to business, even though it is difficult to learn just how powerful it is in producing direct sales. This is possible only when direct sales have been effected by mail. This being true we have a concrete example of the potency of advertising in the big mail order houses of the country. They have depended entirely upon advertising. This fact, however, does not prove that all other advertising is effective and profitable, although its influence in improving and increasing sales cannot be combatted successfully. The biggest banks and greatest financial institutions now resort to advertising and they are generally accepted as very keen authorities on correct business practices.

Regardless of these facts that as well established as advertising now is there are many who question its efficacy.

And still they buy advertised goods.

WEDDINGS

BLANKENSHIP-KURR

Violet Blankenship, daughter of Howard Blankenship, assistant foreman in Dept. 9, and Wendell E. Kurr were married in Chicago, Feb. 9th, by the Rev. Mr. Kennedy, pastor of the Westminster Presbyterian Church. Mr. and Mrs. Blankenship were in Chicago for the wedding.

Violet worked in the advertising department until nearly two years ago, when she went to Chicago and began working for the International Accounting School. Mr. Kurr is a Decatur boy, but has been working in Chicago for several years. He is now employed by the Western Electric Co. They will continue to live in Chicago.

THE PEACH TRAIN



"Speaking of traveling, I came over here the other day on the peach train."
 "Quit your fooling—they are out of season."
 "Sure not. A lot of college girls were returning to school."

ADDRESSED ROTARIANS

The Value of Water Works Emphasized at Pana Meeting.

Upon invitation of the Rotarian Club at Pana, Ill., Mr. Adolph Mueller was a guest at lunch of the club on Monday, Feb. 4th, and also the principal speaker. He touched upon a variety of subjects all of them allied to the business and community life of a city, stressing the matter of securing new industries and the opportunity of cities to know and recognize the advantage of local industries. His thought on this line was that too frequently cities had the chance of encouraging and developing such interests but overlooked them in reaching for outside industries. He particularly stressed the importance of a water works and its influence on the development of industry, health of the people and protection against fire. No city, he argued, could hope for enlarged industrial increase from the outside which did not possess ample fuel and water resources. He urged the citizens to not merely keep the water works abreast of the city's needs but in advance of its needs.

His address was very well received.

KIND TO U. S. EMPLOYEES

United States employes are a favored class. They not only hold government positions which are generally regarded by the outside world as a soft snap, but they have many favors extended to them which the poor tax payer out of service does not enjoy.

For instance, there are twenty-five states in the union which knock off the gasoline tax for government employes, if they can show that they are on business. Most any government employe can do this without hurting his conscience. All he has to do is to pull an identification card and bang goes the gasoline tax.

The twenty-five states extending this courtesy to the government employes follow: Arizona, California, Florida, Idaho, Illinois, Iowa, Kansas, Louisiana, Michigan, Missouri, Montana, New Jersey, New York, New Mexico, Nebraska, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, West Virginia and Wisconsin.

TOM WAS HERE

Tom Leary, Pacific Coast Manager, with his bland smile and witty quips was here during the week of Feb. 17th, having come into headquarters on a short business trip. The longer Tom stays in California the deeper becomes his attachment for the west coast.

TO CALIFORNIA

W. E. Mueller, executive vice president, and Mr. M. W. Trott, head of the traffic department left February 26th for the west coast to look into business interests of Mueller Co. at San Francisco and Los Angeles. They will also visit the Dallas branch.

TIME TELLING DEVICE

Easy to Know the Hour at Any Place in the World.

The Bureau of Standards at Washington, D. C., has produced a very interesting device for telling time at any point on the earth's surface in relation to the time at some other place. The radio, especially in international broadcasting, is responsible for this as it is necessary for the American fan to know immediately the difference in time between his location and some foreign location, in order that he may enjoy the music and entertainments from foreign lands. For instance, with the device which the Bureau of Standards has worked out, a person in Chicago can instantly determine the hour in Paris, and perhaps pick up some very new and unusual music, or perchance if he understands French, listen to the French broadcasters just as he does to those in America. The little device consists simply of two divided circles made of heavy cardboard, the smaller of the two being mounted above the larger and free to turn. On the smaller circle there is a division of the twenty-four hours, while the larger indicates longitude east and west of Greenwich, and gives the names of various countries at appropriate positions. By setting the inner circle so that any given hour of the day comes opposite any given longitude the time at any other longitude is automatically recorded to be read at a glance.

For the benefit of radio fans who read this article, it may interest them to know that the device may be obtained by addressing the Superintendent of Documents, Government Printing Office, Washington, D. C., stating that you want the Bureau of Standards' Miscellaneous Publication No. 84. Don't forget to enclose ten cents if you expect to get the device.

Demountable Auto

A German has invented a car which takes to pieces when it is to be put into a garage.

SIMPLE ENOUGH



"Where are sweaters made?"
"In sweatshops, of course."

ADVERTISING'S SEVEN APPEALS

Prof. Clark Tells of Why People Respond to Advertisements.

Advertising men recognize the fact that some articles of merchandise are easier to sell than others. These articles naturally lend themselves to advertising. They have what advertising experts call appeal. Other articles may be more necessary and more useful but they do not have the strong requisite of appeal. Take an article which every one wants for pleasure, recreation or because it's popular, it is easy to advertise and easy to sell. The automobile is easy to sell—it makes an exceptionally strong appeal. Again it is a great repeater. Some years ago when a man bought an automobile he rather thought he was through for life. He was fooling himself. Now he wants a new machine every year. Dealers have maintained the strength of their appeal by little additions or changes each year, which makes the late model more appealing than its predecessor. On the contrary necessities, peal, but it is a necessity and in most cases a man buys once, and just because it ankle plumbing for instance, has a strong answers his purpose, does not concern himself about the wonderful advancement being made in this particular line each year. He will cling to an old bath tub installed twenty years ago when new shapes, material, design and color makes his tub a back number, but he will buy a new auto or a new radio without any urging. Although they are two things he can do without but he won't. He can't do without a bath tub if he desires to keep clean and healthy, but he will make the old one do when he should really replace it. The appeal to be up to date in the matter of autos and radios makes him an easy customer, even though his old machine is still attractive in appearance and satisfactory mechanically.

The Seven Principles

Prof. Clark of the University of Chicago has classified what he believes to be the seven fundamental principles underlying the urge to buy, as follows:

First—The Money Appeal. The purchaser buys something because it will mean money to him.

Second—The Happiness or Contentment Appeal. Where goods are bought because they contribute to the happiness, health or peace of mind of the purchaser.

Third—The Affection Appeal. Where the purchaser buys to protect or benefit others.

Fourth—The Vanity Appeal. In this instance, depending upon his character and intelligence, the purchaser buys from motives that are worthy or foolish.

Fifth—The Sentimental Appeal. Merchandise bought to help along a good cause.

Sixth—The Curiosity Appeal. The purchase of novelties mainly in order to see what they are like.

Seventh—The Good Taste Appeal. This is not a primary appeal, but a contributing one which is greatly strengthened by a sales presentation which also is in good taste.

THE HORSE CALLED

At the banquet of the City Managers Association, Toastmaster Roberts told the following:

A certain woman in Vermont overheard her husband talking in his sleep, and she took but little notice of it the first night it happened. But the second night he continued to talk in his sleep, and the third night he continued to talk, so the following morning she said, "Look here, John, I heard you talking now in your sleep every night for three nights, and I want to know who Irene is." Pointing her finger at him she said, "I want to know exactly who Irene is."

Her husband said, "Why, my dear, that is my horse, my little horse that I drive. It is foolish for you to think anything about that. I drive her every day and naturally I might speak about her in my sleep." Two or three days later he came home in the evening and said, "Well, dear, anything new?" She said, "Oh, nothing to amount to anything, except that your horse called you up on the telephone three times today."

How Blind Read

In Braille, the system of embossed writing which enables the blind to read by touch, blocks of six dots are used as a unit, and by leaving out one or more of these sixty-three combinations are possible.

Four to Eight Horses on You

The pressure in your auto cylinder when the gasoline burns is greater than the weight of a horse.

If You Don't Have Blowout

At sixty miles per hour you travel eighty-eight feet per second.

THE CANNER



She—Yes. May has an uncaunny way with men.
He—I can't agree with you. She canned me.

COST OF BEING BEAUTIFUL

Every so often some inquiring soul digs up a set of figures about the extravagance of the working girl or boy. The very ideal! The girl wears silk hose and fur coats; and the boy has an automobile. What of it? Naturally they are endowed or damned with the same aspirations, the same love of finery as the rich boy or girl. They are going to satisfy these desires even if they wear out the fur coat before it's paid for. They earn the money and it is their right to spend it as they choose, even though they spend it, as many persons believe foolishly and extravagantly. Spending money is one of the evils or blessings of the age. The working girl or boy of today must keep up a presentable appearance. No merchant wants a frowsy headed poorly dressed girl behind his counters and few customers want a girl of this kind waiting on them. What they really like is a well groomed girl, with the latest wave, the cutest bob and a perfect manicure.

If every one earning money hoarded it instead of spending it freely the business of the country would go blooey. The class that knows how to make money out of money when it passes into their hands would find restricted opportunities. It's the spender that makes good times for the country even though they may be making hard times for themselves.

From 18 to 26% of earnings does not seem an extravagant expenditure for clothes and little necessary personal accessories and that's about what the average working girl spends if a survey conducted by New York University may be believed.

According to the report "the percentage of clothing costs varied with the earnings. For those girls who earn \$780 a year, \$145 or 18 per cent was spent for clothing; those earning \$1,148 spent \$215 or 19 per cent, and those earning \$1,625, spent \$421 or 26 per cent. The ages range from 15 to 50 years.

Less than one-half of one per cent of the girls interviewed admitted the use of cotton or wool stockings, the rest claiming to use silk hosiery. Cosmetics, perfumes and bobs were an important item in the budget, one out of four spending more than \$40 per year for beauty treatment and one out of every five wearing a fur coat."

And the report adds: "The working girl will deprive herself of food in order to purchase clothes."

Well, what of that? It surely is more honorable than to run a grocery bill or a restaurant bill with the thought of delaying payment or finally beating the bill.

Lots of people who pay income tax are guilty of doing these things.

But Leaves the Smell

A machine which fillets 2,500 herring an hour has been invented; it removes 200 bones from each fish in one and one-quarter seconds.

HOW HE DID IT

The impressionable young reporter rushed into the great man's office as quickly as one of the many secretaries would let him by, says Robert Bennett Carson. He rapidly surveyed the rich hangings and furniture in the office to use as atmosphere in his story, and looked at the man before him.

"Hello," he greeted hastily, taking a chair and removing a pencil and wad of copy paper from his pocket. "What do you owe your rapid rise in the world to, your mother? father? brother? home life? early ideals? sportsmanship?—what?"

The great man was puzzled. "I—" he began.

"Killing!" assented the reporter, knowingly. "One of your funny boyhood adventures—ludicrous situation—all that sort of thing; I'll fix one up for you. * * * But what I want to know," he resumed, "is what you attribute your success to—the direct cause, I mean. Maybe it was your mother—that'd make swell sob stuff!—or your stern and kindly father."

"Young fellow," said the great man, "both of my parents died before I was old enough to know them." Tears glistened in his eyes. They passed unnoticed by the reporter.

"That's great!" cried the reporter. "No mother to guide her' and all that stuff. That'll about do, I guess. I can fix up the rest."

"Wait a minute, young man," said the financier, as the reporter started to go. "Do you really wish to know how I made my way?"

"Sure!"

"I worked!"

INDEPENDENT STILL LEADS

Canada, too, has the chain store bug-a-boo, and they are just as interested as we are. In that country the independent leader still has the jump on them. Sales by chain stores in the Dominion in 1928 amounted to \$189,784,000. This is equal to \$20 per person. Statistics compiled by the government show that the independent leader is still ahead. Stock owned in chain stores there is divided: 82 per cent Canada; 15 per cent United States; 2.5 per cent Great Britain and 0.5 per cent by other countries.

Here is the story about the most optimistic man. Totally bald, he went into a drug store and asked for a bottle of hair restorer.

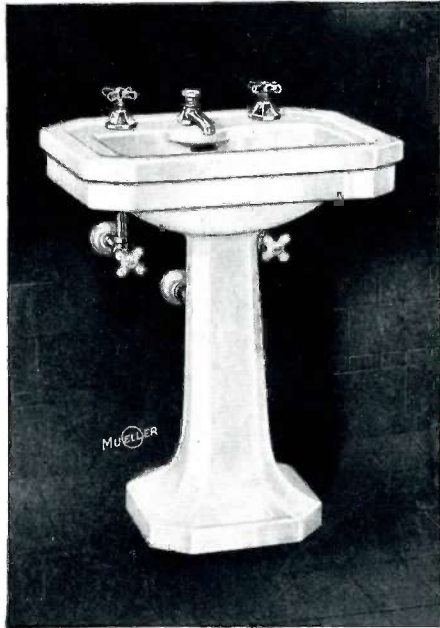
"Yes, sir," the clerk said, "here is a preparation that is sure to make your hair grow."

"All right," replied the optimist, "I'll take a bottle. And please wrap up a comb and brush with it."

Lily Soup

Every year China uses 4,000 tons of lilies as food, the flowers being made into a nourishing soup.

For Modern Bathrooms



NO WORDS can ever tell the lure of the snow white, glass like Mueller Vitreous China Ware combined with the brilliant chromium plated Mueller Bronze faucets and fittings. In true accord with the time Mueller bronze craftsmen and potters have designed the beautiful "Decatur" lavatory and octagon chromium plated bronze combination.

◆ **MUELLER** ◆

PLUMBING BRONZE AND VITREOUS WARE

MUELLER CO. (Established 1857) Decatur, Illinois
Branches: New York, Los Angeles, San Francisco, Dallas
Canadian Factory: Mueller, Limited, Sarnia, Ontario