

MUELLER RECORD

PUBLISHED AT DECATUR, ILLINOIS

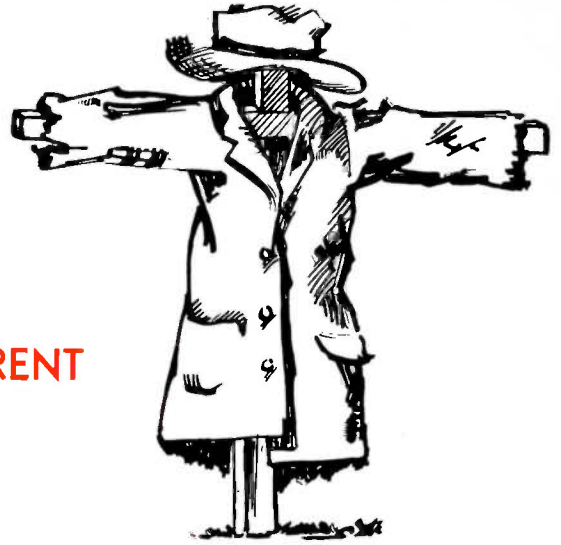


A Land Mark — Decatur's Transfer House. See page 2.

MARCH, 1936

YOU ARE NOT FACING AN ADVERTISING SCARE CROW

But Facts That
Are
ALARMINGLY APPARENT



We are not trying to scare you into ordering.

We are sincerely advising you of facts vividly apparent to us.

As a result of the unparalleled cold enveloping the entire country for weeks, there is coming an unprecedented demand for underground service goods.

Already municipalities and private and public utilities are telegraphing orders for immediate shipments of goods — in some instances by express regardless of weight.

With this advance knowledge, coupled with our experience of more than $\frac{3}{4}$'s of a century serving water, gas, and plumbing trades, we feel it is a duty to solemnly warn you to be prepared for a foreseen emergency and protect yourself.

It is as plain as A B C that when the frost leaves the ground there is going to be an enormous demand for service goods.

We are prepared to fill orders now from a stock that has been ample under limited demand of the past few years. But you should realize possible inadequacy to do this under a sudden urgent demand from all over the country.

Therefore, we are warning you in advance. Place your orders now with shipping date.

You will protect your own interest and enable us to work to the end of giving you what we always aim to do — ship your goods when you are ready to use them.

MUELLER CO., Decatur, Ill.

Makers of all kinds of Water and Gas service goods

<p style="text-align: center;">OFFICERS</p> <p>ADOLPH MUELLER Pres. and Gen. Mgr.</p> <p>ROBERT MUELLER V. P. in Charge of Pub. Rel.</p> <p>W. E. MUELLER Executive V. P. and Treas. in charge of Finance, V. Chrnm. Ex. & Budget Com.</p> <p>LUCIEN W. MUELLER V. P. in Charge of Works Management & Engineering</p> <p>J. W. SIMPSON V. P. in Charge of Selling</p> <p>J. W. WELLS Sec. of Company and Asst. to President</p> <p>R. H. MUELLER Chief Engineer</p>	<h1>MUELLER RECORD</h1> <p>PUBLISHED AT DECATUR, ILLINOIS BY MUELLER CO.</p> <p>Plumbing, Water and Gas Brass Goods 77th Year in Business</p>	<p>MAIN FACTORY AND OFFICE Decatur, Illinois</p> <p>PACIFIC COAST FACTORY Los Angeles, Calif.</p> <p>COLUMBIAN IRON WORKS (Hydrant and Valve Division) Chattanooga, Tenn.</p> <p>CANADIAN FACTORY MUELLER, LTD. Sarnia, Ontario</p> <p>BRANCHES New York, San Francisco</p>
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REPORTER REVELS IN PLUMBING

Pays High Tribute to the Beauty of the Bath Room

Following one of the recent conventions of the National Association of Master Plumbers, a newspaper writer separated himself from a fine tribute in the industry. Newspaper men are supposed to be fairly well advised on all topics, but this particular one got a real inspiration of what he saw.

Says he: "If you didn't see this exposition, you missed one of the grand spectacles of the year, and let that be a lesson to you. Some 12,000 people saw it. When this many persons in one day interest themselves in matters of health and cleanliness, you have done something. No more stimulating display of art and utility has yet been encountered.

Makes You Want to Build

"With such a sight to always be remembered, it is hard to resist the temptation to build a new home just for the joy of equipping it with some of these marvelous fixtures and fittings. In the matter of comfort, cleanliness, and enjoyment, the bathroom now leads the procession in the modern home, and it is small wonder that new homes include a bath room for every tenant, and in homes occupied by the owner that two, three, and four bath rooms are regarded as necessary.

"If every Bolshevik could have his bath room he'd shave himself and throw away his red flag. Cleanliness is a sure cure, and this comes only through close communion with a bath room, and its glistening fixtures and gleaming fittings, to mirrors, scented soap, soothing powders, white linen, and soft mats."

The Joy of It

Here is one spot where you can chase dirt aesthetically and with small effort and step forth filled with an exhilaration and enthusiasm ready to conquer any and all problems of the day. Glory be to the bath room and

Goethe's nine requisites for contented living are here given in brief:

"Health enough to make work a pleasure. Wealth enough to support your needs. Strength to battle with difficulties and overcome them. Grace enough to confess your sins and forsake them. Patience enough to toil until some good is accomplished. Charity enough to see some good in your neighbor. Love enough to move you to be useful and helpful to others. Faith enough to make real the things of God. Hope enough to remove all anxious fears concerning the future."

more power to the plumber — a combination and force, indeed, which gives assurance to the world of a clean and healthy man. Why throw an ecstatic conviction fit over the Roman baths. Nearly every American householder and thousands who are tenants have beneath their roof a private bath with mechanical control the old boys in their night gowns never dreamed of. And again it is yours for private use, and not of a public character such as were Roman baths where the old senators went to discuss politics and to gossip as much as they did to bathe.

The only cheap thing that pleases a woman is a compliment.

No man wants the earth more than the seasick chap aboard ship.

Men find it easier to flatter than to praise. — Richter.

Friends are much better tried in bad fortune than in good. — Aristotle.

THE MUELLER RECORD

Published at Decatur, Illinois, by MUELLER CO.,
Manufacturers of Vital Spots Products for the Plumb-
ing, Water and Gas Industries.

C. N. WAGENSELLER, EDITOR

DECATUR'S TRANSFER HOUSE

Believed to be the Only Building of Its
Kind in the United States

See Front Cover

In the center of Lincoln Square, Decatur, Illinois, is a building resembling a pagoda — in fact it has been called "that Chinese pagoda in the center of town!" It is a land mark known to all Decatur residents as well as visitors to the city, and it has historical sentiment attached to it. The ground on which it stands was formerly called the "Old Square." On this ground stood the old court house where Lincoln appeared in court, and it was on the same ground as a long-limbed farmer boy that he made early political speeches. For this reason the name was changed from "Old Square" to "Lincoln Square." The transfer house, as we call it here in Decatur, was built by subscriptions of merchants back in 1895. All street cars in Decatur lead to the transfer house where patrons change from line to line. Soon the street cars will be a thing of the past, but the transfer house will continue a great convenience for those who patronize the motor buses.

The First Building

Prior to the present Transfer House, there was a little wooden shack built by the street car company as a sort of protection to people waiting to take cars to their homes. In 1895 it was decided to get rid of this structure. It was then that Charles Laux, proprietor of the St. Nicholas Hotel, and Henry Bachrach carried out the idea of raising \$3080.84 by subscription to build a permanent Transfer House. Forty-eight firms and individuals contributed. All but three cents of this fund went into the enterprise. W. W. Boyington & Co. were the architects.

Owned by City

The transfer house belongs to the city, although the city did not build it. The only part of the municipality was laying the cement walks around the house, and later furnishing drinking fountains. To prevent the street car company acquiring title to the land on which the house stands, an annual rental of \$1 was fixed. This rental is still paid. Several efforts have been made to rent the Transfer House for the privilege of carrying on private business there. As much as \$800 a month has been offered. The city attorney

(Continued on page 31)

OLD CONCORD BRIDGE

Spot Where Embattled Farmers Fired
Shot Heard Round The World



The articles published in previous Mueller Records on old covered Bridges excited a great deal of interest among our readers. Here is an old wooden bridge, dear to the memory of every patriotic and liberty loving American. It is the old bridge at Concord, Middlesex County, Massachusetts, and in an early day spanned the Concord river. Here it was that the first battle of the American revolution was fought on April 19, 1775, one hundred and sixty years ago.

By the rude bridge that arched the flood,
Their flag to April's breeze unfurled;
Here once the embattled farmers stood,
And fired the shot heard round the world.

—Emerson.

When General Gage sent out a force to Concord to destroy Cannon and stores and to seize Samuel Adams and John Hancock, prominent patriots, his troops met the embattled farmers at the old bridge and the American Revolution became a reality. There were one hundred of these minute men led by Capt. Minot. The old bridge pictured above has been removed, but on the same spot is a concrete bridge.

In addition to having been the starting point of the Revolution, Concord has other honors of a more peaceful character. It has been the home of many men famous in literature and otherwise, including Emerson, the Alcotts, Thoreau, and Hawthorne. The homes of these famous people are preserved and their bodies rest in Sleepy Hollow cemetery.

The Poor Nut

Friend: What are you doing with that red lantern?

Sap: I found it. Some poor nut left it out in the road beside a hole.

MUELLER RECORD

Wisdom of the Ages

It is impossible that anything so natural, so necessary, so universal as death, should ever have been designed by providence as an evil to mankind. — Swift.

* *

A public debt is a kind of an anchor in the storm; but if the anchor be too heavy for the vessel, she will be sunk by the very weight which was intended for her preservation. — Cotton.

* *

Meet the disorder in the outset, the medicine may be too late, when the disease has gained ground through delay. — Lord John Russell.

* *

Every desire bears its death in its very inception. Curiosity languishes under repeated stimulants, and novelties cease to excite and surprise until at length we cannot wonder, even at a miracle. — Washington Irving.

* *

The wise and active conquer difficulties by daring to attempt them; sloth and folly, shiver and shrink at sight of toil and hazard, and make the impossibility they fear. — Rowe.

* *

The expectations of life depend upon diligence; and the mechanic that would perfect his work, must first sharpen his tools. — Confucius.

* *

No evil propensity of the human heart is so powerful that it may not be subdued by discipline. — Seneca.

* *

Before dinner men meet with great inequality of understanding; and those who are conscious of their inferiority have the modesty not to talk; when they have drunk wine, every man feels himself happy, and loses that modesty, and grows impudent and vociferous; but he is not improved; he is only not sensible of his defects. — Johnson.

* *

A light supper, a good night's sleep, and a fine morning have often made a hero of the same man, who, by indigestion, a restless night and a rainy morning would have proved a coward. — Chesterfield.

* *

Next to temperance, a quiet conscience, a

cheerful mind and active habits, I place early rising, as a means of health and happiness. — Flint

* *

We often boast that we are never bored, but yet we are so conceited that we do not perceive how often we bore others. — La Rochefoucauld.

* *

Every great and commanding movement in the annals of the world is the triumph of enthusiasm. — Emerson.

* *

An excuse is worse and more terrible than a lie; for an excuse is a lie guarded. — Pope.

* *

Nothing is so great an instance of ill-manners as flattery. If you flatter all the company you please none; if you flatter only one or two, you affront all the rest. — Swift.

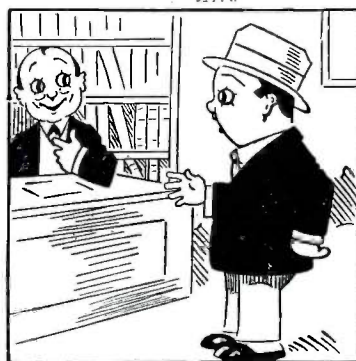
* *

Nature has sometimes made a fool; but a coxcomb is always of his own making. — Addison.

PERSISTENCE

Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan, "Press on," has solved and always will solve the problem of the human race. — Calvin Coolidge.

CLEAR AS GLASS



Customer: "I want a pair of spec rimmed hornicles—I mean sporn-rimmed hectarles—confound it—I mean heck-rimmed spornacles."

Clerk: "I know what you mean, sir—a pair of rim-sporned hectarles."

THE EAR-WIG

There is None Such to Crawl Into Human Ears

The Ear-wig used to be a great bug-a-boo to sleepers. Its name leads to the thought that its favorite sport was crawling into the human ear during the night. Old folks used to tell stories of terrible results which followed. The ear-wig supposedly set up a buzzing and scratching, which resulted in insanity and some times death. The ear-wig was much to be dreaded. It is not very clear why the insects were thus named. Entomologists tell us that the ear-wig does not do any of the night marauding in the ears of sleeping folks or at any other time. They are best known in Europe, but there are several species in the southern United States. They are about an inch long from the antennae to the pincher like organ at the end of the abdomen. They avoid light and work in the dark, feeding on petals and other parts of flowers, fruit seeds, and leaves. The eggs are laid in the spring, fifteen to twenty in some convenient cavity. Mama Ear-wig keeps close watch over her young, tending them much as a hen does her chicks. This motherly instinct of Mrs. Ear-wig is probably the one commendable quality of the whole Ear-wig family.

GOING TO ANTIPODES

Mr. and Mrs. Robert Mueller, who have heretofore travelled extensively in the United States, Europe, and the West Indies, are now on a trip of which they anticipate splendid returns in pleasure and interest. They sailed from Los Angeles February 5 on the S. S. Mariposa for Honolulu, where Mrs. Mueller has a nephew in business. They also expect to meet Jean Langford, for many years one of our west coast salesmen, now a member of the Honolulu Iron Works organization. They will remain in Honolulu five days and after that their itinerary will be as follows:

Pago Pago — February 15

Suva, Fiji Island — Feb. 18

Auckland, New Zealand — February 21

Sydney, Australia — February 24-25

Melbourne — February 28

They will return by the same route, leaving Melbourne February 29 and be back in Honolulu March 16, and back in Los Angeles April 18. Their many friends in this organization wish them a most enjoyable journey and feel that they will because both are seasoned travellers.

Vice in its own pure negative ugliness.

ELECTIONS

Politics, especially of a partizan character, have no place in a publication such as the Mueller Record. The only way we can horn in during a year of momentous elections, is by scattering a few shots from the funny barrel of our neutral gun — like these.

Taking Him at His Word

Political Candidate: "I am willing to trust the people."

Interested Listener: "I wish you'd open a grocery store in this part of town."

Had the Proofs

I was telling our candidate for alderman that his chances of election weren't so good.

"Why not?" he wanted to know, and I told him the truth.

"People say you're illiterate."

"That's a lie," he shouted, "I'm 48 years old and my mamma and papa celebrated their fiftieth wedding anniversary just two months ago. I can get their wedding certificate to prove it." — Chicago Journal.

Same Start

"Do you know," said the candidate for congress, "that I began life as a barefoot boy?"

"Well," said the voter, "I wasn't born with shoes on either."

Cheating Fair

Politician: "Congratulate me, dear, I got the nomination."

His wife: "Honestly!"

Politician: "Why bring that up?"

Inevitable

Political Speaker: "The time will soon come," bellowed the orator, "when women will get men's wages."

Melancholy Voice: "Yes, next Saturday night."

Blessed beam of sunshine; genial day
What balm, what life are in thy ray!

— Moore.

If a good man thrives, all thrive with him.

It is folly for an eminent man to think of escaping censure; and a weakness to be affected by it. All the illustrious persons of antiquity, and, indeed of every age in the world, have passed through this fiery persecution. — Addison.

AIR CONDITIONING

Standard Practice Puts All Concerned On Equal Basis

Representatives of nine technical societies and associations have drawn up the Chicago Air Conditioning Standards. John Howatt, president of the American Society of Heating and Ventilating Engineers, is chairman.

The definition of air conditioning as set forth in the Standards, reads:

"For the purpose of these standards, air conditioning is defined as the process by which the temperature, moisture content, movement and cleanliness of the air in enclosed occupied spaces intended for human occupancy are maintained within definite required limits."

The Plumbing & Heating Industries publishes a statement by Mr. Howatt in which he says:

"The standards drawn up by the committee not only clarify terminology insofar as the public is concerned, but tend to create conditions under which competition may be fair. The standards offer protection to the engineer, architect, and manufacturer in that they put all bidders on the same basis.

The standards formulated by the committee have been published in an eight-page pamphlet, copies of which may be obtained free of charge from Mr. Howatt, Room 530, 228 North LaSalle Street, Chicago.

OUTLOOK IS BRIGHT

The Plumbing & Heating Industries Bureau says manufacturers and contractors expect a continuance of the upward trend in the sale of plumbing and heating equipment. Nineteen-thirty-five saw an increase of 20 to 40 per cent over 1934. The industry is now in the most advantageous position since 1930. A gradual resumption of new building is going on throughout the country, and added to this is the modernization movement which is general. In addition there is the field of old homes that have never enjoyed the convenience and comforts afforded by plumbing. Altogether the outlook is brighter and more promising.

Revenge

"That young fellow upstairs must be tremendously popular, postman; you always have mail for him."

"Yes, I had an argument with him once, and ever since he sends himself a post-card every day, so I have to climb four flights of stairs to deliver it."

MARCH, 1936

COOPERATION

A Humorous Illustration How It Is Defeated Through Misunderstanding

Cooperation is pulling together, understanding what result is to be attained and working whole-heartedly for successful accomplishment of the object. Whole-hearted cooperation means no purpose to secure personal credit, but to accomplish the object for the benefit of the whole organization. When two or more persons are involved, there must be intelligent understanding so that each person concerned will do his particular part at the right time. Where this understanding is missing the whole plan may fail. There is a little story which fits the case and illustrates what lack of understanding results in. Instead of cooperating the persons pull away from the job instead of pulling in the same direction. Here's the story:

"A man, struggling in a doorway with a piano, was glad of the offer of assistance from a passer-by.

"A fresh struggle began, and after half an hour's tugging and straining the owner of the piano remarked: 'Phew! At this rate, it will take us hours to get the bloomin' thing out!'

"'Out!' almost screamed the other. 'Why didn't you say you wanted it out? I've been trying to push it in!'"

Very Well

Once I heard a mother utter:

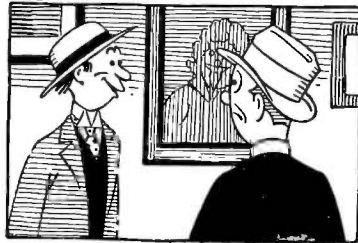
"Daughter, go and shut the shutter."

"Shutter's shut," the daughter uttered;

"I can't shut it any shutter."

It is almost as difficult to make a man unlearn his errors as his wisdom.

HARDSHIPS OF CAMPING



Willis: "Hello, where have you been?"

Gillis: "Just got back from a camping trip."

Willis: "Roughing it, eh?"

Gillis: "I'll say so! Why, one day our portable dynamo went off and we had no hot water, electric lights, ice, heat, or radio for almost two hours!"

I'M TELLIN' YOU



Prosperity has turned the corner, and spring is just behind the snow drift.

So far as we have progressed in this year, we are led to believe it is going to be a perfect 36.

Advertising does more than pay — it satisfies that great human passion for possession. The mail order house which printed an illustration of the same pair of corduroy pants, price \$3, for twenty-five years, received a letter from Si Higgonbottom, which read:

"Dear Friend: The more I been seeing them corduroy breeches, the more I got to wantin' them. If you ain't sold them yet, let me know, and I will buy them."

An oculist says that green quiets the nerves, and we agree that there is something soothing about a handful of nice green crisp paper with 20 and 50 stamped thereon.

Let's see, Mable Stark, the animal trainer has, what do you call it? Oh, yes. G-rit. Last fall at Los Angeles she took a terrible mauling from one of her Bengal tigers. She is out of the hospital now, and the other day with a kitchen chair in one hand and a whip in the other she stepped into the Bengal's cage and made the beast roll the big ball as usual, but it was done with poor grace and lots of snapping, snarling, and growling. That tiger now knows what Aaron Hill said years ago:

"A woman will or won't, depend on it
If she will do it, she will, and there's an
end on it."

Mable willed and did it, maybe that's an

end on it and maybe not.

Texas doctor was called to see a man who had talked incessantly for fifteen days while his wife sat despairingly by unable to get a word in edgewise. Marathon talk fest, we judge, and the best man won.

May we ask if the artist who sings those doleful cowboy songs on the early morning radio program accompanies himself with a guitar or a good old fashioned case of nasal catarrh. — Sounds like the latter.

Twenty or more days of sub-zero weather in January and February convince us that Mark Twain was not kidding when he said everybody talked about the weather, but no one did anything about it.

MAGIC MEDICINE

Old Superstitions About Health Protection Which Still Have Adherents

Superstitions of folk medicine still persist, not only among the masses but to a considerable extent among the educated classes as well. "Magical" remedies are used by persons in every stratum of society, says Kalends of Waverly Press.

Bags of asafoetida are worn suspended from the neck to keep off acute contagious diseases; necklaces of amber to prevent and cure goiter; of coral or kernels of red corn against nose bleed or other hemorrhages.

Avaunt Rheumatism

Horse chestnuts or potatoes are carried in the pocket, brass or copper rings on the fingers and copper plates inside the shoes to prevent rheumatism; peony roots are carried to prevent convulsions and epilepsy, and the knee cap of a sheep is worn as a garter to prevent muscle cramps in the legs.

Combings of hair are carefully burned lest some bird find them and build then into its nest, in which event the person from whose head the hair came would suffer with headache until the fledglings left the nest.

From Cumberland Mountains

Piercing the ear lobes to prevent weak eyes; and straightening out the fingers or toes of an arm or leg in mine accidents, and the amputated member buried in a roomy box to prevent the patient suffering from cramps in the lost hand or foot, all seem to be super-

(Continued on page 20)

ABOUT HISTORIANS

Do They Always Stick to Facts or Write What They Want Hero To Be

February just passed is a month of great historical interest to Americans because of the birthdays of two of our greatest citizens, patriots, and statesmen — Abraham Lincoln, February 12, and George Washington, February 22. Far be it from this puny pen to attempt to pick to pieces all that their biographers and historians have written about them. We have no way of disproving anything they have put forward. However, it has been our long sustained belief and contention that many historians write what they want their hero to be, or what they personally think he was, rather than what he really was. We are glad, therefore, to find unexpectedly the following estimate of historians by the Saturday Review of Literature, which coincides with our thoughts on history.

Task of Historians

There is no such thing as dispassionate history which tells all the story on the basis of facts. There are never enough facts. There is never sufficient dispassionateness. The historian who writes without some theory of world history or of human character, at best can assemble a group of documents for his reader's interpretation. No one can tell a story of the past without the use of the imagination.

Hence the test of history and biography can never be: Is it all true and nothing but the truth? We can only ask: Are the facts that are possible of collection all there and all truly presented? Is the interpretation put upon them by the historian or the biographer just or unjust, probable or improbable, useful or confusing? Or more briefly still: Are the facts really facts; is the imagination of the historian first or second rate?

High Note

Mother (to her daughter's music master)—Do you think, Mr. Crochet, that my daughter will ever be able to do anything with her voice?

Music Master—Well, madam, it might come in useful in case of fire.

Habitual

Bachelor (dreamily): "Sometimes I yearn for the peace and comfort of married life."

Married Friend (wistfully): "I always do."—Judge.

"I don't see how I'm going to get a lawn without you," moaned the lovely lady when the gardener gave notice.

PSEUDONYM AND REAL NAMES

Here's a List of Noted Writers Known Largely by Pen Name Only

Why do good writers hide behind a pseudonym? Many writers, male or female, have done this when their work has been of such quality that they should have been proud to sign their own name. Perhaps it was due to modesty and perhaps a lack of confidence in their own ability, which the public however was quick to recognize and appreciate. There are of course thousands of writers who signed their baptismal and sur-name and are thus known through their work by their readers. On the other hand there are many writers who are known to their readers only by their pseudonym. Here are some of these pen names. How many of them do you know by their real names?

Uncle Remus
Artemus Ward
Timothy Titcomb
Isaac Bickerstaff
Bostonian
Lewis Carroll
Sam Slick
Publius
Poor Richard
Ouida
Johnathan Oldstyle
Petroleum V. Nasby
Diederich Knickerbocker
O. Henry
Drop Shot
Nick Carter
Boz
Josh Billings
Geoffrey Crayon
Benj. F. Johnson
Mark Twain

Of course, every one knows Mark Twain was in reality Samuel L. Clemens, but how many others in the list do you know and what celebrated American author has three different pen names in the above?

He that can enjoy the intimacy of the great, and on no occasion disgust them by familiarity, or disgrace himself by servility, proves that he is a perfect gentleman by nature, as his companions are by rank. — Colton.

ILLINOIS' YOUNG GIANT

Graduated from High School — Going
to College to Study Law



Robert Wadlow 8 ft. 4 in.

Just a year ago this picture of Robert Wadlow appeared in the Record. At that time he stood 8 feet 11½ inches. Recently he was graduated from the Alton Illinois High School and his height was given at 8 feet 4 inches. Robert was 18 years old on February 22. Within the year he has gained in weight going from 370 to 390 pounds. His graduating cap was size 8½, his gown 51 inches around the chest; 80" from collar to hem, with sleeves 55" long. He is the tallest student in the world, and doctors predict that when he stops growing, he will be the tallest man of all time. He has ceased to be an oddity among his fellow schoolmates, but doctors still keep him under observation. He has a brother and two sisters, who are all of normal size. Robert has been a good student and has long ago made up his mind to be a lawyer. His present plan is to enter law college in the fall. He says he expects to be the "biggest lawyer in the world."

LONGEST PEACE PERIOD

**General McCoy Says It Has Been
From Signing Armistice in 1918**

We are a peaceful people, that is we think we are, but the record does not uphold the belief. It's nearly 18 years since we were at war. It will be full 18 years November 11, 1936. This is the longest period of peace we have enjoyed in something more than a century and a half of our existence as a nation. Don't take our word for it. Take the word of General Frank R. McCoy, who in a recent address gave this recapitulation of our history in terms of war and peace.

What the Record Shows

Fifteen years elapsed between the treaty of Paris in 1783 and the war with France in 1789.

Fourteen years later came the war with England, lasting from 1812 to 1815.

Sixteen years later came the Blackhawk war of 1831-33.

The war was hardly over before we were in the Seminole war, 1833-36.

Nine years later we waged a war with Mexico, lasting from 1845 to 1848.

Thirteen years later we engaged in the greatest of our wars, the civil war, from 1861 to 1865.

Eleven years later came the Sioux war of 1876.

Seven years later we fought the Apache campaign of 1883-87.

Five years later occurred the Wounded Knee campaign of 1892.

Six years later the war with Spain began in Cuba and was continued in the Philippines, until 1902.

Fourteen years later, in 1916 our forces temporarily invaded Mexico.

One year after that we entered the world war and fought in Europe and Siberia, 1917-19.

One might class some of these wars as skirmishes with the Indians, but still we were under arms and fighting.

Custer Disaster

If you are inclined to classify some of the Indian wars as skirmishes, recall the Custer Massacre of 1876. It may change your view point a trifle.

The almost unbelievable statement of General McCoy is that our longest peace period has been since 1918 when the Armistice was signed. However, the General gives dates and names the wars, and there is one thing that cannot be done successfully and that is to refuse to accept facts.

WHY DO MEN WORK

Some Sound Reasons Given by Men Who Do

Man does not necessarily work for bread alone. He works to secure things which will make more pleasure for himself and those dependent upon him. Work covers a wide range of occupations, both mental and physical. It includes the mechanic, the professional man, the artist, the author and others. There is a class of work, that spells labor, toil, and drudgery which might not be inspiring to many accustomed to the mechanical, professional man, artist, or writer, yet those who do it get a certain satisfaction from their work as did the grave digger in Hamlet who whistled and sang at his task.

Joy in Work

Philosophers tell us that there is a joy in working. "Love labor," says one, "for if thou dost not want it for food, thou mayest for physic." Another says "Labor conquers all things," and another "Work has a bitter root but a sweet fruit." Work is a tower of strength in civilization. If there were no work, we would probably be a mob of carousing irresponsibles.

Many Work Who do not Have to

There are many men working today who have all the wealth they need to keep them in luxury the remainder of their life. Why do they work? Because they know all too well the insidious, destructive force of idleness, which tears down physical structures faster than work upheld them. Many a man who has had an active life, either mental or physical, found that he could quit and rest, which he did — eternal rest. Too much time on his hands with nothing to occupy his mind or muscle.

Work Makes Good Men

Men who love their work beyond its being a mere means to an end for making a living are generally content, happy, and healthy, and more than that they are good citizens.

At a conference of foremen of a big industrial plant, this question was asked them: "Aside from the earnings of a living, why do you work at your job?"

Lot of Good Thoughts

Here are some of the answers. There is a good thought in every one of them.

I work because I *like* to work—I like to keep busy.

I work so that my children will have opportunities I could not have.

I work partly from *habit*. I would not know what to do with myself if I did not have to go to work every day.

I work to make a contribution to the community in which I live—to *be of service to others*.

I work because I like to *invent* things, to get up new systems and improve upon the methods I have put into practice.

I work because I want to *progress*. I would stagnate if I did not work.

I particularly *enjoy* my work. I am interested in it and would miss it if I quit.

I believe it is *sinful* to be idle and that God would frown on me if I did not work.

PUCK WAS A PIKER

Quick as lightning is by no means a misnomer. It is so fast that Puck, the little blowhard in "Mid Summer Night's Dream" boasted that he could put a girdle around the world in forty minutes. Compared to lightning, Puck was an apprentice at speed and a piker as well. Recent studies have shown that the average speed of lightning is 28,500 miles a second. When you remember the circumference of the earth is approximately 25,000 miles, you get an idea of the swiftness of lightning, which at the rate of speed given could encircle the earth in one second. No wonder then, that it knocks things galley-west when it strikes.

Balance is as important for you as it is for great businesses. No big success ever came from a puny effort.

Who escapes the snare once, has a certain caution to beware. — Chapman.

A good cause makes a strong arm.

FROST IS ON THE PUMPKIN



Scat: "He looks quite poetic, don't you think, the prematurely gray man I met at the beach?"

Cat: "It does remind me of a certain poem."

Scat: "And what is that?"

Cat: "When the Frost is on the Pumpkinin."

TRAVELLING IN STRANGE LANDS



Scene along the waterfront. Two native boys at San Juan taking shower bath from Mueller faucet.



A group of San Juan children pose for American Tourist's camera.

Porto Rico, an island belonging to the United States, is the smallest of the Greater Antilles, but is a land of great charm and beauty. The popular West India cruises have proved this to thousands of Americans. Members of Mueller Co. have visited this delightful country and carry with them many happy memories of their tour. The island is 1,400 miles from New York, 1,000 miles east of Key West, and 75 miles east of Haiti.

— Ponce de Leon Named It

Columbus visited the island in 1493, and our old friend Ponce de Leon, who sought the fountain of perpetual youth in Florida, followed Columbus in 1509, and bestowed upon the island the name of Porto Rico. In shape it is almost a perfect parallelogram, 100 miles long and 35 miles wide. The coast lines are about 360 miles long.

Agreeable Climate

The climate is equable and comparatively healthy. The average annual temperature is 76° with a winter average 73° and a summer average of 79°. It is a mountainous country with deep canyons and ravines, but the tillable soil is very fertile. A range of hills known variously as Cordillera, Central, Sierra de Cayey, and Sierra de Luguillo traverses the island from east to west at an average elevation of 2,500 feet, culminating in El Yungue (the Anvil) a peak 3,700 feet in height. North and south of the Cordillera range and stretching along the sea coast are the fertile valleys which furnish the chief wealth of the island. The island is densely populated as follows: 73 per cent white; 27 per cent negro and mulatto. There are 74 towns and three cities. The capital is San Juan.

Richly Endowed

The island is richly endowed with beautiful trees, including cedar, rosewood, mahogany, and sandal wood. Sugar cane is the

principal product, others being coffee, tobacco, cocoanuts, and citrus fruits. Tobacco is cultivated under cheese cloth. The fruits include oranges, limes, bananas, plantain, grape fruit, and pineapples. The people of this little garden spot have prospered since American occupation and now have pure water supplies and modern methods of sewage disposal, roads have been built, yellow fever and smallpox eliminated, and bubonic plague controlled.

Jurisdiction Transferred

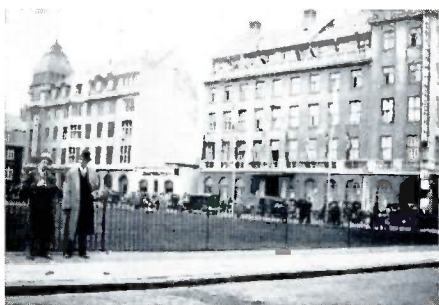
By executive order June 1934, jurisdiction of Porto Rico was transferred from the War Department to the Interior Department, much to the satisfaction of the people, although the administration of the War Department was marked by prudence and skill resulting in marked development of the people and the island's resources.

Europe

England and continental Europe will perhaps always remain the great drawing card for American travellers. While the English Isles furnish enough to keep any traveller busily engaged for one season, there is much to be seen on the continent. Norway, Sweden, Denmark, Finland, and Russia are of immense interest. We fail to appreciate what they mean in scenery, art, and civilization. They are just a little off the regular route, but every year are becoming more of a magnet for those travellers who wish something entirely new and strange. Among the places visited by Bruce Wilkins while travelling with a ship's orchestra last summer were Helsingfors, Finland, Copenhagen, Denmark, Stockholm, Sweden, Jallin, Estonia, and Reykjavin, Iceland. Some of the sights he saw on that trip are shown in accompanying illustrations.

Iceland

Above is a picture taken in Reykjavin. It doesn't sound much like the capital of a nation, but that's the conspicuous standing it maintains in Iceland. The name of the country does not seem inviting, but most Americans know Iceland only in the geography of school days. Iceland is a Danish island in the North Sea, close to the Arctic circle and is an old country. The scenery is of great natural beauty. The island was discovered and settled between 870 and 950. Christianity was established in 1000. At times it was a dependency of Norway and Denmark.



Public Square and Business Houses in Reykjavin.

In 1918 it was acknowledged as a sovereign state, and the present constitution was adopted in 1920. The language spoken and written is Icelandic, being almost precisely the same as used in the 9th century. In art, music, and literature, the people have made remarkable advances. The capital city pictured above contains a cathedral, governor's house, observatory, parliament house with a valuable historical library, college, hospital, and banks. The population is 8000.

Denmark

Denmark with its old capital city of Copenhagen holds much of interest to the traveller.



The Parliament Building in Copenhagen.

It is a city with a population of between 500,000 and 600,000. There are many fine buildings, art galleries, churches, and theaters. The picture shown here is the House of Par-

liament. Some of these buildings, especially the Charlottenborg Palace, are very old. This palace has been the home of the Royal Art Museum and the Royal Theater since 1754.

Finland

Helsingfors is the capital of one of the youngest republics, Finland, formerly a grand Duchy of Russia. Independence was declared December 7, 1917 and was formally recognized by all leading nations. Until recent years Finland was little known to American tourists. Now it is being included in the popular summer cruises to the "land of the midnight sun" and visitors find it an extremely interesting country. This is especially true of



An Old Church in Helsingfors, Finland.

Helsingfors, where is located the Finnish University, a polytechnic school, an observatory, library, senate house, and the Lutheran Cathedral of St. Nicholas. Helsingfors was founded in the 16th century. It is a famous intellectual center, and the home of many learned societies. Visitors are impressed with the modern buildings and modern ways of the people.

Sweden

With Sweden and its capital, Stockholm, Americans are more familiar. That country has contributed many good citizens to Amer-



A Section of the Modern City of Stockholm. Stockholm is one of the most picturesque places in Europe, frequently called "The Venice of the North" because it is built on several islands. There are many magnificent

buildings, universities, botanical gardens, etc. It is a city of great learning and culture. It has many beautiful buildings and is in fact one of the most interesting cities of Europe.

Visby

One of the places in Sweden with interesting history and ruins is Visby, West Coast of Gottland of which it is the capital, and 120 miles south of Stockholm. Its architecture is of great interest, its ancient towers and



Wall of Old Church at Visby, Sweden.

walls existing almost as they were in the thirteenth century. The Cathedral 1190-1225 is still preserved. The ruined churches of St. Nicholas, Helceands-Kyrka, St. Clements, St. Lars, and St. Katharina are noteworthy.

During the tenth and eleventh century Visby was one of the important commercial cities in Europe.

FRIED PIE

Doesn't listen good, but down in the Missouri Ozarks lives an old codger, Uncle John Smith of Everton, who claims to be "the world's greatest fried pie artist." His neighbors support his claim. Uncle John's recipe:

Home dried peaches with handful of brown sugar, dash of cinnamon, and a lump of butter, simmered over a wood fire. Handful of lard mixed with flour. Use your hands to mix. Roll out dough to large circle, fill one half with peaches, flop over other side and pinch. When grease in skillet is hot, drop in and fry until brown.

Note that Uncle John disdains the use of any fancy mixing tools. Hands were made before mixing tools, just as they were made before forks. Far be it from us to cast aspersions upon Uncle John's ability. Quite the contrary. We'll wager his fried pies would be good eating — if you were real hungry.

"What do they call those tablets the Gauls use to write on?"

Roommate: "Gaul stones."

HOME DANGEROUS PLACE

Accidents from Minor Injuries to Fatalities 170,000 Annually

Do accidents happen or are they the result of thoughtlessness or carelessness? One writer says accidents are committed, and another insists they could be averted by the practice of forethought. Who ever may be right, the fact remains that accidents continue each year to enroll a vast number of victims.

A recent survey of fifty cities brought forth the actuarial prophecy that this year, one out of every seven homes will have to pay \$148 in medical care, lost wages, and related expenses because of some preventable mishap. Some 30,000 of these mishaps will be fatal.

Why Folks Leave Home

The home once considered the safest place, has become one of the most dangerous. Falls are a common cause, generally the result of tripping on rugs, turned up edges of carpets, misplaced objects, and a dozen other causes due to lack of orderliness and thoughtfulness. If the rugs had been fixed and the objects left on the floor had been in their proper place, many such accidents would not have happened.

Skidding Rugs

Rugs on slippery floors are another prolific cause of accidents. This leads the writer to suggest one of his own antipathies to rugs. Why should a kitchen or bath room be covered with an expensive linoleum and then the linoleum buried beneath a collection of small rugs. A perfectly smooth, clean floor is thus turned into a trap to stand the unwary on his head or drop him on some other portion of his anatomy.

170,000 Accidents Annually

The total number of "home accidents" minor, serious, and fatal, is given at 170,000 annually. The number of bath tub accidents is given at 120,000. A simple hand rail at the side of the tub, which can be supplied by any plumber at small cost, would greatly reduce this almost unbelievable figure.

The habit of climbing on chairs, fragile boxes, etc. is credited with giving \$303 to doctors and druggists for each tumble. A good four step step-ladder costing about \$1 is the cure.

One of the precepts of the theatre is — show it in action. So in life — show it in action. Don't talk about it.

WE'VE HAD LUCKY ESCAPE

Had Anyone Given Us a Billion Dollars At 21, We'd Still Be Counting It

In younger days we wished by fair means, and perhaps by foul means — that through some hook or crook we could get our hands on a billion dollars. It was good for us that the wish to this day remains unfulfilled. We thank our lucky stars it did. If the billion dollars had been unloaded on us we would have missed the enjoyment of writing the Mueller Record. In fact, we would have had no time to do anything else but count the money. This of course, would have been a requirement of good business. If any one gave us a billion dollars we would have wanted to be sure that we got every dollar of it, and the only way to do this would have been to count it dollar by dollar.

This is what it would have meant, according to a writer in the Boston Transcript.

Suppose we had received the billion dollars on our 21st birthday, and were told to begin counting it, and we plunged gleefully into the task. We would still be counting and would continue to count until our 83rd birthday. There would have been no loafing on the job. To accomplish the task, we should have been compelled to count 90 dollars per minute for 10 hours each day for 300 days in the year. The writer in the Boston Transcript says:

"Sounds preposterous, but here is the way it works out: $\$90 \times 60$ equals $\$5,400$ per hour; $\$5,400 \times 10$ equals $\$54,000$ per day; $\$54,000 \times 300$ equals $\$16,200,000$ per year; 1 billion dollars divided by $\$16,200,000$ equals 61.72 years; 21 plus 61.72 years equals 82.72 years."

Gee, we were lucky not to have been presented with a billion dollars. How sorry we feel for those poor devils down in Washington with many billions to count. We doubt if they ever finish the job. Even though they put on a day and night force.

THE OUZEL

The dipper, ouzel, or Ringouzel is given credit for not only diving in the water, running along the bed of the stream, but of actually flying through the water. This peculiar bird feeds principally on molluscs. They are accused of eating the spawn of various fish, but authorities deny this. They are members of the thrush family, and frequent pebbly streams and lakes. They frequent the western part of America from Alaska to Mexico.

MARCH, 1936

DRIVE HEAD ON INTO TRAINS

An Unusual Automobile Accident Which is on Increase

It seems impossible to a careful automobile driver that anyone able to drive a car should crash head on into the side of a moving train. There is one or more ways to account for it. They are not competent drivers — they are incompetent. Another is that they do not see, or think, hear or watch for warning signals. This particular class of inexcusable accidents is on the increase.

In the last two weeks of December on one system — the Illinois Central — there were forty-six grade crossing accidents in which twenty-six were the result of drivers hitting the train. Here is the record.

In twenty-two accidents north of the Ohio River, fourteen automobiles ran into trains and eight were hit by trains. By divisions: Chicago Terminal, six accidents, six ran into trains; Illinois, three accidents, two ran into trains; St. Louis, four accidents, one ran into train; Springfield, four accidents, two ran into trains; Iowa, five accidents, three ran into trains.

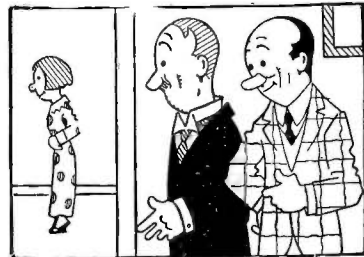
South of the Ohio there were twenty-four accidents, in exactly half of which the automobiles ran into the trains. By divisions: Kentucky, four accidents, four ran into trains; Mississippi, four accidents, one ran into train; Louisiana, six accidents, three ran into trains; Memphis, five accidents, one ran into train; Vicksburg, five accidents, three ran into trains.

Education consists of what you learn, not how many years or how many schools you attend.

Every human being has this in common with God, that he makes his own world.—*Forbes*.

Pick-up and get away, but most of all enduring performance sells cars. What kind of an automobile are you?

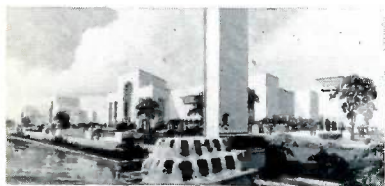
TO VICTOR BELONGS THE SPOILS



"Well, I guess she's happy now that she's married."
"No. Just triumphant."

13

TEXAS CELEBRATES HER CENTENNIAL



Halls of Varied Industries, Electricity and Communication.



Hall of State at Dallas.



The Federal Government Building.

In 1936 the State of Texas celebrates the passage of a century since her pioneers won independence from Mexico and established the Republic of Texas, which later became a state.

The Centennial year celebrations will center at Dallas with the Texas Centennial Exposition opening June 6 and closing November 29; meanwhile, throughout the Centennial year, innumerable celebrations, fetes and patriotic demonstrations will be held in other cities of the state.

Monuments in memory of pioneers and patriots, markers designating historical locations, and memorials on battlefields of the Texas Revolution will be dedicated.

Houston, because of its proximity to the battlefield of San Jacinto where the Texas army decisively defeated the Mexicans April 21, 1836, is planning a program financed with \$400,000 Federal and \$250,000 State funds, also \$250,000 PWA funds.

San Antonio, capital of Texas when it was a department of the Mexican State of Coahuilla, will observe the fall of the Alamo, death house of Captain William Barret Travis and his 180 defenders who were annihilated March 6, 1836, after a 11-day siege on the fort. San Antonio has been allocated \$400,000 Federal and \$250,000 State funds.

A memorial will be dedicated at Gonzales, scene of the first battle of the Texas Revolution October 2, 1835.

Goliad will commemorate the memory of Colonel James W. Fannin and approximately 300 Texas prisoners of war who were massacred there March 27, 1836.

Both Gonzales and Goliad have been allocated \$50,000 State funds.

Fort Worth will stage its Southwestern Fat Stock Show and Exposition, premier of

the Southwest, in a \$2,000,000 pavilion and auditorium, financed through a public bond issue, PWA and other federal funds.

Once a Republic

It is fitting that the state should so generally memorialize her heroic past, as Texas is the only one of the 48 states that existed as an independent republic recognized by foreign powers, prior to her entrance into the union.

The flag that Alvarez de Pineda, Spanish Conquistadore, raised in 1519 was the first of six flags that have flown over Texas. Robert Cavalier Le Sieur La Salle gave Texas her second flag, the lilies of France in 1685.

Mexico's independence from Spain in 1821 brought Texas her third flag; the revolution of 1835-36, her fourth; annexation to the union in 1845, her fifth, and secession to the Confederate States of North America in 1860, her sixth, Old Glory returning later.

Twelve Years' Planning

The Texas Centennial Exposition has been in the making for 12 years. The idea was born at the convention of the Advertising Clubs of Texas at Corsicana November 6, 1923, when a survey committee was named to test sentiment on the project.

Two thousand Centennial enthusiasts created a Texas Centennial Board of one hundred at a meeting called by Governor Pat M. Neff and held at Austin February 12, 1924. The organization promoted the idea before the Texas Legislature meeting December 28, 1931, when a temporary Centennial Commission was created.

On recommendation of the Commission, the legislature in 1932 submitted to a popular vote a constitutional amendment authorizing a Centennial celebration with instructions to the legislature to provide adequate finances

in the event of the amendment's adoption. A heavy majority vote favored the proposal.

In 1934, the legislature created a permanent Texas Centennial Commission and appropriated \$100,000 to finance preliminary activities. At the same time, the legislature created the Texas Centennial Advisory Board, comprised of representatives from each of the 254 counties in the state.

Dallas Seat of Celebration

On September 9, 1934, the Centennial Commission designated Dallas as the seat of the celebration, that city having outbid Houston and San Antonio.

Dallas pledged more than \$9,000,000 in cash and property, including the \$4,000,000 plant of the State Fair of Texas as a nucleus for the Exposition. The city raised \$3,500,000 for a municipal bond issue and \$2,000,000 from the sale of bonds of the Texas Centennial Central Exposition Corporation.

Early in 1935, the legislature voted \$3,000,000 to finance its participation in the celebration and created the Texas Centennial Commission of Control as the directing body of the statewide observance and to supervise the expenditure of the State's appropriation.

Lieutenant Governor Walter Woodul of Houston is chairman and Coke R. Stevenson of Junction, Speaker of the House of Representatives, is vice-chairman of the commission of control.

Passage of the State appropriation was followed by the United States Congress passing a \$3,000,000 appropriation (the largest ever made for such a purpose) to finance the Federal Government's participation in the event. The commission in charge is comprised of Vice-President John N. Garner; Cordell Hull, Secretary of State; Henry A. Wallace, secretary of Agriculture; and Daniel Roper, Secretary of Commerce. Cullen F. Thomas, president of the Texas Centennial Commission, is U. S. Commissioner General in charge of Federal participation.

Although the colorful history of Texas provides the background for the Texas Centennial Exposition, the World's Fair of 1936 will not be confined to historical activities. Its sponsors declare that it will encompass a range never achieved by a similar enterprise since the Louisiana Purchase Exposition at St. Louis. Every phase of human endeavor, agriculture, industry, education, sports and science will be presented on an elaborate and equal scale.

Rapid progress is being made on the score of buildings the City of Dallas, the State of Texas and the Federal Government are estab-

lishing in the 200-acre Exposition plant.

The Buildings

The building program includes:

Texas Hall of State, cost \$1,000,000; furnishings, \$200,000; 488x258 feet, centering 80 feet high, with a Niche of Heroes of illustrious figures from Texas history.

United States Government Exhibit Building, cost, \$325,000; gross area 80,000 square feet.

United States Hall of Negro Life and Culture, cost, \$50,000; gross area, 15,000 square feet.

Texas Centennial Exposition Corporation buildings:

Hall of Agriculture, cost, \$117,321; gross area, 33,528 square feet.

Hall of Foods and Beverages, cost, \$230,095.86; gross area, 69,966 square feet.

Administration Building, remodeling \$134,764.46.

Halls of Varied Industries, Electricity and Communications, cost, \$426,663.11; gross area, 150,444 square feet.

Hall of Transportation and Petroleum, cost, \$399,627; gross area, 123,872 square feet.

Hall of Livestock, No. 1 and Arena, cost, \$225,000; gross area, 109,809 square feet.

Hall of Livestock No. 2, cost, \$139,474; gross area, 45,423 square feet.

Hall of Poultry, cost, \$35,000; gross area, 28,503 square feet.

Maintenance Shop, cost, \$35,000.

City of Dallas buildings:

Hall of Horticulture, cost, \$124,890, built in the form of an extended "H", 16x92 feet, forming the central bar, connected with two wings, each 40x76.

Hall of Natural History, cost, \$245,643; two stories high, with basement, 224x71 feet.

Hall of Domestic Arts, cost, \$86,487.50; 161x102 feet.

Hall of Fine Arts, cost, \$400,000; furnishings, \$100,000.

Band Shell and Open-Air Theatre, cost, \$136,667; band shell, 148x58, opening on a lagoon; stage, 50x50, accommodating 300 musicians.

Municipal sub-station, housing fire and police departments, hospital and radio, cost \$40,900.

Auditorium, remodeling, \$55,000; pipe organ included, cost, \$400,000.

Other buildings include an encampment of the Texas Rangers, cost \$30,000; replica of famous Texas missions by the Roman Catholic Church, cost \$35,000; replica of the Alamo, \$10,000; pylon lighting entrances, etc., at athletic stadium and race track, \$40,000.

(Continued on page 20)

DETROIT'S OUTSTAND

Recent Improvements Made at a Power Plant a Model in

The rated capacity of the filter plant is 276 million gallons daily. The present capacity is 120 million gallons (average day) with rated peak load 230 m. g. d.

The Intake

The intake system consists of a lagoon 2,600 feet long, 400 feet wide, and 26 feet deep below mean stage of the river. The intake begins at the head of Belle Island. There are tunnels under the Detroit river, one leading to Water Works Park, and the other to Springwells Station, located just across the city line in Dearborn.



Mr. George H. Fenkel, General Manager and Chief Engineer, Detroit Water Works.

The lagoon is protected from current and wave action, as well as floating debris and ice by stone dikes and by ice booms anchored at the entrance. The function of the lagoon is to afford protection from frazil and anchor ice as well as debris and other extraneous matter. These have heretofore been troublesome. This sheltered water area gives encouragement to the formation of a natural ice sheet which persists throughout the winter season and thereby prevents formation of other kinds of ice which have caused trouble in the past. In addition, the length of the lagoon carries the entrance above the influence of Connor's Creek and other sources of polluted water.

The intake structure is reinforced concrete, granite facing, surmounted by a superstructure consisting of a steel frame work with limestone exterior walls.

The structure is 140 x

Below: Motor floor of low lift units equipped with vertical shaft



Springwells Filtration Gallery

Detroit claims that its water works supply system, costing \$24,000,000 is the second largest in the world. Accepting this claim without argument as conformable with facts, it may be added that it ranks exceptionally high in fine buildings, modern equipment, efficiency, splendid control and good management.

The preliminary designs for the extensive improvements necessary for the fourth city in the United States were inaugurated in 1925. In the following year the first contract was let. The work was practically completed in 1931, enabling the partial operation of the plant. Early in May 1935, the power plant of Springwells Station was completed and the preliminary operating period began. On May 17 the plant was in shape for full time operation, with part of the supply for Detroit and suburban cities, towns and villages being furnished by Springwells Station and the other part of the Water Works Park Station.

Cost Was \$24,000,000

The new pumping, power and filtration plants known as Springwells Station, is located in Dearborn on West Warren Ave. at the Detroit Terminal Railroad, and the station is a part of the city's \$24,000,000 additional water supply system, consisting of intake, tunnels, filtration, pumping and power plants.

The sole source of supply prior to the big improvement recently completed was the Water Works Park Station. The rated capacity of the filter plant at Water Works Park, which is the largest in the world, is 320 million gallons daily.

The maximum day capacity of the Springwells station will be 276 million gallons daily with a peak load output of 380 million gallons daily.

Acknowledgment: We are indebted to the Michigan Contractor and Builder for illustrations and data.

ING WATER WORKS

Cost of \$24,000,000. Springwells Buildings and Equipment.

68 feet and reaches 27½ feet below ground level. There are twenty ports 7 x 9½, which permit water to flow into the structure and then down through the vertical shafts to the tunnels.

180 Feet Below River Surface

The intake tunnel, excavated through limestone rock at a depth of 180 feet below the river surface and lined with concrete is 15½ feet in diameter. It is 4,250 feet long to the screen chamber building in Water Works Park and is capable of delivering 940

m.g.d. with the river stage at a minimum. An 11-foot diameter concrete lined tunnel built through the clay underlying the river bottom at a depth of 65 feet connects the new intake structure with the old intake crib, making possible a supply to Water Works Park Station from the lagoon, by way of the old 10-foot brick river tunnel.



William C. Rudd Assistant Engineer-Power.

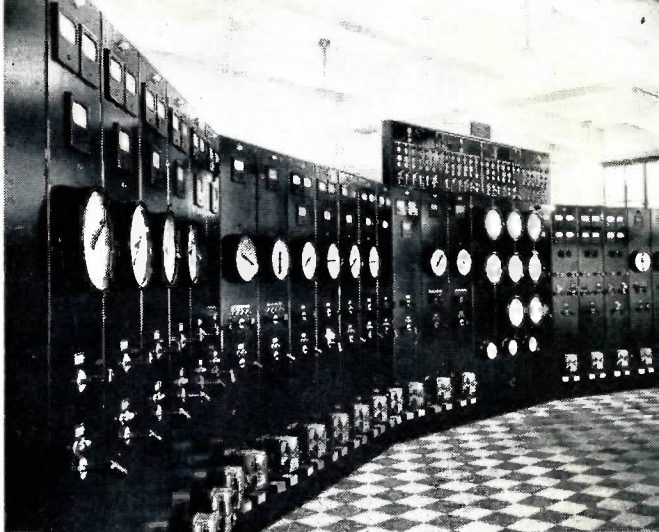
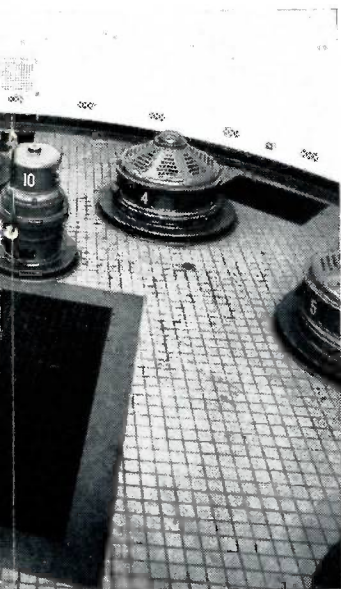
The Springwells tunnel follows the route of Forest, Grand River and West Warren Ave. to Springwells Station, located just across the city line in Dearborn.

Largest in World

The pumping plant is the largest in the world, for water supply purposes housed in one building. It is divided into two parts, one part for raw water pumps; the other for filtered water or distribution system pumps.

The raw water pumps deliver water from the 12-foot diameter tunnel to the filtration plant. These pumps are in a pit about 95 feet deep. In this pit there are 10 raw water centrifugal vertical type pumps,

Pumping Station showing motor shafts to Pumping Units 62 feet below.



Main Switchboard for Low Lift and Light Lift Pumping Stations including Phantom Switchboard.

driven by electric motors; the pumps vary in size from 7,000,000 to 60,000,000 gallons daily capacity each, with total rated capacity of 435,000,000 gallons daily. The pressure pumped against is about 20 pounds per square inch.

The 16 horizontal type, centrifugal, electrically-driven distribution pumps deliver filter water to the mains for use by the consumer. They have a total rated capacity of 568,000,000 gallons daily. The pumps on the south side of the plant furnish one pressure zone and those on the north side furnish another pressure zone.

All of the buildings are of a most substantial type.

Pump House:—Stone, steel, and concrete. Length 386 feet, width 100 feet, height 50 above grade, with substructure containing a pipe vault 35 ft. below grade, and the raw water pumping plant section nearly 100 feet below main operating floor. The electric motors of the pumping plant vary in size from 200 to 1725 horse power each.

Power Plant:—A group of four separate buildings as follows: switch house, turbine house, boiler house and coal unloading house.

Switch House:—This is four stories high, 230 ft. x 41 ft. and houses all electric switch boards, switch gear, auxiliary electrical apparatus, and ventilating equipment for apparatus and ventilating equipment for the pumping plant and also ventilating equipment for part of the power plant.

Turbine House:—A stone, concrete and steel structure, 206 x 90 ft., 57 feet above grade with 23 ft. basement. The equipment consists of two 5,000 and three 500-kilowatt steam driven turbine-generators and also one 5,000-kilowatt electric power transformer or a total capacity of 16,500 kilowatt. For present day load conditions, it is expected that the plant will produce 85,000 kilowatt-

hours of electrical energy per day — about 31,000,000 kilowatt-hours per year.

Boiler House:—Stone, concrete, and steel structure, 134 x 86 ft., 65 ft. above grade with 39 ft. basement. It contains two 1,000-horsepower water tube boilers, each equipped with an air preheater, water economizer, superheater, fans and underfeed stoker.

Coal Unloading House:—A building 126 x 41 ft. and 37 ft. high above grade. It contains the coal handling equipment for the power house.

Second Largest

The Springwells Filtration plant, second largest in the world, being surpassed only by the Water Works Park plant, has an area of 25 acres, including the office and laboratory buildings and filtered water reservoir. The plant is designed to operate as a straight coagulation sedimentation filtration, chlorination plant of the rapid sand type. It has a rated daily filtering capacity of 272,000,000. The raw water pumping plant delivers raw water to the mixing chamber of the filtration plant through two large concrete conduits which are designed to house meters of the venturi type which measure the water being delivered.

The mixing chamber is 75 feet wide, 335 feet long, 20 feet deep, and divided into three chambers and has a capacity of 3.2 million, a retention period of 15 minutes at 300,000,000 gallons day rate.

The chemical building is over part of the mixing chamber, and contains chemical storage tanks, unloading and conveying equipment and five dry feeding machines for dosing aluminum sulphate and ammonium sulphate into the raw water. The machines are connected to five 12 ton chemical hoppers mounted on indicating and recording scales.

Settling basins are of the straight flow type, divided into four sections each 135 x 340 feet with an approximate depth of about 18 feet of water. Total capacity 25 million gallons.

Sixty-eight Filter Units

There are 68 rapid sand filter units and the washwater supply system in the filter building. The filter units are arranged in four rows of 17 filters each along two parallel pipe galleries with concrete influent conduits connected by cross conduits to the outlet chambers of the settling basins.

Chlorination equipment consists of five vacuum type chlorinators by which chlorine can be added to the raw water in any desired amount.

The office and laboratory building is a two story structure containing very complete modern equipment necessary for physical, chemical, and bacteriological testing of water,

raw material, etc.

Twenty-four Hour Supervision

Technical supervision is maintained throughout 24 hours each day. At hourly intervals physical and chemical tests are made to determine proper treatment of water.

Two reservoirs between the filtration plant and distribution system pumps hold 20,000,000 gallons each of filtered water. The interior dimensions are 455 x 313 feet with a depth of 20 feet.

Suburban Service

The City of Detroit distributes water to 22 cities, villages and parts of nine townships.

The amount of water pumped to the system during the last fiscal year was over 85 billion gallons. There are about 4,600 miles of mains of which 2,900 are in Detroit and 1,700 in the suburban area. Sizes of mains range from 4" to 72". Three hundred miles of mains are over 24" in diameter or larger. There are 24,768 fire hydrants within the city.

Detroit's water rate is one of the lowest in the country. Total production cost (including fixed charges) is \$0.076 per 1,000 gallons; total revenue is \$0.093 per thousand gallons of water sold; average home owner uses 7,500 gallons per month, cost of which is \$.85 or an average of \$0.114 per 1,000 gallons, the equivalent cost is \$.028 per house or less than one cent per capita per day. The per capita consumption is approximately 130 gallons daily.

Within Detroit June 30, 1934 there were 265,507 accounts; outside Detroit, 6,210 accounts. For the year ending on date mentioned 1,119,411 water bills were delivered. The gross income of the department is approximately \$5,500,000 annually.

The Department of Water Supply is operated by a board of four water commissioners, appointed by the Mayor. The members are: A. C. Wallich, president; Oscar A. Wagner, vice president; Wm. T. Skrzycki and Joseph Hershey.

(Continued on page 20)

Sayings of the Wise

Adam: "I've fallen for it."

Samson: "I'm strong for you, kid."

Jonah: "You can't keep a good man down."

Cleopatra: "You're an easy Mark."

David: "The bigger they are the harder the fall."

Columbus: "I don't know where I'm going, but I'm on my way."

Mary, Queen of Scots: "Don't lose your head."

Nero: "Keep the home fires burning."

Noah: "It floats."

Methuselah: "The first hundred years are the hardest."

BRUIN WENT BACK

Decatur Park Bear Stuck Nose Out in Zero — Collusion with News Photographer Suspected

The protracted cold which enveloped the whole country in January and February was impartial in its selection of victims. It cost farmers hundreds of dollars in the aggregate of live stock lost, proving too much for domesticated animals. Small wonder, then that Frank Buck, old "bring 'em back alive" lost his valuable 27 foot python at Minneapolis in a 13 degree below zero temperature. The python brought from tropical Malay was unequal to any such frigidity. Buck says the reptile probably got only one whiff of the cold, causing its lungs to collapse, adding that a tropical snake's lungs do this instantly in cold air. The loss to Buck was about \$500. He is going to tan the skin and make things out of it.

Speaking of cold and its effect on wild life brings to mind the fact that the bear in Fairview Park, Decatur, after his usual long winter sleep came out of his den on February 17 in zero weather. This fact is well authenticated because a local newspaper photographer got a picture of the big black beast just as it came out of its front door. Whether this was accomplished through a prior arrangement between the bear and the photographer, the deponeth sayeth nothing, except the side remark that both bears and newspaper photographs are very cunning.

Supposedly bears know about the correct time to end the hibernating period without depending on an alarm clock. Their stomach tells them. In the case of this local bear, if not in collusion with the photographer, he made the worst guess of his life, because he went back in his den for another nap and well that he did. The next day the mercury was 12 degrees below zero.

A Sedentary Job

A writer reminds us that at one time dramatic critics used to sit on the stage. Nowadays they merely sit on the author, the cast, the scenery and the producer. — *The Humorist*.

Some of these out-of-town bus drivers are very courteous and considerate. They'll give you as much of the road as you want, provided you don't want it on the concrete.

She is only a lighthouse keeper's daughter, so the sailors pass her by.

Gluttony is the source of all infirmities, and the fountain of all our diseases. As a lamp is choked by a superabundance of oil, a fire extinguished by an excess of fuel, so is the natural heat of the body destroyed by intemperate diet. —
Burton.

Prompt Identification

"But I don't know you, madam," protested the paying teller to a woman who had presented a check.

The woman, instead of replying haughtily, "I do not wish your acquaintance, sir," merely gave him a glassy smile and said:

"Oh, yes, you do. I don't need anyone to identify me. I'm the 'red-headed hen' next door to you whose 'imps of boys' are always running across your garden. You have to go in the back way when the porch has been scrubbed. When you started for town this morning your wife said, 'Now Henry, if you want a fit dinner to eat this evening, you'll have to leave me a little money'."

"Here's your money," interrupted the teller, faintly.

Still Mad

A rookie received a severe lecture one day from his sergeant. The next day he passed the sergeant without saluting.

"Hey youse, why don't you salute me?"

"I thought you was still mad at me."

She: "Go! Leave this house! And never darken my guest towel again!" — *Life*.

Perhaps the forests that got petrified contained more than the normal content of wood alcohol.

SLOW MUSIC



Installment Collector: "See here, you're seven payments behind on your piano."

Kenny: "Well, the company advertises, 'Pay as You Play'."

"What's that got to do with it?"

"I play very poorly."

(Continued from page 15)

Street Improvements, sewerage, sidewalks, grading and water improvements costing more than \$400,000 are in process of construction.

Private Exhibitors

Among the private exhibitors erecting buildings and the cost of their exhibits are:

The Ford Motor Company, \$2,250,000; Continental Oil Company, \$65,000; Texas Company, \$100,000; Gulf Refining Company, \$120,000; Catholic Churches in Texas, \$30,000; Lone Star Gas Company's Hall of Religion.

Included in the large list of exhibitors of national note are DuPont, General Electric, Westinghouse, American Telephone and Telegraph Company, Firestone, Portland Cement Association and others.

(Continued from page 6)

stitutions of the Cumberland mountain district.

Here are some of the other "health" maxims:

Until he is six months old a baby's clothes must always be put on over his feet first or his growth will be stunted; his nails until he is a year old must be bitten off instead of pared or he will steal when he grows up.

And Still Others

Nutmegs or castor beans worn as a necklace or carried in the pocket will prevent indigestion and colic; a pan of water under the bed wards off night sweats; and washing the hands in the first snow of the season prevents their chapping during that winter.

Soot or cobwebs applied to a bleeding surface will stop hemorrhage.

Salt held in the palms of the hands and the face rubbed with a greasy dishrag will stop infantile convulsions.

A coin under the upper lip and a cold key down the back will stop nose bleed.

Increase in Population

The population of the United States, July 1, was estimated at 127,521,000. This is a gain of 4,746,000 or 4% over the 1930 census. The same rate of increase means a population of 132,000,000 in 1940. The census figures mentioned indicate that the U. S. continues in fourth place being exceeded in population by China, India, and Russia.

Smoky St. Louis

The city council of St. Louis is considering a new ordinance to abate the smoke evil. The St. Louis Medical Society called attention to the conditions, saying they were injurious to public health. Pittsburgh was formerly known as the "smoky city" but now "Smoky St. Louie" seems to have earned the name.

I trust everything, under God to habit, upon which, in all ages, the lawgiver, as well as the schoolmaster, has mainly placed his reliance; habit which makes everything easy, and casts all difficulties upon the deviation from a wonted course. Make sobriety a habit and intemperance will be hateful; make prudence a habit, and reckless profligacy will be contrary to the nature of a child, grown or adult, as the most atrocious crimes are to any of us. — Lord Brougham.

(Continued from page 18)

Mr. George H. Fenkel holds the office of general manager and chief engineer, the mere mention of which is sufficient to indicate his high character and engineering ability. He has a tremendous responsibility. Mr. William C. Budd, assistant engineer—power, is an invaluable aid.

Mr. Fenkel, among other honors which have been conferred upon him, is an ex-president of the American Water Works Association.

Following is statistical data on the Springwells Station project, which cost approximately \$24,000,000.

Maximum daily capacity of intake system—940,000,000 gallons.
Size of river tunnel, inside diameter—15 feet, 6 inches.
Length of river tunnel—4,250 feet.
Size of land tunnels, inside diameter—12 feet and 14 feet.
Length of land tunnels—55,750 feet.
Maximum depth of river tunnels—182 feet.
Maximum depth of land tunnels—108 feet.
Size of raw water pumping plant—435,000,000 gallons daily.
Size of distribution pumping plant—568,000,000 gallons daily.
Size of raw water and filtered water pumping plant—1,003,000,000 gallons daily.
Maximum rated capacity of the filtration plant—272,000,000 gallons daily.
Average present day capacity of Springwells Station—100,000,000 gallons daily.
Expected "peak" load requirements for Springwells Station for summer of 1935—180,000,000 gallons daily "rate."
Number of underground water storage reservoirs—2.
Capacity of reservoirs—40,000,000 gallons.
Number of raw water pumps—10.
Number of filtered water pumps—16.
Capacity of motors driving pumps—26,700 horsepower.
Number of filter units—68.
Capacity of each filter unit—4,000,000 gallons.
Capacity of filtration plant—272,000,000 gallons.
Main electric power characteristic—4,600 volt, 3-phase, 60-cycle alternating current.
Auxiliary electric power characteristics—440-volt alternating current; 249-volt direct current.
Electric lighting—115-volt alternating current.
Number of steam turbines—5.
Capacity of steam turbines—11,500 kilowatts.
Capacity of electric transformer—5,000 kilowatts.
Capacity of power plant—16,500 kilowatts.
Number of steam boilers—2.
Capacity of steam boilers—2,000 horsepower.
Steam pressure—385 pounds per square inch.

RAND-SHERMAN NUPTIALS

Charles M. W. Rand Jr. Married to
Prominent Society Girl of
Oklahoma City



Photograph by Mitchell-Byfield Studio,
Oklahoma City, Oklahoma.

Meet Mr. and Mrs. Charles M. W. Rand, Jr. newlyweds, who are now at home, 712 S. Wilton Place, Los Angeles. They were married in the First Baptist Church, Oklahoma City, Saturday noon, January 11.

The wedding was a social event of importance. The floral decorations were elaborate, and the bride was attended by matron of honor, five bridesmaids, her small brother as trainbearer, her sister Barbara Jean Lawrence, and Miss Marguerite Faherty as candle lighter. The other attendants were Miss Jean Rice, maid of honor, Mrs. R. H. Lawrence, matron of honor, Mrs. John Zoll Hogan, Tulsa, Miss Eleanor Hanson, Miss Loretta Schaller, and Miss Onita Sherman, bridesmaids.

The bride was Miss Ethel Sherman, daughter of Mr. and Mrs. Nathan S. Sherman, Jr. of Oklahoma City, and was prominent in social as well as in musical circles.

The groom, formerly of Chicago, has been connected with Columbian Iron Works (Division of Mueller Co.) Chattanooga, Tennessee, for some years, and now represents us on the west coast.

Following the marriage ceremony came a beautiful reception at the home of the bride's parents for the members of the wedding party, relatives and close friends of the couple, and out of town guests.

GOOD ADVERTISING

Pembroke, Va., Water Company Reach Prospects Through School Paper

Pembroke, Virginia, is a thriving little city of 1,000 population, and they believe in and cooperate in pushing to the front.

The Central High School, with between 500 and 600 students, have a mimeograph machine with which they print a monthly paper. The expense is borne by several business firms including the Pembroke Water Works. They are sold advertising space at a very reasonable charge.

Mr. W. D. Snidow, secretary of the water company, writes us that "no doubt a similar condition exists in every small town school, therefore take it from us — it's a good place to advertise so that Mother, Dad, and all may read it. Perhaps the suggestion would be brought to the attention of others if you care to print it."

We do care and here is a sample of the excellent copy the Pembroke Water Co. is furnishing the school publication.

"In addition to selling you pure, uncontaminated WATER we sell you SERVICE, by going a few miles to the Springs after the water for you and in delivering it to you, by the drink, tub-full or more, just whenever you want it; all at a very nominal cost to you. Not many of you would buy buckets, then walk or ride to the Springs and carry back 50 gallons of water per day, and be contented to receive 3 1-3 cents pay. We do that very thing for you; always bringing some 'extra' along, in case you want to turn on the faucet for more. For One Dollar we furnish you a maximum of 1500 gallons. The MORE WATER YOU USE THE CHEAPER OUR RATE.

PEMBROKE WATER COMPANY,
Incorporated.

"WATER SERVED YOU by this company is free from human and animal filth and contamination. We spent many dollars in placing a safe-guard about our source of supply for your protection. We see that it remains safe, and as a check on it we submit at least one sample every month to the State Board of Health, Richmond, Va., for bacteria test. If it were impure the State Health Department would stop our service immediately. If you are not one of our customers favored with this guarantee, we suggest that you collect a sample from your spring, well or cistern, and send to Richmond for a free test; you owe it to yourself. Be sure YOUR DRINKING WATER IS SAFE.

PEMBROKE WATER COMPANY,
Incorporated."

NEW PRESIDENT

Mr. William W. Hurlbut Named for A. W. W. A. Post

Beckman C. Little, secretary of the American Water Works Association announces that

"In accordance with our Constitution you are notified that the Nominating Committee has selected the following nominees for the offices to be filled at the Los Angeles Convention for 1936-37. In case no other independent nominations are filed, as provided for in the Constitution, these nominees will be considered elected to office.

For President: WILLIAM W. HURLBUT, — Water Distribution Engineer, Department of Water & Power, 207 So. Broadway, Los Angeles, Calif.

For Treasurer: WILLIAM W. BRUSH, — Editor, "Water Works Engineering," 24 W. 40th St., New York, N. Y.

Along with this mention of the nominees your earnest attention is directed to the Fifty-Sixth Annual Convention of the Association to be held at Los Angeles, Calif., during the week of June 8th, 1936, Biltmore Hotel being headquarters.

A very complete and interesting program of papers will be presented, and this program will be mailed well in advance of the Convention dates.

Members are urged to make hotel reservations early to make sure they will have the accommodations they desire."

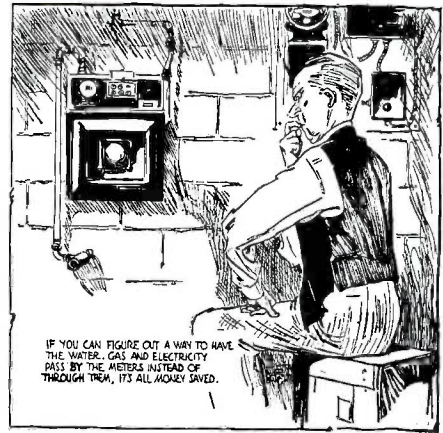
WILL BE COMPLETED 1936

Boulder Dam, it is expected, will be completed some time this year. The dam proper was completed in February 1935, but there remained a great deal of work to be done, including the power plant and installing hydro-electric machinery. This gigantic undertaking has been in the making since December 21, 1928, when authorized by Congress. It is located in the Black Canyon where the Colorado river forms the boundary line between Arizona and Nevada. The dam, the highest ever built, rises 726 feet from bed-rock. When the work is finally completed sometime this year, 5,500,000 barrels of cement will have been used. The lake, the largest artificial reservoir ever built by man, will eventually be 115 miles long and have an area of 145,000 acres. Even now it is 286 feet deep over 80 miles long, and contains 4,450,000 acre feet of water.

Few ever lived to a great age, and fewer still ever became distinguished, who were not in the habit of early rising. — Todd.

None but a fool is always right. — Hare.

AN OLD, OLD GAME



Courtesy Ledger Syndicate, Philadelphia, Pa.

J. Norman Lynd, cartoonist, had a page of cartoons recently in the Decatur Herald and Review, on the subject of "Thrift," one of which the Ledger Syndicate, Philadelphia, kindly permits our reproduction. The water, gas and plumbing trade should be interested. They all know of the "gent" who conceives the idea of free service by putting a by-pass on the meter. Perhaps the talented Lynd did not know about this old trick. There is only one draw back to it — the "gent" is caught sooner or later, and when he settles with the public service company it is generally at a figure much higher than if he had permitted the gas or water to go through instead of around. He is the easiest of fish to land. It is not necessary to employ a detective to do it. It is not even necessary to bait the hook. The public service company knows he is using gas and water, and when the meter does not show it an investigation of the premises is made and the by-pass is located. When the "gent" is apprised that his cute little trick has been trumped, he is told to settle or be prosecuted. He settles. It is an old, old game, but it is always new to some consumers.

Signs of the Zodiac

Teacher: "Attention. Signs of the Zodiac. Tommy!"

Tommy: "Taurus, the Bull."

Teacher: "Right. Albert."

Albert: "Cancer, the Crab."

Teacher: "Right. Jimmy."

Jimmy: "Mickey, the Mouse."

Confine yourself within the modest limits of order.

Millions died that Caesar might be great.

Out of the Ordinary

United States District Attorney Igoe, Chicago, paid two cents postage on a letter which turned out to be a threat against his life. We do not know what Mr. Igoe said, but had we been in his place would have clinched our teeth and hissed, "cheap guy."

Mrs. Come and Mrs. Wendt (pronounced Went) live in the same apartment in Milwaukee.

John Estell, negro witness in a court at Detroit, asked for a pencil and paper to figure out how many children he had. The problem proved intricate, and depending on memory, he completed the census by saying, "about 37."

At Sterling, Colorado, Christmas day, Mrs. Fred Christeleit, called at the jail to see hubby, who was temporarily detained for some minor infraction of the law. The police chased her out, and also her husband. She had a fully developed case of smallpox.

Hangman Braun, Warsaw, Poland, complains of loss of business and asked the government to compensate him for his loss. He blames a recent amnesty law which commutes death penalties for crimes committed before 1934. Hangman Braun gets \$9 for each execution.

Robert St. J. Borden, heir to the condensed milk fortune, has been making a run as bell boy on a liner between New York and Haiti. Arriving at the former port recently, he told an interviewer, "I like the work. I'm just one of the boys. Never mind about the Borden family." Talk about contented cows. What about contented Bordens?

It costs fifty cents to ride in the police wagon at Columbia, S. C., provided the prisoner is convicted of the charge against him.

M. H. Duke, San Antonio, Texas, had no trouble pulling on a new pair of boots, but broke his leg trying to pull one off.

Mrs. Catherine Cook of Newark, N. J. got

a divorce. She said her husband hid her false teeth to keep her at home nights.

Mrs. Mary Jemima Checketts, age 87, was operated on at Salt Lake City, and made to see after twenty years blindness. The first thing she saw "was a most unpleasant person looking at me." What she saw was her own likeness in a mirror.

Justice of the Peace A. C. Hess of Reno, Kansas, is cooperating with Cupid and Leap Year, marrying couples at three cents for the ceremony.

There is evidently a lot of money in the country according to the American Banker, which says that in one hundred of our largest banks there are deposits totaling \$25,101,-857,466 which is \$3,209,527,639 more than in one hundred largest banks in 1934.

Michael Walk, Philadelphia, made a pistol from a piece of lead pipe with a mouse trap for a trigger. It worked. Michael is in a hospital with a bullet in his head.

At Conway, Arkansas, two men dug up the dead body of Joe Howard, and removed the gold filling in the teeth of the deceased.

In a county near Decatur, a farmer named Albers killed his wife and four children. He remained in the house with the dead bodies for nearly ten days. Absence of the children from school led to investigation. As the sheriff and others approached the house, Albers killed himself.

ABSENT MINDED FOLK

Servant: "The doctor's here, sir."

Absent-minded Man: "I can't see him. Tell him I'm sick."

* *

Clerk: "Something, sir?"

Shopper: "I want the elevator."

Clerk (absent-mindedly): "Shall I wrap it up or will you take it with you?"

* *

Bob Jenks upon his wedding day
Was a most excited creature;
He handed his bride the marriage fee
And tried to kiss the preacher.

—Boston Transcript.

* *

Absent-minded Professor: "Waiter, half an hour ago I ordered some lamb chops. Have you forgotten them, or have I had them?"

The Auto Line



Sawn of a Gun

I cranka da car,
Bawt she won't run;
These automobile
She's a sawn of a gun,
Shesa stop da middle
Of da stret upa town,
I look in da carburator,
But shesa no drawn;
I pusha da clutch,
Shaka da wheel,
Knocka da brake,
Da horn I feel;
I look in da tank—
What I see—yas!
Sawn of a gun!
Shesa outa da gas!

—Scranton Scratch.

Fine Discrimination

1st. Mechanic: "Which do you prefer, leather or fabric upholstery?"

2nd. Mechanic: "I like fabrics; leather is to hard to wipe your hands on."

The Dodger

"Motoring is surely a great thing. I used to be fat and sluggish before the motoring craze, now I'm spry and energetic."

"I didn't know you motored."

"I don't. I dodge."

Fast Billboard

Timid Wife (to husband who has fallen asleep at the wheel): "I don't mean to dictate to you, George, but isn't that billboard coming at us awfully fast?"—Log.

Three Driving Evils

"Intoxicated driving, uncontrolled thumbing and indiscriminate spooning," a traffic report declares, "are among the major menaces of our highway safety." Or to put it even more briefly, hic, hike and hug.

—Boston Herald.

No Model At All

"What model is your car?"

It's not a model, it's a horrible example."

All's Well

Attendant: "How's your oil?"

Negro Motorist: "Ah's fine. How's yo' all?"

Recognized Impossible

Customer: "I'd like to see some good second hand cars."

Salesman: "So would I."

At the Filling Station

"Check the oil, sir?"

"Naw, it's O.K."

"Got enough water in the radiator?"

"Yep, filled up."

"Anything else, sir?"

"Yes. Would you please stick out your tongue so I can seal this letter?"

—Pit Panther.

A Rattler

The man who bought a second-hand flivver took it back.

"What's the matter with it?" asked the seller.

"Well, you see," said the disgusted owner, "every blamed part of it makes a noise except the horn."

Salvage from Soot

A news item tells us that "A mining company in Japan will refine 1300 tons of soot from the chimneys of its refineries, and expects to recover nearly \$17,000 worth of silver, gold and copper" — that is, if the precious metals did not go up in smoke.

Ashes in Trophy

Ashes of Charles R. Morling of Wood End, England, have been deposited in the silver cup which he won in a famous 90-mile horse race from Tientsin to Peking, China.

"Ain't" That Terrible

He: "Do you care for dancing?"

She: "No."

He: "Why not?"

She: "It's merely hugging set to music."

He: "Well, what is there about that you don't like?"

She: "The music." — The Pathfinder.

The shadows of our own desires stand between us and their better angels, and thus their brightness is eclipsed. — Dickens.

PROMINENT ENGINEER DIES

Robert Brooks Morse Had Been Identified with Many Big Undertakings



Brooks Studio
Washington, D. C.

*Robert Brooks
Morse*

Robert Brooks Morse, chief engineer of the Washington Suburban Sanitary District, Hyattsville, Md. died of septicaemia in a Washington hospital Jan. 31st. In his passing the engineering profession loses a distinguished member.

Mr. Morse was born September 13, 1880, a son of the late Prof. Harmon N. Morse of the Johns Hopkins University. His education had been very thorough, beginning with the Baltimore schools and high school.

Johns Hopkins University, A.B. 1901
University of Maine, 1902
Massachusetts Institute of Technology, B. S. 1904.

Active Life

His engineering life was a broad and active one beginning as draftsman, Bureau of Construction and Repair; Navy Dept. Washington, D. C. 1904-5; draftsman, assistant engineer, assistant division engineer Sewerage Commission of Baltimore City 1905-10; Assistant sanitary engineer Metropolitan Sewerage Commission of New York on plans and studies for elimination of the pollution of New York Harbor 1910-12; chief engineer Maryland State Dept. of Health, 1912-22; being in full charge of supervision over water supply and sewerage systems in Maryland; chief engineer Washington Suburban Sanitary district (an area of 104 square miles in Maryland, adjoining the District of Columbia) in full charge of design, construction, and operation of water and sewerage systems 1918-1936.

Many Memberships

He was a member of many committees in technical societies, author of technical reports, papers, and articles in journals, Maryland Water Supply and Sewerage Law, 1914; co-author Washington Suburban Sanitary District Act, 1918; author and co-author of several chapters in Manual of Water Works Practice published by the American Water Works Association, 1925; and a member of many other technical and scientific societies. He also was a member of the sub-committee on Maryland-Washington Region of State

Planning Commission of Maryland. He was in private engineering practice from 1910.

Mr. Morse's immediate survivors are his widow, Caroline E. Morse, a daughter, Mrs. Julian Ashton Devereux of Ruxton, an infant granddaughter, Vail, and a sister, Dr. Mary Elizabeth Morse of Baltimore.

THE PONY EXPRESS

A Daring Enterprise Which Lasted Less Than Two Years

The coming of April 3 marks the 76th anniversary of the inauguration of the pony express. It was to the country almost as big a sensation as the telegraph, which followed so closely that the pony express was abandoned within two years. But it remained long enough to become a daring, romantic, exciting part of our history. It called for young men of endurance, bravery, and grit. It was an exciting occupation, riding against time through a new country beset with hostile Indians and road agents, to say nothing of grizzly bears, mountain lions, rattlesnakes, and other dangers.

One Month Trip

In those days it took a stage coach or a pack train nearly a month to traverse the 2000 miles between St. Joseph, Mo. and the west coast. Messrs. Majors, Russell, and Waddell, who were identified with the express business of that day agreed to cut the time to ten days or better. They did better than this, seven days and nineteen hours.

Five Hundred Ponies

There were 190 relay stations on the route at distances of 10 to 15 miles. There were 80 picked riders and 500 ponies were used. It was a night and day ride and the riders were just as ambitious to reach their station on time as the good railroad engineer is today.

High Postal Rate

The service lasted from April 3, 1860, to October 1861, less than two years. In the beginning the postal rate was \$5 per half ounce, but was finally reduced to \$1.

The abandonment of the pony express came with the establishment of telegraphic communications. But memory of it is still recalled through song and story and for many years it had a place on the stage.

Professional Curser

The natives of Annam have an official who bears the title of Master of Sorrows. His duty is to curse in the house of a dead person to drive away evil spirits. This official also curses at weddings.

GAS BUSINESS GREAT

Substantial Gains Made in 1935 Over Preceding Year

Nineteen-thirty-five was a good year for the gas industry, according to James M. Beall, editor of the American Gas Monthly. The industry continued the improvement shown in the preceding year. Despite campaigns to supplant gas for cooking, the sale of gas ranges increased nearly 30%. Approximately 1,100,000 gas ranges were sold during the year. This represents a gain of 250,000 over 1934. It is a notable fact that nearly 75% of gas range sales were in the modern class, such as those including automatic heat control. Gas refrigeration also increased over 1934 sales, the gain being about 30%. Vigorous selling effort will be continued in 1936.

Three Sales Campaigns

The Commercial section will sponsor three national sales campaigns for the promotion of sales of gas ranges, gas water heaters, and gas refrigerators. This is going to be on a scale never attempted before. In conjunction with this plan, a study is being undertaken on a nation wide scale of long term financing on appliance sales. Manufactured and natural gas companies supplying towns and cities with a population of eighty-million served 16,002,000 consumers, the largest number of consumers ever connected with the mains of an industry. Of these 9,973,000 used manufactured gas and 6,029,000 natural gas. The aggregate revenues for both branches of the industry aggregated \$726,306,000, a gain of 3.4 per cent over 1934. The natural gas companies grossed \$353,335,000, a gain of 7.8 per cent for the year, while revenues of the manufactured gas companies were \$372,971,000 as compared to \$374,845,000 in 1934.

House Heating Gains

House heating sales again made a striking advance registering a gain of 29% over the previous year.

Altogether the outlook is very bright, and it is expected that 1936 will witness greater advances than were made in 1935.

He Was

Old Maid — "And when I looked under the bed there was a man under it!"

Sympathizer — "I'll bet he was embarrassed!"

Old Maid — "Embarrassed? I should say he was! It took him an hour to get over it."

Ill deeds are doubled with an evil word.
— Shakespeare.

FINE RECORD

Illinois Central Has Not Killed a Passenger in 7 Years

The great Illinois Central Railway System has a splendid record of which its officers and employes have every reason to swell up with pride. We are glad to give it publicity. It's a splendid example of what can be accomplished through training, application of safety principles and strict attention to rules. There was a time when the country was shocked by what was considered an appalling loss of life through wrecks and accidents, but great as it was it sinks into insignificance compared to the daily massacre by automobiles on city streets and state highways. It is now pointed out that a railway train is safer than the home.

The Illinois Central System went through 1935 without the death of a single passenger in a train accident. During 1935 the Illinois Central System completed its seventh successive year without the death of a passenger in a train accident and is now well into its eighth year of such accomplishment. It has carried approximately twice the population of the United States since its last passenger death in a train accident in August, 1928.

The Lost Recovered

"Would you believe it? He actually ran away as they were standing at the altar!"

"Lost his nerve, I suppose?"

"No — found it again."

Dots Vot Iss It

"Papa, vot is it Science?"

"How can you be so dumb! Science iss dose tings vot says no smoking by der gaso-line tank."

TOLD THE TRUTH



"Where'ja get the black eye?"
"Oh, that's just another proof that the hand is quicker than the eye."

Always Something New

In the Nation's Business, Paul Hayward tells us:

A new lever-type juicer squeezes juice from oranges without halving the fruit.

Sponges made of clear cellulose are now offered for general cleaning purposes.

Two little known hexahydric alcohols mannita and sorbite are now being produced synthetically on a commercial basis from field corn. Textile, paper, leather, pharmaceutical, synthetic resin and other industries see possibilities of its use.

A new electric steaming and pressing iron operates without a boiler, connects to any water line, generates steam in five minutes and has automatic heat and finger tip control.

A new reel has a built-in meter which tells fishermen at a glance the length of their casts, or when trolling, the amount of line they have out.

Thin flexible parallel ribs compose the tread surface of a new tire. They bend from side to side with the weight of the car and are said to prevent skidding, reduce noise, and wear longer.

A porcelain-enamelled steel reflector of new design is offered for industrial lighting. It is said to eliminate glare, give universal diffusion, and more light without increase in wattages.

Moisture-proof latex bags which are said to keep food fresh in mechanical refrigerators for ten days or more are now available. They close tightly, stretch to fit contents, and can be sterilized.

Disfigurement of waffles is prevented by a new electric waffle iron. A heavy wire frame automatically lifts the waffle from the bottom plate when the lid is raised.

A soluble rubber composition is offered for barrel-lining. It can be poured, brushed, or sprayed on, is said to be odorless, and proof against inorganic acids and alkalies.

Forty-six feet of clothes line space is provided by a collapsible, rustless steel dryer

occupying a 24" x 23" floor space and standing 54".

An electric serving table, usable as a card table, or fireplace screen. To set up hold the top out and legs drop into place automatically. It has a triple outlet and eight foot detachable cord.

Cabbage is cut for slaw or kraut by rotary cutting blades which shred the head and removes the core. It is for use in home or restaurant.

A new machine simultaneously cooks a Frankfurter and bakes a roll around it. Hamburger, veal loaf, etc. can also be used.

One-fourth to 2" holes are quickly cut in glass, porcelain, etc. by a portable electric ceramic drill. A guide filled with suction cups holds the unit in place on the work.

Climbed Mt. Rainier

Delmar Fadden aged 23, climbed Mount Rainier in January, reaching the summit 14,408 feet. He got back to the 13,000 foot level in his descent, and there his body, frozen stiff, was found. A public funeral was held in Seattle. Three snap shots found in Fadden's kit proved conclusively that he attained his ambition to be the first man to climb the mountain during January.

Why was Robinson Crusoe's man Friday like a rooster? Because he scratched for himself and Crusoe.

Where did Noah preserve the bees during the flood? In the ark-hives.

THEY ALL KNOW NOW



"Can any man at this party truthfully say that education has hurt his business?"

"I can."

"And might I ask what your business is?"

"Certainly. I used to make a good living peddling the book 'What Every Young Girl Should Know,' but there's no demand for it any longer. There goes one now who knows it all."

CHINESE STUDENT TRANSLATES WRITING



We are reproducing here an illustration of a Mueller Record envelope and contents which travelled to Shanghai, China, and return. Accompanying the illustration was the following story:

Here is a Mueller Record envelope which made an around the world journey and came back to us in good shape, having failed to catch up with Mr. Eugene Y. C. Chu, formerly located in Shanghai, China. Mr. Chu is a Chinese, was educated in the United States, having fitted himself as an hydraulic engineer. As the address shows, he was associated with the Department of Public Utilities, Shanghai, and has been a regular reader of the Mueller Record for several years. We presume the Chinese characters on the face of the envelope convey the information Mr. Chu's present address is unknown, but for all we know the postmaster who returned it may be calling us "foreign devils" or worse. It is at least interesting to know that the Chinese postal officials take care of undeliverable mail as efficiently as those in the United States service.

E. H. Langdon, personnel director of Mueller Co. has turned over to the editor a letter which he received from his friend, Prof. A. G. Anderson of the University of Illinois. This letter follows and is self-explanatory.

Mr. E. H. Langdon,
The Mueller Company,
Decatur, Illinois.

Dear Mr. Langdon:

Have been enjoying the last issue of the Mueller Record, including the record of the Mueller Record envelope which traveled to China and return.

The Chinese characters on the envelope are translated as follows. The symbol at the extreme left means "Return". The one next to the right is for the figure "55", and the next one, "28". The vertical line of characters at the extreme right, reading from top downward, "This man is not here." The adjoining line, "Return to the original place."

I have a young man, a Chinese, Mr. R. W. Y. Hsu, from Shanghai, China, in my graduate course in industrial management, and he has supplied the above information.

With best wishes, I am

Very truly yours,

A. G. Anderson, Professor of Business Organization and Operation.

309 Commerce Bldg.

It is a small world after all. The University of Illinois has for many years been a favorite with Chinese students. That, at least is our impression, as the University always has Chinese students enrolled.

There is no fool like an old fool who marries a young fool.

OLD TIME ROADSTERS



Oh We're Two Bums

Too Liberal

Lady Bountiful: "Here's a penny, my poor man. Tell me, how did you become so destitute?"

Beggar: "I was always like you, mum, a-givin' away vast sums ter the pore and needy at Christmas time."

Never Caught Up

Old Salt: "Could you do something for a poor old sailor—I've followed the water for twenty years."

Farmer's Wife: "Humph—looks to me like you never caught any."

A weary knight of the road had stopped at the sign of the "George and Dragon," and had asked the landlady for a bite to eat, and mayhap, an old pair of pants.

She (testily)—"No, I haven't anything for the likes of you, and I don't want to see you around here again. Well, be off with you. What do you want now?"

W. K. (meekly)—"Well, then, mam, could I speak to George?"

Age of Specialization

Bo: "It isn't that I'm afraid to work, ma'am, but there ain't much doing now in my particular line."

Lady of the House: "Why, what are you?"

Bo: "A window-box weeder, ma'am."

Immune

Bozo: (eating his handout) "What are ye gazin' at me for? Do you think I'm your long-lost brother?"

Servant: "No; but you remind me of a man I used to know. Something happened to him, though, that will never happen to you."

Bozo: "Did he die a millionaire?"

Servant: "No; he was drowned while bathing."

Flatterer

L of House: "You seem able-bodied and healthy, you ought to be strong enough to work for your meals."

Zobo: "True enough, lady. And you seem beautiful enough to be in the movies, but evidently you prefer the simple life. Thanks, Mum I'd just as soon eat out under the trees."

Doctors Orders

Slow Walker: "Please, kind lady, I'm a sick man. The doctor gimme this medicine, but I need something to take it with."

Housewife: "Poor fellow! Do you want a spoon and a glass of water?"

Slow Walker: "No, mum, I wouldn't trouble you. But this medicine haster be took before meals. Have you got a meal handy?"

Passing It Along

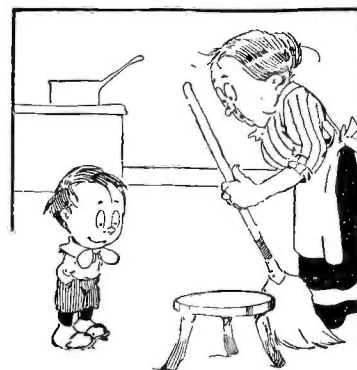
Travelling Tommy: "Thank ye, mum. I never tasted better pie in my life, mum. Would ye mind giving me the recipe fer a lady over on the other end of the town whut never turns a poor, hungry man down?"

You may be sure of one thing and that is that you can't be too sure of anything.

It's an easy matter for a stingy man to get rich — but what's the use?

Many a poor man who isn't a bigamist has one wife too many.

POOR MARKSMAN



Mother: "When that naughty boy threw stones at you, why didn't you come and tell me instead of throwing them back at him?"

Willie: "What good would it do to tell you? You couldn't hit the side of a barn."

WANTED — A SINCERE EFFORT

"Live and Let Live" is the title of The Travelers Insurance Co.'s annual booklet dealing with the horrors of the automobile's continued massacre during 1935. A gruesome tale, indeed. It is too bad that the appalling array of facts cannot be placed in the hands of every automobile owner and driver, and yet we doubt if they would even read it, let alone give it serious and conscientious study. Too many automobile drivers have nothing in the cavity designed by nature for holding an intelligent brain. They are not only unimpressionable, they are irresponsible. In all fairness, it must be said, that pedestrians of the same class still go addle-headed through streets crowded with moving motor vehicles, reading papers, gawking at other pedestrians, disregarding all danger, which they never realize until they regain consciousness in a hospital, or perhaps never realize it all because they are put away in eternal safety in the grave.

The Story in Figures

This general table tells the story, but it is broken down into various tables to show the cause of the heedless slaughter.

COLLISION WITH:	NO. OF ACCIDENTS	PER CENT	PERSONS KILLED	PER CENT	PERSONS INJURED	PER CENT
Pedestrian	297,610	36.0	16,030	44.4	276,640	30.9
Automobile	374,490	45.3	8,900	24.6	450,320	50.3
Horse-drawn vehicle	4,960	.6	140	.4	5,370	.6
Railroad train	4,960	.6	1,440	4.0	4,480	.5
Street car	13,230	1.6	310	.9	11,640	1.3
Other vehicle	8,270	1.0	250	.7	8,060	.9
Fixed object	53,730	6.5	4,080	11.3	64,460	7.2
Bicycle	19,840	2.4	580	1.6	17,910	2.0
Non-collision	47,120	5.7	4,290	11.9	53,720	6.0
Miscellaneous	2,480	.3	80	.2	2,680	.3
TOTAL	826,690	100.0	36,100	100.0	895,280	100.0

Bad Combination

The combination of the thoughtless pedestrian and the reckless, unthinking driver will continue until legislative authority places more stringent restrictions on these two parties whose combined ado have created a condition which in five years has proved more destructive to human life than our participation in the World War. We quote from "Live and Let Live."

"Worse than war. More lives were lost in the United States by auto accidents in the last five years than were killed or died of wounds in battle in the A.E.F. during the World War."

Sir Malcolm Campbell has driven his racing car at the rate of 300 miles an hour. Speaking of his pleasure car, however, he says: "Fifty miles an hour is fast enough."

Here is the automobile speed-king of the

DEATH RIDES WITH THE CARELESS DRIVER



world who makes us marvel at his professional daring on a course used by no other machine, but shows recognition of danger when driving an automobile for pleasure. The hair-brained speed-demon by contrast rides along at a rollicking gait of 70 to 80 miles per hour on crowded streets, imagining himself a Malcolm Campbell.

Shameful Record

America's shameful record on streets and highways in 1935 was both worse and better than the year before. Worse because deaths increased by around one per cent from 35,769 in 1934 to (excluding 332 motorcycle fatalities) 36,100.

Under the heading, "Wanted — A Sincere Effort," the Traveler says: "There are two inseparable and necessary courses of action — mass education and law enforcement, fully applied, could and would cut the annual auto-

mobile accident toll at least one half, if not more, as demonstrated in various communities. Whenever a group of people in a community engages in a sincere effort to get down to fundamentals that have to do with human conduct, then and only then will progress be made in preventing death and destruction upon streets and highways."

Needless Carelessness

Here are the results of hasty, needless, and careless actions in 1935 and their toll of dead and injured:

Accidents 532,720; killed 23,570, injured 705,440.

Following are the big items in the list of dead and injured resulting from reckless and careless driving as stated above.

CAUSE	NO. OF ACCIDENTS	KILLED	PER CENT	INJURED
Driving too fast	121,460	7,240	31	161,550
Wrong side of road	85,770	3,940	17	111,460
Didn't have right of way	135,840	3,580	15	191,880
Drove off road	55,940	3,390	14	64,190
Reckless driving	51,670	3,020	13	67,020
Miscellaneous	20,780	920	10	28,220

In the above list which is not quoted here in full was the number killed and injured by the somewhat unusual cause of "Car running away — no driver," number of accidents

amounted to 3,200, killed 280, injured 4,230.

And so on to the end of mangled, bleeding, bloody, hordes of dead, dying, and crippled.

(Continued from page 2)

decided that the Transfer House was held in trust for the public and that the city had no right to rent it for a private enterprise.

Controversial Subject

From the beginning the transfer house has been a controversial subject, and within a year it was almost as good as decided to remove it from the Square to permit state routes 2 and 10 to go straight through the city. There were arguments pro and con, and the newspapers were filled with communications advocating destruction of the house and advocating its retention. Perhaps the turning point in the argument came when an art critic of national reputation, while on a visit to Decatur, pronounced it the most artistic thing in Decatur.

Dome of Chain

There is an interesting bit of history connected with the architecture of the building. Professor Geo. Raab, art instructor at Millikin University, declared many years ago that the Transfer House was modeled after a building known as the "Dome of the Chain" near what is believed to be the site of Solomon's temple in Jerusalem, built some time between 637 A. D. and 1099.

The "Dome of the Chain" is so known from the legend that on its site was a place of judgment by a miraculous chain, which, as the legend has it, was once suspended from heaven over the spot. It was the practice in Solomon's time to appeal cases of conflicting evidence to this spot. Each witness was made to grasp the chain in turn; and if he suc-

ceeded in holding it, his truthfulness was thereby vindicated, but if it eluded his grasp, he was a manifest liar.

Lincoln Memorial

In 1933 the state asked the city to consent to the removal of the Transfer House due to the fact that state routes 2 and 10 cross at that point. The city council voted to remove it, but in 1934 the council voted to rescind its action, and to clean up and redecorate the building. In October 1934 the Transfer House got its first bath in thirty-nine years. Strong soap and a chemical solution were used to cut away the years' collection of dirt and grime, and when finished the building was several shades lighter. The roof was painted green and a general color scheme of ivory and green was maintained throughout.

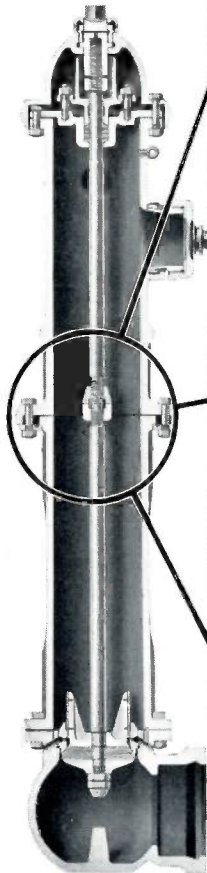
Murals were painted on the walls and ceiling portraying the early life of Abraham Lincoln, his cabins in Kentucky, Indiana, and Illinois, and his residence in Springfield, Illinois. Andrew Harlman, a Decatur artist did the work. Scenes of old Salem where Lincoln knew Ann Rutledge, and others showing the Lincoln trail including covered wagons drawn by ox teams, Lincoln splitting rails, and learning to read.

Some Call it a Memorial

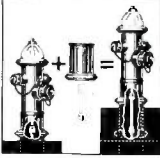
The building is considered by many to be a memorial of Abraham Lincoln, appropriately located in the center of the Square bearing his name, and only a few feet from the site of the old court house where he appeared as an attorney when riding the circuit years ago.

We call it a "Safety Flange"

--but "safety" is only part of
the story--



LENGTHENING



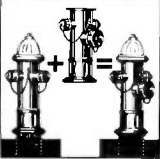
Remove safety flange and coupling and add section as shown. No water cut-off; no digging.

SWIVELING



Loosen eight bolts that hold safety flange and swivel hydrant to any degree of circle. No digging; no water cut-off.

CHANGING NOZZLES



Safety flange offers convenient way of changing barrel section to one with hose and steamer nozzles. No water cut-off; no digging.

OF COURSE the primary purpose of the safety flange of the Columbian Fire Hydrant is to confine breakage by trucks or automobiles to a few inexpensive parts. But do not overlook the fact that it also offers three other important advantages:

- (1) An inexpensive way of lengthening the hydrant to conform to new grade levels.
- (2) A simple means of swiveling the barrel so that the nozzles can be faced to any degree of a circle.
- (3) A simple, quick way of adding steamer connections to hydrants as conditions call for steamer nozzles.

All of these changes are made, as illustrated, without digging, without cutting off water, and at minimum cost. Cities grow, grade levels change; conditions change. Therefore even if the greater feature of protecting vital parts were forgotten, these three features of lengthening, swiveling and changing connections would make Columbians a sound investment.

In addition, Columbian offers many other features found in no other hydrant. Write today for detailed description of your *future* fire hydrant.

COLUMBIAN IRON WORKS
CHATTANOOGA, TENNESSEE
Division of MUELLER COMPANY
DECATUR, ILLINOIS

COLUMBIAN

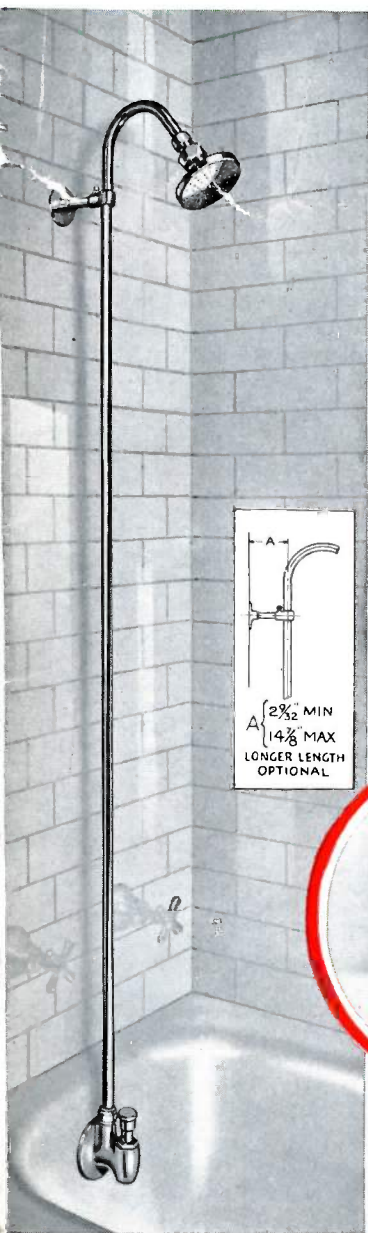
FIRE HYDRANTS AND GATE VALVES

Let These Sales Compelling Mueller Adapto Showers Show You the Way

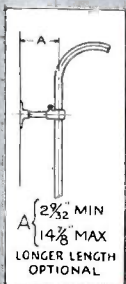
To New and Profitable Business

Sure shot. So why waste time? They have been "the best plumber's helper" that ever entered the field, and have lifted hundreds of Master Plumbers from the red to the black and kept them there.

Mueller Adapto Showers — as the name indicates — fit any style tub, and any standard installation. It's A B C work. Screw the fitting to the supply pipes and the bracket to the wall, and the Adapto is ready for instant use.



H-5084



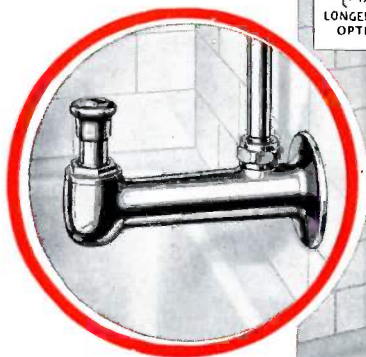
H-5079

Automatic Combination Tub Filler and Shower for built-in recessed, or corner tubs with overrim spout installation.

Fair price to the customer and a good profit to you. Tie in with this shower which is not only all we claim for it — but an opening wedge releasing new customers and new business for you.

Write for circulars and quotations today. Put yourself at the head of the parade when it steps off to the music of

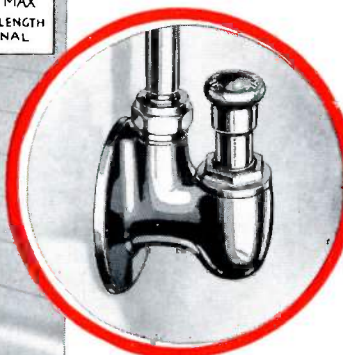
MORE AND BETTER BUSINESS.



Automatic Combination Tub Filler and Shower for built-in recessed, or corner tubs with overrim spout installation. Furnished with riser pipe, pipe support, wall flange, adjustable ball joint and shower head with 4 inch removable face. Straight riser pipe regularly furnished. Pipe with offset optional. Curtain or rod extra.

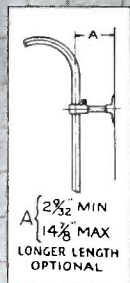
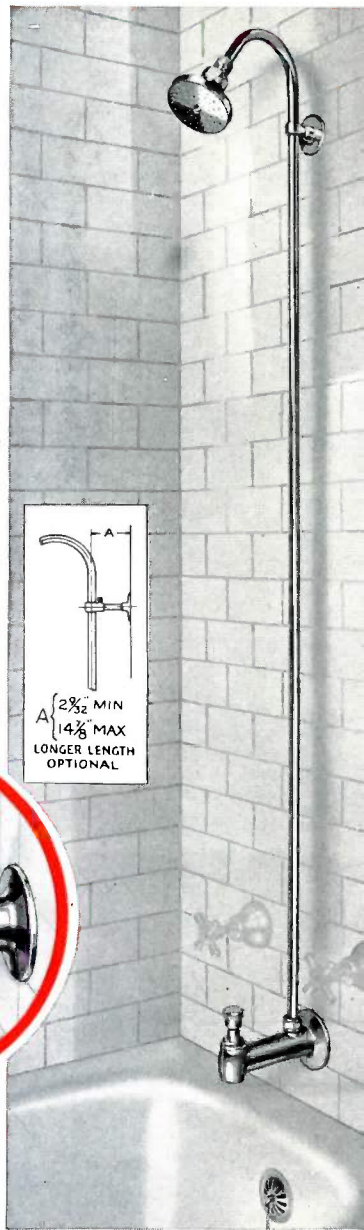
H-5090

Automatic Combination Tub Filler and Shower for built-in recessed, or corner tubs. Drilled for 3 3/8 "c" to "c" for faucet.



Automatic Combination Tub Filler and Shower for built-in recessed, or corner tubs with spout or bell flange within the tub. Furnished with riser pipe, pipe support, wall flange, adjustable ball joint and shower head with 4 inch removable face. Curtain or rod extra.

ON THIS PAGE WE ILLUSTRATE FOUR OF EIGHT ADAPTO SHOWER INSTALLATIONS.



H-5084

MUELLER CO., Decatur, Ill.

Ask for new circular describing the Mueller Line of Adapto Showers

ONLY **MUELLER** VALVES HAVE THE AUXILIARY SPRING



Judged by any standard, there is simply no comparison between the MUELLER line of valves and any other valve on the market. For instance, all Mueller valves have the new auxiliary spring construction. This principle runs through the entire line of valves and is exclusive with MUELLER. Valves equipped with this feature are more sensitive — within 5% of the pressure at which they are set. A lightly seated composition disc is used which will far outlast the ordinary common hard disc that is seated by the load of the heavy main spring. This revolutionary principle insures a perfect seat under all conditions and eliminates the need of constant servicing to stop dripping and leaking.

Then look at the large diaphragms — another feature in all MUELLER valves. These extra large sized diaphragms are made of phosphor bronze and monel metal, impervious to water, heat, lime and scale. All pressures operate over the entire surface of the diaphragm, thus insuring accurate sensitive control instead of relying upon a mere Pop Seated Valve.

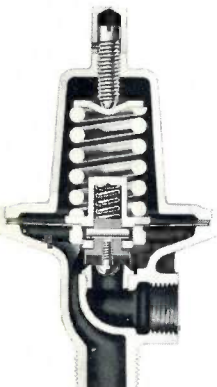
The bodies of all MUELLER valves are made of the heavy type MUELLER bronze and brass. All wearing parts are easily accessible allowing easy replacement of worn discs and seats. All passages are large stream-lined openings and relieve pressure quickly.

Check MUELLER valves against all others. There is simply no comparison, and since relief valves are protective devices, there is no need to compromise with anything but the best.

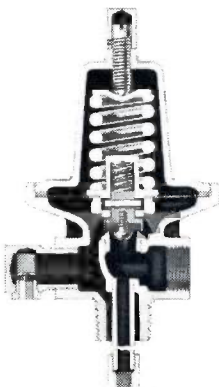
MUELLER CO., Decatur, Ill.

Factories: Decatur, Ill., Los Angeles, Calif.,
Chattanooga, Tenn., Sarnia, Ont.
Branches: New York and San Francisco

Mueller Valves are furnished for all types of installations. Write today for this interesting catalog describing the entire line in detail.



H-9045



H-9067



H-9057

MUELLER

PRESSURE AND TEMPERATURE RELIEF VALVES