

MUELLER RECORD



MAY 1931

**SATISFACTION
and
ENDURING SERVICE
ARE INVISIBLE PARTS OF
MUELLER
WATER WORKS GOODS**

For this reason Mueller Goods are first choice of thousands of water works men.

Extraordinary in so many particulars it is not surprising that Mueller goods are held in such high regard by water works men when Mueller careful production methods are known.

There is Mueller rigid standards of laboratory control over all manu-

facturing processes, castings from accurate patterns, mechanical precision in every machining operation, inspection at every step and finally testing each piece *under 200 pounds Hydraulic pressure.*

These thoughtful, painstaking steps result in goods accurate, dependable and serviceable—facts known to thousands of water works men through a long course of years.

MUELLER—METER YOKE

So it isn't by accident that Mueller Goods hold such an enviable place in the good judgment of water works men.

It is the natural result of Mueller's purpose to make goods as near 100% perfect as is humanly possible.

MUELLER Water Meter Yokes embody ease of installation, flexibility, and adaptability. When installed there is nothing to slip or get out of alignment.



The **MUELLER** Inverted Ground Key Stop is made extra good in every particular because of the important service requirements.—It is the only control between the main and the house.

Another superior feature is the outlet connection — an adjustable ell — a stop in itself.

When removing a meter you can shut off the drain from the house by screwing the sleeve back to its limit.

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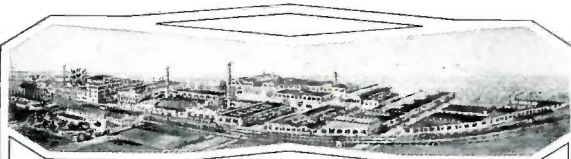
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THE FACTORIES BEHIND MUELLER PRODUCTS



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MUELLER RECORD

**PUBLISHED AT DECATUR, ILL.
BY MUELLER CO.**
PLUMBING, WATER AND GAS BRASS GOODS
74 Years in Business

**MAIN FACTORY AND
OFFICE**

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Los Angeles
Dallas
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CANADIAN FACTORY
MUELLER, LTD.
Sarnia, Ontario

Every day some one is doing something that some one else said could not be done. It's this obstinate class of people who keep the progress of the world moving forward.

At a recent meeting of National Educators it was declared that inadequate education is responsible for the \$13,000,000 crime bill of the nation and the present unrest in the home and shocking marriage conditions. Rather a sad commentary with all our present schools and educational facilities to say nothing of the millions spent annually for additional fine public schools.

REGULATING BUSES

Interstate buses will come under national regulatory legislation of the next congress, according to the prediction of Senator Couzens of Michigan. The subject is not new to congress. It has been discussed, investigated and passed on by committees and the Interstate Commerce Commission, but there are some points upon which agreement has not been reached. These points are gradually being cleared up and it is expected that the next congress will turn out some sort of regulation of this new method of transportation.

LAX BUSINESS

A striking example of how lax some persons are in business is brought to notice by the treasury department. Recently a call was made for redemption of \$1,109,000,000 treasury notes of 1930-32 series A and B. Redemption date was March 16 at which time interest ceased. April 1st, there were still outstanding \$70,000,000 of these notes at 3½ per cent interest which the notes, however, had ceased to draw. In a business way the owners of these notes still holding them were losing an annual interest of \$2,450,000 or \$6,712.33 daily. A good business man does not hold anything which does not return something on the investment. Perhaps many of these outstanding bonds will not be presented for redemption for years to come. Holders who have secreted them may have died, many of them are secure in safety deposit boxes and some have been lost. Such is always the case in issues of this kind. It's a safe bet that the 70,000,000 outstanding bonds are in the hands of small investors. The big investors dropped them into the U. S. Treasury like hot cakes the moment interest ceased.

DROUTH FURNISHES LESSON

There is a lesson to water works men in the drouth of 1930. While we have not heard of a complete failure of supply, there were many water works plants that were sitting on the muddy edge, so to speak. There were many instances wherein the authorities were moved to institute emergency regulations controlling the use of water because of a limited supply which threatened to fail entirely.

The seriousness of the situation has attracted the notice of government officials and the President's Emergency Committee is calling attention to the wisdom and need of reconstructing water works adequate for seasons of scant rainfall.

John C. Hoyt, hydraulic engineer of the Geological Survey, tells this committee that a drouth may be expected at any time. There is no meteorological rule by which drouths can be determined far enough in advance to permit precautions for coping with them. It is not until a drouth is in full swing that we wake up to the need of the precautions which should have been taken.

Engineer Hoyt says that the 1930 drouth was the most severe in 50 years. While the usual period between severe drouths is 15 or 20 years, they may repeat year after year.

In view of these facts it is urged that water works make adequate extensions and provisions now to meet any future conditions.

It seems that this is good advice and worth heeding.

It means that necessary steps to meet any future drouth are being wisely taken and at the same time are of great assistance in relieving unemployment.

CANADIAN SNOW GEESE

The Canadian government has assigned several officers to protect migratory game birds during their flight northward. During this migration the fowls spend a considerable time among the islands in the St. Lawrence river. These special officers are to give particular attention and protection to Canadian snow geese. It is claimed that this breed is practically extinct, having been reduced to one known flock, whose fall and spring flight has been carefully noted and recorded for years past. The Canadian snow goose is the largest of the wild goose family. Its snow white feathers gives this goose its name.

THE MUELLER RECORD

Published at Chicago, Ill., by MUELLER CO.,
Manufacturers of Vital Spots Products for the
Plumbing, Water and Gas Industries.

C. N. WAGENSELLER, Editor

POETS AND PHILOSOPHERS

Give Their Views on Marriage in a Way Not Entirely Complimentary

Matrimony is a question on which there is not perfect agreement. It is a debatable question. Generally the big debate begins shortly after the ceremony and continues until the doctor tells one or the other of the high contracting parties that there is no hope. It requires the professional skill of an undertaker to end some unsuitable marriages if the parties eschew divorce proceedings.

Poets, philosophers, and cynics rail against the institution of marriage, but nevertheless the majority of men and women try it once anyway, and even though it does not take they are frequently willing to try it again.

May and June are favorite months for marrying. Everything seems auspicious to connubial bliss at this season. Flowers are blooming, birds are singing, soft moonlight lends a charm while calf-eyed love is at its strongest and most dangerous period. Some of the great writers and thinkers escaped this ecstatic state, and record their opinions contrary to the custom, while some entangled in the meshes of matrimony wish they had been satisfied with just talking about it.

Here are some thoughts by men who have their opinion on the subject or have had experience:

Cursed be the man, the poorest wretch in
life,

The crouching vassal, to the tyrant wife,
Who has no will but by her high permission;
Who has not sixpence but in her possession;
Who must to her his dear friend's secret
tell;

Who dreads a curtain lecture worse than
hell.

Were such the wife had fallen to my part,
I'd break her spirit or I'll break her heart.

—Burns.

Marriages and hangings go by destiny;
matches are made in heaven.—Burton.

Man and wife,
Coupled together for the sake of strife.

—Churchill.

Wedlock, indeed, hath oft compared been
To public feasts, where meet a public rout,
Where they that are without would fain
go in,

And they that are within would fain go
out.

—Sir John Davies.

The victim o' connubiality.—Dickens.

Is not marriage an open question, when it is alleged, from the beginning of the world, that such as are in the institution wish to get out, and such as are out wish to get in.—Emerson.

You should indeed have longer tarried
By the roadside before you married.

—Landor.

Advice to persons about to marry—Don't.
—Punch Almanack.

FARMERS PREFER LOWERS

Part of the farmers may be broke, but, all of them no, and never will be. They will keep on digging, have a good time and lay aside a little for worse times to come.

Farmers like to go places and do things—Florida, California and Cuba in the winter time, Atlantic City and Yellowstone or the northern states in the summer. Any time any one tells you the farmer is broke don't accept it as meaning all farmers any more than you would some one's statement that all banks were insolvent. A trip was recently arranged and supervised by a farm publication and fifteen sleeping cars were necessary to carry the party of nearly 300 farmers to Miami for a visit and later for embarkation to Cuba. The manager of the trip said additional sleepers were made necessary because the farmers and their families demanded lower berths, although there was a saving to be effected by taking uppers.

And any one can ride an upper comfortably even though he be "uppish."

BANG!

The brand new young lawyer had just nailed up his shingle and had fairly turned himself inside-out to make a good impression. The office doorbell rang, and a man entered. Desiring to impress his first client, the young man immediately picked up his telephone and said:

"Ah—indeed—three o'clock—yes, but please be prompt; I'm extremely busy—ah, yes—\$300—certainly; that's my fee—ah—Good-bye."

He hung up the receiver and turned quickly to the stranger.

"Now, my good sir," he said, "What can I do for you?"

"Nothing," drawled the man, "I've just come to connect your telephone."—Telephone News.

Big Bridge Will Soon Be Done

The great suspension bridge joining the Borough of Manhattan with Fort Lee, N. J., is completed, except for building the approaches, which it is expected will be completed and the bridge opened before the close of the year, somewhat in advance of the time originally planned. This bridge is one of the largest and most costly that has ever been built.

JUDGE AND JURY



A Male Godiva

Judge (to officer who had arrested salesman for walking in public without clothes) —“What’s the charge, officer?”

Officer—“Impersonating a woman, your honor.”



Ataboy!

Scandalized Judge (to enraged attorney) —“Silence! I fine you five dollars for contempt of court.”

Enraged Attorney (planking down \$20 bill)—“Five dollars doesn’t begin to express my contempt for this court!”—Sun Dodger.



Getting Even

Counsel for the prosecution had been rather sarcastic about the age of the youthful doctor who was one of the important witnesses for the defense, but now he reached a point where his cross-examination had to be serious.

“You are familiar,” queried the lawyer, “with the symptoms of concussion of the brain?”

“I am,” replied the young physician grimly.

“Then, if Mr. Smith”—waving his hand toward the defendant—“and I banged our heads together, should we get concussion of the brain?”

“Well,” said the doctor, deliberately, “Mr. Smith might.”



A Positive Forecast

Attorney—“Don’t worry, you won’t be convicted. The jury will disagree.”

Client—“What makes you think so?”

Attorney—“I’m absolutely positive. Two of the members on the jury are man and wife.”

Musta Been

“Are you positive that the defendant was drunk?”

“No doubt,” growled Officer Shultz.

“Why are you so almighty certain about it?”

“Well,” replied Shultz, “I saw him put a penny in the patrol box on Court Street, and then he looked up at the clock on the library building and roared: ‘Gawd! I’ve lost fourteen pounds’ weight!’”



Cornered

The attorney conducting the cross-examination had grown disgusted with the evasive answers of the witness.

“Answer my question yes or no,” he admonished.

“Your question can’t be answered yes or no,” replied the witness.

“Any question can be answered yes or no,” expostulated the lawyer. “Ask one and I’ll prove it.”

The witness replied: “Have you quit beating your wife?”



Furnished the Proof

The man before the magistrate was a stranger in the village, and he was most indignant that he should suffer the humiliation of his present position.

“The constable seems very certain about everything connected with my case,” he sneered, “but there’s one weak point in his defense. Why does he not call his fellow officer to corroborate what he says?”

“There’s only one constable stationed in this village,” said the officer.

“But I saw two last night,” indignantly asserted the prisoner.

“Exactly!” agreed the policeman. “That’s the charge against yer.”



Obliging

Officer of the Law—“Here, you must accompany me.”

Drunken Banjoist—“A’right. What chu wanna shing?”



Wanted Protection

“Offisher, you’d better lock me up. Jush hit my wife over the head wish a club.”

“Did you kill her?”

“Don’t think so. Thash why I want to be locked up.”—America’s Humor.



Original Danger Signal

When pursued by another creature, the five-bellied toad turns on his back and kicks up his legs. Nature has provided him with a splash of red on the stomach and legs. As red is regarded as a danger sign by wild animals, no creature will eat him.



Bald Heads, Attention

“I suppose you carry a memento of some sort in that locket of yours?”

“Yes, it is a lock of my husband’s hair.”

“But your husband is still alive.”

“Yes, but his hair is gone.”

I'm Tellin' You



A silent candy box for theater-goers has been invented, with noiseless packing paper, a hinged lid, and a seal that breaks noiselessly, but the chewing gum still pops.

At one time chemists talked of abolishing sleep, but talk was all that came of it. The night clubs did not do any talking about it but have succeeded in giving Morpheus the K. O.

The doctor takes the trouble to tell us that there is no such disease as spring fever. Just our luck! It's the only disease we'd give a darn for.

We are advised epigrammatically by an exchange that:—

"To win success:
Be brief—politely.
Be aggressive—tactfully.
Be emphatic—pleasantly.
Be positive—diplomatically.
Be right—graciously."
And we might add
Be tight—determinedly.

In one of those "med-columns" published in daily papers, the "doc" gives advice on how to make weak feet strong. Now, "doc," do the world a real service with reverse English on the advice.

A recent survey in Illinois demonstrated that 3 to 1 farmers preferred horses to tractors as motive power in the field. Horsey, keep your tail up! You are still man's best friend.

If Huckleberry Finn were to ask today, "What does a king get?" an answer would be easy—the boots.

We go forward and backward. Along came the automobile and took people away from home. Just as we had become accustomed to the auto as a place of residence along came the radio and brought people back to their homes. Now most of us stay home o' nights.

Since Harve Woodruff failed to copyright "Remember way back when" we'll ask:

Remember when men lapped up too much, went home, got in a fight with the missus, and vented their spite by breaking up all the family chinaware?

When it was considered a distinct honor to be a member of the legislature?

A leghorn hen in Canada laid 357 eggs in 365 days, falling short 8 eggs of one egg per day, which is accounted for by the fact that these eight days were legal holidays.

Clyde Moore calls attention to the fact that the only two women executed in this country were blondes. Perhaps, hangmen like gentlemen, prefer blondes.

"In these fast times," says the Arkansas Gazette, "a dog has had his day when he is too old to be taught new tricks." Doggone if he isn't just like a man.

When you and I were young, Anti! The state anti-saloon league had a field day in Decatur 25 years ago. Present: J. K. Shields, state superintendent; J. K. Burke, legislative superintendent; E. H. Curtis, superintendent, Springfield district; J. Claude Ewing, superintendent, Peoria district; and Rev. Mr. Stanley of Springfield were present. The collection in all churches for the cause was \$104. In those days the liberal element laughed at "anti." But now? Wot a change, wot a change.

If it is possible to talk a thing to death we see the finish of old D. E. Pression.

American Tobacco Company had their biggest year in 1930. Earnings showed an increase of 43 per cent, equal to \$8.56 per share. No doubt idle persons showed increased industry in chawin' and smokin'.

You along with the rest of the best wishers have wished you had a million dollars. You might just as well wished for a billion as it is just as easy to say and differs from a million in the initial letter only.

Before you do it, however, you should consider what you are going to be up against when your wish comes true. Charles Ransom, lumber man of Memphis, Tenn., turns the microscope of practical imagination on a billion dollars and dramatizes it. Here is how it figures out:

If a billion had been accumulated 500 years before Christ, had not been allowed to draw interest and had been paid out at the rate of \$1,000 a day since, up to and including November 21, 1929, there would still be \$112,866,000 left.

MARITAL BARGAIN COUNTER: "The average woman," says Elsie McCormich, "marries what she can get rather than what she wants." Sure they do—a meal ticket is not to be sneezed at in these days.



SWEET ADELINÉ: "We make constitutions by day," says the Maharajah of Alwar, "and hospitality ruins them by night." So ho, they sing Sweet Adeline in India, too.



One may not sympathize with or approve convict revolts and riots, but must admit that every man in penitentiary or jail is just naturally ambitious to get out and is neither polite or particular how he scales ambition's ladder or the walls of the pen.

AN ORNITHOLOGICAL ERROR

Many years ago a few English sparrows were brought to this country and they showed their appreciation by vast multiplication of their kind. So great was the increase in sparrow population, and so much newspaper propaganda was launched against these dirty looking little foreigners, that they became extremely and extensively unpopular. In many states a bounty of two cents was placed on their head and a warfare of extermination was inaugurated and maintained by small boys with shot-shooters and air rifles. If the sparrows ever found out that they were being exterminated they did not show it in any visible decrease in numbers.

That's ancient history now, but in view of the action then taken it is interesting to note that sparrows were valuable little creatures deserving of better treatment. Prof. A. G. Ruggles, Minnesota Agricultural Entomologist, advocates feeding sparrows during seasons of snow and ice. He says that when one pair of sparrows in one day dispose of 500 destructive caterpillars they are entitled to a little food. While they are not particularly beautiful in plumage or voice, Prof. Ruggles says they are one among few species of birds remaining with us the year round. This evidence of their usefulness would seem to convict legislators as having erred in their action of putting a bounty on the heads of these birds. But legislators are not always right.

AUTO LICENSES

Just about the time we become accustomed to the present system of automobile licenses, along comes Connecticut leading a movement to introduce a new system. Beginning next year licenses in that state will run from 1 to 999. After running through the alphabet, with certain letters omitted, the two letter system will be used with one letter appearing above another, it is explained. Thus, there will be a series of plates from A-1 to A-999, then AA-1 to AA-999, AB-1 to AB-999, and so on to AZ-1 to AZ-999.

DEATH RIDES WITH THE CARELESS DRIVER



BUT NOT WITH OUR TRUCK DRIVERS

They know the danger constantly attending the operation of automotive vehicles. They have learned their lesson of "safety first" at all times and have been schooled in the necessity of operating their trucks with one view in mind and that is the prevention of collisions which damage property or accidents which result in injury to people.

As a result of this they have the honor of winning first prize in all classes of trucks which have been entered in a safety contest sponsored by the Decatur Association of Commerce, for the year ending April 1st.

Mueller fleet of trucks numbering ten travelled during the year 4105 days without an accident. This splendid record wins them a silver plaque as a symbol of their victory. Second place in this contest was won by the Illinois Bell Telephone Co. with 3593 vehicle days without an accident. Third place was awarded the Decatur Paper House with 2543 vehicle days without an accident.

Practically all commercial and industrial trucks in the city were entered.

The good result of the plan is appreciated when one knows that from 124 accidents during the year of 1929-30 declined to 92 accidents during the contest year 1930-31 just closed. All Decatur truck drivers have learned the value of careful and cautious driving in heavy traffic.

There were several divisions or classifications of trucks. The winner of each division will be given a framed certificate of victory, and each truck driver who drove during the year without an accident, will be presented with a merit card.

Arrangements are now being made by the Association of Commerce to give these men a public dinner in recognition of their cooperation in reducing automobile accidents.

ONE OF THE MOST USEFUL METALS

Copper Has Always Been a Great Ally of Science and Commerce

Copper is one of the oldest and most useful of metals. To us it is invaluable. In the manufacture of brass goods Mueller makes copper the dominating portion of the alloy. Neglect to do this would result in an inferior article, unsatisfactory in service and durability.

From the earliest days the value of copper has been known and recognized. The ancient made it into ornaments, money, weapons and are reputed to have had a hardening process which, however, has become a lost art. From the earliest days copper has been widely used because of its ductibility and its imperviousness to destruction or the elements.

Science Promoted Development

Old as copper is its greatest uses are comparatively new. It remained for science to develop the telegraph, the telephone, the radio and make copper an indispensable metal. With the coming of the telegraph copper as an agency of transmission was soon recognized and adopted because of its conductivity. The development of Morse's discovery gave a new impetus to copper. This was later greatly augmented by the telephone and again by the radio. While the messages of the latter are carried on wave lengths in the air, copper is still necessary to accomplish correct transmission.

Story Told in Tons

The importance of this world old metal to modern life is described and emphasized by the Bulletin of the Copper and Brass Association. The story is told in tons and miles of copper encircling the world and connecting nations by great cables resting on the beds of the ocean. It's told by roofs of buildings, by ornamental cornices, by statues, by automobiles, by cooking utensils, by pipes, by everything in fact that man encounters every day of his life.

Take the telephone in which copper is used and the connecting copper wires—a hundred million miles of it giving to us a connection and communication with 20,100,000 users in telephones in America and an added 12,000,000 in foreign countries. The longest conversation was over a space of 21,000 miles. The American Telephone and Telegraph Company's statistics tell us that in a recent year there were twenty-six billion telephone conversations in this country.

Radio Recent Aid

And among other big boosters, the radio came into general use. It is possible by means of this latest method to reach 40 million persons at one time. Radio sets have so far required 100,000,000 pounds of copper, while present production calls for 25,000,000 pounds more annually. Copper functions in nearly all departments of radio. It does more than make it possible for you to hear Amos and Andy's troubles

each evening. The airplane flyers carry a set and can talk from the air to stations 200 miles away, an invaluable aid in fogs and in making landings.

This brief article does not begin to cover the uses by which copper contributes to the service, welfare, and pleasure of man. Without copper we would be in a bad way. It's as old as the world, but don't despise or overlook its great and permanent benefits on that account.

DAYLIGHT SAVING

The Mueller factory went on daylight savings about the first of April. Decatur is not, as a city, observing this plan, and our factory does not have to combat the confusion and difficulties which arise from a general adoption of daylight saving.

The employes have said that they prefer the plan and as a result, we simply go to work earlier in the morning and quit earlier in the afternoon.

The Daily Review makes the following editorial comment on our actions:

"Mueller Co. seems to have taken a course that can be easily followed by other manufacturing plants that do not have a retail relation with the public. Daylight savings should not be a disturbing factor for manufacturing plants where the majority of the workmen agree that they want it."

TOURISTS HAVE MONEY

The auto tourist business does not decrease. Every spring sees its revival and until frost comes there are millions of American citizens who virtually live in cars. Hard times, depression or unemployment do not seem to have any effect in decreasing America's nomadic population or the amount of money expended. In 1930, generally conceded the most unfavorable year in more than a decade, the tourists were here, there and everywhere. The Maine Publicity Bureau gathered statistics which show that the tourists who registered with the bureau in 1930 spent \$96.34 per capita against \$77.49 in 1925. Maine has a very complete system of gathering this kind of information.

THE DEADLY ENGLISH "BAWTH" TUB

Great Britain has something else besides the dole system. Bath room accidents have become very costly to insurance companies. It is claimed 100,000 persons draw compensation of \$1,500,000 because of fatal and serious accidents. But the bath tubs are not so much to blame as the persons who use them. A London authority cites some of the common causes of these accidents.

"Drowning after being overcome as the result of a heavy meal; electrocution while reading in the bath and holding an electric lamp in a wet hand; and gas poisoning due to faulty manipulation of heaters; hundreds of broken limbs."

The prison population of the country has almost doubled in the last twenty-five years.

Master Plumbers at Milwaukee



Court of Honor—Washington Monument in foreground.

Milwaukee Yacht Club on Lake Michigan.

Milwaukee will be host to the National Association of Master Plumbers, 49th Annual Convention, to be held there June 23, 24, 25, 1931. In connection there will be an exhibit of plumbing, heating, and allied products, June 22, 23, 24 and 25.

This is expected to outshine any previous exhibit. Nowhere in the world can be found a display of products representing the last word in plumbing and heating just as is found in these annual exhibits. The Convention and Exposition will be under the same roof of the Milwaukee Auditorium. Convention sessions will be held daily starting at 10 A. M. and closing at 2:30 P. M.

The Sales Promotion Committee, headed by Chairman C. W. Wanger, of Philadelphia, will conduct programs of interest and value to master plumbers in Convention Hall starting at 2:30 P. M. Tuesday and Wednesday afternoons, June 23 and 24.

It will be unnecessary to leave the Auditorium for meals. There is a restaurant in Market Hall of the Auditorium seating 900 people, where excellent food and service may be obtained at reasonable prices.

The details of the program are yet incomplete, but there will be speakers of prominence, whose messages to the master plumbers will be of great worth. The Exposition will be held in the Arena of the Auditorium, the hall of which is 220 ft. by 100 ft. without a post of any description.

All persons attending the convention will pass through Exposition Hall going to and from the general sessions.

The Exposition opens June 22nd at 10 A. M. and continues daily until 10 P. M., closing Thursday, June 25th, at 6 P. M.



George H. Drake, Buffalo, N. Y., President, N. A. of M. P.

Hotel headquarters will be at the Hotel Schroeder, only two blocks from the Auditorium. The Women's Auxiliary will be held here, in connection with their 13th annual convention. The opening session is Tuesday, June 23rd, at 2:30 P. M. in the Banquet Room, fifth floor of the hotel, and the closing session will be on Thursday, June 25th, starting at 9:30 A. M. and continuing throughout the day.

A Memorial Service will be held by the Auxiliary probably Monday afternoon, June 22nd.

Entertainments for the women in attendance include a "Badger State Tea" held in the Schroeder Ball Room, Monday afternoon, 4 P. M., with special music and entertainment.

Some of the Social Features

There will also be a motor tour of Milwaukee followed by luncheon at the Hotel Schroeder, Wednesday, June 24. This trip will start at 9:30 A. M. and luncheon will be held at 1 P. M.

The entertainment for men and women includes a "Get Acquainted Party" at Hotel Schroeder, Monday evening, June 22nd, as well as a reception and President's Ball at Hotel Schroeder, Thursday evening, June 25.

On Tuesday and Wednesday evenings there will be an elaborate entertainment for men and women in Mechanic's Hall, Milwaukee Auditorium. The entertainment for Tuesday evening is called "County Fair Night" and will consist of many attractive and amusing features. On Wednesday evening in the same hall for men and women will be held "Old Heidelberg Night" including music and other features which the name implies.

Continued on Page 12

MAW AND PAW



Pass the Buck

She: "The world is full of rascals. This morning, the milkman gave me a counterfeit half-dollar."

He: "Where is it, my dear?"

She: "Oh, I've already got rid of it—luckily the butcher took it."

Clay Face

Horace: What did your wife have to say when you came in at four this morning?

Maurice: Didn't have a word to say.

Horace: 'S matter, tongue-tied?

Maurice: No, I put cement in her beauty clay.

When a Feller Needs a Friend

Beck (despondently): "I said something my wife didn't like, and she hasn't spoken to me for two days."

Peck (eagerly): "Can't you remember what you said?"

Oh, Tell Me

He had been to a stag dinner, and his wife wanted to hear all about it when he got home.

"Well," he said, "one rather odd thing occurred. Jim Blankton got up and left the table because some fellow told a story he didn't approve of."

"How noble of Mr. Blankton," exclaimed his wife, "and—that was the story, John?"—Sohio.

Trapped

The wife (reminiscing)—"Well, Henry, I very nearly didn't marry you."

Husband (absent-mindedly)—"I know—but who told you?"

Then War Started

"Yes, sir, I believe big wars are often caused by the smallest matter," ruminated Old Man Jones. "Things that a fellow thinks don't amount to a darn will sometimes pile up a mountain of trouble. Why, just the other night my wife was working over a

cross word puzzle and she looked up and said, 'What's a female sheep?' And I said, 'Ewe.' And there was another big war on."—The Corn Cob.

Said It With Flowers

H.: "Was your wife angry when you came home late last night?"

W.: "Not on your life. She overwhelmed me with flowers."

H.: "How did you get that black eye, then?"

W.: "Well, she forgot to take the flowers out of the vase before she threw them."

Generous

He (raging): "I'm losing my mind!"

She: "No wonder! Every time you see me, you give me a piece of it."

Old Reliability

"Is your husband the sort you can depend upon?"

"He certainly is," answered Mrs. Scraggs. "When he says he's going to stay out all night he stays."—The American Legion Monthly.

Small Chance

"What kind of a woman is his wife?"

"Well, he has as much chance of going out alone as one of the Siamese twins would."—Cincinnati Enquirer.

G-r-r-r!

"What is a white slave?" asked Mrs. Grouch.

"A married man," growled her husband.

Scars of Battle

Sammy—"Is that the lion or lioness, papa?"

Father—"Which one, my boy?"

Sammy—"The one with its face scratched and the hair off its head."

Father (with a sigh)—"That must be the lion."

Ray of Hope

Wife (during quarrel)—"You're becoming absolutely unbearable. It will soon be impossible to live with you."

Hub. (hopefully)—"How soon?"

Peaceful Day

"I look forward every Sunday to the after-dinner nap."

"I thought you never slept after dinner."

"I don't, but my wife does."

Bank Account

"Well," said the husband, "have you found out anything about the social standing of the new folks across the street?"

"Not yet," was the reply. "They have no car."

"No?"

"Yes, and they have no pom, no phonograph, no radio, and not even a grand piano. I can't imagine what they have got."

"Humph," remarked friend husband, "perhaps they have a bank account."

CITY FOLK AND WAYS

Some are Polite and Some are Haughty and Disagreeable

"Never, in any city of the world, have I seen such politeness, such kindness, as in New York—even on the streets."—Joseph Renaud of the Paris Matin.

Once we asked a well-dressed gentleman on Forty-second street if we were going in the direction of a certain theater. It was a cold eye he turned on us, and he said not a word. We never repeated the offense, but concluded that New Yorkers are afraid of strangers, and have a hostile attitude toward everybody they are not acquainted with.—Chicago Journal of Commerce.

Fills Renaud's Description

Once again. On this writer's first visit to New York business took me to 254 Canal street, somewhat off the beaten track. Uncertain as to how to reach it, but knowing it was not far away, we appealed to a passing gentleman for directions. He did not give us a cold eye but he stopped and said: "I'll put you on the right track." After several street cars passed he hailed one and said: "This car crosses Canal street. Get off there, and go one block to your right which will bring you to your destination." There are different kinds of people in all cities—even in the country.

A Boston Story

This reminds us of a Boston incident. An old friend who had lived all his life in Illinois sent his son to Harvard, and in due time went down there on a visit. He was a small man with a most peculiar drawl and a serious, owl-like mien. He was trying to locate Tremont street. His former home had been Tremont, Illinois. Stopping a real Bostonian, he asked for directions to "Tree-mont" street. "Well, I declare," said the Boston man, "I've lived my entire life in this city and never heard of 'Tree-mont street.' How do you spell it?"

"T-r-e-m-o-n-t, if that don't spell 'Tree-mont,' I do not know what it does spell."

"Oh, you want to go to Trem-ont street. Well, just follow my directions," which our friend did successfully.

When he told this story he had a great laugh at the kind and courteous Bostonian, who pronounced the name of his native town "Trem-ont." I've always wondered what the Bostonian did when he related the instance to friends. Probably permitted himself an indulgent smile. His courteous and dignified manner would not countenance anything more hilarious.

Again there are different kinds of people and different kinds of pronunciations.

Yates City, Kan., has 460 water services, of which 76 per cent are domestic. Fred W. Sieker, superintendent of the water department, reports a 11 per cent increase in receipts in 1930.

THEIR LAST WORDS

What Famous Persons Have Said as They Entered Death's Portal

The Golden Book published recently a short list of the last words of famous persons. We have a similar list in our files and by comparison find that the two do not agree in every particular. They are interesting and perhaps at least represent the dying thoughts of those personages they are credited to. In the appended list the words of Anne Boleyn stand forth in the scornful contempt for which she was noted. Danton and Nero's final words seem to indicate that these two famous characters had very good opinions of themselves, while Charles Lamb's utterance is tinged with the whimsical humor that made him beloved of all book readers.

Last Words

"I shall hear in heaven."—Beethoven.

"The executioner is, I believe, very expert; and my neck is very slender."—Anne Boleyn.

"Don't let the awkward squad fire over my grave."—Robert Burns.

"I must sleep now."—Lord Byron.

"Be sure you show the mob my head. It will be a long time ere they see its like."—Danton (to the executioner).

"I must arrange my pillows for another weary night."—Washington Irving.

"My bed-fellows are cramp and cough—we three all in one bed."—Charles Lamb.

"Let me fall asleep to the sound of delicious music."—Mirabeau.

"What an artist the world is losing in me!"—Nero.

"I always talk better lying down."—James Madison.

"Many things are growing plain and clear to my understanding."—Schiller.

"Do let me die in peace."—Voltaire.

"It is well. I die hard, but am not afraid to go."—George Washington.

"All my possessions for a moment of time."—Queen Elizabeth.

ANOTHER "CUT IN" ON RAILROADS

While a goodly number of persons are concerned and grieving over what the buses and freight trucks on the highways are doing to the railroads, the passenger and freight carrying airplanes have been overlooked. The boys who buzz through overhead space, however, have been doing their bit also. Air travel and air express increases every year. Gradually this method of transportation gains confidence and as it does it gains business. Each year of experience in building and piloting airplanes adds a little to the knowledge of aviation and aids in reducing the risks. In 1930 twice as many travelers used American operated air lines as in 1929, while mail and express showed quite an increase. The total number of passengers carried was 417,505. The total mileage flown was 36,945,203 and fatalities included 24 passengers and 9 air line employes.

(Continued from Page 9)

On Friday, June 26th, the day after the convention, the master plumbers and families are invited to visit the Kohler Plant at Kohler, Wis., which is about 55 miles north of Milwaukee.

In addition to the convention of the National Plumbers and the Auxiliary, there will be held at the Auditorium, sessions of the National Association of Plumbing Secretaries, on Monday, June 22 at 10 A. M., 2 P. M. and 8 P. M.

Milwaukee Master Plumbers, through their various committees, are putting forth every effort to uphold the reputation of Milwaukee for genuine hospitality.

Nearly 100 firms have taken space and will show their products at the Exposition mentioned above.

The City of Milwaukee

Located on Lake Michigan, the city of Milwaukee has become one of the important interior ports of the United States, as well as a railroad center. Here you will find a fine city of 700,000 persons with beautiful residences, modern business blocks, a score or more of good hotels, inviting drives, parks, and theatres. There is everything here to attract and hold the attention and interest of the visitor—a city great enough to abound in metropolitan attractions, but small enough to hold fast to hospitable and friendly civic and neighborly relations. Milwaukee makes every visitor welcome. Her people assume the part of hosts individually and collectively. Everyone who visits Milwaukee must have a good time or else the city's pride is wounded.

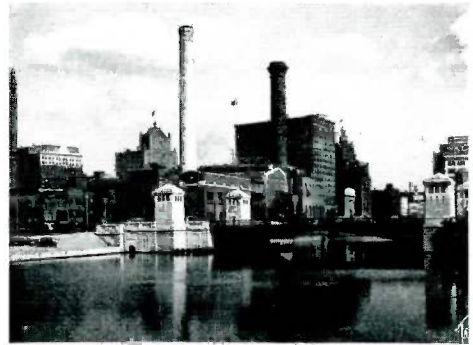
Fame Rests on Industry

Milwaukee's fame never did depend upon what the jokers made the public believe. It rests upon a solid foundation of industrial activity and prosperity, and upon a progressive, substantial American citizenry.

This city has the largest manufacturers of steam shovels, dredges, cranes, hoists, concrete mixers, road pavers, motorcycles, refrigerating machinery, electrical controls, silk hosiery, work shoes, wheelbarrows, cement machinery, and malt. It has produced the largest ore crusher, the largest hydro electric unit, the largest mining hoists, concrete mixers, water turbines, grey iron castings, the largest gas and Diesel engines in the United States.

Metal trades rank the highest among the industries of Milwaukee County, making almost half of the total volume of output, and food products rank second. The leather industry comes fourth, and so on down the line.

Milwaukee is the headquarters for one of the largest tinware and enameling plants in the world and the largest tanneries for upper side leather and calf skins are located here. The city also leads in the production of leather gloves and mittens and flour-milling machinery; it makes more outboard motors than any other city in the world. It ranks third in the manufacture of flavoring



Kilbourn Ave. Bridge leading to Civic Center

extracts, syrups, boots, shoes, knit goods, motor vehicle bodies and parts, paper goods, sausages, signs, and advertising novelties.

Many Beautiful Parks

One of the outstanding beauty spots is the "Court of Honor," which everyone admires. It is only a few blocks from the Auditorium. None should miss a stroll through this four blocks of boulevard, adorned with statues and enriched by landscape gardening.

There are fifteen parks in the city with a total of 1000 acres. The more important of these are Washington Park with its municipally owned zoo, one of the largest in the United States; Mitchell Park with its conservatory and sunken garden, Juneau Park, where begins the famous Lincoln Memorial drive. In addition there are Riverside, Lake, Gordon, Kern, Lincoln, Sherman, Highland, Jackson, Pulaski, Kosciusko, Humboldt, South Shore, Clarke, Walker and Fifth Ward parks, each with some special feature justifying at least a brief visit.

The Milwaukee River

The Milwaukee river as it flows through the city serves utilitarian needs principally, but it contributes to the beauty and pride of the city by reason of numerous bridges which span it. The Kilbourn avenue bridge is one of the most picturesque of these structures, but the others possess ornamental features that are not to be overlooked.

The harbor, the bathing beaches, the numerous boat trips and Lake Michigan itself are diverting features of which Milwaukee and her thousands of guests never grow weary.

Few American cities possess more enduring charms and that's why visitors invariably carry home pleasant and lasting memories of Milwaukee.

Milwaukee Hotels

Milwaukee has ample hotel accommodations for large crowds. There are some thirty-five or forty public hostleries. The local committee has approved the sixteen, which is no reflection on those not mentioned. The statement is made by the committee that the selection was governed by location and conditions.

Pittsburgh Host to A. W. W. A.

From May 25 to 29, members of the American Water Works will meet in Pittsburgh in their 51st annual convention. The headquarters will be the Hotel William Penn.

The city of Pittsburgh not only offers many attractions in the way of fine buildings, enormous steel, coal, and iron industries, its great railroad yards and lovely scenery along the banks of the Monongahela, Ohio, and Allegheny rivers, but its water works system should be a magnet to all those engaged in this industry. An extended illustrated article of the Pittsburgh Water Works System appears in this issue of the Mueller Record. It is of particular interest because of the stubborn problems which confronted the engineers in distributing water throughout a section of varying altitudes and levels.

The local committee, cooperating with the National Association has been untiring in its efforts to provide a program of suitable entertainment for the visitors. This committee is composed of:

John E. O'Leary (Chairman), General Sales Mgr. Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.

Chester F. Drake, Div. Supt., Pittsburgh Filtration Plant, Aspinwall, Pa.

W. C. Hawley, Chief Engr. & Genl. Supt. Pennsylvania Water Co., Wilkinsburg, Pa.

James H. Kennon, Managing Engr., Bureau of Water, 416 City-County Bldg., Pittsburgh, Pa.

John F. Laboon, Cons. Engr., 346 Bowerhill Road, Pittsburgh, Pa.

Willard F. Rockwell, Cons. Engr., 400 N. Lexington Ave., Pittsburgh, Pa.

In past years the official opening of the convention has been on Tuesday mornings, but this year it will be at 11 A. M., Monday, June 25. Due to this change attention is



*Geo. H. Fenkell, Detroit,
President A. W. W. A.
1930-31.*



*Wm. W. Brush, Chief En-
gineer, New York Water
Works.*



*R. L. Dobbins, Peterborough,
Ont., Newly Elected President.*

called to the fact that registration will begin on Sunday, May 24th at 7 P. M. It is important that the membership make a note and observe this change if they arrive in time to do so in order to relieve as much as possible on Monday morning. Pittsburgh is all set to make this convention outstanding in the history of the association.

Announcements

In advance sheets of the arrangements and program kindly furnished the Mueller Record, Secretary Neisley, we find announcements of importance upon which members should be advised.

Registration by members and guests can be made by mail if desired. It is only necessary to send your check for \$5, which is the regular fee for each member and guest. Tickets for all entertainments and a badge will be mailed immediately. All this will be explained in detail in a circular mailed well in advance of the convention. Those who do not take

advantage of this excellent plan will register upon arrival as stated above.

Railroad passenger associations have granted a fare and a half rate for the round trip to the Pittsburgh convention. This will be on the identification plan, same as last year's. Details will be announced later.

If you expect to play in the annual water works golf tournament, leave your name when registering and give your club handicap or your three best scores of the year. Tournament will be held at Shannopin Country Club, twenty-five minutes from Hotel William Penn.

The "Service des Eaux" will hold its annual "get-together" dinner on Monday evening, at 6:30 o'clock. Inquire at registration desk for particulars.

The Social Features

A very attractive round of entertainment has been provided for the visitors. Beginning on Monday evening, the first day of the session. At 9 P.M. there will be an informal reception and dance at the Silver and Cardinal Room, of headquarters hotel.

On Tuesday noon at 12:30 there will be a Ladies Bridge Luncheon at Longue Vue Country Club.

Tuesday evening at 6:45 a dinner—Water Purification Division.

Wednesday forenoon at 11 o'clock a sight-seeing trip for the ladies ending at the H. J. Heinz plant where luncheon will be served at 1 o'clock.

Wednesday evening at 9 o'clock the A. W. W. A. Night Club at Pirate's Hall.

Thursday evening there will be a dinner dance (informal), dinner in Pirates Hall, dancing in Cardinal Room.

We are under obligations to Mr. W. M. Niesley for supplying us the condensed program. The entire program is too long for a publication of this kind but we note that it embraces a variety of important water works topics, and among one, that of the drouth situation which is of both technical and laity interest. The abbreviated program follows:

**SUMMARY OF PROGRAM
SUNDAY, MAY 24—Evening**

- 7:00-9:00 Registration, 17th Floor.
8:00 Parlor C. Board of Directors.

MONDAY, MAY 25—Forenoon

- 8:00 Registration.
10:00 Parlor E. Water Works Practice Committee.
10:00 Parlor C. Presiding Officers of Sessions.
11:00 Cardinal Room. Main Session.

Afternoon

- 2:00 Cardinal Room. Main Session. Plant Management and Operation Division and Superintendents' Round Table Discussion.
2:00 Blue Room. Committee on Standard Methods of Water Analysis.
5:00 Parlor C. Board of Directors.

TUESDAY, MAY 25—Forenoon

- 9:30 Cardinal Room. Main Session.
9:30 Blue Room. Committee on Boiler Feed Water Studies.

Afternoon

- 1:00 Parlor D. Sectional Committee on Cast Iron Pipe.
2:00 Cardinal Room. Main Session.
2:00 Blue Room. Water Purification Division.

WEDNESDAY, MAY 27—Forenoon

- 9:30 Cardinal Room. Main Session.
9:30 Blue Room. Water Purification Division

Afternoon

- 2:00 Cardinal Room. Main Session. Plant Management and Operation Division.

THURSDAY, MAY 28—Forenoon

- 9:00 Cardinal Room. Main Session. Plant Management and Operation Division and Superintendents' Round Table Discussion.
9:00 Blue Room. Finance and Accounting Division.
12:00 Cardinal Room. Business Meeting of Plant Management and Operation Division.

Afternoon

- 2:00 Cardinal Room. Main Session.
2:00 Blue Room. Finance and Accounting Division.

FRIDAY, MAY 29—Forenoon

- 9:00 Blue Room. Finance and Accounting Division.
9:30 Parlor C. Board of Directors.

Afternoon

- 2:00 Blue Room. Finance and Accounting Division.

**ENTERTAINMENT
MONDAY, MAY 25**

- 6:30 Dinner. "Service des Eaux."
8:30 Informal Reception and Dance. Silver Room and Cardinal Room.

TUESDAY, MAY 26

- 12:15 Luncheon. Finance and Accounting Division.
12:30 Ladies Bridge Luncheon. Longue Vue Country Club.
6:45 Dinner. Water Purification Division.

WEDNESDAY, MAY 27

- 11:00 Ladies' Sight-Seeing Trip with Luncheon at 1:00 o'clock.
9:00 A. W. W. A. Night Club. Pirates Hall.

THURSDAY, MAY 28

- 1:00 Style Show and Luncheon for the Ladies.
7:00 Dinner Dance—Informal. Dinner in Pirates Hall, Dancing in Cardinal Room.

DEATHS

Mrs. Addie M. Peters, wife of Edmund Peters of Department 8, died at the family home, 1049 W. Green St., April 23, 1931. Mrs. Peters had been ill for 4 months, submitted to an operation for a cancer, seemed to be better for a time, but finally succumbed. Addie Turley was born at Kenney, April 13, 1899, and married to Edmund Peters February 24, 1918. They moved to Decatur the next year and in August, 1919, Mr. Peters went to work for the Mueller Co.

Besides her husband she leaves two children, Pauline, aged 12, and Joseph Lyle, aged 6. Mrs. Peters' sister will take care of the children for the present.

Without Hair Dressers' Aid

Lady Rachel Byng, a news item says, entered in a poultry show in London recently her rabbit which is valued at more than \$7,000. There's a woman, you may be sure, who takes good care of her hare.

AN ACTIVE PLUMBER AT 84

A. B. Compton, of Henderson, Tennessee, Has a Record Perhaps Unequaled

Down in Henderson, Tenn., there lives and works a plumber named A. B. Compton, and our hat's off to him. He is only 84 years old. This may make you gasp, but it does not worry Mr. Compton in the least. Every day he is actively engaged at his trade. Among other things he makes all taps of water mains for water connections. It is quite likely that he is the oldest plumber actually following his trade every day. His health is good, his mind is clear and his body retains much of the vigor which has characterized his long and useful life. His eyesight is not quite so keen, yet he gets along very well without glasses, and his hearing is slightly defective. He served throughout the civil war but did not enlist until 1864 because he was not sixteen years of age until that time. However, prior to that time he carried food and clothing to his two older brothers who were in the service. Mr. Compton has been a friend of the Mueller Company throughout his long business career, and uses our goods which he obtains from our Jackson, Tenn., jobber. And he believes in preparedness. When he needs goods on any job he gets in his car after supper and drives to Jackson, 18 miles and back, in order to have the material on hand bright and early next morning.

Where is there another plumber in the United States who can equal this remarkable record?

Americans do not let any one thing alone for any great length of time which is just another indication of our restlessness. There is Dr. C. F. Marvin, chief of the weather bureau, who quits prognosticating weather long enough to take a fling at daylight saving which he declares to be a nuisance. There are a good many of us who disagree, still the doctor has his reasons. He does not refer so much to the individual factory arrangement of working periods as he does to cities who legalize daylight saving and therefore make it compulsory on business and industry. He claims that such a plan inconveniences more people than it benefits and upsets the chronology of scientific studies. He cites numerous arguments that have been heard before—the farmers, confusion in railroad time, etc. It's his opinion that daylight saving will be abolished.

Water Works Notes

William Judson Gray, who was for seven years engineer-superintendent, Springfield, Mo., has taken up practice as consulting engineer, 510 Holland Building, Springfield, Mo.



A. F. Daniels, of Dallas, has been named as city manager, Lufkin, Tex.

TWO NECESSARY PRECAUTIONS

Annual Inspection of Your Plumbing and Use of Mueller Relief Valve

Every night some radio announcer tells you to see your dentist twice a year. Every fall you take your car to the filling station or garage and fill the radiator with an anti-freeze solution. If you do the right thing, which thousands of car owners do, you will have your car carefully inspected fore and aft.

But what about your plumbing? Do you ever have it inspected? Few owners who do this have their plumbing in first class condition. Most persons throw a fit if they have to listen to the rhythmic click of a slightly loose auto engine tappit, but they will listen to the drip, drip of a leaking faucet without the least concern or the least show of annoyance although every drip is adding to the water bill.

Every plumbing system should be inspected at least once a year. The cost is not great. The washers used in faucets are made of composition, which presses against the metal seat of the faucet and shuts off the flow of water. These washers are not invulnerable to wear. Some like those used in Mueller goods last longer than others but all washers finally yield to the constant necessary opening and closing process. Dripping water finally wears away a rock. Water seeping over a faucet seat by reason of a worn washer finally cuts away the seat. Sometimes this can be repaired. Frequently the damage is such that a new faucet is necessary. The fault is not the manufacturers—it's the user's. An annual inspection of plumbing will obviate much of this trouble. Pipes and joints of your hot water heating system of whatever character it maybe should be inspected carefully. The hot water tank should be flushed and cleaned. Silt, suspended soil, and rust accumulate in these tanks and might cause serious damage. When a hot water tank lets loose serious damage ensues. These explosions wreck houses and occasionally kill people. The surest safeguard against this ever present menace is a Mueller relief valve which lowers the pressure in the hot tank when it rises to the danger point. It's economy to have an inspection of your plumbing made once a year at least and safety insurance to use a Mueller relief valve. Neither inspection nor valve is expensive.

Gossip's Mask

Centuries ago gossips were punished by being compelled to walk the streets of Mulhouse, France, wearing the heavy stone gossip-mask. It weighed twenty-five pounds.

Snake Skins

Fashion's regard for reptile skins is enabling India and Brazil to export 439,200 and 168,400 pounds of skins, respectively, to America.

Delegates to A. W. W. A. Will Find Int

The history of Pittsburgh's water works system reaches back to the pioneer days of this industry. Looking back from this day from the splendid Pittsburgh water plant and service, one feels like smiling sympathetically at the beginning of the system. This was on August 9, 1802, at a town meeting of "Burgesses, Freeholders, other inhabitants and housewives in town meeting



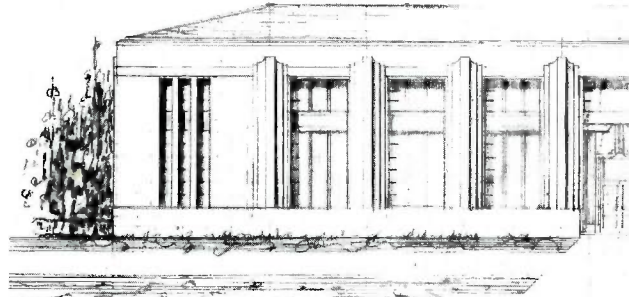
Mission Pumping Station, a secondary pumping station completed in 1912. Contains two 7 M.G.D. Vertical Triplex pumps and two 325 H.P. Boilers.

assembled." It was solemnly ordained on that day that wells be dug and pumps erected beginning at Market St. It was provided that such as those who had sunk wells in the street should be compensated if they assigned their wells to public use. Proposals were asked for four public wells, 47 feet deep and equipped with pumps. The expense was estimated at \$497.96. In 1813 George Evans announced he could supply water by steam power to any part of town at 3c per barrel. It was in 1824 that definite steps were taken to obtain a general water works. February 24th of that year the council passed the necessary ordinance providing for a loan of \$50,000 for the purpose stated. From this humble beginning the City of Pittsburgh water works system has grown to its present great development.

As near as one can judge Pittsburgh was among the first half dozen of American cities to enter this field. From a meager history of the introduction of water works into American domestic and industrial life one finds Pawtucket, R. I., as the leader. The first plant was begun there in 1790 but thereabout Paterson, N. J., was a close second. Then came Fall River, Mass., in 1813 and in 1821 Lowell, Mass., entered the field.

Pittsburgh's first general water works authorized in 1824 certainly entitles that city

Editor's Note:—Data for this article gathered from the late Erwin E. Lanpher's book—"The Water Works of the City of Pittsburgh."

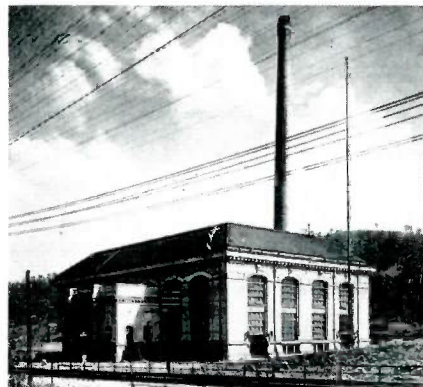


To be electrically operated. Now under construction to replace the old steam station. Completed costs will be \$900,000. Will house six pumping units with total capacity of 160 M.G.D. leaving space for 2 future units with additional capacity of 52 M.G.D. Proposed first equipment four 28 M.G.D. centrifugal pumps working against a total head of 365 feet, each unit driven by a 2250 H.P. 2300 volt synchronous motor and two 24 M.G.D. centrifugal pumps working against 272 feet head, each driven by a 1500 H.P. 2300 volt synchronous motor. Motor control equipment, steel cubicle push button type with all high tension equipment housed in a separate room. Filtered water supplied pumps by an 84-in. and 72-in. steel lined reinforced concrete extension of the supply to the old station. This is a primary pumping station and when completed will deliver filtered water to Highland Reservoirs Nos. 1 and 2 in Highland Park.



The Administration Building, Filtration Plant located east of the downtown section, chemical and bacteriological laboratory located in town.

to the honor of being among the first few cities adopting this greatest of all municipal blessings—the distribution of water from a central point. And to the

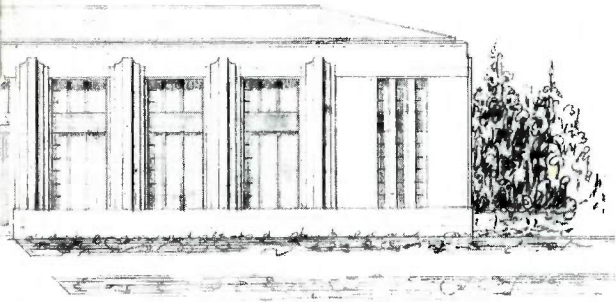


The Aspinwall Pumping Station completed in 1914. A primary pumping station containing four 20 M.G.D. Vertical Triplex pumping engines and six boilers. It obtains water from the filtered water reservoir through a 60-in. suction main and delivers it to Lanpher reservoir for the north side section of the city.



Ross Pumping Station which delivers adjacent filter plant. It was partially rehabilitated. It is an excellent emergency pumping station. The emergency conditions turbine driven centrifugal pumps driven by vertical steam boilers of 400 pounds.

Interest in Pittsburgh Water Works System



Building of the Pittsburgh Water Works at Aspinwall, seven miles west of Pittsburgh. The electrical laboratories are located in this building.

credit of the city there has never been a backward step, not even a pause in progress and efficiency from that day in 1824 when the city fathers authorized the building of the plant.

Today the system represents an outlay of \$36,000,000; a replacement valuation of nearly \$70,000,000; with an average yearly operating cost of \$1,500,000.

In its present day equipment, management and service, this plant stands out as one of the best in the country.

Water works men, engineers and visitors to the convention of the American Waterworks Association at Pittsburgh, May 25-29 will find a most interesting study in this plant, the upbuilding of

which has been accomplished through the successful



This is the low lift station for all river water to the city. In 1927-29 this station was replaced at a cost of \$928,939. A sample of a high duty major equipment includes a new suction intake constructed under at a cost of \$387,465; two 100 M.G.D. and one 50 M.G.D. steam engines; also one 50 M.G.D. and one 35 M.G.D. centrifugal pumps. The steam plant consists of two 600 H.P. sterling type steam pressure and 6 smaller boilers used only as reserve equipment.



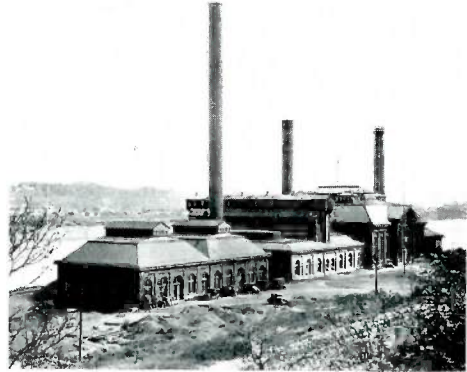
Lincoln Pumping station completed in 1895. A small secondary station containing two 1.1 M.G.D. electric motor driven pumps.

solution of many vexing engineering problems.

Distribution

There are three main agencies of distribution in this system, including:

The water works of Pittsburgh owned by the City of Pittsburgh and operated by the Bureau of Water of the Department of Pub-



The Old Brilliant Pumping Station with a capacity of 116 M.G.D. It houses four 12 M.G.D. and four 15 M.G.D. Vertical Compound and one 8 M.G.D. Vertical Triplex pumping engines and 12 boilers. Also a 28 M.G.D. electric motor driven pump (an emergency installation in February, 1931). This unit will be transferred to the new electric Brilliant station, the substructure of which is now completed. This station obtains its supply from the filtered water reservoir through two 72-inch steel suction mains laid under and across the Allegheny river and water is delivered to Highland Reservoirs No. 1 and 2 (primary reservoirs).

lic Works, supplying the major portion of the city.

The Pennsylvania Water Co., supplying an easterly section of the city.

The South Pittsburgh Water Company, supplying a somewhat recently annexed portion of the city in the high hills of the South Side.

The duties of operation are divided. The Managing Engineer presides over the Bureau of Water as Manager and Chief Engineer. There are three divisions of the Bureau in charge of Division superintendents. These are Filtration, Mechanical and Distribution. Each division operates as an entity with no confusion as to duties and responsibilities. Each is charged with design, construction, operation and maintenance but so nicely is the plan laid out that in effect the entities mold into an efficient whole.

The assessment and collection of water rents are handled through a board of water assessors composed of three members.

The city is separated in three parts—Central City or Peninsular Pittsburgh, between the Monongahela and Allegheny rivers, the north side north of the Allegheny and Ohio rivers and the south side south of the Ohio and Monongahela rivers.

(Continued on next page)



Hon. Charles H. Kline

Hon. Edward G. Lang

James H. Kennon

Erwin E. Lanpher (De'd)

The Hon. Charles H. Kline has been mayor of Pittsburgh since 1926. Hon. Edward G. Lang has been director of the Department of Public Works since 1926. James H. Kennon has been managing engineer of the Bureau of Water since February 1, 1930. He has served the Bureau for 23 years, first as assistant engineer, division engineer, division superintendent, and now as managing engineer. Erwin E. Lanpher (deceased) was with the Bureau of Water for 26 years as assistant engineer, division engineer, division superintendent, and for four years up to his death as managing engineer. During those four years he directed a construction program of \$4,000,000. He enjoyed a country wide reputation as an authority on water works practice.

(Continued from preceding page)

The first general water works was authorized in 1824 and in operation 1828. In Allegheny in 1847, and in operation in 1849. These two plants merged in 1907 when the Pittsburgh and Allegheny were consolidated. The south side was first supplied by the Monongahela Water Works built in 1865 and consolidated with the Pittsburgh plant in 1908.

The plant of today embraces:

- Two river intakes.
- A low lift pumping station.
- A filter plant and its sedimentation.
- Filtration and water storage facilities.
- Two primary pumping stations.
- Four secondary pumping stations.
- Two primary distribution systems.
- Six secondary or high service distribution systems.

Complicated Distribution

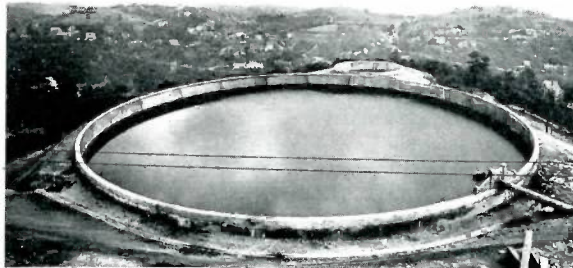
The topography of the country is rough, having but few level spaces and many deep ravines and wide rivers. This unevenness complicates the distribution of water which requires much secondary pumpage to the high hills, the greatest height being 700 feet above the level of the river at the "Point." The supply comes from the Allegheny river near Aspinwall, seven miles from the Junction of the Allegheny and Monongahela where the Ross low lift pumping station is located. Here are two concrete intakes, controlled by large sluice gates. The water passes through suction trunks at either end of the station. These trunks are concrete — one 124" in diameter, the

other is composed of two parallel conduits 84" in diameter. The Ross station delivers all the raw water to the adjacent filter plant. The station is equipped with two 100 M.G.D. and one 50 M.G.D. steam turbine driven centrifugal pumps, also one 50 M.G.D. and one 35 M.G.D. centrifugal pumps driven by vertical steam engines. The steam plant consists of two 600 h.p. sterling type boilers of 400 lbs. steam pressure with six smaller boilers used as reserve equipment.

The water reaches the filter plant through a 96" steel concrete encased conduit, two thousand feet in length. The elevation of receiving basin is 47.5 feet above the river pool level. The receiving basin is the middle and smaller one of three sedimentation basins, has an area of three acres and contains about 12 M.G. Much of the heavy suspended matter is collected in this basin. The water leaves this receiving basin through eight 48" outlets to the rapid filters located in the adjacent sedimentation basin. Both sedimentation basins are equipped with 24 reinforced concrete rapid filter units, each 60x40 feet and containing six vertical feet of gravel. Much of the remaining suspended matter is removed in passing through the rapid sand filters and still more in its course through the large sedimentation basins.

Twenty - four Acres of Area

Each of two sedimentation basins has an area of about 12 acres, capacity 54 M.G. and a depth of 15 feet. From here the water passes through a 96" concrete conduit to the slow sand filters of which there are 56 ar-



McNaugher Reservoir

ranged in five groups. Each group is ranged on either side of an operating gallery, an underground work room 31 feet wide and 1,000 feet long. This room contains valves, piping, entrance doors to filters, and all necessary equipment for the operation of the filters.

Each filter is an underground concrete work room, one acre in area and 12 feet high. The filtration process consists of filling a filter to a depth of six feet above the sand and feeding the water downward to the collecting pipes in the floor. The maximum rate of operation is $3\frac{1}{2}$ M.G.D. per filter. The water is collected in filter water pipes, and passes through a 124" concrete conduit to the filtered water reservoir where a slight admixture of liquid chlorine is made as an additional precaution to safe drinking water. The filtered water reservoir stores about 50 M.G. of water for consumption. This reservoir is of concrete.

From the water in its raw and highly contaminated stage to its filtered and highly sanitary stage, continuous bacteriological and chemical tests are made. These tests are maintained up to the time the water is ready for delivery to consumers.

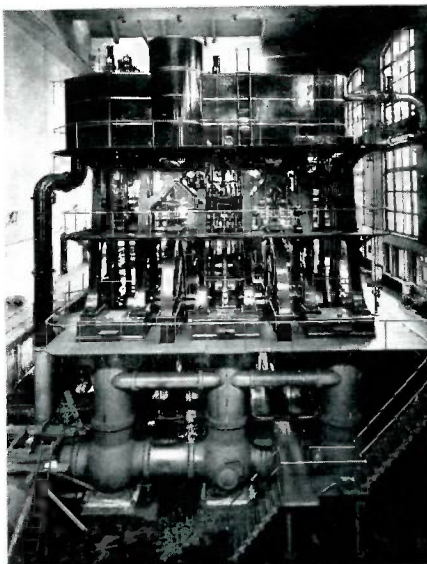
Two Primary Systems

Low service—With Highland No. 2 reservoir supplied by Brilliant station and Lanpher reservoir (formerly Cabbage Hill) supplied by Aspinwall station.

Highland No. 1 Service—With Highland No. 1 Reservoir supplied from Brilliant station. Briefly the component parts are:

Aspinwall Station: Primary pumping station, on northerly bank of Allegheny river at the filter plant with four 20 M.G.D. vertical triplex engines and six boilers; delivers filtered water to Lanpher reservoir (formerly Cabbage Hill) of the low service system.

Lanpher reservoir (formerly Cabbage Hill)—Located in



One of the four 20 M.G.D. Triple Expansion Pumping Engines installed in Aspinwall pumping station, which is a primary station.

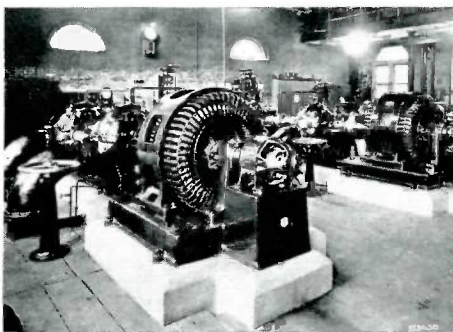
Shaler township $\frac{1}{2}$ mile north of Etna at an elevation of 971 feet; capacity 151 M.G. and depth 40 ft. Supply obtained from Aspinwall station through 60" steel rising main.

Brilliant Station—Primary pumping station, southern bank of the Allegheny river, opposite Aspinwall. Contains four 12 M.G.D. and four 15 M.D.G. vertical compound and one 8 M.G.D. vertical triplex pumping engines and seven boilers. The supply comes from the filtered water reservoir through two 72" steel suction mains laid across Allegheny river; delivery is made to Highland reservoir No. 2, low pressure system and to Highland Reservoir No. 1 of Highland No. 1 service.

Highland Reservoir No. 2—Primary reservoir of Low Service System, located in Highland Park, elevation 972 feet; capacity 126 M.G.; depth of water 30 feet. The supply comes from Brilliant Station through a 48" steel rising main.

Highland Reservoir No. 1—Primary reservoir of Highland No. 1 system, located at Highland Park, elevation 1,066 feet; capacity 117 M.G.; depth of water 22 feet. The supply comes from Brilliant Station through two 50" steel rising mains.

The Low Service System—through Aspinwall and Brilliant stations, Lanpher reservoir (formerly Cabbage Hill) and Highland No. 2 reservoir (elevation 971 and 972 feet respectively) supplies the manufacturing and mercantile districts on both sides of the three rivers from the low river elevation of 696 feet to about 900 feet. This district has a population of approximately 170,000. The major feed mains of this system are: 60" steel main from Lanpher reservoir (formerly Cabbage Hill) to heart of lower north side; 50" steel main, changing to one 42" and one 36" cast iron main, from Highland Reservoir No. 2 along the Allegheny to the Point district; a 50" steel main from



Two 9 M.G.D. electrically driven centrifugal pumps in Howard Pumping Station, a secondary station converted in 1928 from a steam to an electric drive.

(Continued on next page)

(Continued from preceding page)

the same reservoir across the Central City, and under the Monongahela River at South 34th St. to the low section of the south side. Portions of the system lying on opposite sides of the rivers are cross connected at 26th St., Manchester Bridge and the South 10th St. Bridge; also the two supplying reservoirs of the district being of practically the same elevation are cross connected and act as one reservoir. Either reservoir, in case of necessity, can supply the entire low service district.

Highland No. 1 Service, through Brilliant Station and Highland Reservoir No. 1 (elevation 1066 feet), supplies a large residential, mercantile and manufacturing district of the Central City, comprising East Liberty Valley, Homewood, Shadyside, Bloomfield, Oakland and Soho, elevations between approximately 900 and 1020 feet and containing a population of about 180,000. Radiating from Highland Reservoir No. 1 to all parts of this district are one 36" and four 30" cast iron feeder mains.

Secondary Distribution Systems

There are six of these systems to which water is repumped from one of the primary distribution systems to higher elevations. There are four secondary pumping stations, four secondary reservoirs and three tank sets.

Herron Hill Service—through Herron Hill station, supply coming from Highland No. 1 primary service and pumping to Herron Hill reservoir (elevation 1261 feet). This station supplies a residential population of about 100,000 located on Herron Hill, Squirrel Hill, Garfield Hill, and Heberton Hill at elevations between 1000 and 1230 feet.

Herron Hill Station—a secondary pumping station at Center Ave. and Dithridge St., has two 5-M.G.D. and two 6-M.G.D. vertical triplex pumping engines and two gas fired boilers. Water delivered to Herron Hill and Bedford Reservoirs.

Herron Hill Reservoir—a secondary reservoir in the University district with a capacity of 11.5 M.G., depth of water 23 feet. Supplied by Herron Hill station.

Bedford Service is furnished through Herron Hill station and Bedford reservoir (elevation of 1094 feet), and supplies 22,000 persons in a congested residential and small mercantile district adjacent to the Point district in the Central City at approximate elevations of 920 to 1030 feet.

Bedford Reservoir—at Bedford Ave. and Ledit St. A secondary reservoir; capacity 2.7 M.G., depth of water 9 feet; supplied from Herron Hill station.

Lincoln service, through Lincoln station, supplied from Highland Station No. 1 primary service. Pumps to Lincoln tank (elevation of 1279 feet) and supplies a small residential section of 6000 persons in the northeast portion of the Central City at elevations of 1000 to 1250 feet.

Lincoln Station, a small secondary pumping station at Paulson Ave. and Dean St., with two 1.1-M.G.D. electrically driven centrifugal pumps. A secondary tank of 200,000 gallons capacity is located at the eastern boundary of the city.

Allentown service through Mission station, supply from the low service system pumping to Allentown tanks (elevation 1294 feet). This supplies a population of 55,000 in a high residential section of the south side with elevations between 900 to 1260 feet.

Mission Station—a secondary pumping

station on Mission St., near South 18th St., has two 7-M.G.D. vertical triplex pumping engines and two boilers.

Allentown tanks—three secondary tanks in Grand View Park have a combined capacity of 2.5 M.G.

McNaugher Service through Howard Station, taking the supply from Low Service System and pumping to McNaugher Reservoir and to Spring Hill Tanks (elevation of 1211 feet), supplies a north side residential district with 63,000 population at elevations between 900 and 1180 feet.

Howard Station, a secondary pumping station at Howard and Elmira Sts., has two 9-M.G.D. and four 3-M.G.D. electrically driven centrifugal pumps which supply McNaugher reservoir, Spring Hill tanks and Brashear reservoir.

McNaugher reservoir, secondary, located at Lafayette and Biggs Aves., consists of two circular concrete units with total capacity of 5.5 M.G.

Spring Hill tanks, two secondary, located on Erk Way have a combined capacity of 1 M.G. and are cross connected with McNaugher reservoir.

Brashear Service through Howard Station pumping to Brashear Reservoir (elevation 1374 feet). This supplies a high residential north side district between approximately elevations of 1180 and 1350 feet. The population is 6000 and it is the highest service in the city.

Brashear Reservoir, secondary, located on Montana Ave. at the northern boundary of the city, was only placed in service in 1929. It is a concrete "T" wall type, capacity 11 M.G. with a 25 foot depth of water.

Even a layman realizes the complexity of the distribution system when he visualizes the uphill and down dale topography of Pittsburgh and environs after tracing through the system, the water in the fountain pool at the Highland Ave. entrance to Highland Park. From the Allegheny River, it passes through the river intake to Ross Station, where it is pumped to the sedimentation basin of the Filter Plant. After filtration it crosses under the Allegheny River to Brilliant Station, where it is pumped to Highland Reservoir No. 1. From this reservoir the water reaches Herron Hill Station by way of Euclid, Friendship, Millvale and Center Aves., and is pumped to Herron Hill Reservoir. From there, it returns to the Highland District, by way of Bloomfield Bridge, Garfield Hill, Stanton Ave., Negley Ave., Hampton St. and Highland Ave., and finally to the fountain within a few feet of Highland Reservoir No. 1.

Listing only the major items the plant consists of a slow-sand filtration plant with a capacity of 196,000,000 gallons a day; a low-lift pumping station equipped with five pumps of a combined capacity of 335,000,000 gallons a day; two primary pumping stations equipped with 13 pumps of a combined capacity of 196,000,000 gallons a day; four secondary pumping stations equipped with 14 pumps of a combined capacity of 68,000,000 gallons a day; filter plant reservoirs storing 170,000,000 gallons, seven reservoirs and 6 tanks, storing in the distribution system 428,000,000 gallons; 20.3 miles of rising mains, eight inches to 96 inches in diameter; 822.0 miles of distribution mains, four inches to 66 inches in diameter; 19,203 valves; 7583 fire hydrants; 106,746 water services, and 45,699 water meters.

Installing an Up-to-Date Kiln



Mueller Co. vitreous ware plant south of the city is now in excellent shape for the production of the beautiful, glistening white vitreous ware which in a few years has found such a ready acceptance by the trade because of its graceful lines and outstanding quality.

The Swindell-Dressler Corporation of Pittsburgh has just completed the installation of their very latest kiln with every improvement they have been capable of developing up to the present. It is recognized as the last word in kilns of this character.

The kiln is 374 feet long with a length of 390 feet center to center of transfer. It has a capacity of 6000 pieces burned per week. The kiln is of the muffled type and is fired with oil. It is so constructed that later it can be changed to natural gas.

It required 500,000 to build and all together 100 cars of material entered into it.

In addition to the heat used in burning the ware it generates in addition 1,500,000 b.t.u. per hour, which will be utilized in the humidifying system and drier in the casting shop. There are 168 kiln cars—84 for bisques and 84 for glost ware.

This big improvement furnished lots of work for Mueller employes during the winter. They began tearing down the old kiln on January 1st, and when this was completed they were kept busy cleaning and piling up these brick.

The Mueller vitreous ware plant has a main building 512 feet long and 200 feet wide. It is located about a mile south of the city on route 2, one of the principal highways between St. Louis and Chicago. As it stands today it is the most modern plant in the country.

FOREST CONSERVATION

Is Classed as a National Problem of First Magnitude

Natural resources are wasted. This is due in part to the one time belief that they were inexhaustible. The fact that nature gave so bountifully may have had an influence. Man did not have to labor to produce these resources. The value of drawing on these resources sparingly had no appeal. Our forest lands furnish a striking example. In the area of the United States east of the great plains we had originally forests totaling 681 million acres. Today we have left 60.7 million acres. West of the great plains we had 140.8 million acres, while today we have 77.4 million acres. These figures furnished by the United States Forest Survey show that out of a total forest acreage of 741.8 millions we have left a total of 138.1 millions. We have used 603.7 million acres. Undoubtedly much of this valuable possession was wasted. The great consumption of lumber has come in little more than a half century. It was only when it was realized that the supply of lumber was dwindling that man turned his ingenuity to producing substitutes for building. In some respects this has been beneficial. Brick, stone, concrete and iron used in the larger modern buildings have greatly reduced fire hazards and destruction by storms. However, the depleted condition of original forest is still a problem we are facing. Lumber is still in great demand for small dwellings, interior finishing and furniture. To maintain the supply calls for rigid practice of conservation. While substitutes have lessened the demand for lumber there are other requirements which have caused the demand to hold up substitutes.

SCHOOL DAYS



Keen Observer

A woman teacher in trying to explain the meaning of the word "slowly" illustrated it by walking across the floor.

When she asked the class to tell her how she walked, she nearly fainted when a boy at the foot of the class shouted, "Bow-legged, ma'am!"

Following Schedules

Teacher (in geography class)—"Can anyone tell me where Pittsburgh is?"

Small Voice (in rear)—"Please, ma'am, they're playing in Chicago."—Pitt Panther.

Removes Death's Sting

From a school examination paper:

Question: "Why are the Turks considered brave?"

Answer: "Because a man with two wives will face death more willingly than a man with one."

Four Cylinder Words

"How are you getting along at school, Jimmie?"

"Fine. We're learning words of four cylinders now!"

Arithmetic

Teacher: "If there were Mr. Jones, Mrs. Jones and the baby, how many were there?"

Johnny: "There were two and one to carry."

She Has Authority

"How's Abel Sass getting on with that school-teacher he's calling on now?"

"Well, every time he goes to see her she keeps him an hour longer for being naughty."—Pathfinder.

Human Clothes Line

The teacher was examining the class in physiology.

"Mary, you tell us," she asked, "What is the function of the stomach?"

"The function of the stomach," the little girl answered, "is to hold up the petticoat."

Dog-Tail

Astronomy Professor: "Can you name a star with a tail?"

Ardent Student: "Sure, Rin-Tin-Tin."

Strike

Father—"How is it you have not done your school homework?"

Son—"I have decided not to do any more. It's not fair. We children do the work and the teacher gets paid for it."—Pages Gaies, Yverdon.

Johnny Knew

Teacher—"Johnny, what is a cannibal?"

Johnny—"I don't know."

Teacher—"Well, if you ate your father and mother what would you be?"

Johnny—"I'd be an orphan."

Good Example

Teacher: "Give an example of rigid economy."

Pupil: "A dead Scotchman."

Subs for Worms

Teacher: "What's your father's occupation?"

Billie: "He's a worm's substitute."

Teacher: "Mercy sakes, what on earth is that?"

Billie: "He bores holes in furniture for an antique dealer."—Pathfinder.

Gold Star for Tommy

Teacher: "Tommy, can you give me an example of the paradox?"

Tommy: "Yes, sir. A man walking a mile and only moving two feet."—Scarboro Post.

"Pents"

Teacher: "Now, children, who can tell me how much a pence is worth in American money?"

Jakey: "Vell, teacher, you can get a good pair for three dollars at my fadder's."

Mail and Blackmail

Father: "Well, Willie, I received a note from your teacher today."

Willie: "Is that so, pop? Give me a quarter and I won't breathe a word about it to mother."

Smokers

History Prof.—"And when Lord Chesterfield saw that death was near he gathered all his friends around him. But before he breathed his last he uttered those last immortal words. Who can tell me what the dying words of Lord Chesterfield were?"

Class (in chorus)—"They satisfy!"

The Superior Being

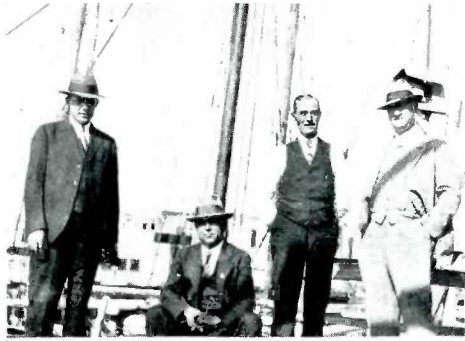
Little Jimmy came of a staunch Republican family and when the Sunday school teacher asked him, "Who is the Supreme Being?" he threw out his chest and replied confidently.

"Herbert Hoover."

"No, Jimmy," replied the teacher, "God is the Supreme Being."

Whereupon the young man scornfully replied "Democrat."

AT PENSACOLA, FLORIDA



Reading from left to right we have Mr. Fred DeMouy of the McGowin-Lyons Hardware Company, Mobile, Ala., Mr. Herbe Cherest, Superintendent of Water Works, Mobile (the manager of the Fishing Camp at Pensacola, Fla.), and Mr. Schad, Superintendent of Water Works at Pensacola, Fla. At the right holding the fish is W. B. Ford, Mueller representative with headquarters at Birmingham, Ala.



Messrs. Cherest, DeMouy and Ford made the trip to Pensacola to visit Mr. Schad, who unfolded to their eyes the sights of that pretty Florida city. It was a pleasant day's outing. The party visited the fisheries, where the picture was taken with the nautical surroundings. The navy yard and the flying field also claimed attention. The Water Works were of course the point of greatest interest because all the members of the party are directly or indirectly interested in this great industry. One of the objects of the visit was to see the water meter testing room at the Pensacola water plant. It is equipped with a Mueller Water Meter Tester. The testing room is well arranged and well lighted, and completely equipped for the speedy and correct testing of meters.

The fish attached to Billy Ford was caught, so he advises, on a "dry Dock" which may be classed as an unnecessary suggestion by those of us who know Billy. We never knew him to catch a fish unless the bait used was money of the realm.

Easy to Find Out

In front of one of the Toronto churches in Parkdale was the sign: "Subject of Sunday sermon,—'Do you know what hell is?'" and beneath in smaller letters: "Come and hear our new organist."

GOWNS OF PRESIDENTS' WIVES

From Martha Washington Down to Mrs. Coolidge are Interesting by Contrast

Contrasts of the present with the past in fashions for women presents an interesting study, at Smithsonian Institute, Washington, D. C. Here in new quarters and under advantageous lighting conditions are shown the gowns and other accessories of the "first ladies of the land" from Martha Washington to Mrs. Calvin Coolidge. One thing is evident at a glance. The feminine desire for personal adornment has remained unchanged throughout the ages. Fashions may change with periods of time, but a woman's love for the beautiful in dress is controlled only by her pocket book and social opportunities. Studying this array of dazzling gowns there is one change which impresses the observer.

Carried Heavy Loads

In the time of Martha Washington the high born ladies seemed to strive to load themselves down with as many clothes as they could support and still stand erect. Gradually the amount has been reduced, but with the first ladies of the land not in the extreme adopted by the flappers. When one looks at the bulging gowns of Martha Washington and then the limited amount of material necessary to clothe Mrs. Coolidge neatly and attractively, one wonders how Mrs. Coolidge would look in Mrs. Washington's clothes and how Mrs. Washington would look in Mrs. Coolidge's gown. They just would not look, that's all, because they would not be in tune with the times.

Flowers and Insects

"It is assumed," says the United States Daily, "that the dress of Martha Washington worn by her manikin was purchased in London. It is billowy and highly ornate. Martha Washington's dress is hand painted in a set design consisting of wild flowers, such as the buttercup, the violet, the daisy, the morning glory, and others, and numerous insects, among which are the grasshopper, the fly, the spider, the ladybug and the wasp. It is made of many straight widths and is sewed to a basque pointed back and front."

Less Cloth Used Now

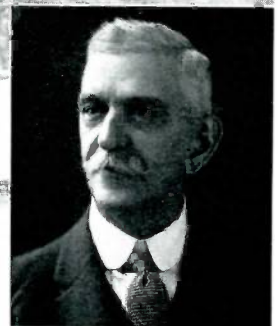
It would appear that Martha Washington had more than a mere desire for finery—she had the money to gratify her wishes.

In sharp contrast to this billowy, hand painted creation is the narrow skirt, simple lines, but elegant material in which Mrs. Calvin Coolidge was clothed as "the first lady."

The Genuine and False

Cathode rays are being used successfully in detecting artificial precious stones from genuine gems. Under the rays, natural stones are made to glow. When the rays are turned off, natural stones cease to glow, but the synthetic articles continue to shine.

Nashville Water Works



Insert, upper left: Dr. Bauman, member of Board of Public Works; front view of Main Filter Building; Mixing Chamber in center showing portion of grit chamber to the right and portion of sedimentation basin to the left. Insert, lower right: Captain Reyer, superintendent.

There is a lot of human interest written into the history of the Nashville Water Works which dates back to 1823, then a privately owned enterprise. In 1830 the city took over the plant and negotiated a loan of \$50,000 in Philadelphia for rebuilding and improvements. One of the prominent men was dispatched to the Quaker City to deliver the bonds issued to cover the loan and bring back the money. He left with the instructions to come back through Virginia and pick up a dozen "likely negroes" to be used in the construction of the new works. These negroes played an important part in the undertaking which then claimed the interest of the whole city.

When the water works were completed it was found the \$50,000 bond issue had been exceeded by five thousand dollars. The city fathers found themselves in a "picklement." They

Editor's Note:—Data for this article obtained from recent address delivered before the Kentucky-Tennessee section of American Water Works Association, by Robert L. Lawrence, Jr., Engineer, Nashville Waterworks.

did not care to make an additional bond issue for \$5,000. There was more hesitancy in matters of that character than exists in present day methods. The ten Virginia negroes who had been imported to help lay mains and build the plant, proved the solution of the financial difficulty as they had the solution of the labor question. The market value of slaves had risen. The authorities disposed of eight of the ten negroes and saved the city council from the necessity of further municipal expense.

Has Enjoyed Healthy Growth

From these early trials Nashville has developed a water works system in keeping with the outstanding importance of this beautiful southern city.

The first real water works plant of 1830 may have justified the chest expansion of the people of that period, but the system of today entitles Nashville to point with pride to the present development.

And among the citi-
(Continued on Page 26)



Main Filter Gallery.

MUELLER BOWLERS AT CAPITAL

Twelve Men Participate in the Industrial Bowling Tournament

Twelve devotees of bowling from the Mueller organization visited Springfield, Sunday, April 19, and participated in the Annual Industrial Bowling Tournament. The five-man teams bowled at 10 o'clock in the morning and the doubles and singles at 1:30. There were two Mueller teams entered, one of which bowled in the regular tournament and one in the Boosters' Tournament. The latter was for teams with less than 850 average.

Our teams made a very good showing considering that this was the first tournament that several of the Mueller bowlers had participated in. When the bowling closed the regular Mueller team was in 8th place and the Boosters were in 5th place.

The following are the scores:

Five-Man Team				
	1st	2nd	3rd	Total
Roarick	184	243	167	594
Behrns	180	193	229	602
Stille	160	167	176	503
Brilley	179	145	157	481
Gustin	160	150	182	492

Totals	863	898	911	2672
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Doubles				
E. Stille	201	191	193	585
M. Brilley	168	161	186	515

Totals	369	352	379	1100
C. C. Roarick	173	144	190	507
W. R. Gustin	166	189	205	560

Totals	339	333	395	1067
F. H. Mueller	177	182	148	507
Wm. Doherty	158	202	164	524

Totals	335	384	312	1031
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Singles				
W. R. Gustin	177	158	233	568
M. Brilley	195	175	177	547
Wm. Doherty	157	191	175	523
E. Stille	188	171	164	523
F. H. Mueller	178	198	132	508
C. C. Roarick	151	164	191	506

All Events				
W. R. Gustin				1620
E. Stille				1611
C. C. Roarick				1606
M. Brilley				1543

High Individual Single Games				
1st, C. C. Roarick				243
2nd, W. R. Gustin				233
3rd, W. Behrns				229

High Individual Three Games				
1st, W. Behrns				602
2nd, C. C. Roarick				594
3rd, E. Stille				585

Scores for Booster Teams				
	1st	2nd	3rd	Total
Leipski	145	169	153	467
Walker	175	193	168	536
Dresback	153	115	153	421
Krag	156	156	113	425

Fairchild	154	190	156	500
Totals	783	823	743	2349

Doubles				
D. Dresback	142	134	144	420
O. Walker	154	194	150	498

Totals	296	328	294	918
G. Krag	126	122	149	397
H. Fairchild	130	137	170	437

Totals	256	259	319	834
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Singles				
O. Walker	166	144	144	454
G. Krag	147	136	143	426
D. Dresback	134	98	133	365

All Events				
O. Walker				1488
G. Krag				1248
D. Dresback				1206

Individual High Game				
1st, O. Walker				194
2nd, O. Walker				193
3rd, H. Fairchild				190

Individual Three High Games				
1st, O. Walker				536
2nd, H. Fairchild				500

THE NAME OF HOLMES

Has for More Than a Century Held an Honored Place in American Life

The best medicine is not always in bottles or powders. Everybody needs a tonic at times. Nature has provided these. They are free and effective. In fact, whatever man has done in this particular may in a sense seem to equal nature, but he has been compelled to follow nature's lead. Most all of man's efforts have been imitations. Our best tonics are fresh air, exercise, recreation, sunshine, good food, work and rest. Lot of enthusiasts preach this today but the idea is not new. Dr. Oliver Wendell Holmes advocated these natural tonics when he was professor of anatomy in Harvard College. Dr. Holmes was an author as well as a professor. Many of us have read his "Autocrat of the Breakfast Table" and other essays and poems. One of the outstanding of his poems was "Old Ironsides," a protest against the destruction of the famous frigate "Constitution." This poem aroused such a strong protest from the people that the old ship floats today after again being threatened with destruction. As all readers know, "Old Ironsides" is just being put in condition and will be sent about the country for Americans to see and inspect.

Oliver Wendell Holmes died in 1894 but his name is still familiar to the people of America by his son, Oliver Wendell Holmes, associate justice of the United States Supreme Court at the age of 90 years, physically sound and mentally alert. As a jurist he is as famous as his noted father was as physician, essayist and poet. He seems to have relied and thrived on the natural tonics referred to by his noted father. The name of Holmes for over a century has had an honored place in American life.

(Continued from Page 24)

zenry there are two who have an especial personal pride and a personal interest—Dr. J. W. Bauman, member of the Board of Public Works and Capt. George Reyer, water works superintendent. Captain Reyer has a wide acquaintance in the water works field. He was named for this important work in 1881 and still retains it, vigorous as ever and possessing a rich theoretical and practical knowledge of water works practice.

The latest addition to this system is the filtration plant only recently completed. It speaks for itself in the illustrations accompanying this article and is separate from the pumping station which does not show.

Rehabilitation

Gradual improvements were made on the 1830 plant, keeping it pretty well up to date, but in 1924 the people of Nashville voted a \$3,000,000 bond issue for the water department, and then began a series of modernization step which led to the new filtration plant.

About \$2,500,000 of this has been expended. Some results of this outlay from 1925 to 1930, inclusive, are:

Over 95 miles of mains laid, giving a total of approximately 400 miles of pipe in service.

A new boiler plant built with three 500-horsepower boilers and all modern equipment.

Pumping capacity increased to 30,000,000 gallons a day in duplicate.

A modern filtration plant was built in 1928, with 28,000,000 gallons daily capacity. (It delivered more than that during last summer's drouth.)

There are now 35,800 meters in service. Average daily consumption of water is about 22,000,000 gallons.

Operating expense for 1930 was slightly over \$300,000, while revenue collected was \$646.00.

Earlier History

Early in the last century Nashville fell in line with the movement for water works spreading over the country. At that time water was carried in buckets to homes from several fine springs comparatively close to the site which has become the prosperous



Master Control Table located in lobby.

city of Nashville. The best of these springs was a large one on the bluff at the foot of Church Street, which was the dominating reason for the location of Fort Nashborough at that point. Some enterprising residents established a water service delivering with carts for a compensation of 12½ cents per barrel for a barrel of 25 gallons.

Following this practice a grist and saw-mill erected at the big spring mentioned installed a pump for supplying water to

the citizens.

There was a reservoir on the north side of Church Street, a little below the present Fifth Avenue—west of the Maxwell House. No doubt the wooden pipes dug up in Union street, two or three years ago, belonged to this system.

Privately built and operated, and apparently never satisfactory, this plant seems soon to have fallen into disuse. Its date is determined by a grant of privileges made to the projectors by the mayor and aldermen of Nashville May 5, 1823.

In 1830 the city council negotiated the loan of \$50,000 as mentioned above, but it was not until 1833 Nashville's new water works were in operation. Part of the delay was due to the difficulty of securing pipe.

The reservoir of this system was where the General hospital is now located. In 1847, an additional reservoir was built. The two had a combined capacity of 1,510,000 gallons. To supply the amount of water used by Nashville during last year's drouth, they both would have had to be completely refilled from 18 to 20 times a day.

The next notable improvement was in 1877, when two new pumps were installed, a "filtering gallery" was constructed at the intake of the pumping station, and a brick encased standpipe (which now serves as a smoke stack for the General hospital plant) was erected.

The present pumping station was established in 1888, and the present 51,000,000 gallon reservoir on Kirkpatrick hill was finished the next year.

Clarification of the water with sulphate of alumina began in 1908, and to this was added, a year later, purification with chlorine.

The largest triple-expansion pumping engine which had ever been designed at that time was installed in 1909, and is still giving perfect service.

Captain Reyer's First Auto Ride

Capt. Reyer recites an incident of personal interest to the Mueller Co. In 1907,



Robert L. Lawrence, Jr., Engineer, Nashville Water Works.

Nashville held a Centennial Exposition and Fair, which was a great event for the surrounding country and the south. The captain had a personal acquaintance with the late Hieronymus Mueller and knew that he owned the first imported automobile in the United States and one of the first cars propelled by gasoline in the country. He conceived the idea that it would be an attraction at the Centennial to have Mr. Mueller send his automobile there, which was done, and Capt. Reyer says that this was the first automobile in Nashville, if not in Tennessee. The captain still remembers with pleasure his ride in that Mueller machine which would create a bigger sensation today among modern automobiles than it did in 1907 as a pioneer in the industry.

The "Athens of the South"

The Centennial Exposition was held on grounds which are now known as Centennial Park and where the replica of the Parthenon now stands. This is one of the very interesting sights in Nashville. The Parthenon is an exact reproduction of the historical building of that name in ancient Athens. Thousands of American tourists have made that city their objective because of this historic relic. Due to this fact, and the fact that Nashville has eleven colleges and universities, the city is now called the "Athens of the south."

THE FOREMAN'S CLUB

The Mueller Foremen's Club held the last meeting until fall at the Mueller Lodge, Thursday evening, April 16th. The session opened with a good educational reel feature on the growth, cure and manufacture of rubber.

This was supplemented with a short historical talk on rubber by E. H. Langdon.

L. W. Mueller, vice president in charge of Works Management and Engineering, spoke along business lines.

Robert Mueller, vice president in charge of Public Relations, talked along the same lines and also gave the result of some of his observations on a recent trip to the south and west coasts.

During May there will be a social gathering at the Lodge for members of the Foreman's Club and their wives.

Men outnumber women by about 9,000,000 in India, the male population of Calcutta alone being more than double the female.

It is estimated that the propeller to be fitted on to the new British Cunard liner will cost about \$25,000.

Three Layers of Water

The ocean is said to contain three layers of water. The upper layer contains animal and plant life, the middle is a region where decomposition of organic remains takes place and the bottom is water from the polar regions.

STRONG MEN

One About Circus Giant and Farmer—the Other a Real Giant

"The circus strong man rode out on horseback to challenge a farmer whose great strength had earned him a reputation," says the American Boy. "He entered the farmyard, tied up his horse and approached the farmer.

"'Hey,' he said, 'I've heard a lot about you and have come a long way to see which of us is the better man.'

"Without answering, the farmer seized the intruder, hurled him bodily over the fence into the road and returned to his work.

"When the loser had recovered his breath the farmer growled, 'Have you anything more to say to me?'

"'No,' was the reply, 'but perhaps you'll be good enough to throw me my horse.'

This reminds us of another strong man, the truth of which is vouched for by numerous eye witnesses. Col. Redmon, a former resident of a neighboring county, was a man of powerful physique and tremendous strength, but of great, good nature and peaceful disposition. This was misleading to some who knew him only by hearsay and believed he would not fight. The colonel rode a pony, and when astride of the animal his feet nearly touched the ground. Riding into town one day he pulled up to a hitching post to be accosted by a man with a grudge who announced in no uncertain tones that he was just about ready to punch the colonel on the nose.

"Oh, you're going to lick me are you?" queried the colonel. "Just wait a minute."

Unhitching his pony, the colonel stooped down until he got his shoulder under the animal's belly and raising up carried the pony across the street, let it down gently and tied it to a post. Then he came back.

"Didn't want Nancy to get mixed up in this melee," he remarked casually. "Well, if it's a fight, let's get busy."

The man did. He got busy putting as much distance as possible between himself and the colonel in the shortest possible time.

"Shucks, boys. Now that's a shame to disappoint you," said the colonel, regretfully. "Guess there won't be no fight. Well, I'll go carry Nancy back. It's shadier on this side." And he proceeded to do so with as much ease as if Nancy had been a feather pillow.

Skulls

One of the largest collections of skulls in the world is to be found at the Royal College of Surgeons Museum, London. There are 6,000 specimens, some dating from the year 9 B. C.

The Queer Cuckoo

The cuckoo is one of nature's mysteries; she leaves her eggs for other birds to hatch, and the growing fledgling makes more room for himself by killing its foster brothers.

Gas and Its Uses

COOLING HOMES WITH GAS

New Use for Gas Which Promises to Open Up Wide Market

And now gas is to be used for cooling houses in summer time. Two years of preliminary research and development have finally culminated in plans for trying out gas cooled houses. Its an entirely new use for gas and if successful as a cooling agency, which is not doubted, will open up a big field. The announcement of the practical installation was recently made by F. J. Rutledge, chairman of the committee on industrial gas research of the American Gas Association. The three homes to be used in trying out this new use of gas are widely separated. One will be on the Atlantic seaboard, another in the middle west and the third in the extreme south. The two first mentioned have already been selected. The one in the east is located in Westchester County, New York, and the one in the middle west in North Chicago. The one in the south will be selected within a short time. The New York and Chicago houses are both gas-heated and will now be gas-cooled. Wonderful are the uses of gas and its possibilities are yet far from being fully developed. The system that has been developed is known as the Silica Gel gas air conditioning process. The American Gas Association Monthly says:

Varying Amounts of Moisture

The atmosphere in which we breathe and live contains varying amounts of moisture, the quantity of which is expressed in terms of relative humidity at any given temperatures. The ideal conditioned air for comfort purposes, therefore, should have a sufficiently low relative humidity to evaporate the moisture from our bodies as quickly as it is produced, without too great a difference in temperature between the body and such air; otherwise, the heat capacity of the air is so much greater than our own heat output, that we become chilled.

Cool But Not Chilling

Silica Gel dehumidified air is cooled to a temperature sufficiently low to remove heat developed within a building without producing the sensation of chilling. Thus, this air flow is in proper condition and of sufficient volume to take up the moisture and heat given off by the people, lights, equipment and operations in the space to be conditioned, and still maintain a proper temperature for comfort. This flow of air is regulated to provide the best ventilation possible without drafts—important, since we have all experienced the uncomfortable down drafts of cold air from the ordinary power-operated cooling system.

Many of us expose ourselves during the summer months in refrigerated theaters and stores to temperatures considerably

below the outside temperatures, and then wonder what causes the colds, headaches and general sluggishness upon returning to the street.

Silica Gel Meets Conditions

Humidity is moisture, and it is atmospheric moisture which we know to be our summer burden of discomfort. By reducing this moisture to any desired degree—and also eliminating impurities and odors—without too great a temperature differential, research has demonstrated that gas operated Silica Gel air conditioning can meet these conditions.

Samuel Insull, of Chicago, is hopeful of increased business as a result of the completion of the natural gas pipe line from the Texas Pan Handle to Chicago. This line is 950 miles long and the pipe is 24 in. in diameter. It cost upward of \$70,000,000. With a large and dependable supply of natural gas available, the Chicago gas companies anticipate a big increase in gas sales for industrial and house heating purposes.

The Russian Soviet government is building great coke ovens. The first of these is being erected at Magnitgorsk in the Ural Mountain district. It will be the largest coke oven plant in Europe and the third largest in the world. W. E. Hartman, an American, is the consulting engineer.

The Memphis Natural Gas Co. is going along good, according to reports. January business was 12 and February business 16 per cent better than the same months in 1930. January sales were 1,098,352,700 cubic feet and February sales 889,087,000 cubic feet.

Natural gas in parts of Kansas and Oklahoma is selling at six cents per 1,000 cubic feet, believed to be the cheapest since its discovery in that region. The previous price was eight cents. In some areas in Texas, which are without pipe lines, owners are offering gas for two cents per 1,000 cubic feet.

In 1835 Philadelphia laid 9,000 feet of gas mains and today, after a lapse of nearly one hundred years, 1,000 feet of these mains are still in use. The many changes in streets, levels, etc., brought about the changes and substitutions for the other 8,000 feet. The world's progress is so rapid that the real endurance power of metal under ground is never fully determined.

Times Are Hard

"That's what I call tough luck."

"What's that?"

"I've got a dividend check for forty dollars and the only man in town who can identify me is the one I owe fifty."

Easter Egg Hunt at Lodge



Children of employes were guests of the company at Mueller Lodge Easter Sunday, the occasion being the annual egg hunt. Between three and four hundred children accompanied by parents were scattered over the lawn and on the hill sides, the eager youngsters in quest of eggs, forming an animated picture against the green of early spring.

One thousand colored Easter eggs were placed in paper bags and hid at various places. Some of these bags also contained prize winning tickets. These prizes consisted of 225 live baby chicks, candy bars and crackerjack.

The little egg hunters were divided into four groups, 4 years and under, 4 to 6 years, 6 to 8 years, and 8 to 12 years.

C. G. Auer was in charge of the affair.

MOST TALENTED GIRL

Janet Cozad, daughter of Delos Cozad, and granddaughter of Mrs. Philip Mueller, was chosen the most talented girl in Gulfport College, Gulfport, Miss., where she studied during the past winter.

Miss Cozad is a dancer of professional ability, a pupil of Miss Annette Van Dyke of this city. A few years ago she went abroad with Miss Van Dyke in pursuit of her studies. She has frequently appeared in our entertainments. Miss Van Dyke is the instructor provided by the Mueller Co. to give free dancing lessons to the daughters of employes. She enjoys a very fine reputation in her profession as an instructor.

"Don't throw the conversation into high until the brain is turning over."

—Charles H. Barr.

"Fashion decrees broader shoulders for men this year. Necessity also demands stiffer backbones."

—Fiberstok Fibers.



STUDY INSTALLATIONS

Suggestion by P. & H. Bureau Worthy of Consideration

The Plumbing and Heating Industries Bureau suggests that contractors, journeymen and apprentices might utilize their idle moments during a lull in activities by a study of installation problems. A special discount will be given by the Bureau on two authorized text books—"Standard Text on Plumbing" and "Standard Text on Steam-Fitting." A special discount will be allowed at this time.

These two books were written by the Bureau with the assistance of some of the leading men in the plumbing industry and in the radiator heating industry. They have been accepted as accurate and authoritative books on the installation of plumbing fixtures, pipes, and fittings and on the installation of heating equipment.

The "Standard Text on Plumbing" is a book of more than 600 pages with over 200 illustrations. The "Standard Text on Steam-fitting" has 450 pages and it is also profusely illustrated with diagrams showing correct and incorrect methods of installation. In fact, the many drawings in both books make them of great value to the apprentice, the journeyman, the master plumber, the heating contractor, and the architect, and engineer.

The convenient division of the material in both books into groups and units makes it easy to use them for reference purposes. Groups may be purchased separately, if so desired.

Winners of Safety Contest



The ten Mueller truck drivers who won the prize for year ending April 1 in Decatur's safety truck driving contest. Record—No Accidents in 4105 days.

First row, left to right: Melvin Girt, J. W. Jukes, C. M. Ping, Foreman, Jess Jones, J. A. Soules, W. A. Rambo.

Standing: E. J. Pasley, L. C. Mathewson, Wm. Thomas, D. S. Avis, Thomas Ralston. Awards were made at a public dinner in their honor at the Decatur Club, April 30th.

HORSE SENSE AT THE CROSSING

Perhaps the much advertised horse sense of our four-footed friends has been over-rated. Those who have driven horses know that some of them are just as dumb as any human being. They will sometimes shy at a piece of paper on the road, or get scared for no apparent reason. A few years ago a runaway horse used to be the chief danger of highway travel. But no one has ever heard of a horse running into a forty-car freight train six cars ahead of the caboose.

The horse is governed by instinct, while man is supposed to be guided by his powers of reasoning. This power of reasoning which lifts man above the animals seems to take a vacation occasionally, judging by some of the reported accidents. Running into the side of a train is just one example. The American Railway Association reports that this type of accident seems to be increasing, although there has been a slight decrease in the total number of crossing accidents.

Psychiatrists explain that a large number of accidents occur because a driver has an overdeveloped ego. That means that he thinks the highways are meant for his private use and he is impatient at delays. Some people are born with this complex;

others get that way after a few drinks. The old idea that only the feeble-minded drivers had accidents has been pretty well disproved. But a man may have a keen mind and at the same time show poor judgment.

Horse sense at the crossing will prevent the iron horse ruining the car and those in it.

IN WASHINGTON

Mr. and Mrs. Adolph Mueller and Mr. and Mrs. Robert Mueller are in Washington, D. C., to attend the annual meeting of the U. S. Association of Commerce and to visit friends.

MRS. ROBERT MUELLER HONORED

Mrs. Robert Mueller, who has always been devoted to music, has been elected first vice president of the Decatur Music Club, and one of the State Patronesses for the Federated Music Clubs of Illinois. Mrs. Louis L. Emerson, wife of the governor of Illinois, is the honorary chairman of the Patronesses and will attend their sessions.

WAS JACKASS

On the first day of the second semester in school, the little boys took their seats and waited until the teacher came down among them to get their names. The first one to whom she came replied that his name was Si.

"No," the teacher corrected, "you mustn't say Si. Say Silas."

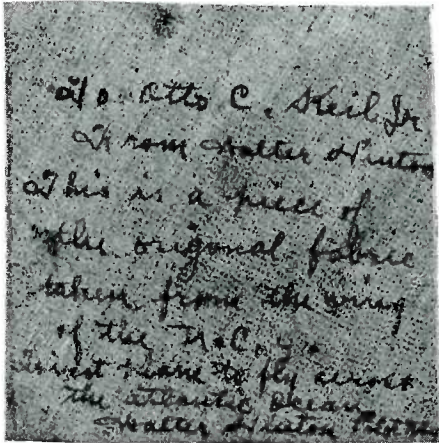
Next she came to one who said his name was Tom.

"Thomas," she corrected.

"And now, little boy," she inquired of a lad in the end row, "what is your name?" "Jackass," responded the bright lad.

LIEUT. HINTON LEAVES SOUVENIR

Otto Keil, Jr., Gets Piece of Fabric from
First Airplane to Cross Atlantic



There is one Decatur boy who possesses a souvenir which he prizes highly—a note written on a piece of the original fabric of the N.C.4, the first airplane to cross the Atlantic ocean with Lieutenant Hinton as the pilot of the crew. The boy is Otto C. Keil, Jr., son of the Mueller Co. comptroller. Lieutenant Hinton was a recent air visitor to Decatur. He came here as a guest of the Exchange Club, this city being his 64th stop in an airplane tour of the country in the interest of the National Exchange Club service to aviation. Lieutenant Hinton during his stay addressed the banquet of the Exchange Club, high school students and others, being presented by O. C. Keil, Sr., president of the Decatur Exchange Club.

The voyage of the N.C.4 is a matter of aeronautic history. The flying boat left Tresspassy Bay, N. F., on the evening of May 16, 1919, and reached the Island of Horta in the Azores, May 17th, in 15 hours and 18 minutes. The distance was 1,200 knots and the flying speed 78.4 knots. From Horta the N.C.4 flew to Lisbon and then to Plymouth, England. Here one of the wings needed new covering and Lieutenant Hinton saved the old original fabric, and it was on a piece of this that he penned the note, reproduced in this column. The N.C.4 now has a place of honor in Smithsonian Institute.

During his fifteen years of active flying service, Lieutenant Hinton has not received a scratch on his body as a result of a crack-up in a plane. He confessed, however, to three smash-ups in his automobile within the past year, and naturally favors the air as the safer means of transportation.

Lieutenant Hinton was the pilot for the Alexander Hamilton Rice expedition to Brazil in 1924-1925. A very fine account of this expedition and some unusual photographs made on the trip will be found in

the April, 1926, issue of the National Geographic Society Magazine.

While in Decatur, the lieutenant visited the home of an aunt and uncle who reside here and whom he had not seen for years.

THE FOURTH FAUCET MYSTERY

Two New Explanations Added Those Previously Offered

More explanations of why the cow is so generously endowed. Mr. Howard Holbrook of Kansas City started the ball rolling when we published the following query:

"There are only three kinds of milk—condensed, evaporated and bottled—Why four faucets on a cow?"

Mr. Holbrook said the fourth one was for water and Mr. W. F. Dodd of Chicago said it was for buttermilk.

Then came Mr. O. R. Wood of Galveston, who said "it was well known that a cow gave nothing buttermilk, and that Mr. Dodd had better revise his figures."

And then we got the following from Mr. R. C. Osborn, a plumber, 4230 East 98th street, Cleveland, Ohio, who says:

"Why the fourth faucet on a cow? Your answers are all wrong. It is for the milky whey. Was raised on a farm and should know."

Next came Mr. Charles Davis, water superintendent of North Muskegon, Michigan, who gave this explanation:

"Why four faucets on a cow has caused quite a little bit of excitement in the country, but I think that all the answers you have received are wrong. The fourth faucet on a cow is for a vent."

And now comes Robt. E. Smith, city salesman for the Mutual Mfg. & Supply Co. of Cincinnati, who writes under date of August 11, 1930, saying:

"That fourth faucet? After much thought I have reached the conclusion that the fourth faucet is a pop-off valve."

Harry M. Thomas, registered plumber of 99 East Wister street, Germantown, Philadelphia, says "the fourth faucet is for an emergency as is the special brake on your automobile."

And now we add two more attempts to solve the mystery:

T. A. Niggemeyer of the W. M. Ritter Lumber Co. of Columbus, Ohio, says:

"Have noted with interest the article in the Record about the fourth faucet. The comments are all good, but being a former farmer and familiar with milking cows will say that we always reserved one faucet for the calf, and it is my opinion that this fourth faucet was intended for that purpose. Enjoy your magazine very much and with all good wishes, I am."

Milton W. Stratton, architect at Bar Harbor, Me., writes:

"May I give my reason for the fourth faucet on the cow. This is like the other three, there for the benefit of suckers, a representative list appearing in your last Record."

HOW TO SELL

The P. & H. Industries Bureau Preparing New Text Books

The Plumbing and Heating Industries Bureau, 35 E. Wacker Drive, Chicago, is busily engaged on two new "How to Sell" text books. These will be based on the school for consumer selling at Lake Forest, Illinois. This school was experimental and afforded the Bureau an opportunity fully to test and try out methods and plans for the teaching of salesmanship to contractors and their employes.

One of the text books will be entitled "Instructors Manual for Consumer Selling Schools" and will be a guide-book for association officers in organizing and conducting schools of salesmanship.

The other book, "Handbook of Plumbing and Heating Salesmanship" will be for the contractors and office assistants who will be the students in the courses.

Thus, with the completion of these two books, the plumbing and heating industries will have, for the first time in their history, the material with which to set up little Red Schoolhouses of salesmanship in local associations throughout the United States. The books will be distributed only by the National Association of Master Plumbers and by the Heating and Piping Contractors' National Association.

The subject matter for the schools as presented in the manual for instructors and handbook for students will follow closely the outline of the Lake Forest school. This was as follows:

First week—"How to Sell a Kitchen Sink."

Second week—"How to Sell a Certified Heating Installation for an Old House."

Third week—"How to Sell an Additional or Modernized Bathroom."

Fourth week—"How to Sell Heating Specialties and Overhaul."

Fifth week—"How to Sell a Closet Combination."

Sixth week—"How to Sell a Gas Storage Heater or a Water Softener."

Seventh week—"How to Find and Record Prospects."

Eighth week—"Shop Selling and Advertising."

Commenting on the sales school from the point of view of a master plumber, Mr. Strenger, former president of Illinois Association, said:

"The class was timely in that the plumbing business today needs intelligent and aggressive salesmanship. The old days when one could sit in the office and wait for business to come in, are gone. Prices at which new construction work is being let leave little or no profit. The only way to make money is to go out and create business. This is what many a contractor wants to do but few know how to do it in a modern and up-to-date manner. A sales school teaches these procedures."

AMERICA'S MODEL CITY

Carefully Planned City of Three Thousand Persons at Boulder Dam Site

To build a big dam it is first necessary to build a city. This is what the government is now doing in preparation for the Hoover dam. A town to be known as Boulder City is under construction. It will start with 3,000 inhabitants and the cost is estimated at two million dollars. It promises to be a nifty little abiding place. All the homes will have modern conveniences. The construction is to be of a permanent character as the authorities anticipate that the town will later be an attraction for tourists. The weather presented some problems that had to be overcome.

Rocks So Hot They Burn

In the summer the wind which sweeps the gorge from the desert is likened to a blast from a furnace. On the rim of the gorge where much of the work must be done, the lava rocks at noon become so hot that they cannot be touched with the naked hand. It is no place for people to sleep. For this reason the city is being built on the divide five miles from the dam site. Here there are always good breezes, an inspiring view of gorges, desert and mountains.

Rigid Government

Certain rigid government restrictions will control the number and kinds of business, including theaters and movie houses. Three commissioners will govern this universal city, one of them being a representative of the dam contractor. There is to be a town hall, school, garage, dormitory and guest house, auditorium, administration building, and 75 cottages ranging in size from two to six rooms. No street parking is to be permitted, but ample spaces will be left for this purpose. The main street will be 112 feet wide with other streets varying from 30 to 92 feet.

Largest Federal Contract

When Secretary of the Interior Ray Lyman Wilbur signed the contract, March 11, he said it was the largest ever let by the federal government. The contract price is \$48,890,990. It is expected that this gigantic project of harnessing the Colorado river will transform the desert region into a land of plenty, capable of supporting 5,000,000 people. The undertaking is so enormous that no individual company is capable of handling it and six large companies therefore combined for that purpose. The magnitude of the project is understood and appreciated by engineers, but to the average man it is simply a big job. However, one may get a fairly clear idea of the enormity of the work from a significant statement by Secretary Wilbur, who said: "In the 29 years' history of the reclamation service the government has used 4,400,000 cubic yards of concrete. The amount required for Boulder Dam exceed this total by 100,000 cubic yards."

MUELLER GOODS
Make
**LEAK-PROOF
CONNECTIONS**

MUELLER
G-11094 Recess
End Gas Stop



From the beginning of Mueller Business — 74 years ago — our constant and unremitting effort has been to make and maintain a superior line of gas goods.

Each year has added to our store of experience and knowledge and enabled us to increase the merit of Mueller Gas Products.

MUELLER gas stops are made in sizes and styles to suit every requirement. Your request will bring complete information or we will gladly make recommendations for specific installation problems.

Mueller methods countenance no guess work. There is a known way to produce high grade Mueller gas goods and that way is carefully followed through every step of the process. This iron body stop (both round and straightway) has "recessed ends" which extend nearly three-quarters of an inch beyond the threads, providing a plentiful *margin of safety where strain is greatest—where strength is vital!*

Mueller accomplishes this by a thorough control of every operation from the melting furnace to the packing room.—And the positive result of this policy is gas goods that give you the perfect service you demand—and protect your investment against replacements, repairs and excessive maintenance costs.

Seventy-Four Years of Reliable Service

MUELLER CO.

Decatur, Illinois

Branches: New York — Los Angeles — San Francisco — Dallas
Atlanta — Chicago

Canadian Factory: Mueller, Ltd., Sarnia

TRADE MARK REGISTERED

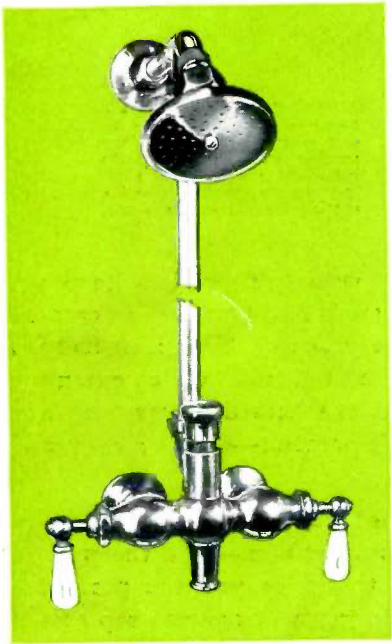
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ADAPTO

Modernizes Old Bath Fittings and Makes Business and Profit for You



Every owner of an old roll rim tub is a potential prospect for you. MUELLER ADAPTO Automatic Combination Tub Filler and Shower makes an instant compelling appeal because its installation requires no remodeling — It makes every old bath room modern at small cost to the owner and at good profit to you. Stock this article—it's a real business stimulator.

H-5080 MUELLER automatic combination tub filler and shower. For converting a roll rim tub on legs into a combination tub and shower fitting without necessitating remodeling. Complete with riser discharge pipe, wall flange, and supporting arm. Adjustable shower head with removable face. Water is automatically diverted to tub when control valves have been closed.

Made also to replace the over-the-rim spout tub fillers.

Ask us for details and prices. We'll help boost business by imprinting ADAPTO envelope stuffers for you—just ask us.

MUELLER CO., Decatur, Ill.

Branches: New York San Francisco Los Angeles Dallas
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