

GAS AND ELECTRIC NEWS

PUBLISHED MONTHLY

By the Rochester Railway & Light Company, for the information of its employees. Free to all Employees.

All news for publication should be addressed to the
EDITORIAL DEPARTMENT

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Vol. 2

MAY, 1913

No. 1

The Flood in Rochester

By THOMAS H. YAWGER



On March 28th certain sections of Rochester became seriously flooded when the Genesee River, much swollen by heavy rains, overflowed its banks. The flooded sections included Genesee Valley Park, Plymouth Avenue, and in the downtown section, such business thoroughfares as Front, Andrews and Mill Streets which were submerged from three to four feet above the ground level. Included also in this flooded downtown section were our Company's Front Street yards and offices on Andrews Street. Accompanying illustrations best describe the flooded condition which prevailed in our Front Street yards, where employees had to go from one department to another in boats. This was a novel and exciting experience, which never happened before in the memory of Company's oldest employees.

This particular section is served entirely by the Edison three wire system, and it is a remarkable fact that although the underground conduits, services, service boxes and meters were entirely submerged for a period varying from twelve to thirty-six hours, there were only

two interruptions to services out of approximately two hundred and fifty of Company's customers in this section.

Services and meters of course were not water tight, but were actually alive, and current flowing through them for this length of time. We continued to keep current on the mains as we did not find any appreciable loss in power; in fact our current output from stations on the Edison system during the two days' flood dropped off quite considerable. After the flood subsided, inspection of services and meters showed that severe electrolytic action had taken place, and the wires, plugs, etc. were, in many cases, just on the verge of being eaten away by the action. Undoubtedly had the flood continued several hours longer some business establishments would have been without current.

The street lights in this section are fed from the Edison system, and it was necessary to go in a boat from post to post for two nights to turn them on. It was an interesting sight to see these street lights rising from the water, and the buildings on either side illuminated showing busy workers moving their goods and protecting their property,

We did not have a single short circuit on the entire Edison system during this period that was of sufficient magnitude to be perceptible

electric meters, service boxes and gas meters will not exceed \$10,000.

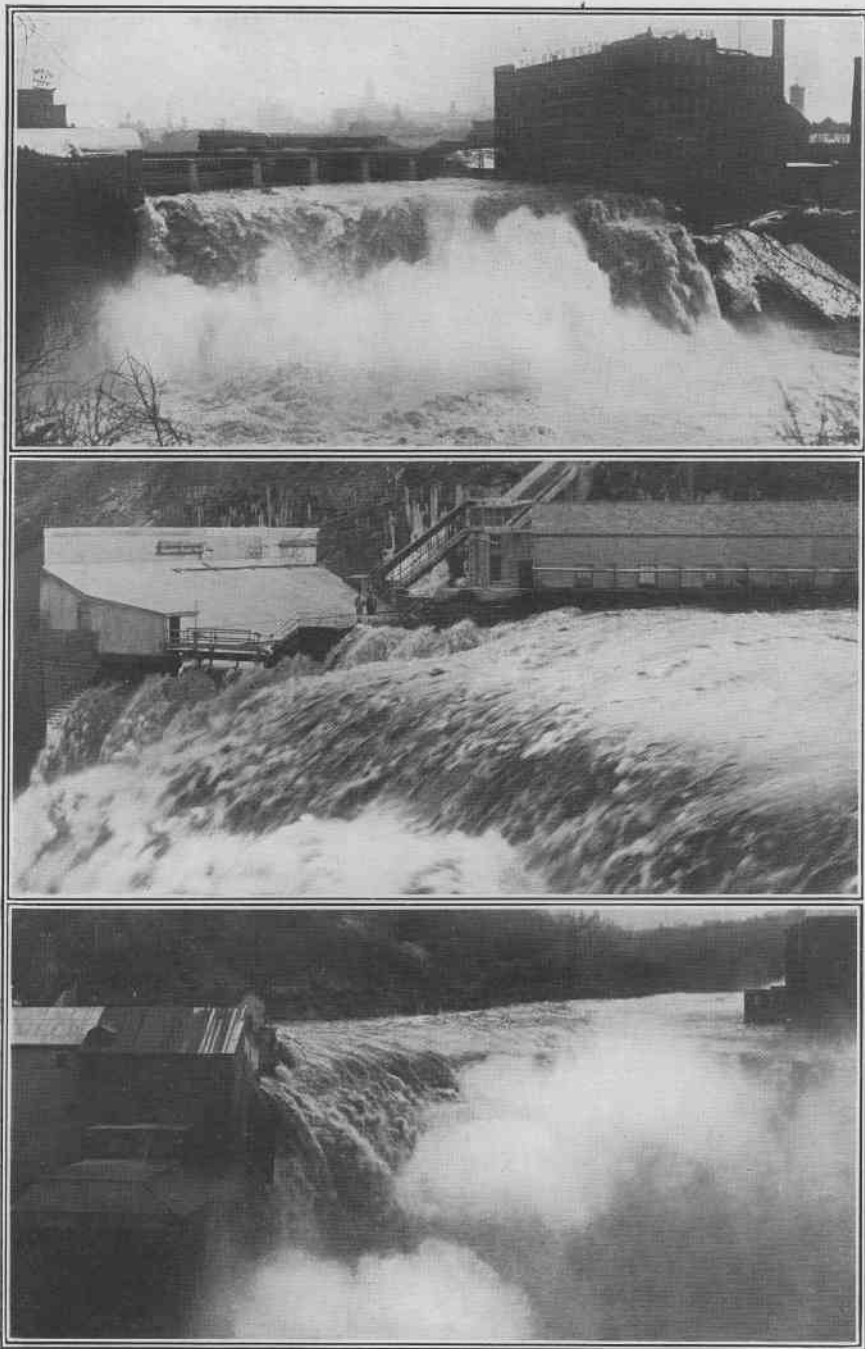
When the water had reached the furnaces in the various buildings in



Scenes in Front Street yards during flood.

in any of the stations. We had two small low head water power plants that were unable to run during the time; but outside of this, damage to

the flooded district, there was an immediate demand for gas and electric heaters. We had a number of heaters on hand and these were



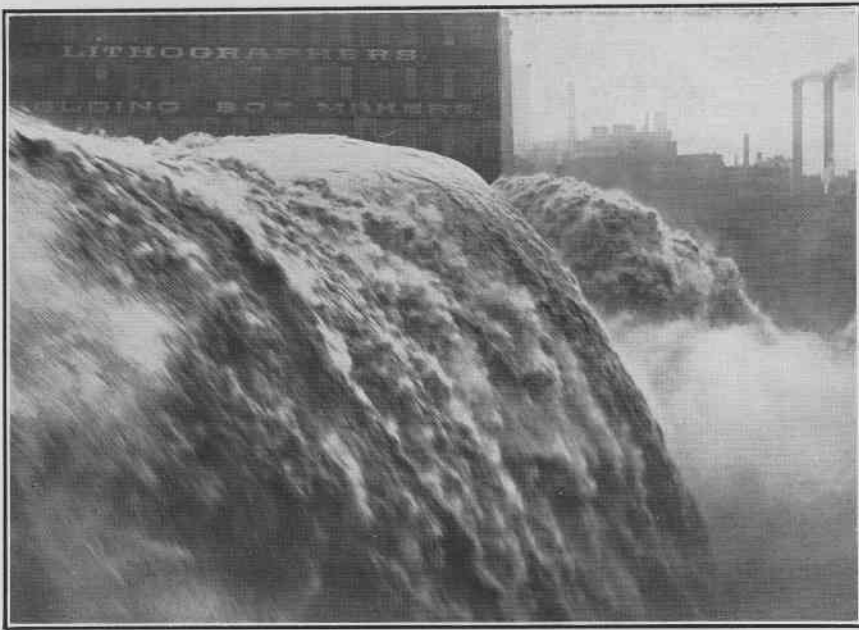
Three views of upper and lower falls during the flood. Top picture is upper falls. Middle and lower picture lower falls at No. 5 Station.

soon at work. Undoubtedly if we had had 1,000 KW capacity in heaters we could have placed them temporarily, which would have been very nice for customers, as their meters were not registering.

Our Company's garage is in the flooded district, and when electric vehicles attempted to return to it on the evening of the 27th, they were unable to enter on account of the water. We knew the wagons and

unless plans now under consideration are carried to successful conclusion as soon as possible. These proposed plans consist of the building of levees and the deepening of the river channel from Court Street dam to the upper falls; also the building of a reservoir on the upper river. The deepening of the channel is now practically assured and the work will be started this year, but count of its cost and the many inter-

The Upper Falls from No. 4 Station



This is a mighty large shipment of "white coal." On account of lack of storage facilities our Company had to let this shipment go on to the St. Lawrence Power Companies.

trucks would be needed the next day, and would therefore have to be charged. So we ran a temporary line over some buildings into a nearby street which was high and dry. Vehicles were then backed up to the curb and in this way were charged with the necessary current.

The damage caused by past and recent floods in the City of Rochester is small compared to the possibilities of damage in the future,

the building of the reservoir, on ac-ests involved does not seem to be an immediate possibility.

Our Company has good reason to congratulate itself that the recent flood did not interfere with its service to the public, although practically all the power emanating from the various stations was carried by cables that were submerged. The telephone cables however were not so fortunate for on the second day

of the flood, all communication between different departments and stations was lost on account of telephone cables becoming defective.

The men in all departments deserve great credit, because when communication with outside work was lost, instead of losing their heads they used their best judgment as to what to do in regard to various changes of load and other conditions. Too much credit therefore cannot be given our men for the manner in which they performed many difficult tasks during the troublesome flood.

Our Company takes great pride in assuring customers that continuity of service is assured them when they make a connection with our lines. This was brought out forcibly in connection with the Edison three

wire, direct current system. All the conductors of this system, after leaving the subway run into service boxes, thence into meters and although these boxes and meters are not water tight, current continued to flow into those places that were most in need of light and enabled the owners to continue the work of removing their goods to safety.

Another interesting fact was that the street lights in this section, which are also served from the Edison system, were lighted, although the men were obliged to go in a boat from post to post to turn on the lights at the proper time. It is a very interesting fact to us, who are familiar with the situation, to have had these lights burning, although the base of each post on which the lamp was supported was three or four feet under water.

AN APPRECIATIVE READER



A. G. Riegel, of the Underground Department, sends us the following little appreciation of the magazine, which we are glad to publish.

"I prize the magazine beyond description, and not only read it each month from cover to cover, but file it carefully away for future reference, and look forward for the next issue to come. I congratulate you on the style and beauty in which the magazine is gotten out, and for the valuable information and help it gives to all who read it; and I feel that all employees should be grateful to the Management for giving us such a very helpful publication each month."

Mr. Riegel has been in the Company's employ since June 21, 1900. We hope he will long be one of our fellow workers, and that in the pages of the magazine he will find

something from month to month to

instruct, cheer and help him.

Flood Was Hard on Meters

By W. J. CONSLER, Foreman Electric Meter Department



Although the waters of the recent flood did not rise high enough to reach the Electric Meter Department in Front Street, yet this department was hit rather hard in that one hundred and seventy electric meters and a still larger number of service boxes located in the flood district were submerged. During the high water period all meter men were kept busy co-operating with other departments in following up "flood complaints." And after the water receded all of the men in this department were kept just as busy night and day for more than a week replacing burned out meters and service boxes.

Over three thousand dollars' worth of meters were completely ruined and had to be scrapped. This loss would have been very much greater were it not for the fact that as soon

as it became apparent that the water would rise high enough to cause trouble, the meter men started removing electric meters from the cellars along Front Street and worked in hip boots until the water rose sufficiently high to go over the top of their boots. The unusual amount of work put upon this department, on account of the flood, naturally resulted in delaying our regular work of installing service boxes, which occasioned considerable complaint on the part of some new customers who felt that they had been kept waiting unnecessarily long. In most cases, however, customers were willing to make reasonable allowances when the cause of the delay was explained to them.

I wish to take this opportunity of drawing attention to the splendid manner in which the underground Department co-operated with the Electric Meter Department during this trouble.

When a man plays for sympathy, he loses if he wins.

It isn't strange that money flies when you consider that every ten-dollar gold piece is an eagle.

Calling it "spring fever" doesn't greatly change the general symptoms of laziness.

Tommy—Pop, what is a skeptic?

Tommy's Pop—A skeptic, my son, is a person who would look for the wishbone in a soft-boiled egg.

Tommy—Pop, what is a theorist?

Tommy's Pop—A theorist, my son, is a man who thinks he is learning to swim by sitting on the bank and watching a frog.

AND so let us be cheerful without regret for the past.
With contentment in the present. And with
strong hope for the future.

Keeping Track of Sixty Thousand Gas Meters

By JOSEPH B. SWITZER



All requests received from our customers—whether by telephone, letter, or a personal call at our offices—to have supply of gas turned on or off are taken care of by having our regular applications filled out and signed by the consumer, after which orders are issued to either turn on, shut off, install, or remove the meters. These orders are made out in original, duplicate and triplicate, and are recorded by our Order Department according to a serial number stamped upon each of the three orders. The original and duplicate of the orders to install or remove meters are sent to the Gas Shop, the triplicate being retained at the office both as a check upon the shop and as a means of protection in event of the other copies being lost. The shop gives the original order to the workman to execute, retaining the duplicate for the purpose of checking up the man. After the order is properly completed, the shop returns the original order to the Order Department, which is then compared with the triplicate. The order is then entered in our regular Meter Location Book, in which we keep a daily record of all completed orders, after which the “set” and “remove” orders are checked with our Meter Record Book, where a record of the meter is kept from the time it is purchased until it is condemned. Any meters that we sell to other companies are also recorded in this book. The reason for keeping this record of our meters is to prevent their being lost. When a meter is removed or installed, the readings are entered in the Record Book and the reading of

the meter when re-installed must always tally with the reading of the meter when it was removed.

The “turn on” and “shut off” orders are handled by our Collection Department in the same manner as the gas “set” and “remove” orders are handled by the Gas Shop. After all orders have been properly recorded in the Meter Location Book and the Meter Record Book, they are then entered in the Ledger by an entry clerk whose duty it is to change the names on the accounts where the meters are turned on, enter the readings, and render a final bill to the person who has moved away. This work is very important, as it is necessary that the reading be correctly recorded in order that the former tenant will receive bill for the actual amount of gas he has consumed, thereby avoiding complications with the incoming tenant. Another important point in handling these orders is to secure correct names and addresses in order that the Addressing Department will have the bills properly addressed.

The Order Department also handles all complaint orders which are issued, these orders being made out in original, duplicate and triplicate and numbered and recorded in the same manner as the other orders are. After complaint orders are returned from the shop completed, it is necessary to very carefully inspect them and see that letters are written where necessary; also, where additional information is required to secure such information and see that the customer is properly taken care of.

The most important complaints received are the complaints on high bills. These are given special attention by shop men who examine the

customer's meter, piping and appliances and report their findings in writing. When these reports are returned to the office they are carefully examined and letters written to the customer, stating what we have done. If, after we have made an inspection, a customer requests us to change and test his meter, we do so, advising him the result of the test, and if the meter is found to be registering fast, a refund is made upon the last six months' bills rendered, based upon the percentage of error indicated by the test. This is our regular practice in such cases, all customers receiving equal consideration. For the convenience of the customer who wishes to have his meter tested by the Public Service Commission, we provide the blank forms which the Commission requires in such cases. The section of the Public Service Law governing the test of a meter by the Commission is as follows (Sub. 2, Sec. 67, Chap. 429, Laws of 1907):

"If any consumer to whom a meter has been furnished, shall request the Commission in writing to inspect such meter, the Commission shall have the same inspected and tested; if the same on being so tested shall be found to be four per cent, if an electric meter, or two per cent, if a gas meter, defective or incorrect to the prejudice of the consumer, the inspector shall order the gas or electric corporation to forthwith remove the same and to place instead thereof a correct meter, and the expense of such inspection and test shall be borne by the corporation; if the same on being so tested shall be found to be correct the expense of such inspection and test shall be borne by the consumer. A uniform reasonable charge shall be fixed by the Commission for this service."

In cases where meters are found to be slow we do not send an esti-

mated bill unless the meter has failed to register a large percentage of the gas passing through it. Our Company invariably refunds when the test shows a meter to have been more than 2 per cent fast.

The increase in the number of our gas meters installed during the past five years has been enormous, as the following figures will show:

Jan. 1, '07	we had in use	32,297	gas meters
" 1, '08	" " " "	37,105	" "
" 1, '09	" " " "	40,526	" "
" 1, '10	" " " "	45,042	" "
" 1, '11	" " " "	50,237	" "
" 1, '12	" " " "	55,038	" "
" 1, '13	" " " "	59,667	" "
Apr. 1, '13	" " " "	60,163	" "

Another interesting record is the number of meters in use according to sizes, which is as follows:

Regular Meters.

Size No.	2 light.....	49
" "	3 "	4,229
" "	5 "	35,577
" "	10 "	930
" "	20 "	228
" "	30 "	831
" "	45 "	68
" "	60 "	92
" "	80 "	30
" "	100 "	50
" "	150 "	7
" "	300 "	1
" "	5 " (Sprague) ..	1
" "	30 "	3
		42,126

Prepayment Meters.

Size No.	3 light.....	3,431
" "	5 "	14,593
" "	10 "	13
		18,037
		60,163

Happiness is a by-product of industry.

We are often admonished to "take the bull by the horns." But where will you find a real bull that will wait until you take it by the horns? Glad to know if anybody's done it!

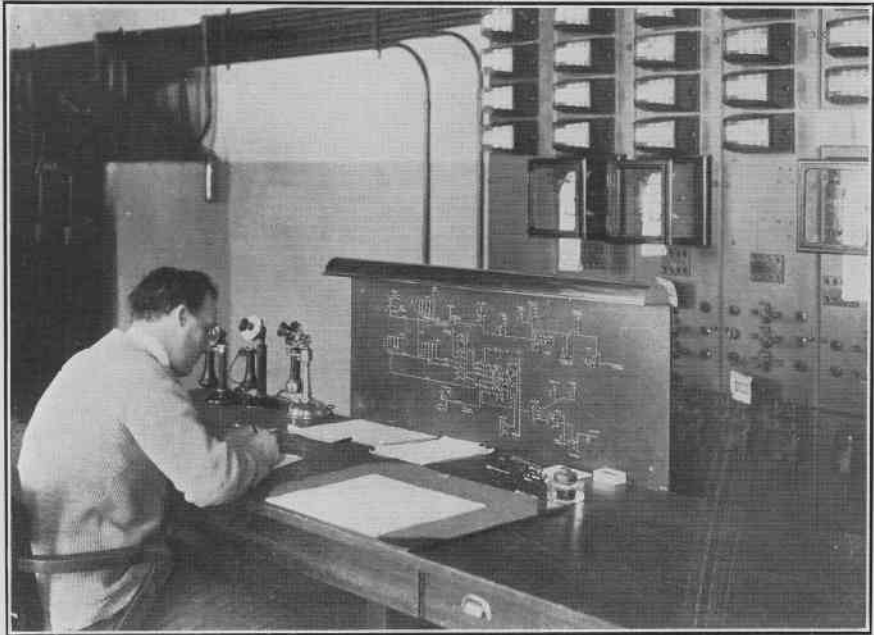
The Safety Plug Board at No. 33 Station

By GEORGE A. BAILEY



In July last year, after nearly two years of preparation, a plug board was installed at Station 33. This apparatus, as will be seen by accompanying illustration, is a diagram of the 25 Cycle Niagara System, including transmission lines of the Sodus Bay and Rochester & Eastern Interurban Railways, and shows in a general way the extent to which Niagara power is used in Rochester and suburbs. The board

indicate switches closed—one being inserted at every point on the system where switches are closed and in operation, which, of course, means that lines connecting these switches are alive with 60,000, 16,500, or 11,000 volts, as the case may be. If operating conditions make it necessary to open switches, thus "killing" the connecting lines, the open switches are indicated by yellow plugs. If men are at work on any part of the system, the open switches surrounding and protecting them are indicated by the use of green plugs. In



Safety plug board at No. 33 Station and Foreman Bailey at his desk.

is of ebony asbestos, 4 inches long, 18 inches high, by 4/10 inches thick. The plugs, which represent every switch on the system, are of hard wood. The plugs are of three colors, red, yellow and green, and are used in the following manner: Red plugs in-

this way, with the co-operation of the several departments concerned, the operator in charge at the station is able to furnish information regarding the work on the system, thus keeping men in stations informed of conditions,

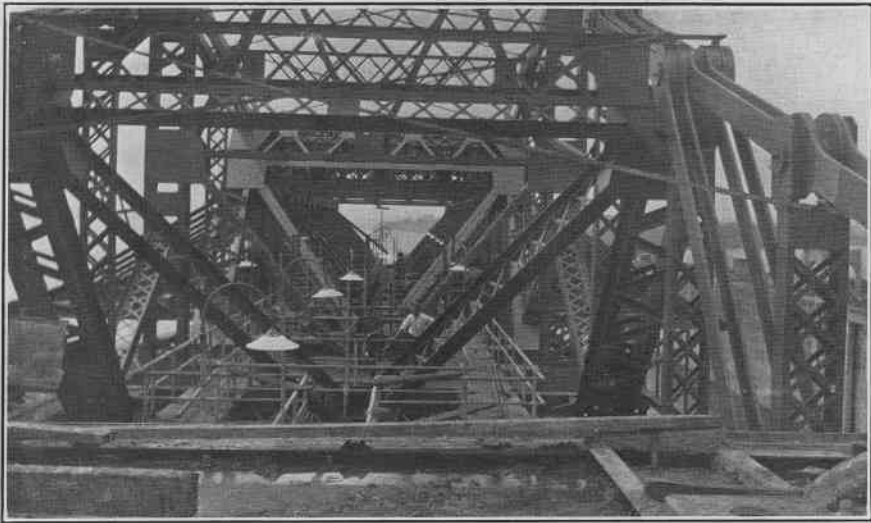
The Big Emergency Dams at the Panama Canal

By CHESTER C. ECKHARDT, Formerly Employed at No. 6 Station



Interest in the Canal Zone and in the work being done on the big ditch is undoubtedly quite common among all citizens of the United States, as it naturally should be, since the Panama Canal is one of the biggest undertakings ever attempted by this or any other country. Among important features of the Canal undertaking not often referred to are the safety or emergency devices, among these being the emergency dams. The dams are large bridge-like structures situated

pendent from this long arm are six pairs of web girders, one end of which is hinged to the down stream side of the main structure; the other end being supported by steel cables, by which this end can be lowered to the bottom of the canal when the dam is in position across the same or drawn up in a horizontal position by motors when not in use. On the upstream edge of these girders are rails on which six sets of steel gates are lowered five deep. The upper and lower edges of these gates are bevelled so that they fit together water tight. The leakage between the sides of the gates is stopped by



Looking along short arm of dam toward Gatun Lake. A switchboard house will be built where men are seen standing in foreground.

at the side of the canal just above the locks and swing on a pivot located about two-thirds the length from one end, thereby allowing the long arm to reach across the channel between the concrete walls just above the upper gates of the locks. Sus-

lowering iron cylinders, six inches in diameter, in front of the space between them, which is but three inches wide. When these are in place the dam shuts the water off from the locks and thereby makes it possible to repair them without

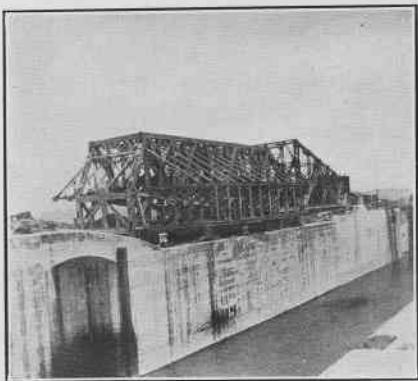
trouble. The dams can also be used to stop the flow of water in case any accident happened to the lock gates.

The dams are turned by two one hundred h. p. motors which operate gears at the bottom and near the end of the short arm. These gears are meshed in a train cog forming a quarter of a circle with a radius

equal to the distance from the driving gears to the pivot of the dam and anchored in a concrete foundation. All motors are three phase, twenty-five cycle, induction motors with a large starting tongue and are supplied with limit switches.

The wiring consists entirely of lead covered cable placed in sherdized conduit. All junction boxes are filled with insulating compound, after the splices are made and taped, thereby making them damp proof. The lighting of the dam consists of two systems: the regular and an emergency system which are run in separate conduit. Current is supplied to the dam from underground ducts up through an upright, ten-inch conduit with a ninety degree bend at the top, bringing the outlet over the pivot of the dam.

Two of these dams are being constructed at Gatun, two at Pedro Miguel and two at Miraflores, which are the places where the locks are located.



General view of dam showing short arm at right, the end of which is filled with concrete or pig-iron for counterweight. Pivot is under highest point.

THE MAN WHO WINS

The following is another version of the poem "The Man Who Wins," published in last month's GAS AND ELECTRIC NEWS.

The man who wins is the man who works—
The man who toils while the next man shirks;
The man who stands in his deep distress,
With his head held high in the deadly press—
Yes, he is the man who wins.

The man who wins is the man who knows
The value of pain and the worth of woes;
Who a lesson learns from the man who fails
And a moral finds in his mournful wails—
Yes, he is the man who wins.

The man who wins is the man who stays
In the unsought path and the rocky ways
And, perhaps, who lingers now and then
To help some failure to rise again.
Yes, he is the man who wins.

GENERAL SAFETY

Herman Russell, Chairman

John C. Parker

Thomas H. Yawger



**HELP
US PREVENT
ACCIDENTS**

J. W. Morphy, Adjuster

Frank Hellen

Victor T. Noonan, Secretary

COMMITTEE

No Prizes Awarded

The Prize Contest has closed, and General Safety Committee has decided to leave Contest open for one month more, as not enough suggestions were received.

Surely some of you have some little "safety stunts" in your heads that ought to win, if you try. Suggestions should be brief, and need not be original. If you have seen a safety device in operation elsewhere that this Company can use with benefit, let's hear about it. A suggestion that has to do with your own department will stand a better chance of winning a prize.

EXAMPLES:

Foreman Alcott saw a steel manhole protector in New York City. From that he got the idea for a similar manhole guard, which he has now designed for our Company.

Mr. Haftenkamp designed a safety car-stop at entrance to coal elevator at Gas Works. Both these are practical examples of simple and effective safety devices.

Our new safety danger flags are another example. Can you suggest some similar educational safety method for use in Company's campaign?

Can you suggest a safety device or warning for guarding blind corners? **GET BUSY.** We expect at least 500 suggestions before Tuesday, May 20th.

Remember the prizes: First Prize for the best suggestion, \$25; Second Prize, \$15; Third Prize, \$5.

To be careless, thoughtless or reckless means injury sooner or later to yourself or others.

Fifteen-Minute Noonday Talks

Beginning first week in May, Mr. Noonan, Secretary of General Safety Committee, will begin a series of fifteen-minute noonday talks each day before employees IN ALL DEPARTMENTS. Subject: "What ARE YOU Doing for Safety?"

The talks will be given in group series; that is, each foreman and his own particular group of men will hear the talk one day; the next day another foreman and his own group of men.

Foremen are invited to get in touch with Mr. Noonan, so that the date and most convenient time for the talks can be arranged satisfactorily to all.

The talks will be HELPFUL and we want every man to be present.

"First Aid" talks by Dr. Calihan will also be given at some of these meetings.

Prone Method of Resuscitation

Time should not be consumed in removing the body to another place or in waiting for Pulmotor. The work of resuscitation must begin the instant the body is recovered from the circuit, even though other places in the neighborhood may be cleaner. In a great majority of cases it is not necessary to know whether the victim's mouth is open, merely that the nose and mouth are free from extraneous obstruction, since the pressure on the floating ribs will force the air out of the nostrils even if the mouth is closed, and breathing can be re-established in this way. The duration of efforts at artificial respiration should ordinarily exceed an hour and should be prolonged indefinitely if there are any evidences of returning animation by way of breathing, speaking or movement. Evidences of life are liable to manifest themselves within twenty-five minutes in patients who will recover from electric shock, and although the chances for recovery of a patient who shows no evidences of life within twenty-five minutes are rather dubious, where there is doubt the victim should have the benefit of it and no relaxation in the effort at resuscitation should be made so long as the least hope of success remains.

Explains Safety Work

Secretary Noonan addressed the Sons of Jove at Hotel Rochester April 3rd. On the same evening he addressed a "Safety Rally" of employees of the Buffalo, Rochester & Pittsburg R. R., held in Y. M. C. A. Hall. April 11th the cause of safety was explained to the young women students at Nazareth Academy.

On Friday evening, May 2d, Mr. Noonan addressed a mass meeting of employees of the lighting companies of Bath, Dansville, Hornell, Cohocton, and other towns, which was held in the Opera House at Atlanta, N. Y. The meeting was open to the public. Our Company's lantern slides and the Eastman slides were shown, and a demonstration of the Pulmotor was given by Mr. Noonan. Representatives of all the business organizations in Wayne County were present at the meeting, which was the first "Safety Rally" ever held in that section.

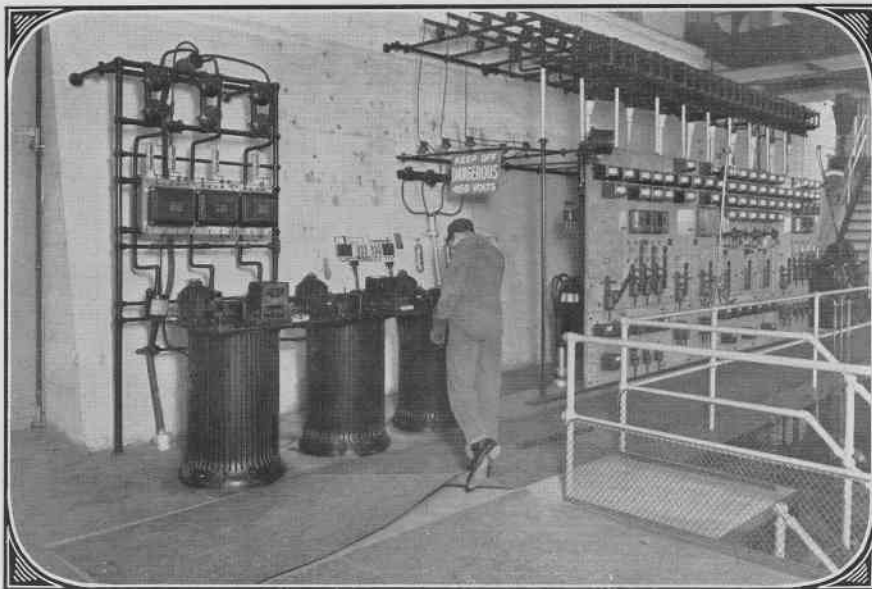
HOW ACCIDENTS CAN HAPPEN**THE DANGEROUS WAY.**

Operator standing on steel frame of rotary while cleaning commutator with a rag—an easy way to get killed or injured.

**THE SAFE WAY.**

Our Company's rule requires operator to stand on floor and use a stick with rag on end to clean commutator. This way is always safe. A. C. Panel and steel mesh guard on right.

PREVENTION IS BETTER THAN CURE



LOOSE FLOOR MATTING

Is always dangerous on floors or stairways, particularly in a power station. Always see that it is carefully tacked down.



One of the most prolific causes of accidents. Look out for the nails and hammer them down.



Many workmen are injured in this manner. Don't stand on barrels—use a safety ladder.

BRIEF COMMENTS

Proper inspection of tools and machinery by employees using same will help to prevent accidents. Please always see that your tools are in good condition before using same.

Not one of Foreman Frank Rich's Italian laborers was injured during the building of the tunnel from No. 3 Station to the new Eastman Building. This is a fine record, and indicates that Foreman Rich and his men are careful and co-operating at all times for Greater Safety.

All employees in the various stations and other departments should read the accident reports and other notices which are put on the Bulletin Boards from time to time. Keep in touch with the work of the General Safety Committee, and you will be better able to co-operate in helping to prevent accidents.

In accordance with Company's regulations, foremen should get a daily report from all sick or injured employees. Men who are injured and who are able to move about must also report each day to their own foreman. This rule must be strictly obeyed.

During the past month a number of men have been injured while attempting to lift heavy weights, such as pipes, boxes and other heavy articles. Foremen should see to it that men who are engaged in lifting heavy articles should have sufficient help. Proper supervision will also help. And by the way, if you see a fellow workman trying to lift something that is beyond his strength, stop and give him a helping hand. Five minutes of your time may save him from injury.

Considering the great amount of construction work going on at No. 3 Station, it is very gratifying to note from the accident reports that the work has been accomplished without many accidents. All the men in the station and on the outside work are co-operating in a splendid manner, and much credit is due to Engineer Powell, Foremen Lamey and O'Neill for the great personal interest which they are taking in encouraging the men to be careful. We trust that all the work now being done at No. 3 will be finished without a serious accident to one man.

YOUR OBLIGATION

The prevention of accidents and injuries by all possible means, is a personal duty which every employee owes, not to himself alone, but also to his fellow-workmen.

We invite suggestions from employees on anything of a dangerous nature. Get in on the Contest.

We are also particularly well pleased with the attention paid by all the men at the "First Aid" talks given by Dr. Calihan at the station on April 11th and 24th. The large attendance and the many questions asked indicate that the men appreciate these personal talks.

Along the line of Greater Safety to life and property, the Gas Manufacturing Department is equipping all water gas sets with so called "Butterfly Valves." These are valves placed in the blast pipes, and so designed as to automatically close against the air blast, and at the same time open a vent to the atmosphere as soon as the gas making period begins, thus obviating the possibility of an explosion from air mixing with the gas.

During past month, we have received inquiries regarding Company's Safety work from the following: Ferro Machine Company, Cleveland; Nichols Copper Company, New York City; H. M. Byllesby Company, Bankers, New York City; Baltimore Gas and Electric Light Company; Federal Electric Light Company, New York City; Electrical World and Safety Engineering, New York City, and many others.

We have also received a letter from Mr. C. L. Close, Manager Safety Bureau United States Steel Corporation congratulating us on adoption of red ball on our new safety flags. All of which goes to show that Company's safety campaign is attracting favorable attention. Whatever we do for ourselves, we're always glad to help and show "the other fellow."

HIS BABY

She is my mother, said the young man, but I call her my baby. She is 80 years old. Old people are very like babies, and we ought to love them, for of such is the kingdom of heaven.

I have an idea life evens up things. When I was young and helpless she took care of me; now I take care of her. I am paying my debt.

She never left me alone when I was an infant. Now I do not leave her alone.

She was patient with me then; now I am patient with her.

She fed me; now I feed her. I clothe and keep her.

She sacrificed her young life to me; I am glad of every chance I have to sacrifice for her.

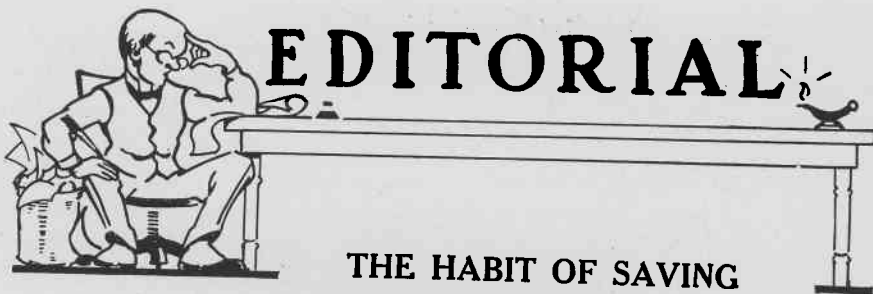
She loved me when I was ignorant, awkward, needing constant care, and all because I was hers, born of her body and part of her soul. Now every feebleness and trait of childishness in her endears me to her, for no reason, except that she is my mother.

By so much as she is a tax on my time, attention and money, I love her.

She shall not triumph over me in the day of judgment; for my tenderness shall equal hers. She watched with me until I grew up; I shall watch with her till she steps into heaven.—Dr. Frank Crane.

To Riders of Motorcycles

1. Help Us Prevent Accidents.
2. Be sure that the brake on your machine is in perfect working order. This may seem trivial to you but it is of vital importance.
3. Learn to use your free engine clutch, especially when you are in a tight corner or on a slippery pavement and particularly when crossing any busy street. In fact with the new chain drive machine your free engine clutch should only be thrown in half way as this type of machine is different from the belt drive. This part of the machine is very handy and prevents a great many accidents, for, if you come to a dangerous location rather suddenly and throw your free engine clutch out, you can quickly stop your machine with the brake. Therefore, your free engine clutch and brake are really the two most important parts of the machine and you should always see that they are in perfect working order. See, also, that your engine runs free while you have your machine stopped, and upon starting up see that you throw the clutch in very slowly and only a little at a time, for if you throw it in very fast it is apt to break the chain or allow the machine to jump ahead and throw you to the ground.
4. The horn is on your machine for the purpose of warning people of your approach. Therefore, see that the horn is in good condition, and do not be afraid to use it, and always toot it when nearing a street crossing and particularly near blind corners. Primarily this was put on your machine in order to comply with the law which requires that a horn be on all motorcycles, automobiles and the like.
5. The light on your machine should always be kept in good condition, ready for use, for it is necessary that a light be used on all moving vehicles to comply with the City ordinance. If you happen to be delayed when necessary to return in the dark, your light should be in proper condition so you can light it up and comply with the law.
6. Lack of sufficient oil in machine will cause the engine to pound and wears it out. Therefore you should always have a sufficient supply of oil and if your engine pounds when you have sufficient oil, and gasoline as well, have it looked after by a repair man who knows how to properly put a machine in shape.
7. Have enough gasoline in the morning to supply you for the day. Never let your supply of gasoline run out. When gasoline supply is exhausted the engine heats up, and while it may not do a great amount of harm, it does the engine no good, and is more apt to seriously damage it.
8. Have a lock and key for your machine, and, most important of all, see that you use this lock and key. Never leave the machine standing any place without having your lock on same.
9. Take good care of your motorcycle. This does not mean that the enamel and nickel-plated parts should be wiped off, but the engine and all the oil cups, springs, etc., should be properly cleaned. See, too, that the parts of your machine which require oiling are properly oiled periodically so as to keep it in good running order.
10. Remember, finally, that Company's machines are not for the purpose of speeding, and we expect that every one will ride them within the limit of the law as regards speeding. A man who keeps going at a moderate speed will do more than the one who is speeding part of the time.



THE HABIT OF SAVING

In these days of costly living no subject should receive more serious attention than the habit of saving. Greater economy, more simple, frugal ways of living and the daily habit of saving pennies, nickels and dimes should be encouraged and practiced by all, but in particular by wage earners. The habit of thrift is closely related to the habit of carefulness. A real careful man is never extravagant and the man who is thrifty, economical who knows how to take care of the pennies, who has a daily thought for his own future and that of his family may be regarded as an all round careful man in whose hands trust and responsibility are safeguarded. If one has wasted many years in careless or thoughtless spending, it is difficult, we admit, to acquire the saving habit. It is difficult all at once to cut down one's cigars, drinks, candies, theater visits, other luxuries and pleasures and start in saving the pennies, nickels and dimes. Most people have to work hard—life is strenuous for all, and we must have some little pleasure, some little luxury to cheer us on the way. Few of us, too, care to be called either selfish, "close" or a "tightwad." We like to spend as much as our neighbors and to be equally as generous,

which explains so much careless spending. It is more difficult, too, in these days to save than it was a quarter or half a century ago, because we live in an age when the temptation to spend confronts us on every side. For this reason the habit of saving should begin with the little folks. Thrift should be encouraged the children in their homes and taught in the schools. To teach the value of economy, and how money grows when saved, a bank in a little town in New Jersey has this year opened an account with one dollar deposited in the name of every baby born in that town since January 1, 1913. The parents of each child are given a steel box, the key of which the bank keeps. All the child's savings are placed in the box, opened by the bank and deposited to the little one's account, which will be kept until it is twenty-one years old. This is a beautiful and practical way, in which both parents and bank cooperate to impress upon children the valued lesson of saving.

No man is so helpless as the man without a dollar to his name. Like a soldier on the battlefield surrounded by the enemy, he finds his last bullet gone. Without powder and shot his fight is useless. Every dollar saved counts in the battle of life.

A man with a million dollars at his disposal is more powerful than a million men with one dollar each in their pockets. Money is force-power. It represents the efforts of men. It commands human labor, represents labor and is the direct result of some form of labor. The million dollar man can for a day control a force equal to a million men and in some countries even more. Therefore, every dollar saved adds to a man's force and influence in life. Many a young man who has never considered this matter seriously will find if he examines his weekly or monthly expense account that he is spending dollar after dollar to no particular purpose.

"A country recovers from hard times," says a writer on economics, "by an enormous aggregate of petty savings while production is reasonably stationary, consumption varies, when men look twice at a cent before spending it, the country is growing richer, because more of what is produced is saved. From this fact comes another not unusually accepted, but nevertheless true, that we grow rich more rapidly in 'hard times' than when business is active, and everybody seems to be making money."

Another writer on economics points out that the next census of the United States will probably record a total population of one hundred million people. Were every one to save but a cent a day, the total saving would be one million dollars a day, or three hundred and sixty-five millions a year. This total is large enough to affect the prosperity of the nation as a whole, and each one's share in it is sufficient to influence his individual prosperity. But think of the full significance of savings of two, five, ten or twenty-five cents a day!

"I wish," says another writer on economy, "that I could write all across the sky in letters of gold the two words 'Savings Bank'."

Many of our most successful richest men began life in poverty, but they saved as they struggled. Read the stories of John Jacob Astor, Cornelius Vanderbilt, Jay Gould and A. T. Stewart. These noted men saved their pennies and turned them into dollars. Andrew Carnegie and Thomas Lipton are two living examples of men who began life as humble toilers, and by thrift, diligence and ambition became men of power in the world of business. What they have done you can do

If you don't receive your copy of the magazine by the 7th or 8th of the month at the latest, call up the Editorial Department on the 'phone, and let us know. Each employee is entitled to get a copy of Gas and Electric News within a day or so after it is sent out from these offices.

more or less, if you cultivate determination, will-power and the daily habit of saving.

Proper economy does not mean deprivation of necessary comforts and pleasures. It is economy to patronize a good play. It is economy to attend a good concert or buy an elevating book. It is economy to cultivate the best in music and art. A piano in the home is economy because it creates happier living. It is economy to take a week's trip occasionally somewhere, because it fits us better for our work in life. Besides it shows us that the world is much bigger than the four walls we've been living behind. Such things as these are good paying investments. They prompt higher resolves and nobler endeavors.

Many people never become prosperous simply because they do not realize how money grows. When Benjamin Franklin said that "money can beget money, and its offspring beget more," he was merely expressing what compound interest does. Money placed in a savings bank earns interest which is the charge made for the use of the money. There are two kinds of interest, simple and compound. Simple interest is the interest on principal only. Take the sum of \$100 deposited in a savings bank that pays interest semi-annually. The rate is four per cent. This means that every six months the depositor earns two dollars. At the end of two years the depositor's first \$100 would have increased to \$108.

Now take the same sum and bank it at compound interest at the same rate. In six months it would earn two dollars and there would be a total of \$102, but from this time on the interest would be added to the principal and become a part of it. At the end of the first year principal and interest at compound rate would amount to \$104.04. Again, there are two kinds of compound interest. The two following examples will explain them: one dollar deposited in a savings bank that pays four per cent will amount to \$2.19 in twenty years. This is simple compound interest. One dollar deposited every year for twenty years in the same bank at the same rate of interest will become \$30.97. This is progressive compound interest.

Enough has been written so far on the subject of saving itself and the meaning of interest. Read the accompanying table of figures, which best of all clearly illustrates how pennies, nickels and dimes, quarters and dollars, become fat bank accounts when wisely saved.

The late Russell Sage once summed up the whole story of patient daily saving in the following words: "It is such an easy, simple thing, and it means so much. It is the foundation of success in business, of contentment in the home, of standing in society. It stimulates industry. I never yet heard of a thrifty man that was lazy. It begets independence and self-confidence. It makes a man of the individual who practices it."

Table of Figures Showing How Savings will Accumulate Compounded Semi-Annually at Four Percent. Interest

Daily Savings	In 5 Years Amounts to	In 10 Years Amounts to	In 20 Years Amounts to
\$.01	\$ 20.00	\$ 45.00	\$ 115.00
.02	40.00	90.00	225.00
.03	60.00	135.00	340.00
.05	100.00	225.00	565.00
.10	200.00	450.00	1,130.00
.25	500.00	1,125.00	2,825.00
.50	1,000.00	2,250.00	5,650.00
1.00	2,000.00	4,500.00	11,300.00
Weekly Savings	In 5 Years Amounts to	In 10 Years Amounts to	In 20 Years Amounts to
\$.25	\$ 73.00	\$ 162.00	\$ 403.00
.50	146.00	324.00	806.00
1.00	293.00	650.00	1,614.00
2.00	585.00	1,301.00	3,228.00
5.00	1,462.00	3,252.00	8,070.00

CHEERFULNESS

Some people find it harder than others to be uniformly cheerful. While one man is, as the saying goes, "born happy," another inherits a tendency to look upon the somber aspect of every matter presented to him. The man or woman who does this throws the care and responsibility that should be his or hers upon some other shoulders. When we work let us work cheerfully; when we play, let us play with our whole hearts. In this simple rule lies the secret of the youth that endures long after the hair is white.

Into nearly every life falls more sunshine than shadow. Why leave

the sunny places and go off to one side to sit and mope in the darkest dreariest shade we can find. All of us have our worries, some small, some great, and the strength and depth of character is proved in the way the trial is met. Cheerfulness is God's messenger to lighten the burdens and make the joy even more bright and beautiful. Have you noticed how, as soon as you laugh over a vexation, the sting of it is gone. And the best of it is, you can not be happy yourself without casting a little reflected sunshine at least into some other life.



You get nothing for nothing.

Be bigger than your troubles.

Some folks are so terribly close, they won't even give you a smile.

If a dog barks at the moon, at what will a tree bark?

It takes more than a pair of jacks to open a bank account.

If you hate a disagreeable, but honest and necessary task, perform it, and hate it afterwards.

Yes—we pick a color for the magazine cover from the colors some of the girls are wearing.

Friend Gosnell says it's never too often to kiss a pretty girl—provided of course!

If it takes an hour to fill a turkey, how long will it take to Philadelphia? Ask Mr. Durfee!

Cats may not be expert at mathematics, but we've seen some cats in our neighborhood "footing up columns" quick enough.

Customer—What have you in the shape of oranges?

Storekeeper—Well, we have baseballs.

A man may be handy with either his hands or his feet—and that's the difference between a knocker and a kicker.

A little school girl wrote the following composition on men:

"Men are what women marry. They drink, smoke and swear, but don't go to church. Perhaps if they wore bonnets they would. They are more logical than women and also more zoological. Both men and women sprung from monkeys, but the women sprung further than the men."

The Christian County Republican says that a young woman entered a store a short time ago and asked the clerk whether he had "any of those elastic bands, capable of being elongated and adjusted at pleasure, and used by the feminine portion of mankind for putting around the lower extremities of the locomotive members to keep in the proper position and altitude habiliments of their tibias."

Two Irishmen were watching the events of a field meet. When one of the athletes jumped some twenty-one feet in the broad jump, Pat remarked to Mike, "Mike that was a purty good jump."

"Yes," says Mike, "it was, but nothing like what we had back on the Ould Sod."

"Sure," says Pat, "and they never had anything to equal that jump."

"Yes," says Mike, "and they did. One day I saw a man jump twenty-three feet—backwards—up a hill—agin a strong wind."

ELECTRIC DEPARTMENT



The new concrete pole factory on Atlantic Avenue is nearing completion.

Charles M. Whelan, a recent graduate of the University of Michigan, has joined Mr. Parker's Engineering Staff.

Twenty-five new mazda lamps on concrete poles have been installed in Alameda Street, between Lake Avenue and Dewey Avenue.

Main Street will have a real metropolitan appearance when the new magnetite lamps are installed in a month or so.

Messrs. Parker and Lundgaard went to Pittsfield, Mass., last month to inspect a new electric fireless cooking device.

Foreman Rees, of No. 2 Station, found a piece of rock with traces of lead in it on the river bank during the flood. He hasn't slept since wondering just where that rock came from.

We wish to congratulate Mr. J. C. Collins on his appointment as General Auditor of the New York State Railways. Our congratulations are in order also to Mr. E. C. Scobell, Assistant Auditor, who has succeeded Mr. Collins as Company Auditor. Mr. Patterson will be Mr. Scobell's assistant.

Mr. Parker gave a very interesting and amusing talk last month on "Fakers" before the Rochester Engineering Society.

We wonder what kind of company poor John's been keeping lately?

A number of arc lamp globes were broken last month on Wolcott Road. Since then we have noticed ornamental globes on many residential streets broken in similar fashion. It seems a shame that so many small boys are allowed to cultivate this destructive habit.

From one of the newspapers we picked this little item: Augustine Parshall, formerly of London, Paris, Vienna, Jackson, Michigan, and Buffalo, who is commonly known to the Sons of Jove and other friends as "Gus," is in the city, calling upon officials of the Rochester Railway and Light Co.

Come again "Gus" we were all mighty glad to see you, and that includes Lundgaard.

Do the thing you are afraid to do.

A newspaper editor says: "We have received a notice of marriage for insertion, to which was appended the original announcement. 'Sweethearts at a distance will please accept this intimation.'"



Chief Gardener Jake Webber, of the Gas Works, is busy with his landscape gardening for the season. He has placed requisitions for cannas, pansies, asters, gladiolas and nasturtiums. The Gas Works will soon be a "thing of beauty and a joy forever."

The Gas Manufacturing Department is about to install a system of gas purification devised by Mr. J. G. O'Neil of Geneva. It depends upon the absorption of hydrogen sulphide by weak ammonia liquor. If the system is as successful as it is hoped to be, it will prove a very considerable economy to the Company.

Concreting for the foundation of the new gas tank on Winton Road has been commenced. The tank which will be 220 feet high will not be completed until next December.

We are planning to have a very interesting article about this new tank in a coming issue.

The new trip hammer recently installed in the blacksmith shop at Front Street has already proved itself a great time and labor saving device, and we are requested to express the appreciation of employees in the blacksmith shop for the installation of this convenience, which they are very grateful to have.

A new sewer is now being constructed in the Front Street yards to take away any future overflow of the Genesee River.

This is the busy season of Mr. Hellen and his men, who among other things are installing a new gas main in Charlotte. Considerable house piping and other gas services are also being installed along the lake front. Summer boarders in Charlotte will have all the latest gas comforts this season.

The Fly in the Omelet

The house committee of a New York club recently received this unique complaint:

"I have the honor to inform you that I lunched at the club this afternoon and had as my guests three gentlemen, all well known gourmets. Among other things an omelet was served. It contained only three flies. As an old member of the club, jealous of its reputation, I naturally found this very embarrassing, as, in order to make an equitable division of the omelet, it was necessary either to divide a fly—a nice bit of carving, as you must concede—or forego a fly myself. I beg to suggest that in the future, when an omelet is served for four persons, it should either be with (a) four flies, or (b) no flies at all."



James Culligan of Mr. Nolan's office is wearing a real diamond ring. What do you think of that Mabel?

During the flood; boys at No. 4 Station pulled out a live, 7 pound pickerel, which was caught at the intake. Fish were plentiful there for several days, and we don't say that any "catches" were made; the fish simply floated in.

Messrs. Whittley, Nichols, Babcock, Royce and Johnson of Mr. Nolan's office attended the monthly Credit Men's Dinner at Powers Hotel on April 24th. All report a very interesting and instructive session, and appreciate the privilege of being able to attend such a valuable meeting.

Miss J. F. McElheran and Foreman James Fahy, of the Gas Street Department, were married last month at the Church of the Blessed Sacrament by the rector, Rev. T. F. Connors. The bride was attended by her sister, Mrs. Albert Reiss, of Charlotte, and the groom by Albert Reiss. After a wedding breakfast at the Powers Hotel, Mr. and Mrs. Fahy left for a trip to Chicago. Congratulations, Mr. and Mrs. Fahy.

James C. Laney of Mr. Nolan's office is now living in the suburbs on Britton Road, Greece, N. Y. James says he can now hear the beautiful little birds singing up among the pretty little green leaves of the trees.

Yes, James, and in the winter thine ear will hear the cold, cold blast whistling where the pretty little green leaves used to be!

Miss Pearl Ludwig of Mr. Nolan's office has returned from a two weeks' leave of absence in Toronto. Miss Ludwig reports that she had a very enjoyable time.

Valentine L. Weining, formerly Stock Clerk with the Buffalo, Lockport & Rochester R. R., has succeeded Thomas O'Brien as clerk at our Company's storehouse office. Mr. O'Brien, who was formerly in the Engineering Department, has left Company's service to take a course of study in another line of work.

Walter Drew of the Gas Shop is doing a thriving business in second-hand goods. His spring sales so far have included motorboats, motorcycles, diamonds, shoes, socks, scrapbooks and other sundries at below cost.

"Tell your story from the housetop," Walter. "Get an electric sign."

Someone reported last month that a lost meter was to be found on a dump in the northern section of the city. There is a reward of \$5.00 to any person who finds a lost gas meter, and with thoughts of this prize in view Messrs. Switzer and Newman of Mr. Nolan's office proceeded with great haste to the scene of the dump, where they found the aforesaid lost meter, and beside it they found 35 other lost meters. Switzer and Newman, their hearts filled with joy; returned to the general offices, counting on the way how much money was coming to them for their great discovery. At the office they were told that the 35 meters which they thought were lost were nothing more than condemned meters which had been thrown on the waste dump. Needless to say, both shrunk in size very much when they heard this.



AMONG OUR EXCHANGES

We beg to acknowledge with thanks receipt of the following publications:

Business Builder, St. Paul; The Y. & E. Idea, Yawman & Erbe Co.; The B. R. & P. Magazine; Pacific Service Magazine, San Francisco; Edison Monthly, New York City; Edison Current Topics, Los Angeles; Current News, Philadelphia; Union Electric Bulletin, St. Louis, Mo.; Gas and Electric News, Baltimore; Portland Carman, Portland, Ore.; Edison Round Table, Chicago; N. E. L. A. Bulletin, Brooklyn, N. Y.; N. E. L. A. Bulletin, New York City; Bulletin, Dept. of Labor, Albany, N. Y.; Safety Bulletin, N. Y. C. R. R.; Ford Times, Detroit,

Lighting plant in "Farthest North"

What is probably the most northerly electric lighting plant on the eastern side of the North American continent is a small installation at St. Anthony, Newfoundland, about 50 miles south of the celebrated Straits of Belle Isle, separating Newfoundland and Labrador. The plant has a rating of only 11 kw. and consists of a 230-volt continuous-current generator driven by an 18-hp. kerosene engine which is operated on crude petroleum, the fuel consumption being about $2\frac{1}{4}$ gallons per hour, with an average load of 30 amp. The installation supplies energy for lighting the buildings and grounds of the Royal National Mission to Deep-Sea Fishermen, of which the well-known Dr. Wilfrid T. Grenfell is the head. The buildings lighted are the hospital, orphanage, guest house, director's residence, several tenements and smaller structures, about 400 incandescent lamps being in service. The inside

lighting includes 275 16-cp. lamps, 125 8-cp. units and several 32-cp. lamps, the operating room of the hospital being well equipped with the latter. About a dozen 16-cp. lamps are in service on the paths connecting the different buildings and a red pilot light is used at the end of the mission pier to facilitate the docking of vessels. Tungsten lamps are being installed in place of carbon units, and about two miles of outdoor wiring are in service. A Wappler X-ray machine is being installed in the hospital. The plant is operated from a minimum of three hours per day (8 to 11 p. m.) in summer, to eleven hours per day in winter (4 to 11 p. m. and 4 to 8 a. m.), the winter nights being long in this high latitude and correspondingly short in summer. An employee of the mission is in charge, and the equipment was the gift of the trustees of Pratt Institute, Brooklyn, N. Y.

Wisdom consists in knowing when you don't know.

James H. Gosnell

We regret to announce the death of Mr. James H. Gosnell, father of Edward F. Gosnell, of Mr. Nolan's department, who died April 25th, aged 70 years. Mr. Gosnell was a veteran of the Civil War, and was a member of O'Rourke Post G. A. R. Employees of Mr. Nolan's office and the Commercial Department sent two beautiful wreaths as a mark of regret and esteem to the family.

We extend to friend "Ed" our deepest sympathy in his present sorrow.

Try These Toasts

Here's to my mother-in-law's only
brother's only nephew's father's only
son.

To our National Birds—The Eagle
and the Turkey—
(While the host is carving):
May one give us peace in all our
States,
And the other a piece for all our
plates.

Here's to the halo that crowned her
head,

When at her feet I tarried.
And here's to the hats she wears in-
stead,
Since she and I were married.

Here's to the woman, the sweetheart,
the wife,
The delight of our fireside by night
and by day,
Who never does anything wrong in
her life,
Except when permitted to have
her own way.

Come in the evening, or come in the
morning,
Come when you're looked for or
come without warning.
A thousand welcomes you'll find
here before you,
And the oftener you come here the
more we'll adore you.

Here's to the maid who is thrifty
Who knows it is folly to yearn,
And picks out a lover of fifty,
Because he has money to burn.

Good-bye, dear ones, and if you need
a friend,

How happy I will be,
Should you get tired on life's rough
way

Just come and lean on me.
I'll take you by the smoothest road
that

Fate to man e'er gave;
And will go by the longest way that
takes us to the grave.

Hair Sewed on Bald Heads

Dr. Szekely Ferencz has devised a
method for implanting hair into the
scalps of baldheaded persons. In
carrying out the process the scalp is
first carefully cleansed and anesthe-
tized with a solution of novocaine.
The operator uses a number of small
hooks, made of gold wire, and in the
eyelet of each hook a doubly folded
hair is inserted. The hook is then
pushed into the scalp with the aid of
a Pravatz needle, of which from 300
to 400 are in readiness all prepared
with hook and hair, and, of course,
thoroughly sterilized before use.
When the needle has been pushed
into the scalp it is turned at a right
angle and then pulled out, leaving
the hair under the skin fastened by
the outstanding end of the hook. As
at one setting more than from 300 to
400 hairs can be implanted, a full
head of hair requires from twenty-
five to forty settings, assuming that
from 10,000 to 20,000 hairs will cover
a head. Dr. Szekely is some times
able to apply the treatment every
alternate day. If there is inflamma-
tion around a hair this is pulled out
and the inflammation promptly
ceases.

Just Jokes

Mark Twain wished to borrow a
certain book from a neighbor in Ded-
ding, Conn.

"Why, yes, Mr. Clemens," said the
neighbor, "you're more than wel-
come to it. But I must ask you to
read it here. You know I make it a
rule never to let a book go out of
my library."

Some days later the neighbor
wished to borrow Mark Twain's
lawn mower.

"Why, certainly," the humorist ac-
ceded. "You're more than welcome
to it. But I must ask you to use it
here. You know I make it a rule
never to allow my lawn mower to go
off my lawn."