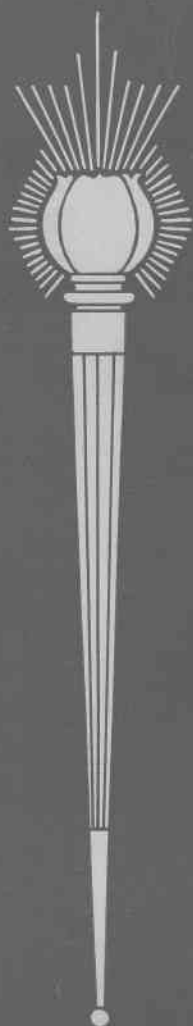


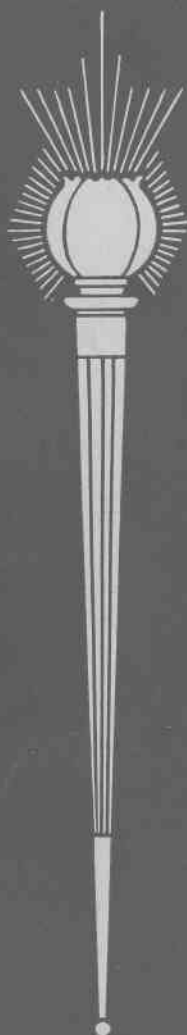
# GAS AND ELECTRIC NEWS



## The Man Who Wins



**THE** man who wins is  
the man who works,  
Who neither labor nor  
trouble shirks,  
Who uses his hands, his  
head, his eyes:  
The man who wins, is  
the man who tries.



APRIL, 1913

*Published monthly by the*  
**ROCHESTER RAILWAY AND LIGHT CO.**

ROCHESTER, N. Y.

*For the Information of Its Employees*

# 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  
32 Clinton Ave. North

JOS. P. MacSWEENEY.  
*Managing Editor*

VICTOR T. NOONAN  
*Editor*

## Contributing Editors

Robert M. Searle, James T. Hutchings, Thomas H. Yawger, Herman Russell, John C. Parker, Frank Hellen, K. A. Schick, E. C. Scobell, J. W. Morphy, James B. Eaton, G. L. Colgate, F. A. Miller.

Vol. 1

APRIL, 1913

No. 12

## The Growth of the Subway System in Rochester

By THOMAS H. CHRISTIE—Supt. Subway Department



Along in the early "90's" the streets of the City of Rochester were much congested with overhead wires and poles. That condition was the result of a gradual growth due to increased use of electricity and telephones. In fact, the conditions were such as to be a serious menace to life and property; to life on account of the exceedingly great hazard from wires falling, and to property, because of the difficulties in the way of firemen should a fire occur.

In 1886 the Edison Electric Illuminating Company started in business here with an underground distribution system, consisting of a so-called "Edison" tube, which was iron pipe enclosing copper conductors and filled with compound. The company laid this throughout the main business sections downtown. At that time it was the only practical underground system that had been developed, but it immediately began to show its limitations, due to the difficulties encountered in repairing faults and making extensions for services.

The overhead pole and wire problem continued to grow and at last became so serious that the City Fathers and the Company saw the advisability of removing the poles and putting the wires underground. Accordingly, in September, 1892, a contract was entered into between the Rochester Gas and Electric Company and the city, whereby the Company was to lay at least twenty miles of duct per year in such locations as the Common Council should direct.

Work was started immediately and the first manhole—it is doing duty to-day—was built at the corner of Main Street East and University Avenue, the work extending westerly down Main Street. This installation consisted of ten single duct tile on each side of Main Street and was completed as far as Gibbs Street in the same year. The following year the conduit was extended from Gibbs to Fitzhugh Street on Main Street, and from the Erie Canal on Exchange Street to Commercial on State Street.

This work was quite difficult as underground conditions were almost as congested as overhead, due to water, gas and sewer pipes, and there

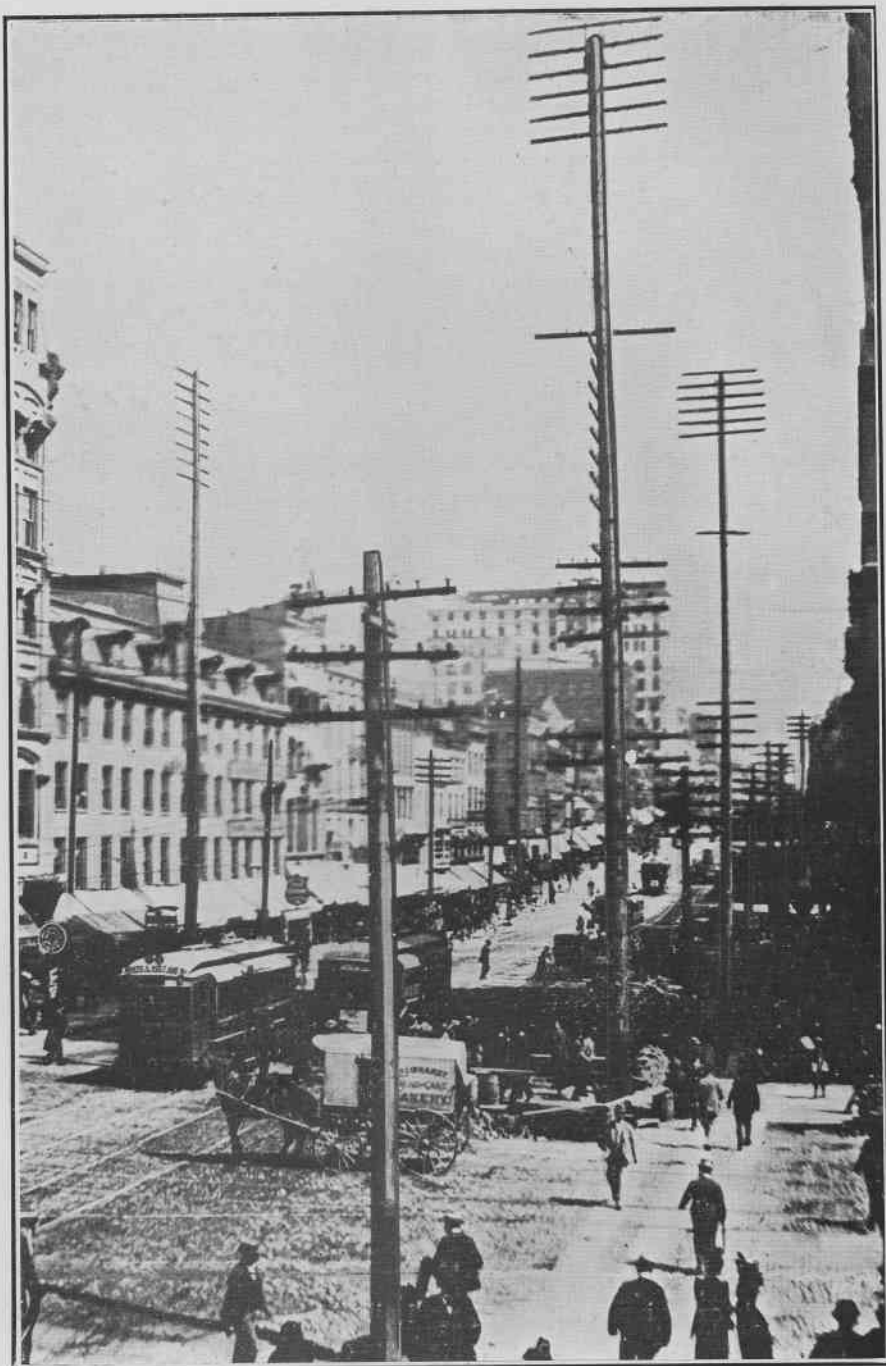


Fig. 2. Main Street at Four Corners in 1890, showing 90 foot poles. None of these poles are to be seen in Rochester now. Notice absence of automobiles on street.

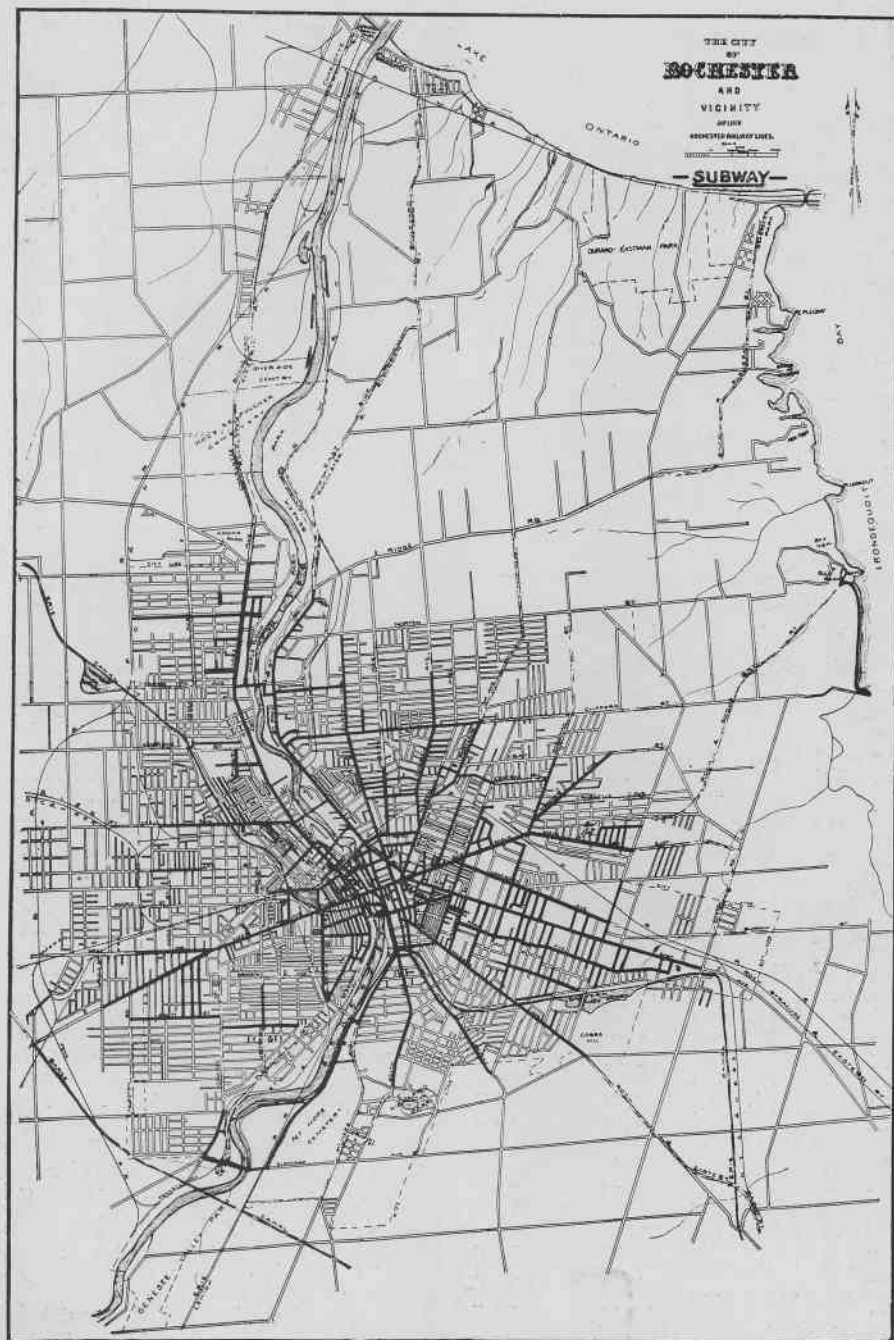


Fig. 1. Map showing underground conduit system in Rochester, heavy black lines indicating the conduits.

was a great deal of special construction in re-arranging the pipes and in building the conduit. These difficulties, however, were overcome and in the spring of the following year cables were drawn therein and the work started of transferring the services from the overhead to the underground system. This was a slow and tedious process and the work progressed very slowly to the dissatisfaction of both the Common Council and the Company. It was not until practically two years after, that the poles were finally removed.

The following table indicates the progress that has been made since 1892, which is more graphically shown by the map—Figure 1. This map shows that practically all of the streets in the downtown section are occupied by underground conduits which are being rapidly extended in the main avenues throughout the city.

|            | Miles<br>Conduit | Miles<br>Duct |
|------------|------------------|---------------|
| 1892 ..... | .45              | 4.5           |
| 1893 ..... | 3.15             | 31.5          |
| 1894 ..... | 3.01             | 27.1          |
| 1895 ..... | 3.52             | 28.2          |
| 1896 ..... | 2.93             | 29.3          |
| 1897 ..... | 3.3              | 29.7          |
| 1898 ..... | 3.42             | 30.8          |
| 1899 ..... | 3.19             | 31.9          |
| 1900 ..... | 4.13             | 33.1          |
| 1901 ..... | 1.74             | 22.5          |
| 1902 ..... | 1.19             | 15.9          |
| 1903 ..... | 3.05             | 25.2          |
| 1904 ..... | 4.23             | 33.9          |
| 1905 ..... | 2.02             | 16.8          |
| 1906 ..... | 3.88             | 26.6          |
| 1907 ..... | 7.75             | 54.3          |
| 1908 ..... | 6.71             | 15.9          |
| 1909 ..... | 10.52            | 51.4          |
| 1910 ..... | 7.62             | 29.3          |
| 1911 ..... | 16.41            | 58.7          |
| 1912 ..... | 16.51            | 43.5          |
|            | <hr/> 108.73     | <hr/> 660.1   |

The construction and the materials used for underground conduit have shown marked advances since the early days. Where at that time only single ducts were manufactured, having to be laid up in sections, depending upon the number of ducts required, they are now built in what is called "multiple" ducts, consisting of 2, 4, 6, 9 and 12 in a single piece, which greatly facilitates the laying of the ducts and also lessens the expense.

In laying conduit the first operation is of course to dig a trench and make a foundation or bottom of concrete, sloping this bottom both ways from the center toward the manholes. The ducts are then laid and very carefully aligned, and over the joints a strip of tar paper is laid, then a coating of concrete three or four inches thick put over all. The ground is then very carefully tamped back in place and the pavement relaid.

The manholes are usually placed at street intersections and the sections between manholes average about two hundred feet. They are in all cases connected to the sewer through a trap. The covers of the manholes are not tight, to allow gases to escape, but not being tight, quantities of water get into the conduit and have to be taken care of through this trap. This water also brings a great deal of mud into the manholes, which is cleaned out once or twice a year.

In later years concrete has been used to a great extent for manholes where there was no interference from other construction. We still, however, have to build brick manholes to special shapes for fitting around other pipes.

Besides the vitrified tile used for conduit work a great deal of creosoted pump log duct is used, which, as the name implies, is simply the

old-fashioned pump log used in wells. This can be laid in the ground without any further preparation than digging the trench. Pump log costs somewhat more per lineal foot than the tile but for single underground service to residences, etc., it can be put in cheaper.

street. To-day, it is practically impossible to obtain poles of this height.

Figure 3 shows the effects of a fire which occurred at the corner of N. Water Street and Central Avenue. This illustrates its own story. One can readily see that had underground



Fig. 3. Corner Central Avenue and North Water Street, showing condition of poles and wires after a fire in 1902.

Figure 2 shows a pole line on Main Street of 90-foot poles. These were at one time doubtless monarchs of some forest and must have presented an imposing appearance on the

construction not been started at that early date the supplying of electricity in this city in the great quantities in which it is now used would be nearly, if not quite, impossible.

### INDUSTRY AN ASSET

Trifling actions affect a man's credit. The sound of your hammer at five in the morning or nine at night heard by a creditor makes him easy six months longer.

## The Collection Department

By L. E. SANDERSON



In the Collection Department it is necessary to be ever on the alert, that all promises which customers make on overdue accounts are properly checked and traced by a regular system of follow-up files. The watch-word in handling these accounts is "Eternal Vigilance;" therefore, unless customers pay on the date on which they promise to pay, a collector will call the day following to ascertain the reason why the payment was not made. It is this Company's practice when customers request an extension of time to always grant the request unless they have failed to live up to the terms upon which previous extensions of time granted them were based.

The gas and electric bills rendered on the first of each month cover gas and electricity consumed from a period about the middle of one month to the middle of the following month. These bills are always completed and ready for delivery on the first day of the month and deliveries are always completed on or before the sixth day of the month in accordance with the regulations printed on the face of the bill form. We also have a number of bills which are mailed at the request of customers and the number of these bills has increased until we are now mailing about two thousand such monthly bills.

Each month when the cash tickets of the 15th are posted, the bookkeepers take off a list of all unpaid bills and a notice is sent to each customer whose account remains unpaid on or about the 20th of the month. This notice is what we call our first no-

tice, and is a courteous reminder that the account is unpaid, and, if it is convenient for the customer to do so, to send us a remittance. About three or five days later a second notice or shut-off notice is sent to the customers notifying them, that, unless the account is paid on or before a certain date, it will be necessary for us to discontinue the service.

Notwithstanding that the number of accounts on the Company's books at the present time amount to about 70,000, we have only on the average seven or eight hundred customers each month to whom we are obliged to send shut-off notices, and of these, with the exception of about fifty, we usually collect. Of these fifty it is necessary, as a rule, for us to shut off the gas service, after which a representative of the Commercial Department calls and gives the customer the option of signing for a prepayment meter to be installed and regulated at the rate of \$1.50 per thousand cubic feet. This will enable them to pay 95c per thousand for the gas which they use and which is registered on the meter, and the remaining 55c applies on the arrears account. This enables the customers to still use gas and at the same time preserve their credit rating with other dealers. It also enables us to continue to sell gas to those in arrears while collecting from them past due accounts.

In handling delinquent accounts there are always some very difficult cases to deal with; for instance: in some cases where we send our collectors the customers refuse to allow the collectors to enter the premises to disconnect the service. Then it is necessary that we send a specially authorized representative from the office with written authority signed

by the President and Secretary of the Company, authorizing him to enter the premises and disconnect the service, and, as a rule, when these specially authorized representatives accompany the collector we either gain access to the meter and discontinue the service or collect the money. In the majority of such cases we reach a settlement of the account.

When the Commercial Department representatives have called on all customers whose service has been discontinued for non-payment, and

who have refused to sign for prepayment meters, or who will not pay the accounts, we then issue orders to remove the meters and these orders are sent to the Gas Shop. We notify the Gas Shop each day regarding any payments that may be made on overdue accounts so that a meter will not be removed after an account has been paid. The co-operation between the Gas Shop and the Commercial and Collection Departments is such that we have never been seriously embarrassed in having a meter removed by mistake.

Some people give according to their means and some according to their meanness.

Lightning may not hit twice in the same place, but it is different with the chronic borrower.

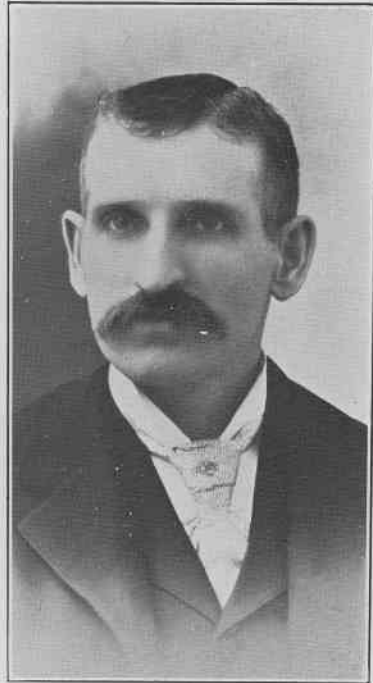
Brown—What did the convention of barbers say when you addressed them?

Durfee—Why, do you know, I hadn't been talking three minutes before they all began shouting "Next!"

### **"Ed." Damuth's 22nd Anniversary**

On March 11th Edward Damuth, of the Pre-paid Meter Department, celebrated his 22d anniversary with this Company, receiving many congratulations from his host of friends in Mr. Nolan's office. Day after day "Ed.," as he is familiarly called, goes from house to house looking after pre-paid meters. His physical condition to-day is such that the younger collectors in the department find it strenuous work trying to keep pace with this sturdy veteran, who attends to from 95 to 100 pre-payment meters per day.

Our best congratulations to you, "Ed.," and long may you faithfully serve our Company.





## The New Turbine at No. 3 Station

By R. D. DeWOLF



When it was suggested to Foreman "Pat" O'Neill that the new 7,500-kilowatt horizontal G. E. turbine installed at Station 3 should receive its first commercial load Friday, December 13th, he immediately revolted with such good effect that the machine was put in operation on the evening of Thursday, December 12th. I presume the

the 1,000-kilowatt vertical cross compound Southwick engine and generator which it displaced. Total weight of the machine is approximately 125 tons, the revolving field and turbine wheels weighing about 30 tons. Compared with the towering height of the Southwick engine, standing just next to the new unit, it seems comparatively insignificant and when in operation the steady roar of the revolving part is the only indication of the tremendous amount

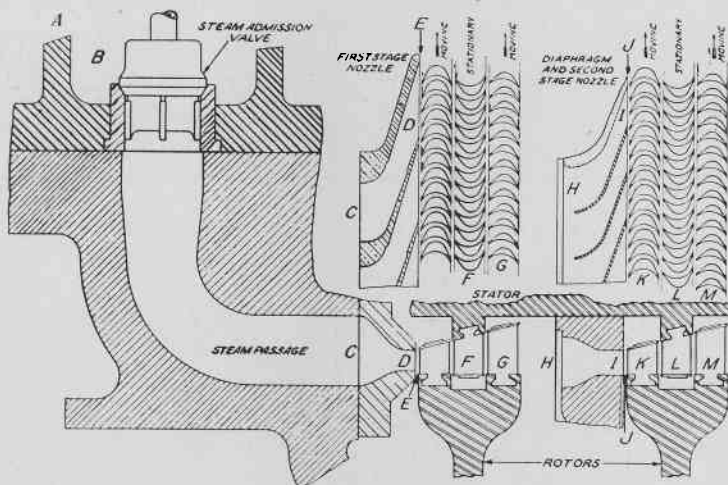


Fig. 1. Diagram showing the arrangement of nozzles and buckets in a two-stage Curtis Turbine.

minor difficulties encountered in the operation of this machine during the following two weeks will always give "Pat" an extreme feeling of justification.

The new machine at the time of its installation represented the latest development of the General Electric Company in turbo-generator design and construction. It stands 32 feet over all in length, 11 feet 9 inches wide and 10 feet 5 inches high, occupying about the same floor space as

of power caged up in this small space.

In these new turbines there are no piston rods, moving arms or heavy cross-heads to indicate the reason why the thing goes round, and the development of such a vast amount of power seems a mysterious proposition.

Figure 1 shows the blading used in steam turbines, the cross sectional view showing how the steam travels through this blading. Power

generated in the turbine is due to the steam passing through the machine at a tremendous velocity. The blading changes the direction of flow of the steam and in so doing the steam gives up its energy in causing the drum carrying the rotating blades to revolve. The efficiency of operation depends to a great extent upon the relative velocity of the steam and the velocity of the revolving blades of the rotating wheels, which explains the extremely high rim velocities, running up to  $4\frac{1}{2}$  or 5 miles a minute, at which the blades revolve. The velocity of steam passing through the machine may be taken at, roughly, ten miles a minute. It is readily seen that with such a velocity as this the volume of steam handled by the turbine is enormous, and, furthermore, this steam can be expanded to a very high vacuum; in fact, it may be expanded to a far greater degree than is permissible when reciprocating engines are used. The main reason for the economy of a turbine is the high degree of expansion permissible.

The turbine is carried on a reinforced concrete foundation standing 23 feet high; ten tons of reinforcing steel were used in this foundation, the entire weight of the machine being supported by six legs about two feet square. This foundation is the first of its type to be erected in Western New York and one of the highest in the state. It carries the weight of the turbine and condenser, the latter being suspended from the bottom of the turbine.

To condense the 120,000 pounds of steam used by the turbine per hour a No. 21 Westinghouse-Leblanc condenser was installed. This condenser is of the type known as a jet condenser; that is, the water used for condensing the steam is thoroughly mixed with the steam by being injected into the interior of the

condenser through a number of openings so arranged as to whirl the water breaking it up into spray. This water takes up the heat in the steam, causing the steam to become water again. A centrifugal pump removes the water and condensed steam from the bottom of the condenser. Mounted on the same shaft with this pump is the Leblanc air pump, an invention of Professor Leblanc of Paris. This pump, so-called, consists of a rotating wheel with a large number of curved blades set in

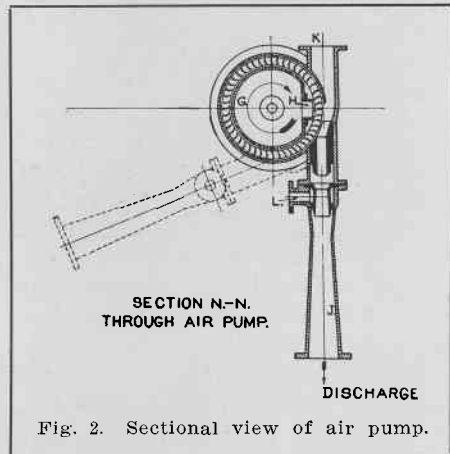


Fig. 2. Sectional view of air pump.

the rim of the wheel parallel to the axis. This rim revolves between the inner and outer casings, water is introduced into the inner casing at G and flows out through the opening H. It here comes in contact with the rotating rim carrying the curved blades and the blades slice off layers of water which are thrown at a high velocity down through the discharge tube of the air pump. The air from the body of the condenser enters at the point K (Figure 2) and is caught between the succeeding layers of water thrown out by the revolving wheel and carried through the discharge tube by these layers of water or water pistons. This pump takes

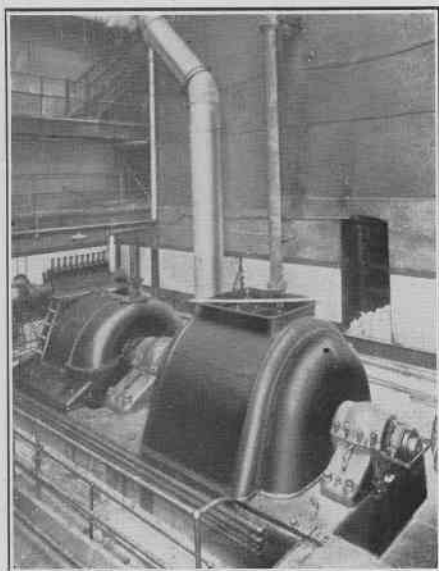
the place of the reciprocating engine driven pump ordinarily used with surface condensers and recommends itself on account of its simplicity of construction and absence of all valves or reciprocating parts.

Both the centrifugal pump in the base of the condenser and the Leblanc air pump are driven by a 228-horsepower Westinghouse non-condensing turbine connected to the shaft of the pumps, and the exhaust from this turbine is taken to the feed water heaters for heating the feed water before it goes to the boilers.

Directly beneath the condenser but bridged over by reinforced concrete is the tunnel through which the condenser water is taken to and discharged from the condenser. These tunnels are approximately six feet high and eight feet wide, the intake tunnel being directly under the outlet tunnel. The necessary piping arrangements are provided for connecting the condenser inlet and outlet tunnels with the proper openings in the condenser itself.

This installation is novel in that no expansion joint is provided between the condenser and the turbine, the condenser being bolted directly to the steam outlet from the turbine. This outlet, over six feet in diameter, conveys the steam from the turbine to the condenser. Under operating conditions the steam rushes through this outlet at a velocity of about ten miles a minute to be mixed with the injection water and condensed. To

provide for the expansion of the condenser when heated, copper expansion joints are placed in all the piping connecting with the condenser.



The new turbine just installed at No. 3 Station.

Figure 3 shows the turbine as completed. It will be noted that it is placed at a lower level than the present station floor, this being necessary in order to get the condenser at a low enough level to take condensing water from the river at all times without pumping. This water is conducted into the Station through the tunnel described by Mr. Fisher in a recent issue of the magazine.

Of course your way of earning a living is the hardest way there is.

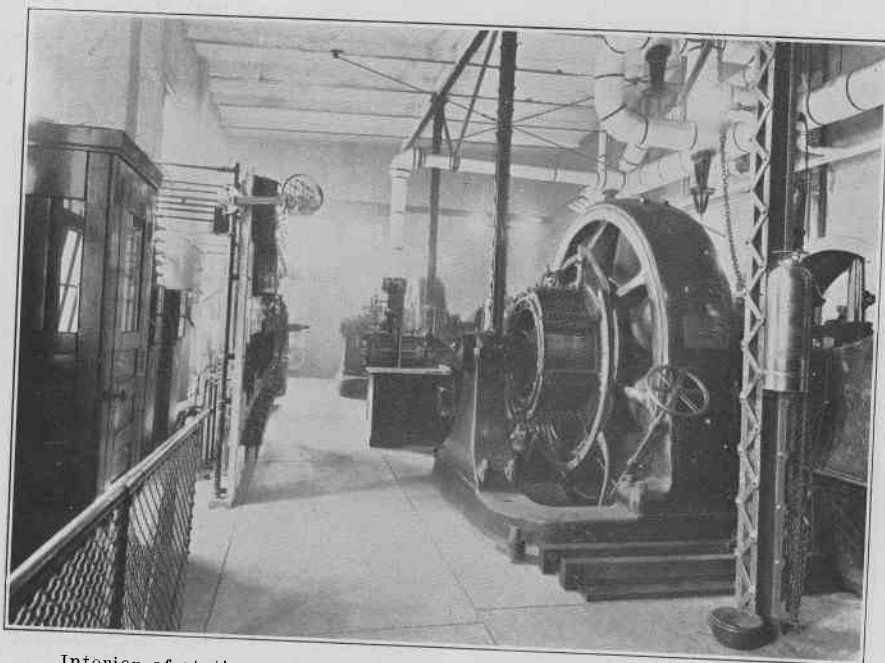
Any thin woman can get plump with the right kind of a dressmaker.

When the shadows lie long on the darkening road swing out your lights—and from your heart put out the dark.

## No. 34 Sub-Station



Exterior of station, showing stairs leading down to Gas Works. Bausch & Lomb Plant in background.



Interior of station, showing generating equipment. Steam power is supplied from boiler plant at Gas Works on the river bank, 60 feet below. This station supplies electric power to the Bausch & Lomb factory.

## Help Us To Prevent Accidents

### GENERAL SAFETY COMMITTEE

Herman Russell, Chairman      J. W. Morphy, Adjuster  
John C. Parker      Thomas H. Yawger      Frank Hellen      Victor T. Noonan, Secretary

### Four Hospitals Now Have Pulmotors

The four new Pulmotors donated by the Management to the Homeopathic, Hahnemann, General, and St. Mary's Hospitals arrived last month and were at once presented to the four institutions. There are now seven Pulmotors in the city. In addition to the four above, there is a Baby Pulmotor at Homeopathic Hospital, which was presented to that institution by Vice-President Granger A. Hollister. The Company has now two Pulmotors in service at the office of the Line Department in Front Street.

The following letter of thanks has been received from the Sisters of Charity at St. Mary's Hospital:

St. Mary's Hospital,  
Rochester, N. Y., March 17, 1913.

Rochester Railway and Light Co.:

Gentlemen—We wish to express our most grateful thanks for your valuable gift of a Pulmotor to our hospital. Having already witnessed its great success in restoring patients when other aid was ineffectual, we appreciate all the more having such an apparatus on hand for such emergencies. Again thanking you and with every good wish, we are,

Gratefully yours,  
SISTERS OF CHARITY.



Company's Pulmotor in use. This device has saved fifteen lives since December.

## Our New Flags and Safety Emblems

Five hundred new safety-danger flags will be ready for distribution in both Gas and Electric Departments some time early this month. The new flags, which will be the most original and striking danger warnings ever seen in this city, will consist of a white background with a large red ball in the center. On the red ball will be the Company's permanent safety slogan, "Help Us Prevent Accidents." The new flags and motto will replace all the old red flags.

The red ball on the flags is the new universal sign of danger adopted by the United States Steel Corporation, which has invited other companies to use this unique sign in their safety campaigns. Our organization, we believe, is the first light and power company in the country to adopt the new universal danger sign. The red ball has been approved and adopted by the Management as the permanent and standard safety emblem of this Company. It has been placed on a white background because certain experiments which have been made show that where a red danger sign is surrounded by white or yellow the red color can easily be distinguished by color-blind persons. White again stands for safety, while red is the warning color of danger. Our new flags will therefore represent both safety and danger. With the words "Help Us Prevent Accidents" on the center of the red ball, we are confident our new safety flags will prove of great help in the cause of Greater Safety in our organization.

Later the new safety emblem will be used on electric signs, wagons, trucks, and on printed matter.

---

## Pulmotors Save Three Lives in One Day

The Company's Pulmotor made a record March 21st, when it saved three lives on that date. The first victim was a woman suffering from strychnine poisoning, the Pulmotor being used successfully. The second victim was a young girl who had been asphyxiated by gas. Prompt use of Pulmotor saved her life. The third victim was likewise suffering from gas. Dr. W. A. Calihan, assisted by Operator Burne, successfully restored respiration by means of the Pulmotor. Above one day's record proves that the Pulmotor is worth while as a life-saver.



S. L. Burne, who so efficiently operates Pulmotor.

### **Prize Contest Closes**

The contest for the three best suggestions for Greater Safety closed March 31st. Much interest was shown in this contest during the past month, and many suggestions have been received. The decision of the General Safety Committee in making the awards, together with the names of winners and the prize suggestions will be published in May GAS AND ELECTRIC NEWS.

---

### **Safety Campaign Begins in Auburn**

Mr. Noonan addressed the employees of the Empire Gas and Electric Company at Auburn on the evening of March 8th, illustrating his talk with our Company's new lantern slides. It was the Auburn Company's first rally for safety, and much personal interest was shown at the meeting, which was attended by representatives of the General Harvester Co., Columbia Rope Works, Lehigh Valley R. R., and the Prison.

---

### **"First Aid" Safety Talks**

The first of a series of "First Aid" talks was given to the foremen and employees of the Gas Works by Dr. Walter A. Calihan on March 17th, who also demonstrated the use of the Pulmotor. In addition he explained the prone method of resuscitation, and concluded this first talk by giving a number of practical suggestions on the treatment of minor injuries, such as cuts, bruises, etc. Dr. Calihan will pay another visit to the Gas Works early this month when he will address another group of men.

Similar talks will also be given at No. 3 Station, No. 6 Station, and at Front Street.

---

### **No. 15 School Takes Up Safety Work**

The Management last month presented a number of slides on accident prevention to No. 15 School, where Principal A. C. Clark has been arousing the interest of the pupils in the cause of Safety. The graduating class has become so enthusiastic for greater safety that it has adopted for its class motto "Safety First," and for class colors red and white, the emblematic colors of danger and safety.

The slides presented to the school are copies of some of our Company's lantern slides, and were selected by Principal Clark, who said they would be of great use in his school.

We congratulate Principal Clark and the graduating class of No. 15 School for inaugurating this good work among the young people of Rochester. We hope all the schools in this city will do likewise. If we are to have more careful men and women in the future, their training must begin in the schools to-day.

## A Definition of "SAFETY FIRST"

Street cars,  
Automobiles,  
Fire,  
Electricity  
Trains,  
You should avoid.

Friendly warning take,  
Imitate careful folks.  
Remember your example helps.  
Schools therefore should  
Teach the young danger to avoid.

---

Mr. Russell addressed the Rochester Engineering Society last month on "The Pulmotor." A practical demonstration of the device was given at the same time.

## Safety Suggestions

**SAFETY**—It pays to think before you act.

Each man's effort for Greater Safety helps.

Look out for the other man; you might hurt him.

Small neglects are apt to cause serious accidents.

Do not go into dangerous places until you are **ABSOLUTELY SURE** they are safeguarded; also prevent others from going until this is shown to be a fact.

Failure to obey the safety regulations endangers not only your own life, but that of your fellow workmen also.

Every injury, no matter how slight, should receive proper medical attention.

Never remove or touch a safety flag or other warning. Always get the man who placed it, to remove same.

The sub-safety committees may overlook a dangerous condition in their inspections. See for yourself that all is safe.

Do not fail to notice all danger signs, and let no one else disregard them.

It is your duty to report unsafe conditions to your foreman. Each man should be a safety committee unto himself and others.

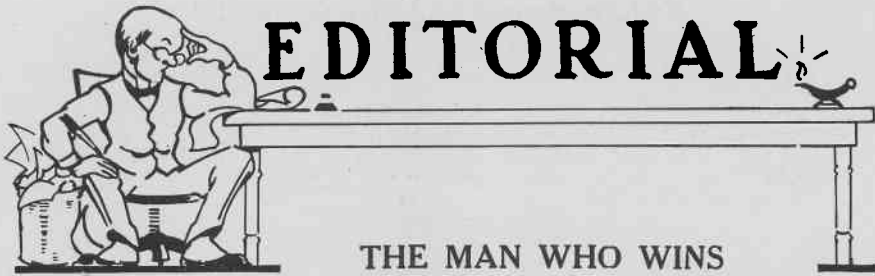
Look out for loads carried by overhead cranes, and do not stand under them.

Employees are forbidden to take short-cuts over dangerous places.

Suggestions from employees for Greater Safety are always welcome.

Don't spit on the floors. Help keep washrooms clean and sanitary. Don't forget to let the water run off after you have washed your hands. Think of the janitor and you will make his task easier.





One of our readers, an ambitious young man, writes us a letter on the subject of success. He informs us he works hard from day to day; he does his very best, because he wants to succeed, and failing, as he thinks, to get recognition writes that he has become discouraged.

To that young man we say, keep on, brother. Don't allow your enthusiasm and ambition to be sapped by discouragement. **PERSEVERE AND SOME DAY YOU WILL SURELY WIN SUCCESS.** Personally, we wouldn't give a finger rap for the man who never gets discouraged. Occasional discouragement is one of the best indications that the young man or woman who suffers thus has a strong, ambitious spirit. The most successful men have all had their times of discouragement; yet they rose above discouragement; they conquered every obstacle, and won the battle of life.

Occasionally we read in the newspapers about some unfortunate fellow ending his life in a moment of discouragement. A year or two ago a young man climbed through the cables of Brooklyn bridge and prepared to take the swift plunge to death. But he was saved by a brave policeman who lost his own life in

the rescue. The young man gave as an excuse that he "had no friends, not a friend in the world." It was a pretty lame excuse, for no man is without a friend. There's always somebody ready to help us—give us the cheering word and the friendly hand-clasp if we only look for it.

What about all the men and women who never give up the battle? For every one that attempts to end the struggle for some foolish reason there are ten thousand more that fight their way through poverty and every known obstacle to success. They are the world's fighters—winners for humanity.

A few months ago we read a poem which inspired our own heart with a stronger resolve. We planned to publish it in these pages, knowing that it would help others. In the meantime one of our readers came across the same verses, and sent them to us, requesting that we publish the entire poem, entitled "The Man Who Wins."

It shows that the winner is just an ordinary fellow, but he buckles down to work, and day after day he sticks to his job, not caring whether the master's eyes are on him or not. He does more than he is paid for, and he tries to learn more than his own

job, and so he goes on, confident that some day the "boss" will come to him and say, "Well done, Bill; you have been a faithful man to me." UNEXPECTEDLY THAT DAY COMES, and Bill, who struggled through many a discouraged day hears his master's voice calling him to higher and more important duties.

Herewith we publish this inspiring poem. We recommend every ambitious young man in our organization to read it. Let him read it several times, better still memorize it. Let him get the meaning of it, and then fill his own heart with the same resolve to do his work better each day than the day before, and never lose heart in the dark moment of discouragement. Our organization is growing by leaps and bounds. In ten years from now there will be vacant places higher up waiting for the young men of to-day who know how to fight and win.

### **The Man Who Wins**

The man who wins is an average man;  
Not built on any peculiar plan,  
Not blest with any peculiar luck;  
Just steady and earnest and full of pluck.

When asked a question he does not "guess"—

He knows, and answers "No" or "Yes;"

When set a task that the rest can't do,

He buckles down till he's put it through.

Three things he's learned: that the man who tries

Finds favor in his employer's eyes;  
That it pays to know more than one thing well,

That it doesn't pay all he knows to tell.

So he works and waits, till one fine day

There's a better job with bigger pay,  
And the men who shirked whenever they could

Are bossed by the man whose work made good.

For the man who wins is the man who works,

Who neither labor nor trouble shirks,  
Who uses his hands, his head, his eyes:

The man who wins is the man who tries.

No man can understand why women let tears flow at weddings.

## **The Power Line for You**

It is a pleasant matter to have a visitor drop in at one of our Friday morning meetings and go away with the impression that there is much harmony in our organization. Such impression is the correct one, be-

cause our Company is noted for the broad, harmonious spirit which prevails all through the ranks from top to bottom. It was such a favorable impression as this that Mr. Hillman of the General Vehicle Company re-

ceived last month when he was a visitor at one of the Friday morning meetings. Referring to this spirit, Mr. Hillman said at that meeting:

"I want to congratulate each of you individually for being employees of the Rochester Railway & Light Company. Your organization has a broad, fundamental principle, and it is due to this that one of your chief executives is now President of the Chamber of Commerce. It is a splendid thing for you to be able to come to these meetings and hold discussions, such as I have just heard. It shows that you are getting away from discord and are striving for greater harmony. The more harmony you have, the more success will be yours."

Mr. Hillman hit the nail on the head when he said the more harmony we have, the more success we will have, not only individually, but collectively. Harmony is our biggest asset; discord, our heaviest liability. One discordant note in the most perfectly tuned piano would destroy the melodious masterpiece of a Mendelssohn. When a trolley wire breaks from its fastenings, the cars on that line are at once stopped; in fact, the entire service becomes more or less crippled for the time being.

Harmony is to our organization what the perfectly tuned piano is to the master player. A discordant, unhappy note spoils the entire melody. Harmony is the high-power line which keeps us moving smoothly onward. Harmony recognizes no petty jealousies, no carping criticisms behind a man's back, no bickerings, no

faultfindings. IT IS THE TRUE SPIRIT OF CO-OPERATION, A BROTHERLY RELATION OF LOVE AND CHEER AND HELPFULNESS.

Human eyesight is very sharp to recognize the faults and shortcomings of others, and sadly blind to see their virtues. Once in a while we pass the hat around to buy a few roses to lay upon the casket of one who worked beside us. We never seemed to recognize his qualities of heart and mind until he was laid low. Then suddenly there flashed before us a picture of how good a friend he had been.

Let us bestow our gifts of roses to the living. Look around you each day and see how many noble men and women are making life easier and happier for you by the example of their harmonious lives. IN EVERY DEPARTMENT OF OUR ORGANIZATION THERE ARE MEN WHOM IT IS GOOD TO KNOW—MEN WITH WHOM IT IS INSPIRING TO SHARE OUR DAILY LABOR. If every man and woman in our entire organization recognized the good qualities in each other, then indeed our organization could claim that harmony, brotherly love and the spirit of cheerful helpfulness were our richest assets.

Cheerfulness, the cordial greeting, the warm handclasp, the friendly smile, the straight, direct, honest eyes,—these are the signs of harmony. If we find these signs from day to day, life's labor will be easier. The harmony within will spread out and beyond our organization, and the world will know that we are progressing on sun-lit paths.

## A Retrospection

With this twelfth issue, GAS AND ELECTRIC NEWS ends its first volume. We feel it is a happy anniversary to which we should briefly refer. A whole year has quietly slipped past, while month after month we have seen our little magazine going out among you, bearing to each one a message of good cheer, encouragement and enlightenment. That GAS AND ELECTRIC NEWS has found a warm spot in the hearts of all its readers is clearly evident from the frequent expressions of pleasure which we have heard from most of our little family of readers. One young man tells us that his father asks for the magazine each month. Again, a young woman tells us "the folks at home look for the magazine every month." So it is all through the ranks of our organization, even to the family fireside, the spirit of this publication has been winning a host of friends. And outside the organization we have had the same happy experience. From all over this broad land requests have come for GAS AND ELECTRIC NEWS, and wherever our Company's magazine

has gone it has made friends for itself and our organization.

We have aimed at making your magazine a help—an inspiration to every man and woman in the Company's service. That same laudable aim will be continued during the coming issues of our second volume. This magazine can have no higher or nobler purpose than to be an inspiration for greater efficiency, nobler lives and more harmonious relations between the employees of all departments. With this accomplishment as your aim and our ambition, then the value of this magazine can never be measured in dollars or cents.

Our work in this publication during the year that has gone has been a delightful task. It has been a labor of love, lightened and sweetened by the kindly co-operation we have received from the Management, heads of departments, stenographers, foremen, employees in all departments down to the little office boys. For all this we are grateful. May the coming year find all of us—each one in his own sphere—advancing onward and upward to happiness and success.

## Let Us Have News Items

Once more we desire to impress on our readers the necessity of sending us news items, particularly personals. Our "Personals" are among the most interesting features of the magazine from month to month, and everybody looks for that little column of Company gossip. It is absolutely impossible for us to know all that is going on in each depart-

ment, and time won't permit us to devote our attention solely to the small news items which we know so many like to read.

Don't forget too that we go to press on the 21st day of each month. All matter for publication must reach the editorial department before that date.



Poverty has produced more men than plenty ever knew.

Some fellows work harder after 6 P. M. than they do after 8 A. M.

Where there are ten to share the reward there was one to do the work.

Your daily labor should be cheering as a song and tempting as a sin.

Even light wine has been known to produce a dark brown taste.

Many a man has had a close shave who never patronized a barber.

No man can stand in his own light without casting a shadow.

One way to flatter the average man is to ask him for advice.

An aged Ohio physician claims to have listened to over 100,000 lectures. Yes, he is married.

Almost any man can correct an error, but few there are who can see far enough ahead to prevent it.

It is said that some insects reach maturity within thirty minutes after birth, but some specimens of mankind do not mature in thirty years.

We always hate those to whom we have been unjust.

Some men look for work and are afraid they'll find it.

There's always a chance for a man to become famous if he isn't a dead one.

That "Roastfest" in the Powers Hotel was certainly some gathering in the accident incentive—we mean accident preventive cause.

If a man on his way home tries to dodge a firefly, thinking it an arc lamp, he should swear off! There was quite a swarm of fireflies after the roastfest.

They've been trying to invent a bottle that can't be refilled, but that's just what every hen has been doing right along—laying eggs that can't be refilled.

It is courage that enables men to win the battles of the business world. It is discouragement that makes success impossible. If you are afraid of any particular thing, that fear begins to minimize the effect of your efforts the moment it takes possession of the mind. To begin an undertaking with fear of failure is a reasonable assurance that failure will follow.—John R. Meader.

## Send Us Pictures of the Little Folks



This determined looking little fellow with the dog in his hands is Master "Jack" Cadle, son of Superintendent John A. Cadle, of the Rochester Railway Company, who is a son-in-law of Mr. J. C. Collins, auditor of our Company. "Jack," who will be two years old in June, is a great favorite with Mr. Collins, who declares there isn't another grandson like him in all of Rochester.

How about it?

Christian S. Schick, 2½-year-old son of Mr. Karl A. Schick, the Company's commercial agent. This little chap is fond of steam engines, automobiles and dogs. He will exchange any toy or dog he has got for any kind of a railroad engine, the big steam "choo-choos" preferred. Evidently Mr. Schick is training his son and heir on the path that leads to a railroad magnate's office.

It is your friends who pick you to pieces; other people are indifferent.

Where there's a will there is one or more lawyers.

A wooden leg is not as bad as a wooden head.

# ELECTRIC DEPARTMENT



## Discovers Copies of "Station" Magazine

Last month Mr. Yawger came across two copies of the "Station," a magazine published in Rochester seventeen years ago, two copies of which have come into our hands. The title page of one bears date March, 1896, and states that it is Vol. I., No. 3, the price being 15 cents. The purpose of the publication is explained in the following words on the front cover: "A Monthly Magazine Devoted to the Thing Called Electricity."

That they were not so far behind in those days is evident from the contents, there being in both issues some very interesting and clever articles on such subjects as "Interior Wiring," "Street Railway Wiring," "A New Electric Block Signal." There is an editorial page which shows a trained and capable writer at the back of it.

It is interesting to note that Foreman Julian has an article in both issues on "Practical Resuscitation." Among other contributors we notice the names of John Dennis, J. E. Putnam, Thomas Lawless, William A. Breeze, William H. McDonald, M. J. Ryan, Louis A. Prozeller, and Charles W. Chappel.

The magazine was a creditable publication to those back of it; ably edited and artistically made up, it is to-day a silent but eloquent tribute to the men who seventeen years ago were among the pioneers of electrical development in Rochester.

The beautiful new lights on Maplewood Avenue were turned on for the first time on the evening of March 3d. There are thirty-six mazda lamps, of sixty candlepower, enclosed in sixteen globes, all supported on 10-foot concrete poles. The lamps are about 100 feet apart and are a very distinct adornment to that section.

## N. E. L. A.

Messrs. Parker and Hellen addressed the last regular meeting Company Section N. E. L. A., held at the General Offices, March 11th. Mr. Parker continued his very instructive talks on "The Fundamentals of Electricity." Mr. Hellen spoke on the subject of "Handling Complaints," and by the way he handled his topic in a clever way. After the meeting luncheon was served.

These N. E. L. A. meetings are very instructive. Company members should therefore make an effort to attend each meeting.

## Dictagraph Installed

A dictagraph equipment has been installed in the General Offices, connecting the executive offices of Messrs. Hollister, Searle and Hutchings with the most important offices and heads of departments. Mr. Searle declares the new device is to be the most distinct advance in office economy that has come under his observation.

### John Lindsay

Older employees of the Gas Department will remember John Lindsay, one of the Company's veteran employees, who was formerly employed in the Gas Street Department. Mr. Lindsay, who is now 80 years old, was forced to retire from active work last year, and he is now confined to his home at 75 Hague Street, suffering from the usual infirmities of old age. For more than 24 years Mr. Lindsay faithfully served the Company. He was noted for his remarkable memory, which he could use at any time in locating services, often preventing thereby the necessary opening of improved streets.

We take this opportunity of reminding Mr. Lindsay that he is not forgotten by his former associates, who often speak of him in the kindest manner.



### Easter Sunday Dates

Easter being a movable feast its date varies from year to year. The following table gives the dates for fifty years, 1914 to 1963 inclusive:

|      |          |      |          |      |          |      |          |
|------|----------|------|----------|------|----------|------|----------|
| 1914 | April 12 | 1927 | April 17 | 1940 | March 24 | 1952 | April 13 |
| 1915 | April 4  | 1928 | April 8  | 1941 | April 13 | 1953 | April 5  |
| 1916 | April 23 | 1929 | March 31 | 1942 | April 5  | 1954 | April 18 |
| 1917 | April 8  | 1930 | April 20 | 1943 | April 25 | 1955 | April 10 |
| 1918 | March 31 | 1931 | April 5  | 1944 | April 9  | 1956 | April 1  |
| 1919 | April 20 | 1932 | March 27 | 1945 | April 1  | 1957 | April 21 |
| 1920 | April 4  | 1933 | April 16 | 1946 | April 21 | 1958 | April 6  |
| 1921 | March 27 | 1934 | April 1  | 1947 | April 6  | 1959 | March 29 |
| 1922 | April 16 | 1935 | April 21 | 1948 | March 28 | 1960 | April 17 |
| 1923 | April 1  | 1936 | April 12 | 1949 | April 17 | 1961 | April 2  |
| 1924 | April 20 | 1937 | March 28 | 1950 | April 9  | 1962 | April 22 |
| 1925 | April 12 | 1938 | April 17 | 1951 | March 25 | 1963 | April 14 |
| 1926 | April 4  | 1939 | April 9  |      |          |      |          |

Men who marry for looks seldom get good cooks.

A fool boy may get over it, but a fool man is hopeless.





Pat. Maher, of the Line Department, who was operated on for appendicitis recently at St. Mary's Hospital is recovering.

S. L. Burne is doing temporary night duty at the Line Department office.

Miss Fanny Airy has joined the stenographic department in the General Offices. Welcome, Miss Airy.

We wish also to welcome among us this month, Miss Marie Brown, of Mr. Nolan's office.

Miss Kurtz, of the Draughting Department, was a visitor at Washington, D. C., during the inauguration of President Wilson.

Messrs. Jennings, Gosnell, Culliton, Whitley and Coleman were present at the Credit Men's dinner at the Hotel Seneca, March 12th, and all report a very profitable time.

George Donie, of the Commercial Department, was a very happy man on Friday, March 14, for on that date he became the father of a nine-pound baby girl. Seven years ago Mr. Donie's only child died, and since then the house has been lonely. The coming of a second little babe after all these years has filled the hearts of both parents with great joy. We offer our sincerest congratulations to Mr. and Mrs. Donie, and hope that the sweet, childish prattle and laughter of their little one will long fill their home with gladness and gratitude.

Engineer Philip Stephens has a scholarship in the American School of Correspondence which he will be glad to give to any deserving young man. First come, first served.

Mr. Hutchings reports that angle worms are plentiful on his front lawn. Glad to know there's one sure place where we can get good fresh bait.

Employees of the Gas Shop appreciate very much the picture of their office which appeared in last month's issue of the magazine, but regret that there was one man lacking in the picture—"Profess" Burne, the Pulmotor operator.

Gushers soon play out.

The average man is willing to confess a fault he hasn't got.

### **Dynamo That Could Rest on A Copper Cent**

What is believed to be the smallest electric dynamo in the world, so small it could be placed on an American penny and not occupy all the space, was recently exhibited before the French Academy of Science. The instrument is a perfect miniature of a large machine, and though it is a practical model in all respects, working with a hum that sounds like the buzz of an insect, it weighs only one-fifth ounce and is but six-tenths inches in height and length, being a little short of this in thickness. It can be used not only as a generator but also as a motor, consuming in the latter case, two amperes of electric current at a pressure of 2.5 volts, and being easily operated by a small pocket battery. Every detail of the machine is accurately made.