

GAS AND ELECTRIC NEWS



Cheer Up!

When the whole blamed
world seems gone to pot,
And the business outlook
glum,
A two cent grin and a lifted
chin
Helps some, my boy, helps
some.

JANUARY, 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

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All news for publication should be addressed to the
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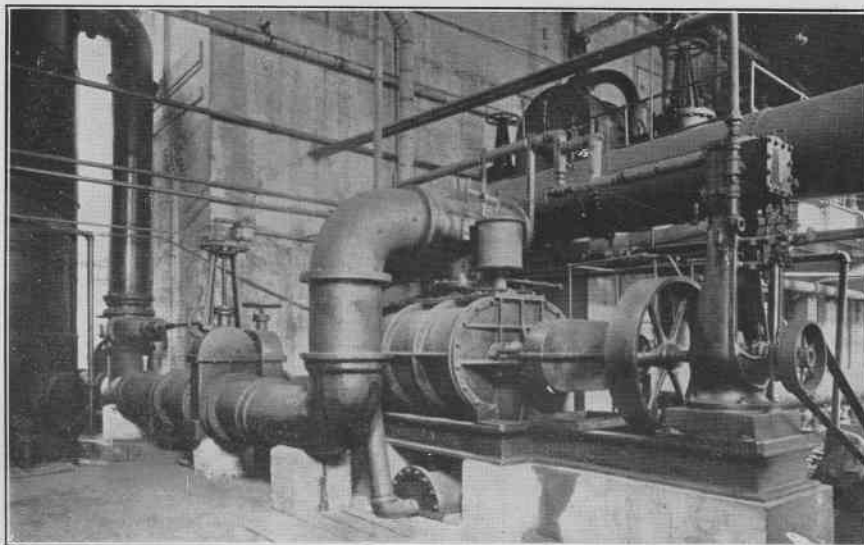
The Company's Christmas Present from Santa Claus

By HERMAN RUSSELL



Each year Santa Claus gives to the Railway and Light Company a Christmas present in the form of several hundred thousand cubic feet of gas sales—sales which are the direct result of the efforts of this good Saint. With the single exception of 1911, when the day before

Christmas came on Sunday, the maximum daily gas sent out for each year has fallen on the 24th day of December. The reasons for this are the efforts of Santa Claus, together with the fact that this is one of the shortest days of the year. Many extra thousand feet of gas are used in cooking the good things to be eaten on Christmas Day, and Christmas Eve the homes of the people of the

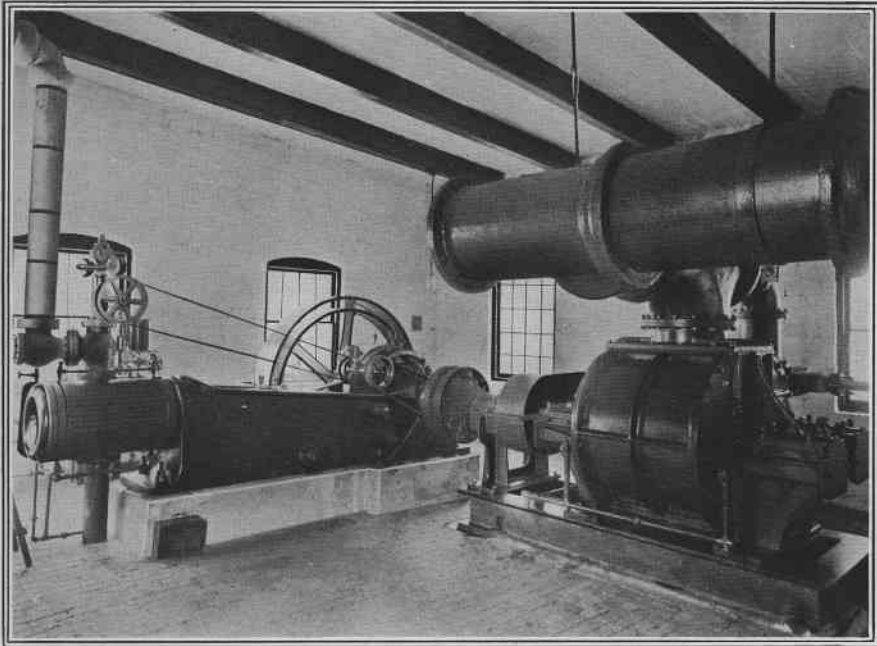


Coal gas exhaust equipment at Gas Works.

city must be kept lighted while Santa Claus is busy decorating Christmas trees and getting presents ready for the little folks on the morrow. That Santa Claus is a late worker and does not get through with his labors until the small hours of the morning is easily seen by one who will take the trouble to watch the large gas holder at the works on Christmas Eve.

would not stop until the bottom is reached.

On every other night at about 10 o'clock the works man heaves a sigh of relief and says to himself, "Well, the heavy load is over, and we are all right for another day," but on Christmas night it is 1 o'clock before the big holder stops its downward flight, pauses, and then starts up-



Steam-driven high pressure Gas Pump at Works.

Down, down it goes in spite of the efforts of the pumps which are constantly forcing more gas into the holder until it seems to the anxious foreman in charge as though it

ward, and we know that at last Santa Claus has completed his round.

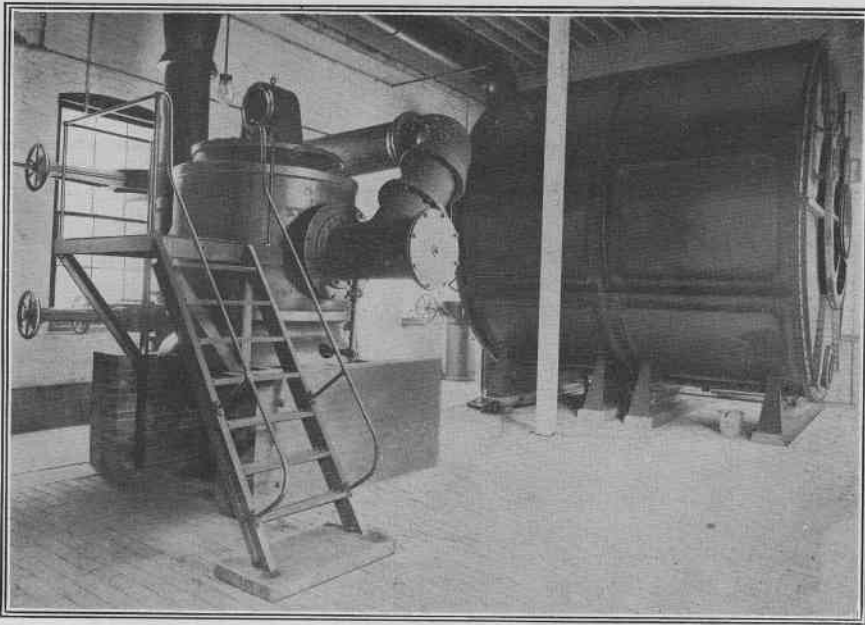
It is an interesting thing, this gas load of the day before Christmas. A comparison of the gas sent out, as

		Weather	Temp.	Day Sales		Night Sales		Total
Dec. 24				7 A. M. to 7 P. M.		7 A. M. to 7 P. M.		24 Hours
1907.	Tuesday	Cloudy	34	1,838,000	cu. ft.	1,813,000	cu. ft.	3,651,000 cu. ft.
1908.	Thursday	"	37	1,958,000	"	1,990,000	"	3,948,000 "
1909.	Friday	"	30	2,335,000	"	2,267,000	"	4,602,000 "
1910.	Saturday	"	28	2,328,000	"	2,433,000	"	4,761,000 "
1911.	Saturday	"	37	2,759,000	"	2,216,000	"	4,975,000 "
Dec 23.								
1912.	Tuesday	"	32	2,969,000	"	2,558,000	"	5,527,000 "

shown in preceding table, for the last six years reflects the growth of the city, and shows the results of the Company's commercial activity and public policy.

Last year the day before Christmas was a Sunday. Comparison is therefore made with Saturday, as Sunday is always the day of smallest sales. That Santa Claus was not around Saturday evening in 1911 is plainly shown by a comparison of

838,000 cubic feet; this year during the same hours it was 2,969,000 cubic feet, an increase of 61 per cent; the night load in 1907 was 1,813,000 cubic feet; this year it was 2,558,000 cubic feet, an increase of 41 per cent. The total also shows that up until 1911 the day and night loads of this particular day of the year have been approximately equal; but in 1911 and again this year the day load from 7 A. M. to 7 P. M. was much greater



How would you like to have these Big Gas Meters in your cellar? Both do business at the Gas Works.

the gas sent out from 7 P. M. to 7 A. M. on this date with that during the same period in the years 1909, 1910 and 1912.

The table shows many interesting things; thus, in 1907, on December 24th, the total sales for the 24 hours were 3,651,000 cubic feet as against 5,527,000 cubic feet this year, an increase of 1,876,000 cubic feet or 51 per cent for this day's business in five years. In 1907 the day load from 7 A. M. to 7 P. M. was 1,-

than that during the other 12 hours of the day; in other words, the day load is at present increasing very rapidly while the night load is increasing much more slowly. The significance of this fact lies in the following: This night load from 7 P. M. to 7 A. M. is very largely due to the use of gas for lighting purposes, while the day load from 7 A. M. to 7 P. M. is made up of the use of gas in stoves, water heaters, and industrial use, with a small amount

of lighting used during the dark hours. It is, therefore, plain that the use of gas for lighting is at present increasing but slowly, and probably will become stationary in a short time, while the use of gas for fuel and industrial purposes is increasing very rapidly. Factories, stores and houses are being lighted more and more by electricity, and a study of the table above shows that the increases of the gas business in the future will be on the fuel side, and that the problem of lighting our city is one for the electrical men.

The day before Christmas, thanks

to the labors of Santa Claus, is still the day of the maximum gas load for the Company, but the day is evidently not far off when the efforts of the good housewives of Rochester will more than counterbalance the efforts of Santa Claus, and the maximum day will come during the canning and preserving season of the year. However, the Company will always be glad to receive the extra business that Santa Claus gives it, and for some time at least the man in charge of the manufacturing end will continue to breathe a little easier when the big day of the year is safely over.

William A. Kelly

William A. Kelly, one of the most popular boys employed in the general offices, died after a brief illness, November 26th last. "Billy", as he was familiarly known, was compelled to give up work last March, owing to the illness which eventually ended his promising young life at the early age of eighteen years. During the month of September he was so far recovered that he came down to the offices, where he greeted many of his old friends. His death a few weeks later proved a great shock to all who knew and loved him. A beautiful floral wreath which was sent to his home tended to show the great esteem in which "Billy" was held by his fellow employees in the general offices. The funeral took place on Thanksgiving morning.

To his relatives we offer our sincerest sympathy.

Dr. W. E. Belding

It is with sincere regret that we announce the death of Dr. W. E. Belding, father of Miss Grace Belding, formerly of Mr. Nolan's office, which occurred at the family home in Medina on December 26th. Dr. Belding, who was a well known dentist, died at a time when Miss Grace Belding was confined in the Raybrook Sanatorium in the Adirondacks. We beg to extend to her in her great loss our deepest sympathy.

Following so quickly on the death of his father, Mr. Noonan, two weeks before Christmas, received news of the sudden death of his only surviving uncle, who died at his mother's home in Ireland.

Handling Niagara in Rochester

By THOMAS H. YAWGER



The Rochester Railway and Light Company began to take Niagara power in 1907, shortly after the completion of the Niagara, Lockport and

Ontario Company's

transmission line to Syracuse. This line runs across the state about $2\frac{1}{4}$ miles south of the city, hence it was necessary for our Company to purchase a right-of-way along the Lehigh Valley Railroad from a site which we had selected at Elmwood Avenue, and which we now designate as Station 33.

from Station 5 to take care of the Rochester and Sodus Bay Railway line; current being generated at Station 5 by means of a motor generator set.

At the same time, a transmission line was built from Station 33 to Pittsford, so that we could tap a high tension line of the Rochester and Eastern Railroad, which was supplied by a steam plant at Canandaigua. After this was run and connections made, the steam plant at Canandaigua was shut down. It has not been in use since, excepting under emergency conditions; the same applying also to the steam

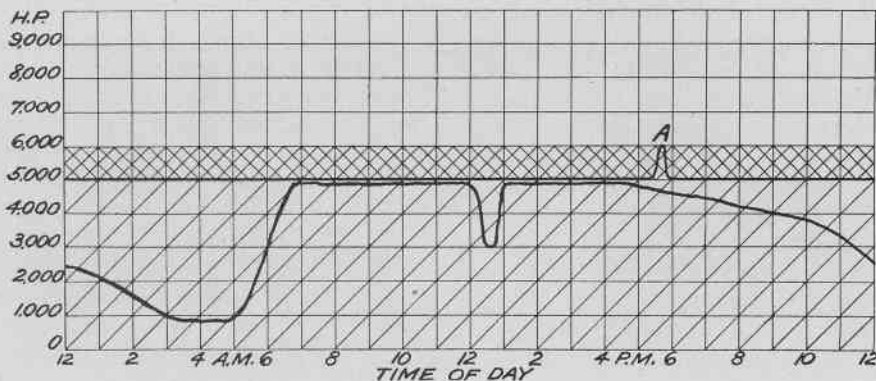


Diagram illustrating how Niagara power is used. Horizontal lines indicate amount of H. P. and vertical lines the hour of day. Heavy black line shows load or "send-out" at various hours of day.

As it was not feasible to extend the 60,000 volt line down through the city, at this point, we found it necessary to install transformers for reducing the voltage to a suitable point safe for being carried in underground conductors which at that time was 11,000 volts. This 11,000 volts was first brought into Station 6, and the following year extended to Stations 3, 4 and 5, at the last named place making connection with an 11,000 volt line previously run

plant at Float Bridge on Irondequoit Bay. We find it to our advantage to run this with Niagara power rather than to generate by steam.

From the original installation we have found it necessary to increase the equipment from year to year, until in the fall of 1912 when we had five 1500 k. w. rotaries for supplying the city with power besides the transmission systems of the Sodus Bay, and the Rochester and Eastern

lines. We have also tapped these high tension lines at a number of points for commercial purposes and now have a commercial business of about 1000 k. w., supplied entirely by Niagara power.

As we purchase this current only to resell it, and as the price paid is based upon the "firm power," that is, so much per horse power per year, whether we use this horse power one minute or twenty-four hours a day, it costs us the same, we at all times endeavor to get as good a load factor from this purchased power as possible. By load factor we mean the horse power hours per day divided by the twenty-four hours "firm power." The nearer we can make this to 100 the greater it is to our advantage.

This can best be illustrated by the accompanying diagram in which the abscissas or horizontal lines represent horse power and the ordinates or vertical lines represent time. So that purchasing on a "firm power" demand of 5000 horse power, if we could use that 5000 horse power twenty-four hours a day continuously, as indicated by the section covered by the single cross-hatch lines, the load factor would be 100, and we would be getting all out of our purchase that it was possible to get.

However, as it is not possible to attain this load factor, we endeavor always to keep as near to it as is possible. For instance, if during the peak of the load which happens about 6 p. m. we were to draw 1000 horse power more from Niagara for one minute only as indicated by point "A", we would have to pay for 6000 horse power for the twenty-four hours, leaving that block of power as indicated by the double cross-hatch lines unused but for which we would have to pay, there-

by reducing the proportion bought and paid for to the amount sold.

To avoid this loss we always have to keep our own power in a condition to take the variations in the load rather than to allow these to come on the Niagara power. To attain this, we have installed at Stations 3, 6 and 33 graphic recording watt-meter charts, which are wattmeters in connection with clock mechanism whereby a pen indicates upon a strip of paper at any particular minute of the day the amount of power taken from Niagara. If the men at these stations see this pen moving up beyond the 5000 horsepower mark they immediately make adjustments, which in some cases are automatic, to hold it down by making the other apparatus take the swing of the load.

As stated above, it is impossible to obtain a 100% load factor, as in the early morning hours there is not that amount of power used and as an actual fact the load taken from Niagara assumes approximately the amount as indicated by the dotted line, which in ordinary practice would make a load factor of about 70.

The men at these various stations understand how important it is that these sudden minute demands upon Niagara should not be allowed to take place and they are constantly on the alert and prepared to throw the load upon the other apparatus.

A young man who was just starting out in the world asked a well-known salesman for the secret of success. "Well," said the salesman, "I will give you the pointer, but you must keep it a secret." "All right," said the young man. "Tell me, how do you manage to be successful?" "Well, I always make it a point," replied the salesman, "to wear out the soles of my shoes instead of the seat of my trousers."

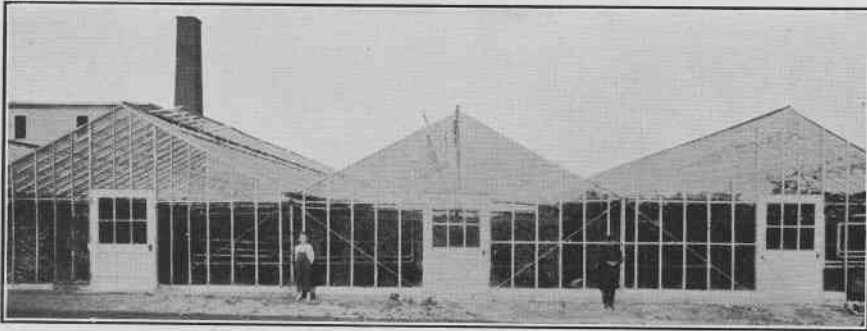
Electricity on the Farm

By JOHN A. ALMSTEAD



Considerable attention has been drawn lately to the work our Company has done in installing electrical devices in the nurseries and farms of Irondequoit. As is well known, this territory, so close to Rochester's city line, is one of the most fertile fruit belts in the United States. Through this wonderful fruit garden our Company's electric services have been extended for the purpose of supplying both light and power to the many villages and sum-

peach crops being the principal cultivation. Most of the vegetables are grown in greenhouses, where cucumbers, lettuce, radishes, tomatoes and other vegetable products are carefully cultivated by experts. In former years the supply of hot-house vegetables was limited to the number and capacity of the greenhouses, which depended for necessary water supply on nearby wells. The water from these wells was pumped up by familiar but antiquated and uncertain windmills. As new greenhouses were being built, the water problem became more serious. Discussing



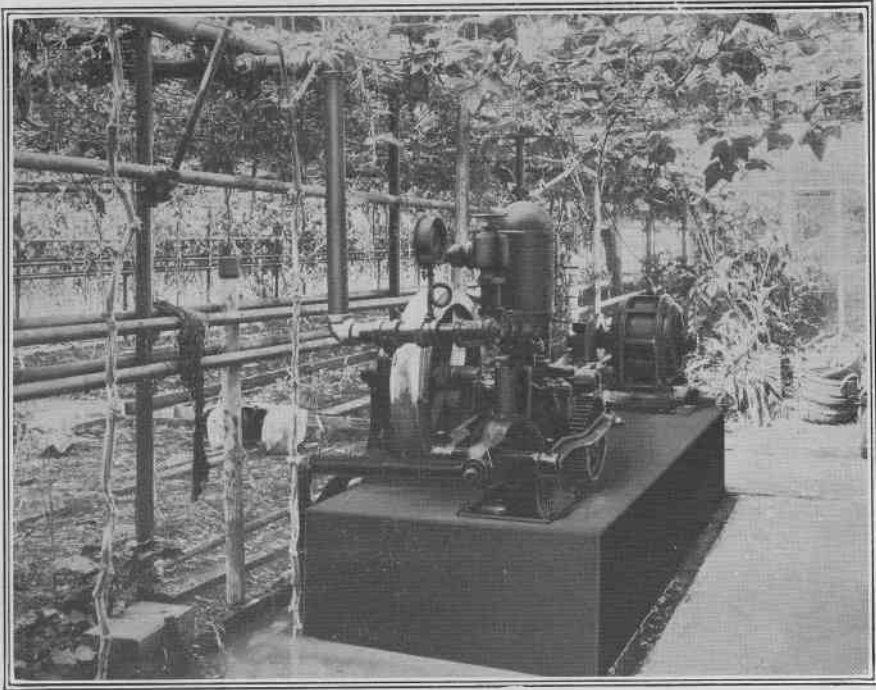
Typical example of modern greenhouse in Irondequoit, in which motors were installed for pumping, heating and spraying. The above three greenhouses are part of twelve greenhouses all connected together under one roof, each house being 240 feet long by 21 feet broad.

mer resorts which dot the shores of Lake Ontario. How these same electric extensions are now being used to operate electric pumps, sprayers and other motor-driven devices in the nurseries and farms of Irondequoit is indeed a remarkable and interesting story.

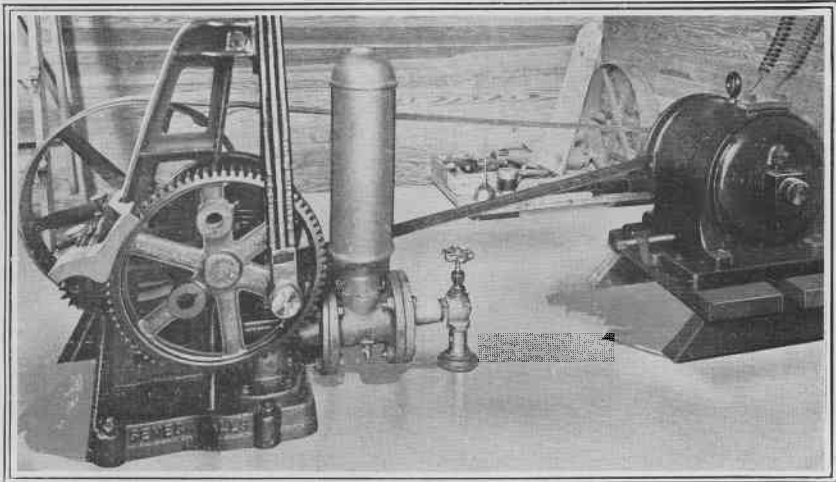
The soil in Irondequoit is composed principally of dark sand, which is very easy to work and quick to respond to the growth of all kinds of vegetables and fruits, large

this problem one day with a number of the nurserymen, the writer saw the great opportunity to replace the fickle windmill with the constant, reliable power of electricity. I succeeded in getting some of the farmers and nurserymen to install a few electric motors, which quickly convinced them that electricity was a marvelous time, labor and money saver.

In one large dairy and nursery farm I installed a 5 horsepower mo-



5 H. P. motor operating a Gould 5x5 Pyramid pump, installation inside greenhouse. The water is pumped from a well located 300 feet away.

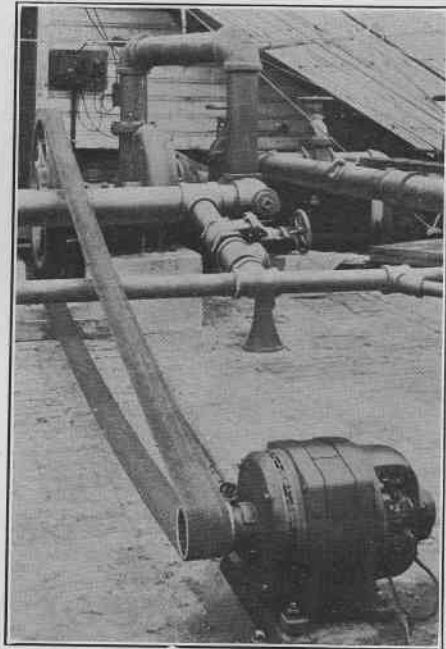


3 H. P. motor pumping water from well 125 feet deep to pressure tank in basement of residence, giving same pressure as city water pressure.

tor, which ran a milking machine for 45 cows, pumped water from three wells located 265 feet away (thought an impossible feat), besides operating a stalk and feed cutter, a corn sheller and a feed grinder. Electric motors are also used in a number of greenhouses, which operate spraying and washing machines, pump water, and circulate hot water for interior heating. Altogether there are now installed in Irondequoit 260 horsepower motors which, drawing their power from our Company's extensions, have solved many problems for the Irondequoit nurserymen.

The accompanying illustrations will give the reader some idea how these electric motors have been installed. In the near future I hope to write a more comprehensive story of what our Company has accomplished in this great fruit section.

It is easy to make most people believe a lie if you tell them the lie they want to wear.



5 H. P. motor belted to a No. 6 Centrifugal pump connected by a bypass to the flow pipes of three boilers which, before installation, were used to full capacity. Since then one boiler is no longer used and the other two consume less coal. This little motor has proved a money saver, besides diffusing more heat in the greenhouses.

THE CHEERFUL MAN

"I have one man in my employ that I pay more than he's worth," said a storekeeper, "because he's cheerful. He is not an obstreperously cheerful man, not a bubbler, but in his calm and agreeable way he is indomitably cheerful and good-humored, always optimistic and hopeful, and nothing seems able to make him otherwise, and his cheerfulness helps everybody in the store. Let one of our men come in feeling down in the mouth, in the dumps over something, and then let him run up against the cheerful man, and the first thing you know the other fellow has lost the dumps and is

smiling himself and feeling better. You see, the cheerful man radiates cheerfulness, and you can't come within his influence without absorbing some of his spirit. Why, I've come into the store myself when business was dull, not feeling very chipper, maybe feeling inclined to gloominess, and then I've had a word with our cheerful man and felt myself bracing up right away and thinking about how we could start things up a bit. He isn't the best salesman in the world, but he gives us an atmosphere, as you might say, that really helps; and we pay him and are glad to pay him for that."

That Isn't in My Department

By JOHN C. PARKER



One of the greatest dramatists that the world has ever known—Lundgaard's compatriot—Ibsen, puts into the mouth of a small local official the words:

"I do my duty with precision,
But *always* in my own division."

The mere fact that a case of extreme urgency required the officer to show a little manly courage did not seem to have much bearing on the official lines of red tape. Or was it, perhaps, that the departmental limitations were a pretty good excuse for showing the white feather?

The records, after all, are a little older than Ibsen, since we recall that the first homicide tried to supply an inferential alibi when taxed with the crime by asking, "Am I my brother's keeper?"

Wouldn't it be a jolly world if everybody worked on that sort of a principle? There seems to be one little corner of the terrestrial ball where that spirit is about as inconspicuous as in any place that I know of, and the headquarters of that little corner are right back of Sibley, Lindsay & Curr Company's store on Main Street, Rochester, N. Y. Once in a while it does appear, and then the contrast is so startling that we notice it simply by the fact that it is unusual.

This is about the way the thing is usually done: An expectant but anxious customer, after an apparently unjustifiable delay in getting his service, called up the office. He was told that if it was in the wood, he would have his service before the next working day began, and, thanks

to Messrs. Kelly, Cox, and a few others, he had it. The thing occurred something like this: We asked Mr. Pratt how it happened that the Company had not got the service into the Gorsline buildings, and Mr. Pratt kept his telephones busy until he had the facts accumulated, and then he handed them back after this fashion. The Company was all ready to run the customer's service, but the customer's contractor had not brought the service connections out from the building. Our men would have had to run the service and then go back later to make the connection, so it was up to the contractor to get his service out first.

Now, that is where Mr. Pratt ought to have stopped, had he been like the gentleman mentioned in the beginning. Mr. Pratt didn't do any such thing. He called "Thirty-three-thirty-three," and the busy operator, instead of turning him over to Central, got Thirty-three-thirty-three for him. A courteous co-operative member of Wheeler-Green's staff listened to what Mr. Pratt had to say, and assured him that the Wheeler-Green Company would bust their necks to get that service out, which they did—no, not the suicidal stunt, but the getting the service out. Meantime, Mr. Pratt got busy some more, and indicated to the Line Department that they could do the Company a good turn by putting Saturday afternoon and Sunday on the junk heap so far as their enjoyment was concerned, which the Line Department accordingly did, although it was not their job at all to work overtime because somebody wanted power quick. Then Mr. Pratt did a little bit more in the way of calling us up at our

home Saturday night to let us know how lovely everything was, so that we could tell Mr. Gorsline what a fine bunch the Railway and Light people are; and Syd Alling did ditto by sticking around on the job so as to have the latest advices for the customer.

And altogether we are a fine, lovely bunch, and get outside the confines of our own jobs and co-operate beautifully.

And if we are all of us all the time just exactly like that, why in thunder am I wasting good space in the GAS AND ELECTRIC NEWS with this kind of a spasm?

"Make-Believe-Land"

One beautiful thing about this season is the thought that it brings us all—big men and women—back to the days of childhood, when we romped and played in "Make-Believe-Land." Alas, we cannot really go back. We may wander in spirit through all the dim and misty past and never lay our hands on the bright painted toys of other happy days.

But "Make-Believe-Land" still exists. It will always exist so long as there are young hearts in the world. You can revive the happy memories of the past by helping to make the little ones of to-day happy. Perhaps in your home there are childish hearts waiting for you in "Make-Believe-Land."

I want to go back to Make-Believe-Land!

I want to go back, don't you?
Where a crown of clover made you
a queen,

And there was nothing at all little
or mean,

And where every one was good and
true,

In that wonderful, beautiful land?

I want to go back to Make-Believe-Land;

I want to go back, don't you?
Where the sun was so bright the
whole day long,

And the air was brimful of laughter
and song,

And only the jolliest things to do
In that wonderful, magic land.

What you fear, you attract. Eliminating fear does not mean a total lack of caution but it does mean freedom from that which would hamper and withhold you from success.

True merit, like a pearl within an oyster, is content to wait until it finds an opening.

Who would regard all things complacently, must wink at a great many.

What's the use of being in the Knocker's Section of the Anvil Chorus, when the Builder's Committee of the Booster Club is right next door waiting for you.

An optimist takes all the lemons that are handed to him and makes lemonade out of them.

Help Us To Prevent Accidents

ACCIDENT PREVENTION CONTESTS

1. Prizes for the Best Articles.

2. Prizes for the Best Suggestions.

To stimulate practical interest and enthusiasm among the Company's employees on Accident Prevention, the General Safety Committee herewith offers \$70.00 in five prizes for the two best articles and the three best suggestions on greater Safety and Accident Prevention. There will be two contests, so if you cannot compete in one, you can try in the other.

CONTEST No. 1

First Prize, \$15.00—For the best article on Accident Prevention.

Second Prize, \$10.00—For the next best article on Accident Prevention.

CONTEST No. 2

First Prize, \$25.00—For the best and most practical suggestion or recommendation which will help to prevent accidents.

Second Prize, \$15.00—For the second best suggestion.

Third Prize, \$5.00—For the third best suggestion.

CONDITIONS OF BOTH CONTESTS

1. All articles and suggestions must be confined strictly to the subject of Accident Prevention as far as it concerns this Company's employees in the various Stations, Gas Works, Gas Shop, Gas Street, Overhead, Underground, Meter and Lamp Departments.
2. Contest No. 1, for the best articles, is open only to employees outside the General Offices.

3. Contest No. 2, for the best suggestions, is open to all employees, including those in the General Offices.
4. All articles must contain not less than seven hundred and not more than one thousand words. They may be accompanied by suitable photographs which will add to the chance of winning a prize.
5. Suggestions may concern any new device or recommendation on Accident Prevention, or any slogan on Safety which can be used for advertising purposes. Photographs or diagrams will increase the chance of winning.
6. All articles and suggestions must be received not later than 5:30 P. M. on Monday, the 17th day of February.
7. Contestants must write on one side of paper only, and sign their full names and departments in which employed.
8. All articles and suggestions are to be forwarded in envelopes marked "Contest," to Mr. Victor T. Noonan, Secretary of the General Safety Committee, No. 34 Clinton Avenue North.
9. The General Safety Committee will act as the Judges and award the prizes to the winners.
10. Names of winners, with their articles and suggestions, will be published in the March *Gas and Electric News*. Honorable mention will be given to the next best contestants.
11. All contributions are to be submitted with the understanding that they may be used by the General Safety Committee, or published in this magazine.
12. This is not a contest for the best written English. It is a contest for the best ideas on Safety. Therefore do not be timid. Get in the contest and hustle. You may have some good ideas that will land you one of the cash prizes. Get Busy!

A FINAL SUGGESTION

Lest any of the contestants consider 700 to 1,000 words too long for the articles, we wish to explain that the type used in this magazine is large, and the number of words accordingly is no indication of the length. A seven hundred word article fills about one page of the magazine, so if you write from three to five pages of ordinary manuscript paper you will come pretty close to the thousand word mark.

Contestants will find considerable data on the prevention of accidents in the files of the various technical magazines, which may be found in the reference rooms of our public libraries.

Further information will be cheerfully given at any time by Mr. Noonan, Secretary General Safety Committee.

Illustrated Talk On Accident Prevention

What promises to be the finest collection of stereopticon slides and moving pictures on Accident Prevention ever seen in this city will be shown at Powers Hotel on the evening of February 11th. They are to be displayed in connection with a talk to be given by Mr. Victor T. Noonan, Secretary of the General Safety Committee, on the subject of "Accidents and Their Prevention." Mr. Noonan's talk has been planned purely for the benefit of this Company's employees, and all who have any interest in the great cause of saving human life and limb are earnestly requested to attend and help to make the coming event a rousing rally for Greater Safety in our organization. The meeting will be under the auspices of Company Section, N. E. L. A., which has kindly offered to co-operate with Mr. Herman Russell, Chairman of the General Safety Committee, in making our meeting one of great profit to all who attend.

Following Mr. Noonan's talk and display of pictures there will be brief addresses by our department heads on the subject of accidents and their prevention. Department heads and foremen are kindly requested to en-

courage all their men, who can conveniently do so, to be present at Powers Hotel on the evening of February 11th.

The stereopticon pictures have been obtained in St. Louis, Chicago and New York, and they are the very latest and best on the subject. The Eastman Company, through Mr. Robertson, has kindly offered the loan of some new moving pictures if completed on time. Arrangements are also being made to hire the "Workman's Lesson," a strong moving picture story, by the Edison Film Company.

Finally a number of new stereopticons showing safety devices installed in our Company's stations, and also illustrating how accidents may be caused and prevented by our employees will be thrown on the screen. These will be of special interest as they are being made for this coming occasion.

Chairman Russell, who has charge of all the arrangements, is planning to make the meeting a big success. Be with us that night and you will be helping in the noble cause of accident prevention in your own organization.

Slight Accidents---and Nails

We wish to emphasize the necessity of reporting trifling accidents. Some employees don't think it worth while to make a report of a cut hand, an injured foot, or a slight burn. No man, however, can tell when one of these so-called trifling accidents may later become more serious. You may step on a nail, suffer a slight pain for a few moments, then forget all about the occurrence. A couple of weeks later blood poisoning may develop with its dangerous possibility of losing your limb or even your life. No injury is so trifling that it can be neglected. THEREFORE EMPLOYEES WILL BE EXPECTED TO REPORT EVERY INJURY, NO MATTER HOW TRIFLING. We have referred to the danger of stepping on nails, because there is no more prolific cause of accidents to employees than nails. Look out for the business ends of nails, projecting as they often do from loose boards and flooring. Look out for the nails and hammer them down. Prevention is better than cure.

Compliments Safety Committee

Mr. Yawger, who presided at the Friday morning meeting, December 6th, after Mr. Morphy read his usual weekly accident report, complimented the General Safety Committee on the small number of accidents for that week, there being only two trifling accidents to employees. We hope during the coming year to make a record for the fewest number of accidents in the history of our Company. The making of THE RECORD FOR 1913 IS UP TO YOU—foremen and employees. We know you will be with the General Safety Committee in a grand, big effort to make 1913 our record year for the fewest and the least serious accidents.

The Dangerous Hours

Statistics which have been carefully compiled show that the greatest number of accidents occur between 9 to 10 in the morning; the next largest number between 10 to 11 A. M. and 3 to 4 P. M. The reason for accidents at these hours is that the operator is beginning gradually to increase his speed while he is gradually becoming fatigued. The result is an accident.

Moral: Make your busiest hours safe by always being alert and careful.

Let Your Eyes Work

Open your eyes! See the thing you look at! You have been given no greater faculty than that of observation. Don't wander through life with your eyes shut—as many do. Stupidity is never wide-eyed and observing. Success is a matter of eye-sight. He who sees most enjoys most—lives most. See the thing you look at! Open your eyes! The man on the lookout is always on the safe side.

Prompt Inspections

Sub-committees are kindly requested to make their inspection trips during the coming year, as far as possible, on the scheduled dates, or as soon afterwards as convenient, so that the General Safety Committee may have their recommendations promptly. The general committee will greatly appreciate the co-operation of all sub-committees on this matter of making inspections right on time. Prompt inspections mean safer conditions—and safer conditions fewer accidents.

Do things Right and you won't have to put on gloves when you open personal letters from the Boss.

The Pulmotor

Last month the Pulmotor was successfully operated on a case at St. Mary's Hospital, an unfortunate man who was seemingly beyond all human aid being completely revived. Just before Christmas the Pulmotor was called out again to another suicide case, one of asphyxiation by gas. The man was scarcely dead and had the Pulmotor been applied, we have no doubt the man's life would have been saved.

We wish to impress on employees who go out with the Pulmotor to make every effort to save a life, particularly if the case has been given

up as dead by the physician. The Pulmotor should always be applied, and kept going for half a day if necessary.

Christmas week the Pulmotor was applied to a six weeks' old baby at the point of death from pneumonia. The child is at the Homeopathic Hospital, where, we understand as we go to press, it is recovering.

On December 26th seven firemen who smothered in a fire at Pittsburg were revived by the Pulmotor forty minutes after their pulse had ceased to beat.

New Bulletin Boards

Sometime this first week of January we will receive a shipment of thirty new Safety Bulletin Boards which will be hung up in the various stations, gas works, gas shop, general offices and other departments. The new bulletin boards are made

of oak, with glass doors. They will not only be useful, but they are of such an ornamental design that we are quite sure all our Company's employees will take pride in their new Safety Bulletin Boards.

Pulmotors for the Hospitals

The Management has ordered four new Pulmotors, which will be presented to the General, St. Mary's, Homeopathic and Hahnemann Hos-

pitals. The hospital authorities have expressed their thanks for these useful life-saving gifts.

"One of our cars ran over another man last night," announced the superintendent of the street railway line.

"Well," replied the president, "after a while the people will learn that the only safe place is aboard the car, and that five cents is a small price to pay for safety."

Every accident is a **NOTICE** that something may be wrong with **METHODS, MATERIAL, or MAN**, and should be investigated at once by the man in charge to ascertain cause and apply remedy. Whether the injury is slight or serious is not material.

Some of Our Veteran Workers



GEORGE WETZEL.
Right of way Man—32 years' service.



FRANK GROVER.
No. 5 Station—29 years' service.



CHARLES STONEBERG.
Foreman No. 26 Station—26 years'
service.



HARRY WILSON.
No. 3 Station—21 years' service.



EDITORIAL

CONCERNING COURTESY

The following expression to its employees indicates the attitude of the Lackawanna Railroad Company on a subject of vital importance in every business organization to-day:

Imitation is the sincerest form of flattery and this clever little epistle on business courtesy has been adopted by so many large companies that we take pleasure in publishing it here.

"The possession in marked degree of any worthy faculty should always be an incentive to develop that faculty. This Company considers that its Agents, Conductors and other representatives possess above the average, the faculty of being courteous to the public. To those who cultivate and exercise this faculty the Company extends its congratulations and its thanks; to those who do not fully appreciate its importance, careful consideration of the following is suggested:

"FIRST: The principle that underlies courteous treatment of others is simply that of doing unto others as you would they should do unto you.

"SECOND: In a highly complex and technical business such as that of the Railroad there are many things that you, with your training and daily experience understand with perfect familiarity but which the public do not understand; therefore, do not assume that the public should comprehend them without asking questions, but when inquiry is made of you, give the courtesy of a reply just as full and clear as you can make it, and without any suggestion of superiority born of a greater knowledge.

"THIRD: Words are only one means of expression and MANNER is quite as important; therefore remember that a kindly and gracious manner is not only the sign and

We Wish You A Happy New Year

mark of a self-respecting man but is to your words what oil is to machinery in making them move effectively to their purpose.

"FOURTH: True courtesy is no respecter of persons. It remembers that 'a man's a man for a' that,' and gives the civil word and the helping hand quite as readily to the ill-clad stranger as to an official of the Company.

"FIFTH: Courtesy is not only something the public have a right to expect of you but it PAYS.

"It pays in the friends it makes you personally and as a representative of the Company.

"It pays in minimizing the friction of your life, as well as that between the Company and its patrons.

"It pays in raising your standing with the Company.

"It pays in the personal satisfaction resulting from having done the right and kindly thing, by your 'neighbor.'

"It is the wish of the management of this Company that all its representatives, whose work brings them into contact with the public, may appreciate and fully measure up to their duty and privilege in this respect."

Time is a file that wears and makes no noise.

A Word of Apology--and Thanks

We regret that this issue of the magazine will reach our readers a few days late, due to the fact that two holidays intervened from the time we went to press. Then, again, it was rather hard on our contributors to prepare articles when they had so many other duties at the

Christmas season. Realizing this, we wish now to express our thanks to those contributors whose interesting articles in this issue have done much to lighten the task of preparing the January number. Such pleasant co-operation makes our work worth while.

Congratulations to Mr. Searle

We are sure all our fellow workers will join with us in offering heartiest congratulations to Mr. Searle on his election as President of the Rochester Chamber of Commerce. Such an office is indeed a

very great honor in this community. We recognize in the Chamber's choice of Mr. Searle a well merited tribute to his rare abilities and sterling personal character.

Enthusiasm Bottled-Up!

Those who were present at the Friday morning meeting December 13th were privileged to hear some clever remarks by Mr. Fiske, of the Pacific Gas and Electric Company, San Francisco. What impressed all was the visitor's lightning-like enthusiasm, as one man who heard him expressed it, "enthusiasm so typical of San Francisco and the Golden West."

We hear a great deal about enthusiasm in the west. Those who have been out in those wonderful regions have experienced enthusiasm and optimism everywhere. The westerner talks convincingly and does things quickly, daringly, if you will. In a word, he lets his enthusiasm explode, confident of successful results.

This is just where western enthusiasm differs from our eastern expression of it. We have plenty of enthusiasm, but it's mostly bottled

up! We're afraid to let it explode, timid to do and dare.

The man who is an enthusiast can convince multitudes. He is one of the world's leaders—a pioneer of progress—a designer of achievement—a builder of cities. The enthusiastic man has no confines to his ambitions. His own organization, his own city, his own state are all objects of his enthusiastic loyalty and faith. When he speaks, his words indicate the earnestness and sincerity of his own belief. In a word, he is a winner of men's hearts—and this power to win is the foundation of all human progress.

Summed up: Enthusiasm or personal power is the result of inspiration properly applied. **Be the spark** and someone will be ready to supply all the gasoline you can explode. In other words, **become enthusiastic** in your work.

ELECTRICITY!

Carrier of light and power;

Devourer of time and space;

Bearer of human thought over land and sea;

Greatest servant of man;

Itself unknown.

(The foregoing is engraved on a tablet in the new Union depot at Washington, D. C.)

ELECTRIC DEPARTMENT



A number of 500-candlepower lights have been hung over the canal bed at Culver road for the enjoyment of skaters.

A peak load of 42,000 h. p. on Friday, December 13th, broke all records of power consumption in Rochester, according to Mr. Yawger. "It was a big strain on the men," said Mr. Yawger, "and great credit is due to every employee who helped to handle this big load."

Mr. Henry Flood, Jr., electrical engineer of the Central Hudson Gas and Electric Company, Poughkeepsie, was a visitor with us last month. Mr. Flood was so much impressed with the new concrete poles in Rochester that he has since requested our Engineering Department for proof prints of pole design and the method of constructing same so that he may recommend their adoption in the Hudson Company's system.

Mr. Montignani has obtained a very interesting little device for the line department which is both a time and money saver. It is known as a "Pole Height Estimator," and it can be conveniently carried in the vest pocket. By means of this instrument the linemen can accurately measure the height of trees, poles and buildings without having to either climb or guess to get the height. The device is somewhat like a little telescope.

The annual survey of the Edison system began in December with a special gang of men in charge. This annual survey is made to determine the falling off of voltage at various points, so that before arranging for the installation of new cables this coming year it will be known just exactly what points along the Edison system need reinforcing. This survey is also always made at a time of the year when the load is heaviest, so our engineers can determine what improvements to make to the best advantage of the service.

Mr. Yawger has just obtained a little device for measuring light in foot-candles. It is called a luxometer. "With this device," says Mr. Yawger, "we can measure the light of the full moon on a clear night, as well as that of the mazda, magnetite and common arc lamps. It will be used for measuring street and interior light. With this unique little device is a small electric lamp connected with a tiny storage battery which was charged with London electricity before it was sent to this country."

An English judge, being asked what contributed most to success at the bar, answered: "Some succeed by a great talent, some by the influence of friends, some by a miracle, but the majority by commencing without a shilling."



Consumers Pleased

At the Friday morning meeting, December 6th, Mr. Layman, the head of the new trouble department, made a very gratifying report. He said that during the previous month he had interviewed sixty consumers, and of these only four had minor complaints regarding the Company's service. Most of the consumers were greatly pleased with the prompt service they were receiving, and many of them, he said, were frank in saying that our Company was a mighty fine organization.

Mr. Yawger encouraged those present to keep the Company's service up to the highest standard. "It is human nature to relax," said Mr. Yawger, "and we should see to it that we don't relax, but be ever alert and endeavor to keep our service up to the highest standard, and thus continue to earn the good will of all our consumers."

Must Not Enter Houses Through Cellar Windows

Mr. Hutchings, at the meeting December 13th, drew attention to the custom of some meter readers entering vacant houses through the basement windows. Occasionally, he said, a meter reader unable to get the key to a vacant house would secure admittance through a cellar window. This procedure Mr. Hutchings pointed out was strictly against the Company's regulations.

Mr. Nolan said that all the meter readers had positive orders not to enter through cellar windows. Mr. Hellen said that similar orders prevailed in his department. A year ago he had, he said, been criticised by Mr. Searle for a similar case, and he had taken the matter up with Attorney Beach, who had advised him that Company's employees must not enter vacant houses through the cellar windows, since when, it was no longer done by his men.

Liked Atlanta Convention

Mr. Hellen gave a very interesting description of his recent visit to Atlanta, Ga., and the convention there. It was one of the best gas exhibitions which it ever had been his pleasure to attend, the papers and discussions being particularly good. "The city of Atlanta," said Mr. Hellen, "did not appeal to me. It has more large office buildings than we have in Rochester. Everybody seemed to be always tired in Atlanta. I don't know why, and some of our men who attended the convention very soon got that tired feeling too."

Mr. Schick said the illuminations at the Atlanta convention were very beautiful, and he had been much impressed by the valuable papers read, especially one on "House Heating."

The indispensable man has never been born.

A Word About Letters--- and Two Nice Ones

Everybody was glad to see Mr. Searle at the meeting December 20th, after an absence from several meetings. Mr. Searle urged on those present the importance of acknowledging all business letters. "Acknowledge every communication received, and if the matter is receiving attention say so, and state another letter will follow later when the matter has been investigated or attended to. I'd like this rule to prevail always, because I wish you to feel that the other fellow has a look-in, therefore answer every letter received."

At the recent Chamber of Commerce banquet, Mr. Searle said he was the recipient of a pretty nice compliment for the Company. It was a written compliment signed by Mr. George Dietrich and read: "Best this room was ever lighted."

"This was a pretty nice compliment," said Mr. Searle. "It shows that we are building up a strong friendship with the public."

Mr. Searle then read two very complimentary letters, one from Mr. William H. Gorsline regarding the electric installation in the Gorsline buildings; the other letter from Rev. J. F. O'Hern, rector of St. Patrick's Cathedral, regarding the beautiful new lighting system installed there. The letters are as follows, together with Mr. Searle's reply to Father O'Hern:

December 18, 1912.

Mr. I. Lundgaard, Industrial Engineer,
Rochester Railway and Light Company,
City.

Dear Mr. Lundgaard:

The operation of the power pump ordered by you for me began to-day and marks the completion of the electric installation in my buildings on Commercial Street. This pump works finely, takes less power than the old one, cost less than to repair the former pump and due to electric control device

only runs when needed—about half the time. This illustrates the advantages derived from electric applications throughout the installation—I believe we have secured the maximum efficiency. I am indebted to your organization for designing and supervising the equipment and wish to express myself as highly pleased with the character of your design, your engineers, and the manner in which you took care of my interests and the interests of my tenants in changing over the four buildings to electric group drive. The result is much to my satisfaction. With kind regards, I am.

Yours very truly,

WM. H. GORSLINE.

December 17, 1912.

Mr. Robert M. Searle, Vice-President Railway and Light Co., Rochester, N. Y.

Dear Sir:

I wish to take occasion, now that the work is completed and is perfectly satisfactory, to thank your Company and its engineers, especially Mr. Edward L. Wilder, for outlining and furnishing us the plans for the new system of lighting St. Patrick's Cathedral. Mr. Wilder gave considerable time and careful attention to the installation of the new system, which is eminently satisfactory, and which is receiving most favorable comments from the public. I should be glad to have any of your officers or engineers view it at any time you may suggest. I dare say a personal inspection would be even more impressive than the wonderful photo which is found in your last issue of the GAS AND ELECTRIC NEWS.

I am glad to have this occasion to express our appreciation for the generous spirit which the Rochester Railway and Light Company always manifests towards ourselves as patrons, and its willingness to co-operate in every way for the best possible service. Believe me,

Very sincerely yours,

J. FRANCIS O'HERN,

Rector.

December 17, 1912.

Rev. J. Francis O'Hern, Rector, The Cathedral, City.

My Dear Sir:

One of the most gratifying things experienced by a man at the head of a corporation, and living in a community such as this, whose associates as well as the corporation itself are trying to give the very best service they know how, is to receive such a letter as yours of December 17th regarding the good work which our engineers

have done for you. I personally want to see this installation very much, and although I am leaving town to-night for a few days I shall make it a point to view it the latter part of the week. I thank you very sincerely for the invitation.

If at any time there is anything that this Company can do to promote the mutual interests of both the consumer and the Company, it stands ready to do so, for as a matter of fact our consumers are really our employers, and it is they whom we must and will serve.

Again thanking you for your letter, I am,

Yours very truly,

R. M. SEARLE,

Vice-President.

Meetings Impress Visitors

E. Chalfante, of the banking firm of Harris & Williams, of New York, and J. George Kaelber, a pioneer electrical man in Rochester, were visitors at the regular Friday morning meeting December 27th. Mr. Chalfante has been interested in the public service company's line for the past forty years. Mr. Kaelber was affiliated with the original lighting company in this city, the Rochester Power Company, located on North Water Street, where the present Station No. 6 is.

Both men spoke at length after the meeting, complimenting Mr. Searle on the efficiency and co-operation of the company. Mr. Chalfante said that in all his experience, extending over forty years, he had never seen anything like it.

N. E. L. A.

One of the most interesting and enthusiastic meetings of Company Section N. E. L. A. was held Tuesday evening, December 3d, in the large banquet hall of Powers Hotel, fully 150 members being present, with President Haftenkamp presiding. The principal feature of the evening was an illustrated lecture on

the "Hydraulic Development of the Pacific Coast" by W. H. Blood, Jr., of Boston. Mr. Blood unfortunately was not able to be present himself, and his paper was read by Mr. A. T. McDowell.

In a clever and instructive manner Mr. Blood's paper covered the whole story of the growth and development of water and electric power on the coast. His remarks were illustrated as he went along by stereopticon slides, showing the power stations principally in the great northwest.

Following Mr. Blood's paper, Engineer Le Grand Brown described briefly the electric power development of California.

Following the meeting a fine lunch with cigars was provided by the management.

Keep ahead by doing to-day what others will do to-morrow.

Little Peter was sorely grieved over the news that he must give up a goat he was very fond of. While on his knees that evening he asked God for numerous things for Christmas, and closed his prayer with this: "And, dear God, please, can't Santa Claus bring me a billy what won't smell bad?"

The wise man knows an ignorant man because he has been ignorant himself, but the ignorant man cannot recognize the wise, because he has never been wise.

Everything that is great in life is the product of slow growth. Mushrooms sprung up in a night, an oak requires decades. Fads survive only for weeks, and philosophy for centuries. If you are sure you are right, don't let your family, your friends or the world swerve you from your purpose.

Compliment from Mr. George Eastman for Foreman Frank Rich



FOREMAN FRANK RICH.

It is our pleasant duty to publish in this issue a remarkably fine compliment which has been paid to Foreman Frank Rich by Mr. George Eastman. As is well known, Mr. Rich superintended the construction of the 600 foot tunnel for conveying steam power from No. 3 Station to the Eastman buildings in State Street. The job, which was a big and difficult one, was cleverly handled by Foreman Rich.

On December 24th, Mr. Eastman, in a personal letter to Mr. Searle, referred in glowing terms to the work accomplished by Mr. Rich. Naturally Mr. Searle was so well

pleased that he read the letter at the Friday morning meeting December 27th, and stated that he was going to ask Mr. Eastman for permission to give the letter to Foreman Rich.

It gives us a great deal of pleasure to publish Mr. Eastman's letter, and in doing so we take the opportunity of congratulating Mr. Rich on being the recipient of a compliment which we know was well deserved.

Mr. Eastman's letter is as follows:

EASTMAN KODAK COMPANY
Rochester, N. Y.

December 24th, 1912.

Mr. Robert M. Searle,
City.

My Dear Mr. Searle:

I want to take this occasion to say something about the work of your employees in putting in the pipe tunnel. The route of the tunnel is directly in front of my office windows and therefore came under my constant observation. About the time it was being finished up I was remarking upon the pains that had been taken by your Italian foreman, Frank Rich, in keeping the walk and roadway as clear as possible. It was a difficult job at best and I was impressed with his efforts to make the conditions tolerable. Our office manager said that we had never had a foreman on any job around the place who had seemed so interested in arranging things so there should be the least possible interference with business. I thought you would like to know this.

With the greetings of the season, I remain,

Yours very truly,

(Signed) GEORGE EASTMAN.

Don't explain yourself too much; give the world a chance to think well of you.

Christmas Tree at No. 6

Santa Claus at No. 6 Station.

The men who were on duty at No. 6 Station on Christmas Day did not forget the occasion, because they had a great big Christmas tree planted right in the center of the station. It was decorated with tinsel, colored glass balls and illumi-

nated with tiny electric lights. On it were holiday cards and a number of illuminated greetings which presented a very pretty effect amid all the big power machines and dynamos.

In China, when a subscriber rings up the exchange, the operator may be expected to ask: "What number does the honorable son of the moon and stars desire?" "Hohi, two-three." Silence: Then the exchange resumes: "Will the honorable person graciously forgive the inadequacy of the insignificant service, and permit this humble slave of the wire to inform him that the never-to-be-sufficiently-censured line is busy."

Nothing great was ever achieved without enthusiasm.

The more patience we have with our customers the more customers we will have to use it.

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



Mr. Nolan received a beautiful mahogany clock from his assistants for Christmas.

We are pleased to see our friend, Miss McCreery, back at her desk after a brief illness.

Who is the young lady in the appliance department that F. S. S. is interested in?

Carl Johnson spent Christmas in Detroit. He says he got an "awfully pretty" name for his new bungalow while away.

Our friend, Ed. Gosnell, got a very pretty necktie Christmas eve. Inscribed thereon was the sweet name of "Nellie."

Santa Claus has always been unusually kind to Mr. Hellen. This year the men in the Gas Street Department gave him a fine mahogany davenport.

The place of Miss Elizabeth Richmond, of Mr. Nolan's office, who was on vacation during the Christmas holidays, was filled by Miss Francis Katsky.

C. S. Jennings was also among the fortunate ones, Charles being presented a handsome humidior with a box of cigars from the men and boys in Mr. Nolan's office.

"Pa" Dowd snored so loud while he syept in Atlanta, Ga., that his snorings cracked the windows of the house across the street. Then the owner complained, and "Pa" had to remain awake nights.

Foreman Thomas Nash, of the Transportation Department, entertained the Misses Coleman, Geen, and Messrs. Spears and Dursky to a party at "Tommy's" residence on the evening of December 26th.

The Misses Ada Cullen, Alice Baker, Violet Patrick and Helen Hocter were among the fortunate young ladies who received pretty rings from Santa Claus. When is it to be, girls?

Mr. Walter S. Burch, formerly of the General Electric Company, joined our engineering staff last month. We bid Mr. Burch a hearty welcome, and assure him that he will find Mr. Parker and his assistants a most congenial bunch.

The best evidence that a man can be at once a Son of Jove and a Christian is the fact that our resourceful friend, C. G. Durfee, is now a vestryman of the Church of the Ascension.

William F. Croston, formerly assistant engineer at the Gas Works, has been appointed Superintendent of the Gas Department of the Newport News and Old Point Railway Company, which operates gas plants at Hampton and Newport News. Congratulations, Friend Will!

Miss Grace Belding, formerly of Mr. Nolan's department, but who is now at Raybrook Sanatorium, Adirondacks, received a box of useful Christmas gifts from her former associates. This was a very thoughtful act which we are sure proved a happy surprise to Miss Belding. We hope Grace is getting well and strong, and will soon be able to be with us again.



A consignment of electric sign letters, from 12 to 14 inches high, has arrived for display purposes in the windows of the Clinton Street offices.

A nice, heavy strip of floor matting has been laid on the stairway leading to the basement under the general offices. Strips have also been laid on the basement floor. Needless to say it is quite an improvement.

Mr. Wallace has charge of plans for a new electric sign to adorn the roof of the new sixteen story Eastman building on State Street. A temporary sign, consisting of letters six feet high will first be put up. Later in the spring four larger signs outlining the entire top of the building will be erected.

Twenty-four mazda incandescent lamps on concrete poles have been installed on Union Street, replacing the old arc lights.

I will listen to any one's conversation, but pray keep your doubts to yourself. I have plenty of my own.

"How would you classify a telephone girl?" asked the old fogey. "Is hers a business or a profession?"

"Neither," replied the boob. "It's a calling."

Grim Winter

Grim winter is a time of dread to people who are shy of bread, who hear the wolf before their door, and have no credit at the store, whose children cry in vain for cake to soothe their painful stomach ache. Alas, that some must suffer thus! Alas, that some must groan and cuss, when from the North the wintry blast goes screaming and rip-snorting past! For when the shack is well supplied with flour, and bacon on the side and we have apple pies and mince, gooseberry jam and peach and quince, and coal and cordwood by the ton, and in the clock a roll of mon, and then winter is a thing sublime, with all its snow and sleet and rime. To sit beside a cheerful fire and read a book or punch a lyre, and hear above the household din the storm go whooping past like sin—that's solid comfort, such as Spring or Summer days can never bring. I hope that when the Winter comes, and old King Blizzard ups and hums, you all may know the peace and bliss of sitting by the fire like this! And if, while to the fire we tend, we think of hard up folks and send some pies or cordwood to the poor, our happiness will be more sure.—Walt Mason.