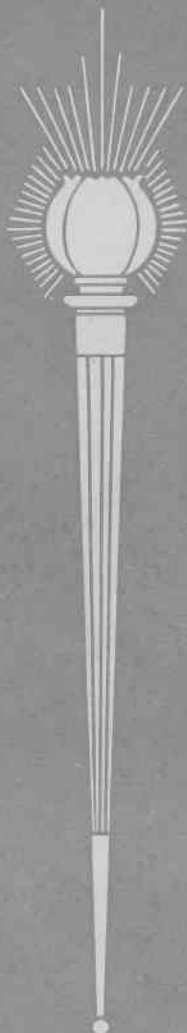
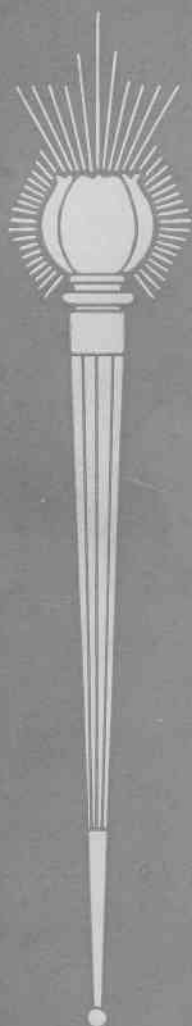


GAS AND ELECTRIC NEWS



Every Man Needed

THE man who has not something to do that will give him the consciousness of being needed, who feels that he can stay out of the game of life, and nobody would miss him, is in an unwholesome state of mind.

I am needed. You are needed. We all need to be needed.

Personal need is one of the great moral ballasts of life.

JULY, 1912

Published monthly by the
ROCHESTER RAILWAY AND LIGHT CO.

ROCHESTER, N. Y.

For the Information of Its Employees

GAS AND ELECTRIC NEWS

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Vol. 1

JULY, 1912

No. 3

Work and the Man

By JOHN C. PARKER



Electrical men, and more frequently the younger ones, are being so systematically lectured nowadays as to the thousand and one absolute essentials to success, that an extra publication along this line is pretty likely to prove the last straw on the back of an already heavily burdened calling. It may be, however, that the writer will have a somewhat different perspective angle, so that this brief article may not be entirely a repetition of what has gone before. Of course, it is perfectly true that the ideal public service man must be a perfect theoretician, that he must have spent several generations in practical effort, that he must be able to qualify as a certified public accountant, and all that sort of thing; and so, as he is ordinarily required to do so much, it won't do much harm to add still another and very trifling requirement; namely, **THAT HE BE A MAN.**

After all, the requirements in our profession are not very different from what they are in any other human line of activity. It is true

that the technique does differ somewhat from that of dentistry, surgery, and the drygoods business; but this is a minor matter. The man is the thing. Which sounds pretty elementary? Yes. But the trouble is that most things that are commonly accepted are, like the golden rule, pretty difficult to bring down to everyday living, and hence more often honored in the breach than in the observance.

I believe that a great deal of success in the world in any line of human activity depends on the impression which a man himself creates, and that in lines often far afield from his vocational work. It is manifest that the layman can scarcely know whether the technician possesses ability or not merely from the way in which he talks about his own work, since, if the foreigner were able to discriminate between fine and superfine technique, he would himself be a technician; it must, therefore, be that a man's vocational repute will depend upon the impression for general intelligence which he can create in lines outside his primary endeavor, lines which closely parallel the interest of the other man.

For this reason it seems to me that one of the greatest requirements in ours, as well as in other callings, is a breadth of mental interest; that a man should know something about every one of the things that people generally are interested in, whether they be employed in office, store, or shop, whether they be young or old, high brows, or good red blooded citizens. Above all, we should know a great deal about the local movements in our town, and about the current political and industrial conditions in this our own country, as well as in the world at large, so that where men gather together the electrical man may show himself to be quite the peer of them all in his general intelligence.

This is the more important nowadays when electrical problems come so closely into contact with every one of the great political and social movements of the day. When amateurs may be called upon to regulate travel over our electric trolley lines; when lawyers, business men, and farmers in the legislature pass acts to control telephone, gas, and electric corporations; when states, as well as the nation, are busy about conservation of water power, mines, and forests; when the saving of life in our factories becomes a national movement, it will not do for the electrical man to be applied to for technical information alone. He must have a mind broad to every aspect of the problem, so that, not only as a technician, but also as an economist and a broad gauged citizen his ideas will have weight pre-eminently over those of the laity. This is at once a duty for the welfare of his calling, likewise a means of selfish advancement for himself.

On one of the traits that the electrical man should cultivate, I would flatly disagree with many of the people who have so recently sermonized

us; namely, that of the close focusing of the mind on the main chance. Paper after paper has been written telling the young electrical man that he must study, and work, and watch — almost pray — without ceasing along the line of the work that he has in hand. This I would advise, did I consider the sum of human success to be eminent perfection in the knowledge of the number of thicknesses of insulating cloth to be used in the slots of a 20-horsepower, 2,200-volt, Form XYZ, 60-cycle induction motor, or the exact determination of the time curve of the motion of the trip gear on a Corliss valve. But, unfortunately, I don't believe that to be any great aim in life for any man. I have no quarrel with perfection in detail, nor any contempt for small details; on the contrary, I believe the ability to handle details well to be one of the signs of a big man in any walk of life; but I do believe, by the same token, that if a man devotes all of his life to a narrow detail of his specialized business, he will sooner or later become unfit for anything else, and will not even realize the importance of his one detail in its relation to the great world about us.

A man should conscientiously and carefully work, and work like a Trojan on the work that he has in hand during his working hours. He should supplement this by some study during his leisure hours; but he should keep himself mightily well assured that he has leisure hours to spend on anything, be it the whim of the moment, or a consecutive line of endeavor widely separated from his routine work. Not only will such a process give a man a better perspective of the thing that he is at the moment engaged in, but it will keep his mind open; so that when he is called to a broader field of usefulness he will be able to fit himself into it

without shock, and at all times adapt himself to other people.

This watching the main chance may be a very good thing if a man is a Robinson Crusoe; but once granted the Man Friday, and certain byways of interest open up into which a man must put himself whole-heartedly if he will get along in the society of even two. Since we are living our lives not by twos nor by threes, but by thousands, I am sure that in the long run a man will profit the most, even aside from the fundamental fineness of the act, by thinking about others, by playing the game in the big rather than in the little. I have known many people, some of them among our electrical men, who habitually say, "I don't know why I should do anything for anybody else; no one has ever done anything for me." Of course not; and why should one, when a man has that sort of a philosophy? I have known other cases where men threw themselves into their work with a pure joy in the work itself, and where they would throw themselves into the other fellow's work, because they had big enough hearts to want to help the other fellow; and the result has been invariable. Sooner or later the time would come when circumstances would call for an expression in word or in act from the beneficiaries, and that expression has more than paid the price of any act of generous co-operation. Not one instance have I seen where with initial merit a generous kindly spirit of helping the other fellow has failed to pay enormous dividends.

All these things do, to put it on its lowest terms, pay, and pay richly. To insure this the game must be played in no half-hearted way. There must be no calculation on results, and no crowding the date of dividend payment. Our broad human-

ity must not be a policy, but a fixed and abiding principle of life; then only will it bring success in the narrow sense of the word, but then richly.

And if, after all, the game had no material rewards, what then? Should we play it any differently? Yes, I think so—if a man's ideal of existence is to make a supreme animal of himself. If the human way of playing the game did not bring monetary rewards, and if a man's life consisted in eating and drinking and dressing and housing himself, he would be justified in conducting his professional life on other than a broadly human basis; and I am afraid that too much of the advice to us electrical men makes these two concessions; but though I might be prepared in the face of convincing proof to grant the first, the second is as wrong as can be. Why should a man slave, and break his heart, and narrow his life to get a few extra dollars which can be translated into only the more refined forms of bestiality, when with less heartaches and less effort he could content himself with the much more easily attainable and cruder forms?

As long as we have human hearts in us, there is only one real thing that we can do with the reward of our efforts, and that is to use that reward as a vehicle for the fuller realization of our manhood. We would not then be so asinine as to sacrifice or narrow our manhood for the attainment of wealth which can satisfactorily be used only as it expresses the very manhood that might be paid for it. The broadly human game, thoroughly played in even a modest, poorly paid position, brings a man greater happiness, more out of life than he could ever get from a narrow, technical, selfish game, though the latter might, in terms of the market, succeed.

I fear that this paper may listen like a preachment, and I should hate to have that stigma placed upon it, because far from being an expression of a theory of our professional needs, it is the summary of a pretty wide acquaintance covering the past ten years; an expression—may I frankly say?—of some things, to have known which when I first put college life behind me, I would, in the light of present knowledge, have gladly given a great deal.

Creeping Skywards

The new Woolworth Building, which is at this time being erected in New York City, will, aside from the Eiffel Tower at Paris, be the tallest structure in the whole world. When completed its main tower will rise seven hundred and fifty feet above the sidewalk. It is to have fifty-five stories. The characteristic feature of this newest skyscraper will be the great tower, eighty-six feet by eighty-four feet square, rising twenty-nine stories above the main building. And, of course, there will be an electric climax to the whole thing, for Mr. Woolworth proposes to install on the very tip of the tower, which has a cupola point, a powerful electric light which in ordinary weather will be visible ninety-six miles out to sea. It will be truly the beacon light of New World commerce and industry.

An Irishman wanted an empty bottle in which to mix a solution, and went to a druggist's to buy one. Selecting one that answered his purpose, he asked how much it was.

"Well," said the clerk, "if you want the empty bottle it'll be one cent, but if you have anything put in it we don't charge anything for it."

"Shure, that's fair enough," observed the Irishman, "put in a cork."

Count Your Blessings

Have you sorrows? You must bear them

Without murmur, without moan;
Think not you may shirk or share them,

Keep them for yourself alone.

But if you have joys, oh, show them!
Broadcast to the winds go throw them,

Seed-like through the world go sow them,

And be glad when they are sown!

Have you trials? You must face them

Without grumble, without groan;
Burdens? Then be sure to place them

On no shoulders but your own.

But if you have aught that's cheerful,

Give it forth to calm the fearful,
Give it forth to soothe the tearful,

Sing it, ring it, make it known!

Thus it is the noble-hearted

Live until their day is flown;

Thus their courage is imparted

As a bugle-blast is blown:

Thus it is they help and heighten,

Thus they lift and thus they lighten,

Thus it is they bless and brighten

Souls less steadfast than their own!

Dennis A. McCarthy.

Gas Incinerator For Iola Sanatorium

Gas incinerators for destroying sputum cups have been installed at the new Iola Sanatorium. The Iola is the only institution of its kind in Rochester or vicinity that has been supplied with gas incinerators. Hospitals and other large public institutions should promote the cause of proper sanitation by adopting proved sanitary devices, not the least of which is the gas-fired incinerator designed to destroy garbage, bandages, etc.

Frozen Services

By VINCENT HODDICK, Foreman Gas Street Department



In the year of 1907 a record was opened up in our department of all complaints received due to frost and zero weather. This record has been continued since. During

February of last year, when the mercury reached the zero mark, I boasted at one of our weekly meetings that conditions in Rochester (as far as the Gas Street Department was concerned) were second to none in the country, because we had practically overcome all the troubles which usually accompany severe winter weather. In February, 1911, we had 14 complaints out of 41,000 services and 5,200 meters in use.

January and February of this year were, however, the most severe months that I have experienced in the 13 years I have been in the gas business. On January 1st the mercury fell close to zero, where it remained on and off until about March 1st. During these two months this department received and attended to 1,000 complaints, two-thirds of which were frozen services, while one-third were frozen house risers.

The splendid body of employees in the Gas Street Department handled this unusual number of complaints without a murmur, working at the same time like Trojans. The men worked expeditiously, obeying the wishes of the management that all complaints be attended to on the same day received. Any place where trouble was reported more than three times was placed on our sent out at regular intervals to see that the gas supply was O. K.

While attending to these many complaints there was no interruption

to our regular work, the force being increased by only two men.

In thawing services, wood alcohol was used, while hot water was used for house risers. Hot water applied to frozen risers, instead of torches and steamers, has eliminated about 99½% of accidents from fire. In regard to the use of alcohol for services, I should say that we have made it a practice in this department to carefully inspect all alcohol cans to see that they are painted red, and spouts, stoppers, etc., in good condition.

For greater protection, inspectors are not allowed to use the same alcohol can each day. When a can is returned empty, the inspector is furnished with another can which has been properly inspected and filled. This not only cuts down expense, but prevents employees from taking out leaky or unsafe cans.

Likes Our Magazine

Mr. Edgar F. Edwards, the very capable Secretary of Rochester's Industrial Exposition, has sent us the following letter, which we greatly appreciate:

"Permit me to congratulate you upon the production of such a clever and interesting little magazine. It contains a lot of valuable information, of interest to the public as well as to the employees of the Company. It is another example of the splendid spirit of co-operation which has made the Rochester Railway & Light Co. unique among public service corporations.

"I also want to congratulate you upon the artistic appearance of the journal.

"Yours very truly,
"EDGAR F. EDWARDS."

The Magnitude of the Company's Property

By F. A. MILLER



While the extent of wire lines of underground and overhead circuits, subway, Edison tubing and other property of the R. R. & L. Co., aerial or subterranean, may be known in a general way to many of the employees, the facts may be better appreciated by the following data submitted from the drafting department. The subway or underground duct system traversing the city streets consisted in 1900 of 246.1 miles of single duct, the ducts being built in one, two, three, or four duct conduits, all the way up to 90 duct conduits leading into No. 4 Station; this system has now grown to 697.3 miles located in 133 streets of the city.

The subway record at present date consists of 735 large tracings with minute notes, figures, and details entered thereon, forming two books for easy reference. Blue print copies of all these tracings are furnished to the New York State Railways, Rochester Telephone Co., City Engineering Bureau, Mr. Christie (subway department), Mr. Alcott (underground cable department), and to the drafting department. For easy utilization by the office; tracings and blue prints of new work, alterations and services are continually made and furnished to the above listed parties to keep their files up to date.

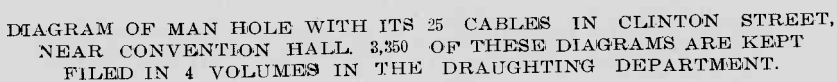
Of the total duct feet of subway, which aggregates 3,681,216 feet, our own Company occupies 1,093,673 feet; Rochester Telephone Co., 473,413 feet; N. Y. State Railways, 250,374 feet; E. Monroe Electric Light & Gas Co., 596 feet; and Rochester Power Co., 407 feet.

The above figures show the total occupancy to be about 50%, leaving the remainder available for further growth and expansion. Another item of underground property consists of 35,519 feet of Edison tubing, located about the central part of the city, and forming part of the D. C. or Edison System. This property requires records with detail, consisting of 54 tracings like the subway tracings, and blue prints must be kept supplied to other departments in practically a similar manner.

An important part of the subway and underground cable system has not been mentioned, i. e., the 3,050 manholes and handholes required to make the subway system usable for installation of cable. Our manhole record consists of one or more traced and inked sheets for each manhole, which sheet shows a sketch of the manhole, its size, depth and drainage, all subway ducts and service ducts leading in or out of it, all cable occupancy of ducts with duct and section numbers indicated, these numbers referring to a list on lower part of sheet which has placed opposite each section and duct number the size and kind of cable installed in the duct; the circuit number or nature of the cable, the company operating it, and the date when installed, and it seems to the writer that the phrase "Multum in parvo" (much in little) very aptly applies to these sheets of record which, with all the changes, additions and renewals of underground cable that occur, must be corrected carefully and continuously from the Underground Department daily reports. This Manhole Record forms four heavy books of blue prints, with sheets totaling 3,350, of which a set is at hand in the Drafting Department and a du-

The wire lines of our Company

distribution. The overhead wire lines in 1901 totaled 569 miles and in 1911 a total of 1,232 miles, a two fold increase in ten years, which



clearly indicates the present policy of the Company in putting underground all wire and cable where possible and compatible with fair and

sound commercial results.

The above described electric lines serve the City of Rochester; also, to a considerable extent, the contiguous towns of Gates, Greece, Irondequoit, Brighton and Chili. The constituent parts of these 1,900 miles of wire is made up of 14 alternating current tie lines between stations, of 4,150 volts, and 12 alternating current light and power circuits for serving the customers, also of 4,150 volts; 11 alternating current tie lines from Station No. 33 to Stations 4, 5 and 6, of 11,000 volts; 5 "Edison" tie lines and 80 "Edison" feeders which, with the "Edison" mains and Edison tube, form the direct current electric system of the city; and 62 alternating or direct current magnetite lamp circuits covering the entire area of city, to feed the 4,540 arc and incandescent lamps that illuminate our well lighted streets.

All of these circuits and wire lines, most of which are partly overhead and partly underground, are carried where they are overhead by 249 miles of pole lines, and the records of these circuits, with their continuous additions, changes and growth are plotted in the Drafting Department, each circuit separately, upon a set of large city maps, forming a book of 190 maps, of which the Line Department has a duplicate set showing similarly the changes necessary to make the maps correct day by day, from Line and Underground Department daily reports.

We also record the "Independent Subway" and back lot line pole system with the legal "Rights of Way" for subway service and pole rights, upon a set of large maps at a scale of 100 feet to the inch. This record consists of 125 sectional maps of the city, showing location at present time for about 5,000 rear lot poles. A duplicate copy of the maps of this

system is required by Mr. Yawger, Mr. Alcott and other department heads.

The gas distribution system of the city is also recorded upon a similar set of 125 large sectional maps, a duplicate set of prints of same being periodically made for office of Gas Street Department. Upon these maps are recorded the 356.4 miles of gas mains now laid under city street pavements, which shows a hundred per cent increase in 10 years over the amount existing in 1901, which was then 177.7 miles. Gas services to customers in 1900 numbered 15,209, and in 1911 they numbered 43,589, showing a triple increase of services in ten years, with a double increase of gas mains laid, during the same period.

With the wish to not further impose upon the patience of the reader what may be rather dry statistical facts and figures, we may well believe that the amount of work done by the employees of this Company in the aggregate for the period of one year is enormous, when it is considered that to record past and present activities of the different departments it requires ten draftsmen and a department clerk to record, plot and map what in the aggregate amounts to about 5,000 sheets of record, with the necessary 12,000 or 16,000 blue prints of same required by other departments, superintendents and Company officials for their office records and files.

The above facts and figures justify the writer's plea for a most earnest and considerate co-operation from other departments and for very careful and reliable daily reports to be sent to this department, as upon their accuracy wholly depends the correctness and value of our Company's maps and plotted records.

Our Largest Power Station

By THOMAS H. YAWGER



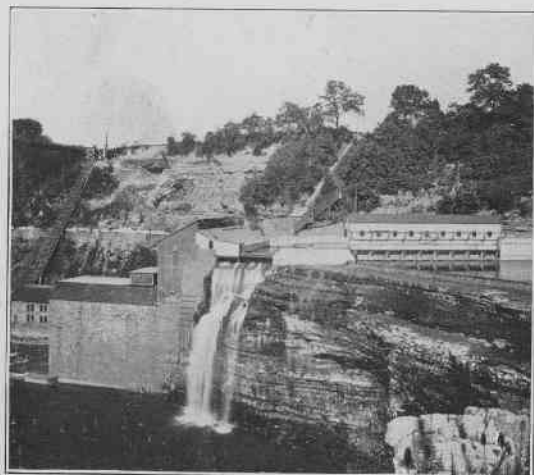
The largest and most important water-power station of the Rochester Railway & Light Company is known as Station No. 5. It is located on the Lower Falls of the

Genesee River, where there is a head of 96 feet and where there is at present being developed about 4,550 K. W. Station No. 5 is on the opposite bank of the river from Station No. 15, and is not much more than a stone's throw below it. The power house, which is 47 feet x 90 feet x 47 feet high, is built of masonry on concrete foundations placed in the rock at the river bottom. The construction and layout are such that the

the intake is 17 feet.

From the forebay two 11-foot and three 6-foot penstocks are run. Only one of the 11-foot penstocks is in use. The penstocks have a vertical descent to the floor of the station. The large penstock has a height of 94½ feet and extends under the floor of the turbine room a distance of 75 feet. It is made of ⅝-inch steel, and to it are connected three 2100-horsepower turbines; two built by the Trump Manufacturing Company and one by the I. P. Morris Company. To the smaller penstocks are connected, respectively, a 900-horsepower Morris turbine, a 450-horsepower Leffel turbine driving a railway generator, and another of the same size and make driving an alternator. The large water-wheels are 42 inches in diameter with 96-inch openings from the penstock. The tail race is 14 feet deep and has a concrete floor. The 11-foot penstock is fitted with a Sturgess relief valve and the 6-foot penstocks are equipped with Lombard relief valves. Each of the 2100-horsepower turbines has an 84-inch valve for shutting off the water in case of repairs, and the penstock supplying the 900-horsepower turbine is fitted with a hydraulic valve for this purpose, the other valves being motor-operated. All the turbines are equipped with Sturgess oil-

pressure governors so interconnected that in case of failure of the pump on one unit, the pressure can be supplied by the rest. A 25-ton crane spans the generator room so that repairs can be readily made. An inclined railway runs from the cliff overhead to the power house below, as shown on the left of Fig. 1,



NO. 5 STATION.

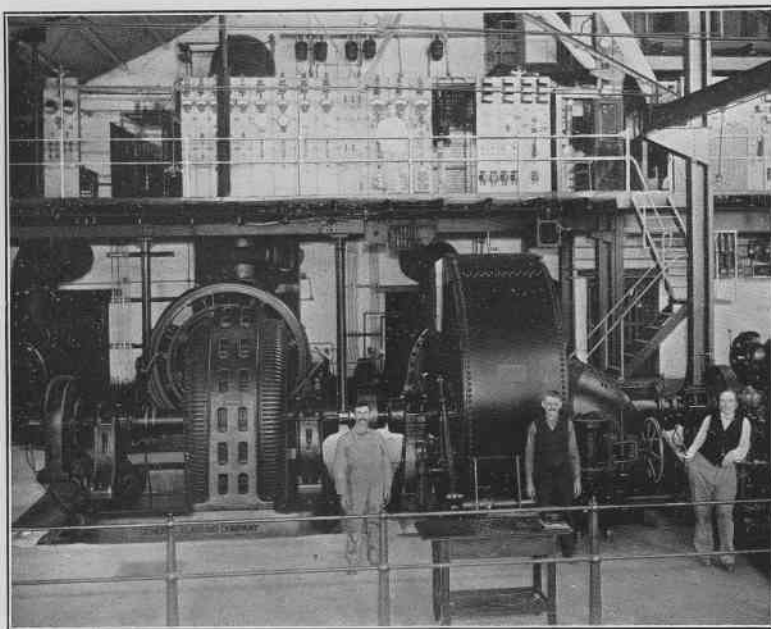
station can be extended eastward toward the high bank of the river, and its present proportions duplicated. At the outset the escarpment was faced with concrete and the forebay used for an old plant located at this point enlarged to give a rock length of 80 feet. To the westward or river edge the depth of water at

and on this inclined railway all supplies, etc., are brought to the station.

The head-gate house is built at an angle to the flow of the river so that the swift exterior surface flow sweeping the full length of the gate-house screens carries all refuse and floating cake-ice over the falls beyond. The forebay is thus kept free of refuse and cake-ice, so that in winter mush-ice, also known as anchor ice, frazil or slush ice, is all that has to be contended with at the racks

of the power plant, have left it comparatively free from serious ice troubles.

The electrical equipment installed comprises three 1200 K. W., three-phase, 4150-volt General Electric generators, each of which is direct-connected to one of the 2100-horse-power turbines; one 500 K. W., 550-volt generator, one 300 K. W., 550-volt generator, and one 350 K. W., 4150-volt, three-phase generator; the last three machines being of Gen-



INTERIOR OF NO. 5 STATION.

leading to the penstocks. Extending over the racks and gates leading to the penstocks is a corrugated iron shed which also hangs over a portion of the spillway. The front of the shed is brought down close to the water so that in winter the men who rake the slush-ice from the racks are well protected from the weather. Back of the racks and communicating with the spillway is an ample ice run. These simple provisions, combined with the strategic position

eral Electric, Westinghouse and Bullock make, respectively. In addition to the generating equipment there is the following transforming apparatus: nine 71 K. W. constant-current transformers for alternating-current series circuits and a 500 K. W. frequency changer. The latter set has a 4150-volt, three-phase, 60-cycle motor and a 11,000-volt, three-phase, 25-cycle generator and is used for supplying energy to a 40-mile suburban line formerly fed from a

steam-driven station located about six miles outside the city. Each of the large alternators receives exciting current from a 20 K. W. multipolar generator fitted to the extreme end of the shaft. The frequency changer has a 25K. W. exciter set belted to it as has also the Bullock set. In addition there is a 50 K. W. motor generator set available for boosting railway feeders.

The switchboard is situated on a gallery or pulpit on the falls side of the power house. The equipment is for a four-wire, three-phase system. There are three galleries. On the first gallery the general arrangement consists of three generator panels in

from Station No. 15. To the right of the generator panels are the panels for the frequency changer, the panels for the smaller alternator, exciter panels and panels for starting the frequency changer. On the left beyond the tie-line panel are panels for two incoming and two outgoing feeders for controlling energy received from Niagara Falls from this point. Beyond these panels are the panels for controlling the railway generators and feeders.

The second gallery contains the line disconnecting switches with static and lightning arresters mounted in brick compartments. The feeders pass from the panels on the first gallery to switches on the second gallery and thence out through the roof of the station into ducts built in the wall overhead. On the top gallery are the constant-current transformers for the series arc-lamp circuits. Each transformer has its own panel mounted in front of it and the lightning arresters are placed on the wall back of the transformers. In all of the stations having such apparatus no attempt is made to have a board for transferring circuits, each transformer being equipped with a separate panel.



INCLINE AND ELEVATOR AT NO. 5 STATION,

Showing East End of Driving Park Bridge, Driveway of Which is About 200 Feet Above River.

the center of the board with two interlocking oil switches and duplicate busbars. To the left are tie-feeder panels with oil switches and time-limit relays and farther on are three-phase distributing panels, arc-feeder panels and at the end a tie-line panel for an incoming circuit

A neat appearance is a silent recommendation and often proves the opening wedge to a sale.

Don't be ready to fly off the handle when the mail brings you a letter that doesn't strike you just right. Forget for a minute the typewritten words and think of the man behind them. May be he had no intention of offending you. Often a letter fails to convey the thought that the writer wants to express. If you met him face to face he would have a chance to square himself. Give him the same chance when in a letter he says something that doesn't suit you.

Some of Our Veteran Workers



ASA MORSE.

Meter Reader—Has served company 37 years. Is also Civil War veteran.



JOHN ALMSTEAD.

Commercial Dept.—30 years of service.



CHARLES SPAHN.

Hydraulic Dept.—29 years of service.



W. J. INGERSOLL.

No. 5 Station—28 years of service.

Some of Our Veteran Workers



GEORGE F. JOHNSTON.
Underground Dept.—27 years of service.



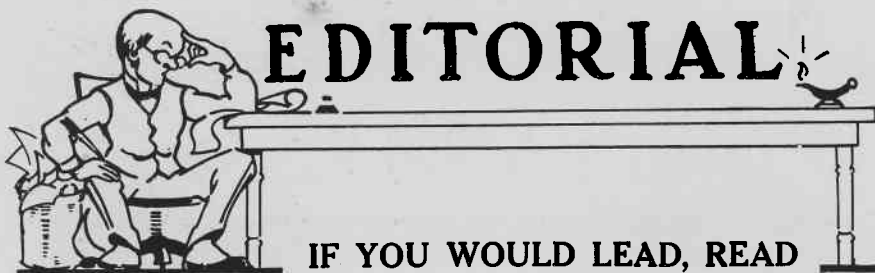
A. J. ELIAS.
Gas Works—26 years of service.



W. J. K. SUTHERLAND.
No. 3 Station—20 years of service.



MICHAEL J. BURNS.
No. 3 Station—20 years of service.



In the June issue we printed a list of more than thirty trade, technical and scientific periodicals and informed our fellow employees of the generous offer of the management to bear one-half the yearly subscription costs of one or more of the magazines or papers mentioned in the list, for any employee desiring to acquire the valuable information such periodicals invariably contain. We believed, at the time, and further reflection has only served to strengthen our conviction, that the offer of the management would prove to be a boon to those of our readers who, having strong within them the desire to succeed, would grasp the unusual opportunity therein presented of acquiring a more intimate theoretical and practical knowledge of the business, without which they can scarcely hope to better themselves materially, or realize their ambitions to become leaders in their line.

To our fellow workmen in the stations, especially, the offer of the management should be thrice welcome. The art in which you are engaged is progressing by leaps and bounds. So rapid is it, indeed, that you cannot possibly keep pace with it unless you persistently read, read,

read. To you, then, do we make our strongest appeal. Think this matter over and think it over seriously. Think of what a valuable circulating library could be maintained at the particular station at which you are employed, if several men should subscribe for several different periodicals, the total expense to be shared pro rata by those men who have signified their willingness to do so, and among whom the periodicals would circulate according to some predetermined plan. Such an arrangement, in our opinion, would make for a liberal education in your chosen profession at a very trifling cost and needs only to be tried in order to prove its worth.

Work for a reputation and it will work for you.

The pessimist, like the jackass, takes no pride in his ancestry and has no hopes for posterity.

The difference between a wise man and a fool is the fool's mistakes never teach him anything.

We, most of us, waste so much time hurrying that we have very little leisure.



If the dressmakers were short of help would the pipe fitter?

The best lightning rod for your protection is your own spine.

You can nag a man into hell easier than you can pray him into heaven.

If it takes an hour to fill a bottle how long will it take to Philadelphia?

The man who can smile in the time of adversity has a mortgage on success.

The Friday morning meetings begin at 11 o'clock. Try and be prompt.

Never are we under so complete self control as when tempted to be generous.

Part of every man's success consists in not letting his failures become known.

The time you can depend on a woman is when you can't depend on anybody else.

It doesn't take long to write the biography of the man who never offended anybody.

The only failure a man ought to fear, is failure in cleaving to the purpose he sees to be best.

Don't let an order leave your department without checking it. If you find a mistake correct it.

Nothing is too high for a man to reach if he climbs with care and confidence. Are you trying to climb?

Read the special articles from our contributors. They are intended to be of educational value to you in your work.

As soon as a man becomes satisfied with himself and with what he has done, he has ceased to improve and has begun to degenerate.

If a thief, hotly pursued by a cumbersome officer of the law, ran through a railroad yard and tarried on the scales, would he get away? Get it?

You have eyesight and hearing and speech. Your limbs are sound. You use your arms and your legs and your hands as freely as ever. What in creation are you wailing about?

When you have an opportunity to "boost the other fellow," why not boost him? Every boost will come back richly laden. The "knocker" is the only one who stands empty handed.

It is singular how impatient men are with the overpraise of others and how patient with overpraise of themselves; and yet the one does them no injury, while the other may work them incalculable harm.

ELECTRIC DEPARTMENT



Mr. Searle gave an entertaining talk on "California" before the annual meeting of the Rochester Engineering Society on June 14.

Messrs. Parker and McDowell, of the engineering department, were in Syracuse, June 19, inspecting some new rotary converters which have been installed by the Syracuse Traction Company.

The Company recently conducted a number of tests with a new flaming arc light for tennis courts on the grounds of the Averill Avenue Tennis Club. It is believed the flaming arc method will be an improvement over the incandescent lights which have been in use on the tennis courts.

The new sub-station which has been established at the Rochester & Lake Ontario Pumping Station to furnish power for the Manitou line was tried out June 16. Manager Wegman of the trolley road has since expressed himself much pleased with the improvement in the service due to the new power station.

The work of substituting electric lights for gas lamps on Kenwood, Wellington and Warwick Avenues has now been practically completed. The new arrangement consists of concrete poles mounted with large

white globes. The new lights are quite an artistic adornment to the above thoroughfares.

It is our pleasure to welcome among us this month three new assistants to Mr. Parker in the engineering department. They are: Charles G. Binder, a graduate in mechanical engineering from the University of Pennsylvania; Howard Harding, graduate in electrical engineering from the University of Michigan, and R. A. Lander, a graduate in the same course from Cornell University.

The Company's May report of the city's lighting system shows that decorative lights on the streets are on the increase, there being 4 per cent more in use this year to date than for the same period last year. The report of the power department also shows an increase for the month. If the increase is maintained the city will be using twice the power it was using January 1st last.

The Company has installed a new charging station at Canandaigua for the use of the Company's electric vehicles. The new charging equipment will be placed at the disposal of our customers and patrons. There are more than 700 electric vehicles in the city, and the Canandaigua charging station will prove a welcome convenience to the owners of electric autos.



A new automatic fire sprinkling system has been installed throughout the Front Street plant. The new equipment is of the most modern design.

Figures compiled by the Commercial Department show that the Company has sold 17 per cent more water heaters to date in 1912 than for the same period in 1911.

Superintendent Frank Hellen has had a new "Medina block" pavement laid at the Front Street entrance to the gas shop. The new pavement is quite an improvement.

The new garage, or barn, which has been in course of construction at Front Street is rapidly nearing completion. When ready it will be used for the repair of all the Company's autos and trucks.

"Willie" Spears is spending the summer at the lake near Island Cottage. "Willie" informs us, however, that he finds Grand View Beach very a-t-t-r-a-c-t-i-v-e. What's her name "Willie."

Plans have been completed for the laying of a new gas main from the city line to Summerville, which will supply the cottagers at Windsor, White City and Summerville. The work of extending the main will begin shortly.

June and July are the two quiet months in the gas street department.

"Sam" Andursky, who has been employed in the office of the gas street department, will leave next week to take a course in electrical engineering at Syracuse University. "Sam" is a real good fellow, and he goes away with the best wishes of all for a successful term.

Charles Rawnsley a Hero

Charles Rawnsley, of the gas shop, rescued two men from the Erie Canal at Caledonia Avenue bridge on the evening of May 27. When the bridge was up to allow a small motor boat to pass, an auto containing four men dashed into the canal; while the men were floundering about in the water, Rawnsley, without divesting himself of his clothes, jumped in, and promptly rescued two of the men. The third man was pulled out by another plucky individual, while the fourth man unfortunately lost his life.

Mr. Rawnsley's fellow workers in the gas shop are so proud of his act of bravery, that they have taken steps to obtain him a Carnegie medal for saving human life. This is a very commendable act in itself, and GAS AND ELECTRIC NEWS is very much in accord with the plan. We are sure that "Charlie" deserves a medal for his heroism, and we wish to take this opportunity of congratulating him.



With his customary, and friendly greeting of "Hello, Fellows," Mr. Searle made his first appearance, after three months' absence, at the Friday morning meeting, June 14. Needless to say he received an enthusiastic welcome, and in acknowledgment expressed his great pleasure at being back once more in Rochester, and particularly among the men of this organization. He said that while in Portland, Oreg., he had met Mr. Lines, a former employee of this Company, who sent greetings to all his old friends in Rochester.

Mr. Searle's principal remarks at the meeting were confined to the need of keeping track of little economies. In his long trip in the west he had gathered many helpful ideas, which he intended to impart in his talks at future meetings.

Requested by Mr. Searle, R. S. Murray, assistant treasurer of the General Electric Company, who was a visitor at the meeting, addressed those present. Mr. Murray said he was much impressed with the meeting, and it seemed to him that it was a very useful and splendid thing to bring the men together for exchange of ideas.

Commenting on Mr. Murray's remarks, Mr. Searle said the Friday morning meetings, or "The Mothers' Meetings," as they were called, were a clearing house of ideas. Not only were the meetings intended, he said, for an exchange of ideas, but they were open also for criticism, and even the officers would be glad to come under the head of criticism.

Referring to this magazine, Mr. Searle said a gentleman had come to him that morning and asked him for a copy of the Company's magazine. Looking it over he said to Mr. Searle:

"This is a very good idea of yours, Mr. Searle."

"I replied, you are entirely mistaken. This magazine is the work of our men, and it is our Company's men who are back of it. I want you to get out of your head that this Company is a one man organization."

Concluding, Mr. Searle said that, while in San Francisco, he had the pleasure of meeting Mr. Jackson, proprietor of the Portland, Oregon, Journal. Referring to the Rochester Chamber of Commerce, Mr. Jackson said: "Searle, you have the best Chamber of Commerce in the country." The Portland, Oregon, newspaper proprietor was prompted to make the above remark, because of a number of copies of the Rochester Chamber of Commerce Bulletin which had found their way into his hands.

At the meeting Friday, June 21, the question of placing suitable reading matter within reach of the Company's employees was discussed by Mr. Searle, who presided. He said a great many magazines, books and other publications found their way from month to month into his own waste paper basket, and also into that of Mr. Hutchings. He invited suggestions as to how all these various publications might be preserved

and placed conveniently within reach of employees.

Mr. Nolan suggested that such magazines be placed on the table where the Safety Committee meets, and the committee look them over and then recommend where they might be sent to do the most good. The matter was finally left for further discussion.

N. E. L. A.

The regular monthly meeting of the Company Section of the National Electric Light Association was held in the directors' room, 34 Clinton Avenue North, Thursday evening, June 13, about sixty members being present. The meeting was called to order by Mr. Fisher in the absence of President MacSweeney and Vice-President Haftenkamp, who are attending the N. E. L. A. convention at Seattle.

Mr. Parker gave a very interesting talk on the construction of a motor, dealing particularly with the old Edison bi-polar type of machine, during which a number of questions were asked by the members present.

Mr. Russell followed with an instructive talk on the analysis and testing of gas. He gave several demonstrations of the manner in which the quality, heating value and candle-power of gas is tested at the works. Great interest was taken by all present, and a number of questions were asked while the tests were being made.

On motion of Mr. Hellen, seconded by Mr. Schick, a rising vote of thanks was extended to Messrs. Russell and Parker. The meeting was then adjourned and refreshments were served.

Mr. Fisher announced that the next meeting would be held on the 12th of September, there being no meetings during the summer months.



"The mystery of the line department:" Who stole Andy's little crow-bar? Andy would like to know.

Since V. Hoddick planted sawdust on his lawn for grass seed he has had a corner on the lumber market.

Eddie Gosnell is now reading the "War Cry." This we consider to be a hopeful sign.

Frank McNamara of the information counter spent his two weeks vacation last month in painting his new house on Benedict Place.

Since last month the stork has also paid a visit to the home of "Bill" Skuse of the gas street department. "Bill" is now the father of a fine baby girl. Again congratulations.

"Ed" Warner, of the gas shop, otherwise known as the "golden voiced singer," spent the last week of June in the Adirondacks. Hope you had a good time "Ed."

The new awning in front of the Clinton Street offices has been the object of much pleasing comment. It certainly adds to the outer appearance of the building.

When will the picnic be held, and where? is the question being asked in all departments. Next month we hope to have something about the big annual event.

Fourteen girls of the accounting department had an enjoyable outing at Maplewood Park on June 5. They brought dainty lunches with them, and all declare they had a real good time.

"Pop" Dowd has a new red-headed coachman who drives him down each day to the Front Street shop. Said coachman is "Pop's" four-year-old grandson.

Frank Yatteau, of Mr. Nolan's department, spent one week of his vacation last month painting his residence. Neighbors say that Frank is a real artist.

Let the man who owns an automobile and happens to be hard up, beware! "Bill" Brown has a new garage, and a pile-driver has nothing on him when it comes to driving a bargain.

J. V. Fassanella will move into his new home on Clay Avenue sometime this month. Jimmie says he expects his four months son and heir, James, Jr., will be able to walk down to the new abode.

Mr. MacSweeney returned, June 20, from Seattle, where he attended the N. E. L. A. national convention. He had many interesting things to say about his trip across the continent, which he says he enjoyed immensely.

Owen McHugh of the line department became the proud father of an eleven pound baby girl on Sunday, June 9th. This is the fourth appearance of the stork in Owen's home in recent years. Mr. McHugh, allow us to offer you our best congratulations. May this not be the last visit of the stork.

William Brown, the famous, has just built a new garage at the rear of his residence on Clay Avenue. "Bill" has the garage but no machine to adorn the roomy interior. "Bill," get a machine. Jimmie Fassanella says he will buy the gasoline if you will take him back and forth to the office each day. How about it?

Mr. Sanderson, of Mr. Nolan's department, has passed his examination and qualified as a chauffeur. The only criticism that the examiner made was that Mr. Sanderson rang his gong too much. We shall now exercise greater care when crossing Clinton Avenue North and Main Street.

Our friend Edward Gosnell had a narrow escape last month when an auto in which he was riding with some friends collided with a tree near Batavia. "Ed" was en route to the Grotto convention at Columbus, Ohio, when the accident happened. We are sorry his trip was cut short, but glad "Ed" escaped without injury.

From the "Convention Daily," published during the N. E. L. A. convention in Seattle, we clip the following surprising bit of news: Hotel registrations: Yawger, Thomas H., Rochester Railway & Light Co., Rochester, N. Y., Hotel McFarland; Yawger, Mrs. T. H., Rochester, N. Y., Hotel McFarland. Mr. Yawger, will you kindly enlighten us on the above?

The Misses Florence Asart, Mary M. McCleery, Florence L. Yorkey, Anna Howe, Margaret Lennon, Mina Stroh, Julia Schlegal, Amelia Harold, Irene McDermott, Adelaide Geen and Mrs. K. Myers had a quiet little picnic to a retired shady nook one Saturday afternoon last month. We know they had a good time because they are a jolly, happy bunch of girls.

Mr. Searle returned, June 10, from California, where he spent three months investigating power and lighting conditions for various interests in New York City. Needless to say our genial Vice-President received more than a hearty welcome

from all his associates at 34 Clinton Avenue North. Mr. Searle was accompanied on his long trip by Mrs. Searle, and together they traveled more than 3,200 miles throughout the Golden State.

Edward Gosnell, who had such a narrow escape in an auto smash-up early last month, had another mishap on June 17 as he was going in an auto to attend the conclave of the Masonic order at Elmira. First of all the car would not start; then, when it did, one of the tires burst. "Ed" was in a real bad fix until a mechanic came along and operated on the car. There must be a "hoo-doo" after "Ed."

Valuable papers found and returned to owner before owner knew that he had lost them.

The puzzle in last month's issue was correctly solved by Mr. Gould of the draughting department, who sent us in a sheet of figures with the problem worked out, showing the answer to be \$5. Very good, Mr. Gould, we shall submit all our financial problems to you in future.

The longest solid electric sign in Rochester has just been erected at the Fahy Market on Andrews Street. It is 145 feet long and 3 feet wide. It reads: "Fahy's Market Choice Meats, Poultry and Game." This big new sign was installed under the direction of Mr. L. W. Layman.

How it Really Happened

The Prodigal Son,
With a beautiful bun,
Came home for the fatted calf,
But the Prodigal Dad
Was a stingy old lad
And gave him the fatted laugh.

Entertained Meter Readers

C. G. Durfee entertained the Rochester Electric Meter Men's Association to a lawn party and dinner at his residence, 1413 Lake Avenue, on the evening of June 20. The spacious grounds around Mr. Durfee's residence were beautifully illuminated with 450 red and white lamps. Forty guests sat down to a fine dinner, and altogether Mr. Durfee proved himself a host who can surprise, please and entertain. We were not there, but we heard about it.

A Message from the Clouds

Pike's Peak Summit, Colo.,

June 24, 1912.

Rochester Railway & Light Co.,
Rochester, N. Y.:

Greeting to all from Pike's Peak—
last stop between earth and heaven.

SCOBELL, DEWOLFF.

Chorus: What shall the harvest
be?

Honesty

Some people think the old adage, "Honesty is the best policy," is a joke, but it isn't. A reputation for honesty is a real asset. And honesty is a democratic quality that is within the reach of all. For rich or poor, old or young, it makes success easier to attain. The errand boy who can be depended upon gets the first chance at the more responsible position. If John Wanamaker today had nothing but the reputation for fair dealings which he has established he could quickly build up a business on that alone where others with capital and tricky methods would fail. The world is looking harder than ever for honest men. And people are finding out it pays.



AMONG OUR EXCHANGES

Rochester

The hard winter caused some trouble with the gas mains of the local railway and light company and as a result there will be many repairs necessary this spring. Last winter frost penetrated to a depth of, in some cases, four feet, a distance not heard of in this section for some time, and a large number of mains upon which many sections depended for service were but ten inches from the surface of the ground. Hereafter the mains will be laid below the frost line.—Gas Industry.

Shocking!

The National Electric Light Association "Question Box" is asked if any member has been successful in securing power in laundries. If more power is sold to the average laundry, speaking for ourselves, the editorial force of this paper will have to seek refuge in overalls and jumper. Our newest negligee has shown a dangerous difference of potential between the primary and secondary "terminals," its dynamic force is well nigh spent, and it has the appearance of having been "shocked" beyond resuscitation.—Power, April 9, 1912.

Great is Electricity

The other day the faithful old gas engine that has furnished "The Journal" with power for sixteen years, laid down on the job. Doctor David Bowers, who had cured its few ills during its long service, was summoned and diagnosed the trouble as a broken crankshaft, requiring at least two weeks for repairs. That

meant a change of power to electricity and a hurry-up call for help was sent by telephone to Superintendent J. S. Johnston, of the West Penn Electric Company, while Roy Lentz removed the remains of the engine as scrap to his foundry for only a few more cents than the machine cost in dollars.

In less than an hour an electrical engineer was here making the necessary measurements and was followed the next day by Robert Sullivan and his men installing a big Westinghouse motor on the old foundation. A few days later Bob was back and connected up a Kimbel variable speed motor in the job department, so that "The Journal" is equipped right up to the minute.—Mount Pleasant, Pa., Journal.

Looking at the Bright Side

Cheerful results do not dissipate a pessimistic atmosphere, and attempts to boost business, when it shows a tendency to sit quiet, rarely succeed. There is no artificial way of restoring the public confidence. It is true, nevertheless, as several wise business men have lately said, that hard times are often states of mind rather than states of trade; and it may be suspected that the present depression of business is due, not only to the political uncertainties, but also to the state of mind of the country. The movement to establish the Optimist League of America may not succeed, and if it should succeed may not accomplish its end; but the circular of information which it sends out contains some facts which ought to be kept in plain view—facts which are constantly obscured by isolated tales of scandal and crime in which the newspapers abound. The Optimist League calls attention to the fact that ten thousand bank cashiers have done their work faithfully for periods ranging

from ten to twenty-five years—this is a fact to keep in mind whenever a defalcation occurs; that twenty million married people in this country were not divorced last year; that eighty million citizens have not committed suicide, and that every week ten million people make railway trips in safety. Diogenes is now going through the country with a lantern in his hand, not because he is an old cynic, but because the times cry out for light; but it must be remembered that it is the exceptional and not the average man whose rascalities will come into view.—Outlook.

Moving Picture Advertising in Leavenworth, Kansas

The Leavenworth (Kansas) Light, Heat & Power Company reports a very profitable experience with moving-picture advertising, a film entitled "Every Husband's Opportunity," having been loaned to them by the General Electric Company. The film was 1,100 feet long and pictured the use of the modern electric household devices, under conditions sufficiently humorous and entertaining to hold the interest and win the enthusiastic approval of the audience.

The film was put on at two performances, and the manager of the vaudeville theater reported that altogether fully 1,500 people saw it. The charge he made for exhibiting the film was one cent per foot, or a total of \$22 for both performances.

The Leavenworth Light, Heat & Power Company arranged with an enterprising local contractor to run his advertisement with the film, for which he paid \$15. The net cost to the central station, therefore, was only \$7 for advertising these household applications of electricity to 1,500 possible prospects.

What a Cent's Worth of Electricity Will Do

It will operate a 12-inch fan for 2 hours.

It will operate a sewing-machine motor for 2 hours.

It will keep a 6-pound flatiron hot for 15 minutes.

It will keep an 8-inch disk stove hot for 8 minutes.

It will make four cups of coffee in an electric coffee percolator.

It will drive the electric clipper while shearing 2 hours.

It will pump 250 gallons of water 100 feet high.

It will raise 10 tons 12 feet high with an electric crane in less than one minute.

It will raise a large passenger elevator five stories a minute.

It will brand electrically 150 hams.

It will heat an electric curling iron once a day for two weeks.

It will keep a glue pot hot for an hour.

It will run an electric pianola for one hour.

It will vulcanize four automobile tire patches.

The Small Motor in the Business Office

The small electric motor finds a great variety of work to do in the business office. Among the most common applications are the following: Driving typewriting machines, time stamps and desk punches, phonographs for correspondence, letter copying presses, envelope sealers, letter folding machines, addressing machines, cash registers, coin counting machines, adding and tabulating machines, pencil sharpeners, fans, erasers, envelope opening machines, and ventilators.

Just Jokes

"Here," said the editor. "You use too many words. You say, 'He was poor but honest.' You have only to say that he was honest."

"Again, you say, 'He was without money and without friends.' Simply say that he was without money."

"Mr. Cleaver, how do you account for the fact that I found a piece of rubber tire in one of the sausages I bought here last week?"

"My dear madam, that only goes to show that the motor car is replacing the horse everywhere."—Diamond.

A North Carolina negro was brought out on the gallows to be hanged for murder.

"Henry," said the sheriff, "have you anything to say?"

"Yas suh," said the condemned man. "I'se got a few words to say. I merely wish to state dat this suttin' is goin' to be a lesson to me!"

A school teacher once received a note like this:

"Dear Mum—Please excuse Johnny to-day. He will not be at school. He is acting as timekeeper for his father. Last night you gave him this ixmple: If a field is 4 miles square, how long will it take a man, walking 3 miles an hour, to walk $2\frac{1}{2}$ times around it. Johnny ain't no man, so we had to send his daddy. They left early this morning, and my husband said they ought to be back late to-night, though it would be hard going. Dear Mum, please make the nixt problem about ladies, as my husband can't afford to lose the day's work. The Lord knows I don't have no time to loaf, but I can spare a day off occasionally better than my husband can.

"Respectfully yours,
"Mrs. Jones."

Life is a Funny Proposition

Man comes into this world without his consent and leaves it against his will. During his stay on earth his time is spent in one continuous round of contraries and misunderstandings by the balance of our species. In his infancy he is an angel; in his boyhood he is a devil; in his manhood he is everything from a lizard up: in his duties he is a damn fool; if he raises a family he is a chump; if he raises a small check, he is a thief, and then the law raises the devil with him; if he is a poor man, he is a poor manager and has no sense; if he is rich, he is dishonest, but considered smart; if he is in politics, he is a grafter and a crook; if he is out of politics, you can't place him as he is an undesirable citizen; if he goes to church he is a hypocrite; if he stays away from church, he is a sinner and damned—if he donates the foreign missions, he does it for show; if he doesn't, he is stingy and a tight-wad. When he first comes into this world, everybody wants to kiss him—before he goes out they all want to kick him. If he dies young there was a great future before him; if he lives to a ripe old age, he is simply in the way in living to save funeral expenses. Life is a funny road, but we all like to travel it just the same.

The chemistry class of the East High School, accompanied by its instructor, Miss Jane Hannah, inspected the gas works one day last month. The youthful visitors were shown through the entire plant by Assistant Engineer Harold Meefus.

Cheerfulness is the daughter of employment. I have known men to come from a funeral in great spirits, just because they had the management of it.