

# GAS AND ELECTRIC NEWS

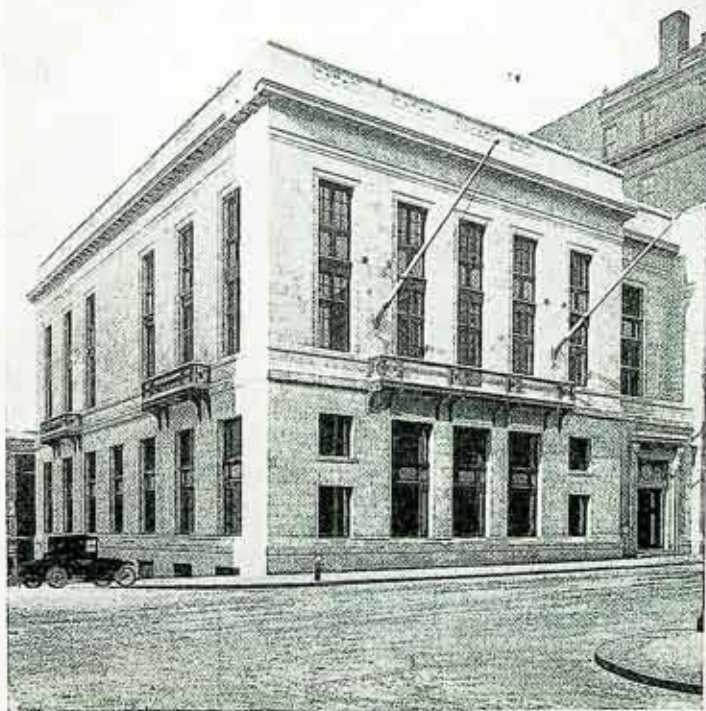
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JANUARY 1918

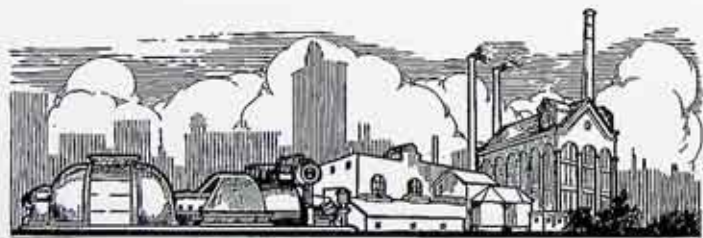
No. 7



Rochester Chamber of Commerce Building

I LOOK ON THAT  
MAN AS HAPPY  
WHO, WHEN  
THERE IS A QUES-  
TION OF SUCCESS,  
LOOKS INTO HIS  
WORK FOR A RE-  
PLY, NOT INTO  
THE MARKET, NOT  
INTO OPINION, NOT  
INTO PATRONAGE

—EMERSON



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## The Company's Senior Vice-President Granger A. Hollister

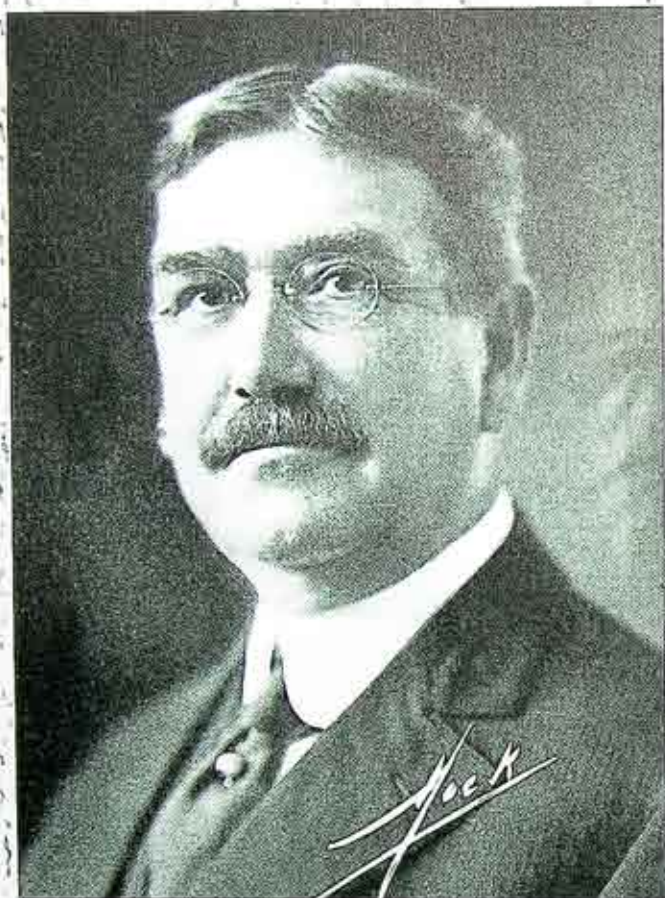
AS THE Rochester Railway and Light Company enters upon its latest and we trust most successful consolidation, Gas and Electric News seizes with pleasure the opportunity of presenting to its readers a brief sketch of the Company's Senior Vice-President, Mr. Granger A. Hollister, who has been largely instrumental in this among many other very desirable accomplishments.

It is a matter of particular pride to us that Mr. Hollister owns Rochester as his "Home Town," having been born in the "Flower City," December 7th, 1854, and having spent his entire life in Rochester. His father Emmett H. Hollister, was born in Rochester in 1829, and his mother, Sarah E. (Granger) Hollister, was a daughter of Austin Granger, one of the pioneers of Troy, New York. The first ancestor, John Hollister, in this country came here from England in 1640, settling in South Glasstonbury, Conn. His descendants largely remained in New England until early in the nineteenth century, when George A. Hollister (grandfather of Granger A.) moved to New York, and in 1826 became a resident of Rochester. Granger A. Hollister is therefore a descendent of the pioneers who launched this country upon its successful course, and has the logical background, to which he has added depth and color, of a familiarity with and adherence to

business principles of stability and integrity.

Mr. Hollister was educated in private schools of Rochester, but in his nineteenth year (following his father's death) he left school to carry on his father's lumber business, and with his brother, George C., and mother formed a copartnership under the style of Hollister Brothers. This firm continued until 1888, when the Hollister Lumber Company, Limited, was incorporated. The corporation was capitalized at \$125,000.00, with Granger A. Hollister as President, George C. Hollister, Vice-President, H. C. Durand, Treasurer and Secretary.

Mr. Hollister is widely known for the part he has taken in the development of the local lighting and traction companies. He was one of the organizers of the Edison Electric Illuminating Company, which was incorporated in 1886. In 1892 he and his associates bought all of the stock of the Rochester Electric Light Company, and a controlling interest in the Brush Electric Light Company. Subsequently an interest in the Rochester Gas Company was obtained, and a consolidation of all four companies into the Rochester Gas and Electric Company was effected. The Clark-Hodenpyl-Walbridge Syndicate, which owned the control of the Rochester Railway Company, acquired a substantial interest in the Rochester



*Granger A. Hollister*

VICE-PRESIDENT

ROCHESTER RAILWAY & LIGHT COMPANY

Gas and Electric Company, and with the active co-operation of Mr. Hollister, the Rochester Railway and Light Company was organized in 1904, and the lighting and traction interests in the city were consolidated. Since 1904 Mr. Hollister has been active in the management of the various companies, as Vice-President and Director of the Rochester Railway & Light Company, Ontario Light & Traction Company, Canandaigua Gas Light Company, Eastern Monroe Electric Light & Gas Company, Rochester Electric Railway Company, and as a Director of the Rochester Railway Company, now New York State Railways, a consolidation of all New York Central Railroad Trolleys between Rochester and Albany.

While his connection with the lighting and traction interests of the city is important, he is more widely known through his association with the banking and financial interests of Rochester. In January, 1886, he was elected a trustee of the Rochester Savings Bank, and is at present First Vice-President of the institution. He was one of the incorporators, in 1892, of the Security Trust Company, of which he was Vice-President and the first Manager, and is now Vice-President, a trustee and chairman of the Executive Committee. Following the death of Hon. Frederick Cook, he acquired from the estate all of its stock in the German American Bank, and was a factor with the late Eugene Satterlee and W. B. Duffy in effecting the consolidation of the German American Bank, the Flour City National Bank and the Commercial Bank into what is now the Lincoln National Bank of Rochester, and for a time thereafter was Vice-President, but sold his interest and retired in 1908. Mr. Hollister was elected a Director of the New York Life Insurance Company in June, 1907, and is also a

member of the Executive Committee.

Mr. Hollister was one of the first Board of Trustees of the Chamber of Commerce, and was recently elected President of this representative institution for the year 1918. Mr. Hollister's sagacious and broad business experience, coupled with the fact that he is a member of the Board of Directors of the Chamber of Commerce of the United States of America, peculiarly fits him for his new duties, during the nation's critical period. He is a member of the Genesee Valley Club and the Country Club of Rochester, and numerous charitable institutions of the city have him upon their management. In spite of the many calls on his time through his many business connections he finds time to take an active interest in church and other work. He is President of the Board of Governors of the Homeopathic Hospital and is active in all its affairs.

A citation of cold facts regarding the successful career of one of the Company's big men, must necessarily disappoint those who know Mr. Hollister personally, as it fails to present in true perspective those qualities of real manhood which character and culture have welded into a rare combination of strength and kindness, dignity and friendliness. Mr. Hollister is personally known by many of the Company employees, and is also known by all as a member of that famous staff, "The Management," who have set a shining example of the workableness of the policy of the "Square Deal."

The world war is teaching us, too, among many other things, the worth of character and the power of money. Our Senior Vice-President exemplifies the former and directs the latter. It is a unanimous wish of this Company's employees to emulate him, to give him loyal support and to desire for him ever greater successes.

## The New Dam at Littleville

FRANK P. CARTWRIGHT

WORK has practically been completed on the Company's dam at Littleville, New York, which had to be rebuilt on account of the damage caused last summer by unprecedented floods. On the afternoon of June 10, 1917 a cloudburst of great violence occurred over a restricted area between Canandaigua Lake in Ontario County, New York, and the site of the Littleville Power House and Dam, belonging at that

personal risk in partially opening the spillway gates when a large log carried by the flood struck the crest of the dam and broke away a considerable portion of the masonry. The flood increased the size of the break, tore out the old masonry and undermined the spillway thus entirely destroying about seventy-feet of the dam. The water ran over the earth dam to the east, and over both walls of the head race, flooding the power

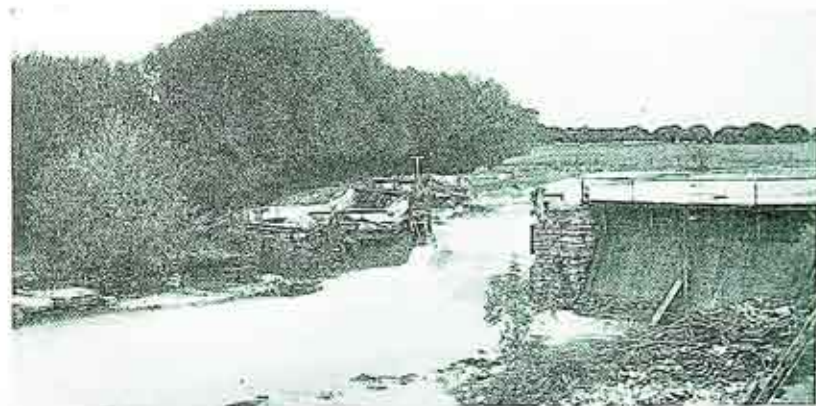


Fig. 1. A portion of the Littleville Dam showing the break which was caused by an unprecedented flood occasioned by heavy rains.

time to the Ontario Light and Traction Company. The power house and dam are situated about six miles from the lake and on the outlet therefrom.

The flood occasioned by the storm was much greater than any previous of which there is record, and even transcended the well remembered experiences of all the oldest residents in that vicinity. The water level rose so quickly in the reservoir that Line Superintendent Edward Parmele, summoned by phone from Canandaigua, had no time to release the flashboards along the crest of the dam. He had succeeded at great

house floor to a depth of about five feet, and soaking the generator. The extreme high water continued for about forty-five minutes, and the stream was at flood stage for several days thereafter.

A section about ten feet long was removed from the head race wall near the power house in order to thoroughly drain the reservoir. After the reservoir was drained, surveys were made under the supervision of Mr. C. M. Whelan to secure data for the plans which had to be made for a new dam. The plans were completed about August 1st and the work in the field was started under the supervision of Mr. Parmele.

The plans for reconstruction originally contemplated the removal of about one hundred and twenty feet of the old structure including the old spillway and the incorporation into the new dam of a section of the old, about thirty-five feet in length. Between this old section and the wall of the head race proper was to be placed the spillway regulated by two Taintor Gates similar in shape and method of operation to those at New Station 5.



Fig. 2. New dam at Littleville under process of construction. The portion shown is the same as in figure 1. The spillway section is at the right but cannot be seen.

On excavating the first one hundred and twenty feet of the old dam, the thirty-five foot length was found to be undermined too much for safety. The new dam was therefore constructed on a slight angle to the old and somewhat downstream, leaving the old portion to be submerged in the reservoir as shown in the accompanying cut. The other features of the original plan were retained and additional emergency flood spillway was obtained by providing three bays of flashboards, 4'6" in height and 34' 1½" long, separated by three-foot wide concrete piers and extending along the whole crest of the main dam.

A timber foot bridge was installed along the entire length of the dam, and the tops of the flashboard posts were attached to the downstream stringer of this bridge so that one man working from the bridge could easily and quickly release the flashboards, thereby providing a spillway capable of discharging four thousand cubic feet per second. This together with the 1,000 cubic feet additional spillway at the Taintor Gates, is expected to easily take care of any flood to which the stream is liable in the future. The elevation of the top of the flashboards and the Taintor Gates is 653 feet, which is the same as that of the high water mark in the old reservoir.

About 1140 cubic yards of concrete were used in the work, of which about 120 cubic yards went into the east wing wall, 740 cubic yards into the main dam, and the remainder was used to repair, point up and raise the head race walls. Work was started on the forms for concrete September 11. The earth dams to the east and west of the concrete structure were raised about two feet and thoroughly covered with riprap, the broken masonry and rock obtained from the old structure being used for the purpose.

The generator was started under two-thirds head about November 7, and was running under full load about November 24, 1917. The Littleville Station has a capacity of 180 K.W. and supplies a considerable portion of the electric power used in Canandaigua, Shortsville and Manchester.

Mr. Parmele and the line force under his direction deserve much credit for the able and efficient manner in which they performed a piece of work somewhat outside their usual duty.

## Women in Business and Industry

MISS KATHERINE PRICE

THERE is a tendency to look upon women in industry as practically a new invention, a twentieth century institution that some of the conservative people very much regret, and in fact hope "we have not come to stay." But as a matter of fact the women have been there since the days of the cave-dwellers; it is only that the place industry occupied has changed as well as grown, that it has been dragged out into the limelight, from the fire-side to the factory. During the process of house-moving there was the wildest confusion on the part of the workers. Always conservative, the women were not ready, although we may ask—Who was ready when Watts began to play with his steam kettle in 1765? Who was able to appreciate Hargreaves' spinning-jenny or Cartwright's power-loom in the 18th century? It looks very much as though only the inventors themselves, for the mobs stormed the old buildings, tore the cumbersome machines to pieces, and often the inventor has to flee for his life. When the suspicious and half-starved workmen were finally persuaded to work with those evil monsters they went to the other extreme, and not only the women of the family but every child down to almost infants was pressed into the system, and used to supplement the family income. One curious law, a survival of that wild industrial life in England, found its way into the life of the New England settlers. It required the employer of the family to hand over, on the husband's demand, all the earnings of wife and children to the man, as the head of the household. This law was finally amended as a result of Mrs. Elizabeth Cady Stanton's first speech before the New York Legislature in 1854, when she demanded that married working

women should have the right to collect their own wages.

The textile industries today alone account for between 300,000 to 400,000 women workers in the United States. A short two hundred years ago we find cotton first making its appearance in the world's market, and strange as it may seem to us, every effort was made to check its use. The wool weavers of Holland, Belgium and England saw the menace and the most pitiful and ludicrous laws were made by those countries to protect the industry of the home weavers. In 1766 an English woman was fined \$400 for carrying a handkerchief of French cambric. Woolen caps were obliged to be worn on Sundays and holidays by all those over six years of age, etc., etc.

To turn to the industrial life of the New World we find the New England States the starting place of that great army of women workers which has now passed the eight million mark. The beginning was very easy and gradual when the New England girl decided to follow her father and brother to the mill when she found her mother's tireless energy sufficient to run the home. To New Englanders the qualities of indolence or ease would never be applied. As MacLean says:—"At that time public opinion frowned on the idle girl and work was considered a crowning virtue; so the factory girl was not commiserated but commended." When Dickens visited the States in 1840 his comment on the factory girls of the cotton mills of Lowell, as compared with the mill-hands of Manchester, England, was that:—"They looked like human beings, and not like beasts of burden." Those "Daughters of Freedom," as they termed themselves, presented a very different picture, with their easy-

Save coal by pulling down the window shades at night. 2½ pounds per person per day means a saving of 125 tons a day for Rochester.

Get the habit!

going long day and their comfortable farm homes to return to, from the immigrant who finally crowded them out of the New England factories. Those first groups of factory hands counted some remarkable women among their numbers. After their twelve hours day's work, they formed literary centres, edited their own magazine, and one of them speaking in 1888 at the International Convention of Women at Washington, said that she entered the Lowell mills as a "doffer" when a child, and added:—"I consider the Lowell mills my alma mater, and am as proud of them as most girls are of the colleges in which they have been educated." It is interesting to note the financial side of those early industrial workers. Most of the women lived in boarding-houses erected by the mill owners. The charge for board including midday meal and laundry was \$1.50 per week. Wages including those of the little "doffers" averaged \$3.75 per week. Weavers, drawing-in girls, warpers and spinners who were expert, could earn from \$6.00 to \$8.00 per week. The thrift and economy of those days will be better appreciated by knowing that in 1841 the girls of Lowell had \$100,000 in their savings banks.

From 1840 on, or the latter half of the nineteenth century, might well be called the "Dark Ages for Industrial Women." The great tidal wave of immigration had set in and from all parts of Europe came women who were eager to accept any conditions, existed on the scantiest fare, and were anxious only to get work. It was not till after the Civil War that reformers began to speak of their visionary schemes for the possible higher education of women. Miss Virginia Penny was one of the first to advocate these radical views in her writings on the trades and professions for women. Her suggestions, given with such serious purpose, seem altogether inadequate compared with twentieth century statistics, but are doubly in-

teresting on that account. She said: "Apprentice 10,000 women to watch-makers; train 10,000 for teachers; make 10,000 good accountants; put 10,000 more to be deaconesses trained by Florence Nightingale; put some thousands in the electric telegraph offices all over the country; educate one thousand lecturers for mechanics institutes; one thousand to read the best books to the working people; train up 10,000 to manage washing machines, sewing machines, etc. Then the distressed needle-women will vanish, the decayed gentlewoman and broken-down governess cease to exist." One of the first attempts to put this into practice was made by Peter Cooper in the institute founded by him in 1859, but not really appreciated to its fullest extent until after the Civil War. In 1884 we read of its first stenographic and typewriting classes which nearly one hundred women attended. Not a very promising beginning to the occupation that in the 1910 Census counted some 263,000 women in its ranks!

From the early life of the Cooper Institute and others of its kind down to the present time is well known history to all. We have today practically all the colleges and free schools of the country open to the girls as well as the boys as a result of the determination of a few pioneer women to obtain admittance to the colleges. Harvard, founded in 1636 for boys waited 200 years before a similar institution of learning (Mt. Holyoke for girls) was founded in 1837. Vassar followed in 1865, and for the last twenty years the problem of the education of women has been how they can assimilate it rather than how they can obtain it.

From 1900 to 1910 the number of women workers increased over 50%, or from 5,319,397 to 8,075,772. The States showing the highest number of women workers are as follows:

	1900	1910
New York.....	672,045	983,686
Pennsylvania.....	431,537	605,436
Illinois.....	294,646	431,356

In the 1910 Census 429 gainful occupations are listed in which women are employed in all but 42. Another point brought out by the Census is that only a very small percentage of women are working for "pin money." Investigation proved that 85% of the women workers are supporting themselves and in many cases others are dependent on them.

Not the least of the great changes wrought by the war is the attitude in regard to woman's work. Lord Balfour says that when England entered the war every man in the trenches was supported by ten persons back of the firing line, and of those ten—two were women. After three years of war seven of these ten people were women. England's 500,000 women workers in munition factories are as necessary in the war machinery as the men on the firing line. From the medical corps to the police force the Allies have recognized a place for women denied to them during years of peace.

Reviewing women's industrial

work in the past and the present day enthusiasm for helping win the war, the predominating characteristic would be quantity rather than quality if it were not for those leaders who stand as exponents of what can be done by education and training. Madame Curie in her discoveries regarding the properties of radium, etc., has a record envied by men and women the world over; Miss Jane Adams, Miss Julia Lathrop, Dr. Katherine B. Davis, Rev. C. Bartlett Crane, Ida M. Tarbell and many others, whose names are household words in America, are all experts in occupations outside the time-honored professions of teaching and nursing. In defence of the women in business and industry, if she needs it, we can quote Ex-President Taft, who with his usual conservative attitude says: "Every girl should be trained to some occupation, which, if followed will make her independent of marriage as a means of support. Business makes a woman self-reliant, not a clinging vine. Work and financial independence are the best possible training for the civic and political responsibilities she may be called upon to assume some day."



W. S. S.

### Stamp Out Prussianism

*"Tell them there is no ground for the heresy that Germany cannot be beaten. Germany can be beaten. Germany must be beaten. And Germany will be beaten."*

—Gen. Pershing

Hasten Victory—Serve by Saving!

**BUY Thrift Stamps  
War Savings Stamps**

## Progress Factors in the Gas Manufacturing Department During 1917

WILLIAM H. EARLE

THE YEAR just closed has written into the gas history of the Company, and in certain respects into gas history in general, a few facts of very important significance. Perhaps the one of widest scope and greatest importance developed with the birth of the year, when on January 1, 1917, the order of the Public Service Commission of the Second District of New York State abolishing the old candle power standard and establishing the heat unit as the quality standard for manufactured gas, became virtually effective. After years of investigation, co-operative between the Commission and the gas companies of the state as represented by the Empire State Gas & Electric Association, the change in standard came at a most opportune time. The steadily increasing cost of all commodities entering into the production of gas (to a certain extent, only inferior oils and coals were available at any price) had so emphasized the burden of the out-worn candle power standard that its maintenance would have been practically impossible without general rate adjustments, especially for the smaller companies.

The second development of prime importance locally came nearly twelve months later. The first charge of gas coal was put in at the new West Station plant on December 27. Just how great the significance of the opening of the new plant is the future alone will show. However, it is certain that it marks another swing in the pendulum of the Company's gas progress. The gas department began its development of water gas manufacture about twenty years ago, and its expansion has been entirely in that field until technical ingenuity, devising new and vastly superior methods

for the carbonization of coal, and economic reactions, have reversed matters and turned the Company back to coal gas production on a major scale. The new plant represents the last thought, not only in its technical aspects, but also in those features which mean high grade working conditions for the benefit and conservation of its man power.

A third feature of the year's developments came intermediately between the other two, viz: the introduction of processes for the extraction and recovery from the gas of light oils, primarily the benzols and toluols, the latter being essential to the production of modern war munitions. Not, however, until the government had aligned itself actively as an agent for the overthrow of Prussianism, did the management negotiate this step. But aside from the immediate needs of the war department, these processes are finding a rapidly enlarging field in American industrial progress, and are turning into economic industrial channels a wealth of products which have heretofore been wasted, or at least most extravagantly consumed. This further emphasizes the importance of the change in gas quality standard, for the maximum progress in these directions is impossible under the candle power requirements.

Aside from these "high spots," a few items of the year's "Log" are prominent. The general labor situation has been harassing, as it has everywhere, and the rate has been high. Incidentally, this has resulted in a considerable increase in minor accidents. The shortage of materials and transportation difficulties have seriously menaced production at times, especially during December, when on one day the gas oil stock was reduced to 79,000 gallons, scarcely equal to

three days normal consumption. Existing accumulations of raw materials have been almost entirely exhausted. Ten thousand tons of gas coal have been withdrawn from the accumulations of years, half of it going as boiler fuel to relieve coal shortage at Station 3. The balance has been carbonized at the plant or used during the construction of the new plant. Six hundred thousand gallons of gas oil were withdrawn from storage on the west side of the river, in order to release that tank for the service of the plant. And a stock of 2500 tons of gas coke has been reduced to about 500. The Company is ever looking after the interest of its consumers. Prior to the war it could have operated its plants for a long time should it have been cut off from supplies for some reason. War conditions, however, have imposed exceptional difficulties which cannot be surmounted as readily as they can be during peace times.

No construction work of any magnitude has been undertaken at East Station, although one small job has been highly gratifying in its results. That is, the new overhead steel flue connecting two 250 H. P. boilers to the chimney, and cutting them off from the old, circuitous, choked, and crowded underground flues which were designed many years ago. Thus by an expenditure of about \$3,000.00 the effective boiler capacity has been increased equivalent to the addition of a 300 H. P. boiler, or nearly 25%. The capacity of the two boilers has been raised from 100 H. P. each to a fair average of 250 H. P. each, their actual rating, or a gain of 150%. The efficiency has also been increased from an evaporation factor of 4 pounds of water per pound of coal to an average of not less than 7 pounds of water, or an efficiency increase of 75%.

The production capacity of the plant has been taxed at times. The gas load for the year shows an increase of 16.3% over 1916, with a

maximum gain for any one month of 23.9% in August and a minimum of 8.2% in September.

For the third time in eleven years the peak load failed to materialize on December 24. This year it occurred on December 10, with a send-out of 7,724,000 cubic feet. Moreover, the peak does not stand out as prominently as usual this year, for on Dec. 21 the Company sent out 7,720,000, on Dec. 24, 7,710,000, and on Dec. 28, 7,702,000. During the food conservation or canning campaign, the send-out was 7,609,000 cubic feet on August 28th, 7,562,000 cubic feet on Sept. 6 and but 7,477,000 cubic feet on Oct. 19. During the entire month of December the gas send-out dropped below 7,000,000 cubic feet on only six days.

The apparent increasing stability of demand is further evident in the Send-out Ratio for the year which attained the excellent figure of 291. This ratio is the quotient obtained by dividing the total production for the year by the maximum daily send out. Eliminating Sundays and holidays, which will always produce valleys in the demand curve, it is apparent that a ratio of 300 would be practically ideal, signifying a very steady demand throughout the active days of the year. The table given below shows these details from 1907 to date.

Year	Max. Date	Daily Send-out	Total Annual make	Ratio
1907	12/24	3651 M	882,826 M	241
1908	12/24	3948 M	1,019,095 M	258
1909	12/24	4602 M	1,123,125 M	244
1910	12/24	4761 M	1,265,133 M	266
1911	12/12	5094 M	1,368,447 M	268
1912	12/24	5527 M	1,523,706 M	276
1913	12/24	5872 M	1,595,468 M	272
1914	12/24	5778 M	1,660,835 M	288
1915	12/24	6197 M	1,688,578 M	273
1916	9/15	7191 M	1,933,557 M	268
1917	12/10	7724 M	2,247,655 M	291

If you have been acting like a mummy, prove that you are a live man. Observe! Read! Study! Adapt!

# GAS AND ELECTRIC NEWS

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Vol. V JANUARY, 1918 No. 7

## Preparedness for What? for Service!

WE are living in martial times, times much different from what most of us expected. How often one in the course of conversation hears the expression, "Well, I thought that wars were over." And now, when the grim fact of war is with us, when we hear the tramp of armed men, when our associates in business don the uniform, when those of us who stay behind actually begin to feel the spirit of the times, then and not until then do many of us sense that SERVICE always requires PREPAREDNESS.

The strongest of the Pagan Writers, the Biblical Prophets, the Medeval Teachers and the Modern Leaders of thought have endeavored to teach humanity the Gospel of Being Ready. Is anyone so uninformed that he never heard about the most thorough example of Preparedness that the

world has ever seen—The German Military Machine? Organized for unworthy ends, as we who believe in justice know, its temporary success is a vindication of a method which has been put to ignoble uses, and as the other nations, including our own, struggle feverishly to overcome the handicap put upon them in this war by the false prophets who for the sake of popularity counselled easy going policies, can we not as individuals learn from this struggle something more from the Book of Life to make our individual part in it more productive for ourselves?

If we prosper as individuals, the community and the nation prosper also. The soldier and sailor depend upon the ranks of industry at home for food, clothing and munitions. The war takes millions of our best producers of the necessities of life out of industry and industry must work up others to take their places. This means opportunity for trial and advancement in hundreds of thousands of cases, for men and women who in the ordinary course of events would never have had a chance as good. In hundreds of cases the new recruits in industry have latent or sleeping qualities of initiative, perseverance and reliability which under the new stimulus will flash into action, and in many cases these new comers will, through application, supercede others of longer experience. So too, the unusual demands of the times will reach many who, while they may remain in their places, have been living in ruts and will call forth from them an unusual interest in their business and a corresponding advancement for themselves as a reward for their increased activity and ability.

Let us prepare ourselves for service by an increased interest in our daily work. If we look around us, we will observe who it is that gets promotion in the company we work for, or in the army unit with which we are best acquainted. It is always the man

who knows most about the work to be done, or who has been so efficient in the work which he has been doing that he is given credit for push enough to quickly learn a new job. Preparedness to handle bigger things is automatically obtained by thoroughness in doing things now, by acquiring habits of punctuality and observation, by learning why today's job requires such and such procedure, by knowing something more than one is required to know to get a job or keep from getting fired. Prepare yourself for better service so that when your chance does come, it will not find you sleeping.



## Your Savings Account

HOW about that Savings Account? Have you started it? Are you keeping it up? Times are strenuous with rising prices, but they will be higher before the war is over, and the savings account may come in handy. Save your money. It is your best friend. A dollar will always work for you and when you spend it you have spent the interest or income on \$25.00 for one year. Think of money as interest, and it will help you save. That \$5.00 which you "Blew in" to have a good time was the income on \$100 for a year. Ten cents extra cigar money every day is \$36.50 a year, and would buy many a man some new clothes which he needs but thinks he cannot afford. Just surprise yourself by doing a little figuring on your own opportunities for saving and try it for one year.



## The E. B. A.—What Does It Mean to You?

THE Bible says that "In the midst of life we are in Death," and every little while some happening brings home to us the uncertainty of all human affairs. Professor Seligman, the economist, says that "Insurance is a device to remove the economic

consequences of uncertainty." The definition is worth reading twice. As a matter of fact, only a few people do not believe in insurance. Many people, however, like to postpone taking out their own insurance, under the mistaken notion that it is a particularly intellectual and moral variety of gambling, in which they have proven themselves adapts so far.

If you, reader, happen to be one of these, stop kidding yourself, for you neither deceive nor convince anyone else. The E. B. A. offers the cheapest insurance obtainable by Company employes. If you haven't got it, you need it, this being one of the few things over which there can be no argument.

Go to the telephone and ask the Paymaster about it now.



## Starting the New Year Right

HEALTH suggestions are always in order for the reason that while good health is nature's greatest gift, there is an appalling amount of ill health in the world because of every day neglect.

The rules for good health are simple, and if not well known can be easily secured. Begin the New Year right. Treat your body with the respect it deserves, as an exceedingly intricate and well made piece of mechanism. Take a pride in its smooth running, as you do in the fine performance of the machinery under your care. Clean it, feed it, keep it warm and comfortable, give it fresh air and exercise. Do not overwork it, or poison it or abuse it in any way. Watch out for accidents which maim, disfigure, disqualify and destroy. Everything in the world is secondary to good health—everything—Just get that and act on it every day you live. Health means more than keeping out of a sick bed, it means that vitality and "pep" which helps to win in the game of life, with enjoyment while winning.



Company B, 104th Inf.,  
26th Div., A. E. F.,  
Nov. 17, 1917.

Dear Brother and Sister: Received your fine letter yesterday and I sure was glad to get news from the States. It was the first letter I had received in six weeks or so. Our mail is delayed a lot. I guess U-Boats get some of it, but believe me G. B.'s fleet is getting lots of U-Boats and she isn't advertising it. I know.

We are billeted in the barns and houses of a small town in France. One of my mechanics, who is my chum, captured a room with a foot of dust and hay on the floor and no roof to it. We cleaned it out, got some tar paper and put a roof on it. We have "some" home now. My chum's name is Andrew Tilly. He's about 30 years old though one would judge him to be 25 or so. He's comfortably fixed in civil life and is a clean lad of steady habits. He's my right hand man and a good one too. Lots of mud in this country and also much rain and mist fall. Pretty scenery about here. We have raw weather and getting up mornings is cold work.

Our trip across was fine. Practically no rough weather and few were seasick. I was not one of the few. We were in Southampton, England, a couple of days but could not get a pass to visit Chippenham, which is only 70 miles from there. Saw quite a few Boche prisoners on the way here and the one's I saw sure look capable of the murderous deeds of which they are accused.

From what the Tommies and French soldiers have told me there's little taking of prisoners I judge. It is said that the Scotch never take a prisoner on account of one of their officers, who was liked by all, being shot by a German officer he had just captured. Saw British and French soldiers leave for the front. It is different here—there's no cheering, or smiling and I've not seen any weeping. I suppose we'll be leaving in the same manner in two or three months. Somehow I do not dread to think of it. No German will capture me if I can help it, I'll die first. I sincerely hope Arth stays in Honolulu, for if it must be sacrifice I think one from the family is enough.

Great economy is exercised in these countries. People in U. S. do not realize how well off they are. Reading English papers while in England I noticed they suggest taking President Wilson's lead in many matters. U. S. has more soldiers over here than people realize. Just wait till her fliers get going. I'll bet they'll be the dare devils of the Allies.

We are training of course and it is interesting. How easily and quickly one learns to defend his life. Our French instructors think we learn easily and seem pleased. They

possess a wicked bayonet that has four edges and they say that a wound from it never heals. We are learning to use auto rifles, bombs, rifle grenades, and a new bayonet exercise. I intend to make a study of all.

I'm pretty busy as I have to look after the supply end at the same time. They tell me that I'll look after the supply, payroll and mess of the company later. I hope so for I like a busy job. The danger is just as great for they say the first line trenches are the safest. However, U. S. may not adopt the French and British method on my end of it. Just now I'm at a loss to know what my job will be. I sure did some work before leaving U. S.

Well, I will close now and write to the folks. I wish you a Merry Christmas and hope it was a happy Thanks Day. Your loving brother, PETE CROFTS.

Washington, D. C.  
128 C St. N. E., Apt. 53,  
Dec. 3, 1917.

Dear Friends: You can't imagine how much I miss all of you as well as the beautiful city of Rochester. Whereas Washington is a very beautiful city I can't think it is quite so beautiful and pleasant as Rochester. Of course this is a most interesting place to be at the present time for we meet people who have come here from the Atlantic to the Pacific and from the Canadian line on the north to the farthest point on the Southern Coast, to serve the government, in fact every state in the Union is well represented. You can also imagine in a vague manner of the congestion here. Housing facilities are almost a thing of the past and all who come here to serve are certainly making many sacrifices and showing true patriotism.

There are few departments which work on schedule time, the fact of the matter is that the Emergency Fleet Corporation where I am located hasn't such a thing as "hours," for it is one of the busiest departments, as they have entire control over all shipbuilding for war purposes. There are also many calls for service after hours, aside from the regular work, such as the Y. M. C. A., Y. W. C. A., and Red Cross and other Busy Bees.

I had a very interesting experience Thanksgiving night. I was asked by the Y. M. C. A. to act as hostess at a large camp down in Virginia. This was Camp Belvoir which is located among hills in a large forest seven miles from a car line. This is the training camp for the Lumber Corps. Most of the soldiers there, outside of the officers, are men from the mountains and woods in different sections of the country. A great many of them were unable to read and write and many

had never seen a train until they entrained for the camp.

The Y. M. C. A. is certainly doing wonderful work at these camps. Their shacks are well equipped with the things to make the life of the soldier more pleasant. They have pianos, literature, games, etc. I assure you that the money which was given to the Y. M. C. A. for camp use has been well invested. I really can't imagine what the camp life would be without the aid of the Y. M. C. A. I had the pleasure of eating in the mess shack and also made a tour of the kitchen which to me was very interesting. I only wish each and every one of you could visit a camp and see for yourself the wonderful work of the Y. M. C. A. Then too, the Y. W. C. A. is very busy locating or, I had better say trying to locate, rooms for homeless girls who come here to serve the government without a friend to look to for aid. The country may be assured that every one here is doing his bit to help his fellowmen as well as doing directly for his country.

I shall always be glad to hear from my friends at the Railway and Light Company either directly or indirectly.

Wishing you all a Merry Christmas and a Very Happy and Successful New Year, I remain, sincerely, LEONA B. ROSS.

U. S. S. Nevada,  
Postmaster, New York.

Dear Fred: Regarding your letter asking for particulars about my work, I really can say very little for publication. After cruising about 6,000 miles on the Minneapolis, a second class cruiser of about 7,500 tons, I was detached and ordered to the Nevada as Electrical Officer. The Nevada is one of our later type of super-dreadnaughts, being the next largest type to the Pennsylvania and Arizona class, which are the largest and most powerful battleships afloat. The Nevada is 27,500 tons about 600 feet long and carries ten 14-inch guns in her main battery. These ten guns throw shells weighing about 1,500 pounds each, a total of 7½ tons for the broadside with an effective range of 20,000 yards.

The electrical equipment is varied, ranging all the way from four 300 K.W. turbine driven D.C. Generators to the telephone system for ship service and fire control. Fire control aboard ship, does not refer at all to the "Home Fire Brigade and Hook and Ladder Truck Co.," but to the system of communication used to control the main battery and other guns on the ship. The number of men in the Department is roughly about the same as is the Station 3 organization.

The Nevada is sure some ship. Having been only on the older type of battleships I can appreciate the improvement made in their design and construction. With such large guns, her construction in the turrets is immensely heavy.

It doesn't seem like nine months since I left Rochester. I have been very busy during that time and traveled quite a bit. I am certainly kept busy now with so many details to familiarize myself with. Am also doing a lot of work on fire control. Will be very much interested when we go out for target practice.

Well, must close and turn in. Give my best to all the people and wish them and yourself a very Happy New Year. Sincerely, ROGER D. DEWOLF.

San Juan Hill, Santiago, Cuba,  
Dec. 11, 1917.

Mr. F. Fisher

Dear Sir: I received your letter of November 16th O.K. and was glad to hear from you and to know that the Rochester Railway and Light Company is anxious to keep in touch with the men who are now in the U. S. Military Service.

I left Brooklyn, New York, August 18th for Philadelphia, Pa., and from there by ship to Quantanamo Bay. We have a fine camp here with all conveniences for a soldier's welfare. Fine facilities for salt water bathing, a recreation building where one can play billiards, shoot pool and bowl attract all the boys. We also have boxing bouts between men of the different companies and movies every Saturday night. While here I have had the experience of Mess Cook Nig (assistant to the cooks), a job which you are detailed for and which anyone is apt to receive. It pays \$5.00 extra per month.

October 25th we moved camp to San Juan Hill, on the site of the famous battle of San Juan, 1898. We had some very hard days of work in building a new camp on a site that was covered with brush—building roads, drill grounds, etc. We have the work very nearly done and most of our time on duty is spent in guard duty and military drill. We are told that we are down here for training but do not know when we will be sent to France.

I can not write much on the military life as we are not allowed to give out any military information.

I enclose a picture of myself taken in the 59th Company Street with a heavy marching order pack on my back. Trusting I shall receive the Gas and Electric News in the near future, I am, Yours very truly, ELMER R. ARMSTRONG.

## Keep the Freight Cars Moving

**HELP THE SOLDIERS!**" is a slogan that is heard on all sides and is seen on most pages of current publications today. The spirit of this is usually associated with the idea of giving to those in the military service of the country personal comforts while in camp, proper foods, and above all, supplies of every description at the front. Allied with this, is the necessity of greater attention to the economic use among civilians of wheat flour, sugar, fuel and other necessities of life. Tho all these things are only too significant, we must remember that every act we do has a direct bearing on the backing up of the soldiers, and the direct prosecution of the war to a successful issue. The military and economic problems are greater than the nation has ever been called upon to solve, and every ounce of ability and strength possessed by the country is needed, if they are to be solved wisely.

The problem that is of the greatest importance now is that of transportation. Fuel and raw materials must be expeditiously moved to the manufacturing plants, and the finished products, especially government requisites, must be as quickly shipped to the consumer. Fuel and food must also be moved for the civilian population.

Many manufacturers, not having adequate storage facilities for materials, utilize the incoming freight cars and find it greatly to their advantage to keep them under load and pay a demurrage penalty. There are innumerable cases where cars are withheld from service for three to five days beyond any reasonable limit. This may be an economy to the manufacturers but it is a great loss to the country at large, and it contributes materially to the prolonging of the war.

This Company has been endeavoring to help the Government solve the

transportation problem by promptly unloading cars of construction materials, machinery, coal, oil and all other materials necessary in the business of a Public Service Utility. Much has been accomplished along this line during the past few months and it has been entirely a matter of close co-operation between the Purchasing Department of the Company, Mr. W. H. Earle, Mr. A. H. Lamey and the railroads. By keeping in close touch with the routing and the progress that the cars are making toward their destination, the necessary preparations are made to unload them just as soon as they are placed on the siding, regardless of the time or day.

At the Gas Works, Mr. W. H. Earle has perfected an unloading program that has cut the time limit in half. Formerly a car of oil after leaving Buffalo required five days to make the trip to Rochester and be unloaded. Under the new arrangement it requires only two days to put a car through the same process. This allows one car to perform the same service that heretofore required two cars.

Mr. A. H. Lamey, of the Construction Department, has also made splendid records in unloading materials and machinery. When the latter arrives on the siding it is placed on trucks by a crane. If adequate trucking facilities are available, the car is unloaded before the trucks are started for their destination. This course is usually adopted when the unloading is begun late in the day, the trucks being moved on the following day. When loading the cars, where heavy machinery is involved, it often requires three or four days to transport it from a powerhouse to the siding; in such cases the car is not placed to receive the material until shortly before the loading is started.

The railroads have been having their troubles with the routing of their

work, and now that the Government has taken over the management of them, many difficulties of operation hampered by law, etc., will be overcome. Tho the railroads have an immense rolling stock it is not sufficiently great to meet the demands of the shippers. More rolling stock is under contract and deliveries are months behind the schedule. Material used in its construction is also greatly needed for ship building. The steel to be used in the three thousand cars recently ordered by the Standard Oil Company would build a number of submarine chasers. A car idle for two days means two car days. Multiply this by a million and you have one of the answers to car shortage.

It is evident that the only way in which the present serious car shortage is to be overcome is for the shippers, consignees and railroads to co-operate more closely in loading and unloading the cars in the shortest possible time, and thereby produce what may be considered an equivalent of twenty to forty per cent. increase in the rolling stock of the railroads of the country. The American people must realize that the war can be brought to a successful conclusion only by united action. Small savings or economies in time or material, multiplied millionfold make war-winning results possible. Let our slogan be "Keep the freight cars moving."

**Resolved: That I shall be a careful man during 1918.**

Mr. Otto Bourbott, of Station 4, was pulling a packing case out of the race and strained his side. He did not think it worth while to report until it bothered him about one month later.

Mr. William H. Criddle, of the Gas Works, was helping the locomotive crane operator unload a coal car when suddenly a large chunk of coal slipped

and hit his arm, fracturing the knuckle on his right hand.

Mr. Tony Romano, of the Gas Works, was fixing the fire in a salamander when it suddenly tipped over, causing the hot coals to set fire to a canvas. In attempting to put out the fire he burned both hands.

Mr. James W. Wright, of the Underground Department, was overcome by gas while walking in a manhole. The gas lodged in the manhole on account of the heavy snow fall which prevented its escape.

Mr. Gerald Wilkin, of the Meter Reading Department, was walking out of the yard at 319 Ames Street recently when the gate swung against a finger on his right hand and broke the nail and cut the finger.

Mr. Anthony Eotceovich was working inside one of the boilers at Station 3 tightening some nuts when he exerted himself too much and strained his back.

Mrs. Carrie Dean, of the Consumers' Ledger Department, bruised her hand while she was placing ledger on desk after having taken it from the ledger rack.

Mr. John Appleton, of Station 3, severely bruised one of his fingers when a heavy bar accidentally slipped and fell on his finger which was resting on a plate.

Mr. James Donlon, of Station 1, fell from a stepladder while removing piece of pipe from a pipe frame which he was dismantling. He broke a small bone in his elbow.

Mr. Dominick Costeno, of the Gas Works, bruised the middle finger of his left hand by catching it between two coke buggies.

Mr. George D. Popp, of Station 3, was going down a pair of stairs when he suddenly slipped and fell to the bottom, hurting his shoulder.

Here hang the bones of Johnny Bower,  
Who autoed on a spree;  
He hit the road at ninety an hour,  
And then he hit a tree.

## Lightless Nights

THE Company is co-operating fully with the coal administrator in the matter of conserving coal by not burning advertising signs six nights a week. While this cuts off some of the Company's revenue, it is a measure very cordially welcomed by the management, who from the very first, have advocated it as a very necessary conservation of the nation's supply of energy.

The down town streets of the city present an appearance of being darker than they really are, to those who have been accustomed to the beauty of the brilliant signs, and to those who as a mater of pride in sign lighting and advertising have kept more or less close track of new signs as they appeared. Perhaps the dark nights will help us to appreciate the beauty and utilitarian value of the signs when burning.

## E. B. A. Amendment Passed

At a special meeting of the Employees' Benevolent Association held on Tuesday, December 11th, 1917, in the Assembly Hall, 34 Clinton Avenue North, the following amendment, proposed by the trustees, was voted upon and passed:

### Proposed Amendment to Section 6 of Article VI.

6. If any member shall enlist or be drafted in any naval or military company or organization of this State or of the United States, and his duties therein shall prevent him from continuing his duties of employment with the Rochester Railway & Light Company during the progress of a war in which the United States of America is engaged, this Association shall—out of the moneys in its treasury—pay such member or members' assessments for their insurance in the Group Plan of Life Insurance, whereby each member secures a Life Insurance Policy of \$600.00, and shall also assume and pay to the Employees' Benevolent Association the amount of dues and death assessments of such members, as they become due. This payment, however, by the Association shall cease after such war shall end or such member shall be discharged from active service in such naval or military company or organization.



Get the  
Habit!

Buy  
Thrift  
Stamps

Serve  
By  
Saving

## When He Volunteers

The Minister: Trust in God and keep your powder dry.

His Doting Mother: I wonder how long before he'll be a general.

His Militant Father: Bully for him!

His Pacifist Uncle: Dear me! Dear, dear me!

His Proud Aunt: He gets his brave spirit from our side of the family.

His Little Brother: Gee! I wish I could go.

His Little Sister: I wish I had a dress like that uniform.

His Chum: I hope he pays me that five bucks before he goes.

His Best Girl: Isn't he grand!

His Girl's Chum: Oh, you must give me a military button for my collection.

Their Next-Door Neighbor: I suppose they'll be more stuck up than ever now.

Drill Sergeant: Oh, Gawd!

—James Gabelle, in *Life*.

## Kipling on Teamwork

"It ain't the guns nor armament,

Nor funds that they can pay,

But the close co-operation that

Makes them win the day.

It ain't the individual nor the

Army as a whole,

But the everlasting teamwork,

Of every bloomin' soul."

## Gas and Electricity in the Home

BY THE GAS DEMONSTRATORS.

Miss Frances E. Moore, Miss Mona A. Pratt and Miss Irene Walsh

### Save the Fats

FAT is a big essential in war and the extensive use of it in the present world crisis has to a great extent cut down the supply of food fats. Fat is a necessary part of our diet and everything possible should be done to conserve the supply. Fat is high in energy production and working people and our soldiers need it in generous amounts. An ounce of fat supplies the body with energy to do two and one-fourth times as much muscular work as an ounce of sugar. Fat improves the diet by making a greater variety possible. Frying, roasting, the making of gravies, sauces, cakes and pastry all depend to a great extent upon fat. It also has what is known as staying qualities, that is it remains in the stomach for a longer period than most foods. This means that the hunger pangs which come from a completely empty stomach are not felt so soon when the foods contain a reasonable amount of fat. Certain fats contain substances which are believed to be essential to growth and for life itself. The most important of these are, milk-fat, egg-yolk fat, cod-liver oil and beef fat.

If one is eating more fat than seems necessary it is wise to reduce the amount. We are very apt to give ourselves more butter, cream and oil than is consistent with our need and by so doing we rob one of our soldiers or some family in France. Put yourself in the soldier's place and assume that you could not obtain these things—or perhaps no food whatever.

We probably can help most by eliminating all waste of fat. Every bit of left-over butter, fragments of suet, drippings from cooked meat must be carefully saved and used. By using these fats instead of butter in our cooking and perhaps denying ourselves a little we can contribute a supply for helping to win the war as well as cutting down expenses.

For replacing butter in cooking to be used in flour mixtures the best substitutes are rendered chicken fat, beef flank fat and the hardened vegetable oils which are usually sold as some form of nut margarine. It should be remembered that butter is not all pure fat but contains a certain amount of curd, water and salt, so that when substituting other fats it is only necessary to use about four-fifths the amount of fat and add the extra salt. The kidney suet of beef is very hard and is not desirable to use with flour unless it is softened by mixing with a softer fat. This may be accomplished by mixing with lard, pork drippings or cottonseed oil and is best done when the fat is being rendered or while it is cooling.

Before rendering beef suet it should be chopped fine, (a meat chopper is good). If it

is "strong" soak it in salt water for a short time and add a pinch of soda to it while rendering. Render the suet by heating it over hot water or in a pan in a moderate oven or on the back of the stove until the fat can be pressed from the surrounding tissue or cracklings. Pour or strain off the clear fat and squeeze out as much as possible. Fat keeps better if it has not been heated to too high a temperature. Store in tin pails or crocks, tightly cover and keep in a cool place.

Mutton fat may be made into savory fat and used for frying or mixed with a softer fat as lard and used in spice and chocolate cakes. Mutton fat rendered with either sweet or sour milk loses much of its objectionable flavor and is very desirable. A good savory fat is made by browning with the fat, (this applies to either mutton or beef), a thick slice of onion, one sour apple and a scant teaspoon of ground thyme or mixed herbs in a cloth.

There are so many uses for bacon, sausage and pork drippings that additional information on the subject may be superfluous but like other foods drippings must be used with discretion. The pork drippings may not cause any trouble but the others often do. Pork drippings, of course, may be used wherever lard is ordinarily used, is excellent for frying and where pork itself is lacking for baked beans a little of the fat makes a satisfactory substitute. The bacon, ham and sausage drippings may be the source of many delicious flavors, or wrongly combined it may spoil a dish. If two tablespoons of chopped onion be simmered gently in an equal amount of bacon fat then a tablespoon of flour mixed in, blended thoroughly and a cup of left-over tomatoes added and all cooked with salt, pepper and a little sugar a delicious sauce Espagnole unrivalled for serving with omelet, meat cutlets or plain cutlets and meat balls. This same sauce may be poured over boiled rice or macaroni in a baking dish and put in the oven for about a half hour. The result is extremely satisfying to one's palate.

If one likes the flavor of ham in bean soup and the ham is lacking the same result may be accomplished by using blended bacon or ham fat and flour to make the thickening. This is especially effective where sweet marjoram, a slice of onion and a pinch of cloves are used. If the dark beans are used and thin slices of lemon and hard boiled eggs are in the turpen when the soup is poured over it becomes the famous Mock Turtle Bear Soup.

Scrambled eggs and omelets are delicious when bacon or ham fat is used instead of butter. And can you imagine anything more palatable than spinach flavored with bacon fat?

If one stops to think that these drippings should be used wherever the flavor is especially desirable then one will treasure them carefully with many delicious dishes as a result.

The cracklings from the suet have many uses. Grind and salt them and pour in a glass jar. Use them in cornmeal or suet puddings or stir them with diced or chopped left-overs of meat, into cornmeal mush, mold the mush and saute it in savory fat or bacon fat to serve as a meat substitute. They may also be pressed into a loaf sliced and served with cold meat. They are sometimes used as a sausage substitute by adding stale bread crumbs or left-over cereal, a little egg and seasoned with salt, pepper and poultry seasonings. Form into small cakes and fry in a little fat.

Lastly any fat not fit for home use should be made into soap. A reliable borax soap is as follows:

5½ lbs. fat	2	tablespoons borax
1 lb. lye	3	cut hot water
6½ cups cold water	2	cup ammonia
(rain water is best)		

Strain and clarify the fat if it has many impurities. Put the lye in a stone or enamel vessel and add the cold water. Let it stand until it cools. Dissolve the borax in the hot water and add it to the lye. Melt the fat, warm it slightly and pour it gradually into the lye stirring constantly. Add the ammonia to the mixture just before it is cool. Continue stirring until the soap is as thick as pancake batter. Add a little oil of geranium or other perfume if desired. Then pour the soap into wooden or paper boxes lined with greased paper. When it is cold cut it into cakes. Let it stand a week to ripen, then take it from the boxes and stack it in a warm dry place. Well dried soap can be used more economically than freshly made soap. Home-made soft soap saves time in laundering or dish-washing. Directions for making soft soap are found on the lye cans.



### Eat Less Sugar

The question of the sugar shortage is one upon which words help very little. It has given us food for thought to think that even money could not procure an article which we have long looked upon as an absolute necessity. As long as the war lasts and the demand for sugar is so great both across the water and at home we should do everything in our power to see that everyone has a little and no one goes entirely without. Our supply of sweets could be cut down considerably without doing any harm to the American people, so do your share and eat just as little as possible.

Corn syrup is probably the best substitute as it is only a very little more expensive. Honey is at all times a luxury. Molasses should be used judiciously because being made

from cane it would seem best to conserve it. The real answer to the situation is not one of substitution but one of reduction of the too great a quantity used by almost every inhabitant of our country. Eat less sugar.

### Additional Economy Suggestions

Left-over breakfast cereals may be utilized by combining them with more highly flavored foods, examples of such combinations being oatmeal fish cakes and croquettes, or loaves of cereals and nuts. Cold cereals when combined with custard and fruit also form the basis of a nutritious and palatable dessert.

A large amount of good food including most of the valuable mineral elements in potatoes is wasted by ordinary methods of peeling. Baking "in the jackets" also means a loss (if the jacket is not eaten) since much of the meat of the potato sticks to the stiffened skin and is discarded. Here is a suggestion made by the U. S. Department of Agriculture for reducing the discarded portion of the potato to a minimum.

"Drop washed potatoes in a vessel of rapidly boiling water and allow them to remain ten minutes. Remove and strip the thin skin the same as when potatoes are peeled after thorough cooking by boiling. The potatoes will still be practically raw and may be handled the same as raw peeled potatoes. An excellent way to cook the skinned potatoes is to bake them. The entire potato including the thin golden-brown crust may be eaten.

Spread the meat flavor over other foods and so economize on the quantity of meat consumed.

**Skim Milk.** At many creameries skim milk is wasted. Ask your milk man if he can get it for you. It has a very high food value and may be used for all cooking. When sour it makes delicious cottage cheese. However skim milk should not be used as the principal food in a child's diet. This is poor economy.

Make and eat cottage cheese and encourage others to use it. It is a valuable meat substitute.

Do not throw away a single leaf of lettuce. It may be kept fresh for a week by putting dry into a covered tin pail and kept in a cool place. The outer leaves which are usually unattractive may be rolled tightly and then cut with a sharp knife. Thus shredded it makes an attractive addition to any salad.



## Auditing



New Business				Miscellaneous Data			
Net Increase in Consumers in First Eleven Months of 1917				Nov. 30, 1916, Nov. 30, 1917, Increase			
	Dec. 31, 1916	Nov. 30, 1917	Increase				
Gas	75,784	78,635	2,851	Miles of Gas Mains	478	495	17
Electric	25,335	27,630	2,295	Miles of Overhead Line	1,804	1,900	96
Steam	43	51	8	Miles of Underground Cable	1,058	1,079	21
	101,162	106,316	5,154	Miles of Subway Duct	956	970	14
Net Increase in Consumers in Twelve Month Ending November 30, 1917							
	Nov. 30, 1916	Nov. 30, 1917	Increase				
Gas	75,531	78,635	3,104	No. of St. Arc Lps.	4,009	1,588(Dec.)	2,421
Electric	25,095	27,630	2,535	No. of St. Inc. Lps.	4,949	8,436	3,487
Steam	43	51	8	Total No. of St. Lps.	8,958	10,024	1,066
	100,669	106,316	5,647	No. of Employees	1,262	1,314	52
Statement of Consumers by Departments as of November 30th				Amt. of Payroll (Mo.) \$103,798.53 \$122,863.39 \$19,064.81			
Nov. 30	Gas	Elec.	Steam	Total	Increase		
1908	41,080	6,386	—	47,466	—	—	—
1909	45,592	7,310	—	52,902	5,436	—	—
1910	51,419	8,764	—	60,183	7,281	—	—
1911	56,511	10,637	17	67,165	6,982	—	—
1912	61,338	13,088	23	74,449	7,284	—	—
1913	66,515	15,976	23	82,514	8,065	—	—
1914	70,007	18,393	33	88,433	5,919	—	—
1915	71,216	22,057	41	93,314	4,881	—	—
1916	75,531	25,095	43	100,669	7,355	—	—
1917	78,635	27,630	51	106,316	5,647	—	—
Inc. in 9 Yrs.	37,555	21,244	51	58,850	58,850	—	—
Net Increase in Consumers by Months							
	1915	1916	1917				
Increase in January	387	341	194				
Increase in February	135	253	(Dec.) 19				
Increase in March	249	339	386				
Increase in April	450	684	608				
Increase in May	354	765	568				
Increase in June	585	645	726				
Increase in July (Dec.)	95	616	713				
Increase in August	450	777	669				
Increase in September	499	1,225	554				
Increase in October	498	494	584				
Increase in November	593	725	171				
	4,105	6,864	5,154				
Company's Savings Deposits							
STATEMENT TO JAN. 1st, 1918							
No. of depositors, Jan. 1, 1918				39			
Decrease during Dec. 1917				6			
Amt. deposited during Dec. 1917				\$261.75			
Total deposited to Jan. 1, 1918				\$13,842.44			
Receipts							
Bal. on hand 1st. of month				\$1,778.91			
Dues—Members				\$614.69			
Dues—Company				614.69			
Fees—Members				6.00			
Fees—Company				6.00			
Assessment No. 6-10—Mem.				47.00			
Assessment No. 6-10—Co.				47.00			
Int. on Bk. Bal. & Invest.				34.18			
Receipts for month of Dec.				\$1,369.56			
Total				\$3,148.47			
Disbursements							
Sick Benefits				\$317.17			
Accidents On Duty Benefits				80.40			
Death Benefit No. 11				125.00			
Group Life Insurance				32.83			
Members Addl. Life Ins.				1.43			
Dues—Members Refunded				58			
Dues—Co. Refunded				58			
Members on Military Duty							
Expense				133.04			
Total payments for month				691.03			
Balance on hand, Jan. 1, 1918				\$2457.44			
Membership ending Nov. 30							
Affiliated during mo. Dec.				2			
Unaffiliated during mo. Dec.				16			
Loss				14			
Membership, Dec. 31, 1917				768			



## Sales



### Advantages derived by private plant thru use of Central Station Electric Service during Summer months

THE USE of Central Station electric service during the summer months offers many advantages to private power plants which are at present operating throughout the year. In general not only is the cost of private generation a maximum during the summer months, but the cost of using service from the Rochester Railway & Light Company is a minimum.

Everything else being equal, the cost of private generation depends to a large extent upon the use made of exhaust steam. As a rule a great many factories use their exhaust steam only for heating, there being no other industrial uses. In the winter a certain porportion of the steam is used for heating and the cost of the steam supplied to the engines should, therefore, be credited with the heat used from the exhaust. During the summer months either all or a large percentage of the exhaust is wasted (even assuming its use in a feed water heater) in which case practically the entire cost of the steam used by the engines must be charged against generation. In general, therefore, private plant operation is much less economical in the summer than in the winter.

The new three-rate schedule adopted by the Rochester Railway & Light Company during the past year gives a very low rate for power used during the summer. At that time the Company's generating stations are operating at partial capacity and additional load does not involve

additional overhead expense. For this reason and to encourage summer business, the consumer is given the benefit of a low rate.

The combined high cost of private generation and low cost of central station service during the summer make the suggested method of operation very economical for the isolated steam plant. The saving to be effected, however, varies considerably depending upon the individual conditions of operation. Each plant is a special problem and must be studied as such. The best idea of the advantages of the plan of operation outlined can be obtained by a study of the results obtained in cases where the plan has been tested. The following table summarizes the results of four tests made under this plan during the past summer. The tests covered a period of from one to five months each.

Plant	Average K. W. Per Month	Average K. W. Hrs. Per Mo.	Steam Used for Heating Per Mo.	Cost Electricity Per Mo.	Cost for Heating Per Mo.	Per cent Saving
A	19.2	7406	\$ 218	\$ 76	\$142	65%
B	61.3	13120	395	228	167	42%
C	65.0	17260	375	217	158	42%
D	241.2	64700	1029	547	482	47%

In each of the above cases it was necessary to supply live steam for industrial or domestic use and it was accordingly impossible to entirely shut down the boiler plant with the engines. In case this were possible much greater saving could be made.

The Selden Motor Vehicle Company will soon erect an addition to its factory. This addition will be a one story structure covering approximately 40,000 square feet. Thirty kilowatts of electrical energy will be required to light this area and the motors required will entail a demand

of fifty kilowatts. At present a load of forty-five kilowatts is taken from this Company's lines. A comparison of this load with that required to supply power and lighting to the addition serves as an excellent basis for estimating the rapid growth of the Selden Company's Truck business.

This addition is being built for the purpose of assembling heavy trucks. The dispatch with which the construction is to be carried out may be gained from the fact that the building will be completed within a very short time and two hundred fifty 4½ ton trucks will be delivered per month.

The demand for stamped ware has caused the Atlantic Stamping Co. to build an addition to its present factory. This new addition will cover 30,000 square feet, and will be entirely devoted to the demands of the Government during the war. The power requirements are 20 kilowatts for lighting and 50 kilowatts for motor load. Plans and specifications are being prepared for the addition and the changes which will be necessary to economically distribute the electrical energy at the plant.

The Feldspar Milling Company of Toronto is building a new plant for feldspar grinding in Rochester under the name of the Rochester Feldspar Milling Company, Incorporated. The new plant is located on Stone Road at the B. R. & P. Crossing. At the start the mill will be turning out about one car a day and will have a load of approximately 150 kilowatts twenty-four hours a day.

The Mosley & Motley Milling Company recently purchased a 300 H.P. motor which is to be installed for driving its large flour mill. This mill is operated by water when there is a sufficient flow of water in the river to supply the necessary power. At

other times it is proposed to run the mill by motor, using this Company's service.

The Stone crushing and pulverizing plant which has been in the course of construction for some time by Mr. Fred Becker at Lincoln Park, has been completed and it is expected that its power load of approximately 200 H. P. will soon be connected to this Company's service.

The Rochester Vulcanite Pavement Company has begun to crush stone for use on the Thurston Road improvement. To supply this material the crusher at Sherman Street is being operated by a 35 H.P. induction motor.

A temporary service has been installed for the construction work at the Symington Forge Corporation. The permanent service which will carry approximately 5000 kilowatts is now being constructed.

The installation of a Twin type gas fired brass melting furnace designed by this Company, has been completed at the Forbes Brass Company.

The Shafer-Decker Company has installed special gas furnaces in connection with work on Automobile Motors.

The T. H. Symington Company has installed a two section Garland Hotel range and one salamander.

Henry Wray & Son, Inc., has ordered additional Twin type furnaces for its Brass Foundry.

Mr. William Muntz's Hotel Ontario has installed a restaurant range.

"Life is not so short but that there is always time for courtesy."—Emerson.



## Electric Distribution



### More Electric Power for Niagara Falls

ONCE more Uncle Sam has called upon the Rochester Railway & Light Company for help and has not been disappointed. At a meeting of representatives from the Federal Government, the Power Companies at Niagara Falls, Syracuse and Rochester, the Syracuse Company pledged itself to furnish 4000 KW and the Rochester Railway & Light Company, through Vice-President and General Manager Hutchings pledged itself to furnish 11,000 KW of electrical energy for use in Buffalo and Niagara Falls in the manufacture of war supplies. This will be accomplished by the Syracuse Company putting into service a 4,000 KW steam turbine, and by the Rochester Railway & Light Company fully utilizing the new hydro electric station No. 5, at Driving Park Avenue. The delivery of energy to the Niagara Transmission Line is made possible by a fortuitous purchase some months ago of rotary converters in anticipation of urgent need. It may be said at this time that the construction of New Station No. 5, the New Gas Works Station B, the installation of boilers, stokers and turbine in Station No. 3, the installation of rotaries in Stations 3 and 6, together with the construction of Sub Station No. 1 on Leighton Avenue have made possible a co-operation with the government and a service to the manufacturers and people of Rochester of the very first magnitude. Confronted as Rochester is with an unprecedented demand for power and an equally unprecedented cost of the raw materials for power, it is very fortunate that a sagacious interpretation of the signs

of the times a few years ago has placed the Company in a position of greatest usefulness today.

DURING December, work on the subway crossing the river at Station 5 was carried on steadily in spite of severe weather and unfavorable working conditions. By Dec. 24, fifteen of the thirty-five ducts had been completed on the crossing section. A rise in the river made further work impossible for some time, but it was decided to install a cable in one of the completed ducts at once as it was very desirable to put in operation without delay, the new tie line from Station 3 to Station 5. The cable for this line had all been installed with the exception of the crossing section. On Dec. 31 this section was pulled in under considerable difficulties. The weather was very cold, making it necessary to heat the paper insulated cable thoroughly before bending it. The manhole at the east end of the crossing section was unfinished and had considerable water in it. A diver from the Dock Contractor Company was employed to guide the cable into the duct at this point. After all preparations were made, about one hour and a half was required for the actual work of pulling in. The cable installed is a 3-conductor, 350 M.C.M., 1100 volt sector cable, and because of the segmental cross section of the conductors, it is very difficult to bend. As there is a considerable curve in the section of subway crossing the river, it was a great satisfaction to all concerned to find that this cable, the heaviest this Company uses, could be pulled in without straining it unduly.



## Electric Generation



### Operating Kinks and Troubles

On Wednesday, Jan. 2d, a 2-current transformer constituting a part of the electrical equipment of No. 4—10,000 KW 60 cycle steam turbine at Station 3, was destroyed by overheating. This fault was promptly made evident by the turbine being automatically disconnected from the system. This operation proved the great value of the Ricketts system of connecting generators to a system. The same disconnecting operation would have taken place had the fault developed in the cable.

Unusual trouble was caused at the Symington-Anderson Company's plant on University Ave., by a painter who was working on a step-ladder and dragged the operating chain of a roof ventilator into the 4150 volt service. The resulting short circuit destroyed two potential transformers, and also partially interrupted the operation of the 60 cycle system.

A very decided economy has been incorporated at the Motor Department by Mr. Chas. Miller's request that all station foremen return faulty generator brushes to the Motor Department where they are re-ground for use in motors. Some of these brushes cost as much as \$2.25 each.

A 75 H.P. motor driven pump at the Lake Ontario Water Company Pumping Station became heated to the extent of destroying the windings. By the prompt attention of Mr. Chas. Miller's assistants, this motor was returned to service in about two weeks.

The 1500 KW 60 cycle railway rotary at Station 5 was out of service for eight hours due to a sand hole on a collector ring. This type of trouble is very common and does not involve serious consequences except elimination of the machine from the system for a short period.

A short circuit on the 11,000 volt bus at Station 6 recently destroyed three disconnecting switches and four insulators and at the same time opened all oil switches on the 60 cycle system for ten minutes. This trouble was repaired in about 11 hours.

The 1700 KW 25 cycle rotary at Station 4 will be back in service by Jan. 14, having undergone repairs by Mr. Chas. Miller's repairmen. This machine was put out of commission by fractured hunting rings caused by starting strains.

A flash-over which occurred on the 1500 KW 25 cycle rotary at Station 6, caused an overload on the 2000 KW 60 cycle rotary which in time also flashed over, thus eliminating both machines from the system for about 5 hours.

The bolts that secure the hunting rings on the 2000 KW 60 cycle railway rotary at Station 35, became loosened and were broken, causing the machine to be idle for ten hours.

Due to the heavy sleet and snow breaking the 4150 volt line to the East Gas Works, all switches at Station 34 were opened, and the winding of a transformer was burned.

The new 11,000 volt, 60 cycle 350,000 C.M. tie line from Station 3 to Station 5 was connected to the system New Year's Day.

## Personals

Don't fail to send change of address report to the Payroll Department.

You save time for yourself and the other fellow if you answer the telephone by name or department.

Mrs. A. Denio spent the Holidays at the home of her mother, at Waterloo, N. Y.

Private Harold Nichols, who is now of the Signal Service Corp, is expected home in Rochester on January 14th.

Misses Marie Vogel and Edna Schultz have been employed in the Mailing Department.

Mr. and Mrs. Harry T. Clement, (Payroll Department), are the proud parents of a baby girl, Elizabeth, born December 12th.

Mr. Marshall Slee, of the Electric Construction Department, has returned after a week's illness caused by ptomaine poisoning.

Mr. Raymond Hammond and Mr. George Kleisley have recently entered the employ of the Stock-Record Department.

Mr. Michael Kaplan has been transferred from the Addressograph Department to the Coupon Sorting Group.

Mrs. Deane, of the Consumers' Billing Department, who has been sick for the past month has resigned.

Mr. Dan W. Patterson, of the Electric Distribution Department, is rejoicing over the arrival of a bouncing baby boy on November 21st.

The two new Bigelow-Hornsby Boilers at Station 3 have been completed and are now ready to go on the line.

Mr. and Mrs. Wm. H. Earle announce the birth of a baby girl, Eleanor Hammond, on Jan. 9, 1918.

Miss Marie Casey is now employed in the Purchasing Department carrying on the work formerly done by Miss Ross, who is now in Washington.

Messrs. George Mumford, George Oetzel and Andy Johnson have been transferred from Station 15 to Intake House at Station 5.

Mr. H. C. Marquardt, of the Domestic Sales Department, announces the birth of a baby boy on January 3rd.

The Employment and Claim Department, with Messrs. Fisher, Rissberger, Klein, Royce and Darron have moved into Room 12 and a small portion of the Drafting Room.

Sergeant D. S. Sutherland, husband of Mrs. Sutherland of the Domestic Sales Department, spent the Holidays in Rochester. He has returned to Spartanburg.

Mr. Edward Gardiner, of Station 1, is now at Camp Greene, North Carolina, and expects to move to New York or New Jersey in the near future.

Messrs. Sharp and Donlon, formerly of the Electric Construction Department, are now working at Station 1. We wish them success in their new duties.

Mr. Roger D. DeWolf's many friends will be glad to know that he has been appointed Electrical Officer on the new super-dreadnaught Nevada.

The cold weather around the Christmas and New Years Holidays caused an unusually large number of frozen gas services. Mr. Hoddick reports a record of 119 on Sunday, December 30, 1917.

United States Marshall, the Honorable John D. Lynn, made an inspection of the Company's Guard System with Employment and Safety Manager, F. W. Fisher recently.

Miss Mona Pratt, of the Domestic Sales Department, who has been in South Dakota for the benefit of her

health since the middle of August, has returned to her work as Demonstrator.

Mr. John Stokes, who joined the Canadian Over-Sea Contingency, left the employ of this Company December 31, 1917. "John" was presented with a very beautiful wrist watch by his friends in the Consumers' Billing Department.

Mr. Allen Stevenson, formerly with Mr. Chas. Miller's Department, now a member of the Military Police Band, U. S. Army, spent a few days with his former associates. He likes the service and says that the band will be there to do its part.

Private William L. Weaver, formerly of Troop H which is now a Machine Gun Battalion, was at the Main Office recently calling on his many friends. "Bill" says he likes the work and is anxious to get "Over There."

Mr. Floyd Owen, of the Employment and Claim Department, has been called to the colors with the mobilization of the Base Hospital Unit. During his absence his place will be filled by Mr. Roy Darron, who has been transferred from the Gas Distribution Department.

A rearrangement of the second and third floor offices at 34 Clinton Avenue North results on the second floor in placing Mr. Russell in Room 2, Mr. Hutchings in Room 3, and Mr. Tucker in Room 8. Mr. Searle and Mr. Hollister remain in Rooms 4 and 5 respectively.

Mr. Howard Bacon, formerly at Station 3, is now located in the 3rd Company of the Signal Officers Reserve Corps, at Camp Samuel F. B. Morse, at Leon Springs, Texas. Howard writes that the boys are down to "solid work," and will be ready when they are called to go "over there."

As part of a general more stringent practice of economy, thirteen Company automobiles used by Superintendents and Foremen have been

stored for the winter when the snow makes their operation difficult and expensive. With the closing in of the outside work, their use is not necessary except in a few cases.

Mr. Melvin D. Anderson, of the Industrial Sales Department, and Miss Ruth Landaur, of Grand Rapids, Michigan, were married in Grand Rapids on December 26th, 1917, by Rev. Ernest Pouch. Mr. and Mrs. Anderson spent a very pleasant honeymoon trip in eastern cities and are now at home in Rochester.

Mr. "Dusty" Rawson, formerly of the Electric Meter Department, who is at present third class electrician in the United States Navy, visited the boys of the Electric Meter Department recently while on furlough. "Dusty" was looking fit and was very enthusiastic about the life in the Navy.

Foremen of the Company's Hydraulic Stations will be pleased to learn that the Company is about to introduce a mechanical device for cleaning racks. It is at present in the developmental stage under the supervision of Mr. N. H. Davidson. It is scheduled for its first tryout at Station Five.

New employes in the Consumers' Ledger Department who have started work during the last month are: Miss Julia Quinlivan, Billing Group; Miss Mary Morse, Coupon Sorters; Miss Lottie Kuhns, C-E-Z Department; Miss Lillian Leason, Appliance Department; Miss Esther Wheeler, Tabulating. GET ACQUAINTED.

Thru an error we have failed to report the name of Mr. Harold Donovan under the Company's Honor Roll. Mr. Donovan was employed in the Service Improvement Department and enlisted in the Navy to do his bit, over a year ago. Since his enlistment Mr. Donovan has been promoted to Gunner's Mate, on the Battleship Rhode Island.

Messrs. W. H. Stevens and Clarence C. Salisbury, who were two of the six Rochester draftsmen chosen to go to Washington recently to assist in the Ordnance Bureau of the War Department, report very enthusiastically of the busy way things are moving for Uncle Sam and the interesting work in which they are engaged. Mr. Salisbury is at work in the Trench Warfare Department.

Mr. Valentine L. Weining, of the Stock-Record Department, has been placed in charge of the stock records of the Company's stocks located at Canandaigua, Victor, Fairport, Pittsford and East Rochester. He has taken an accurate inventory of the stock in these places and has installed a bin system at East Rochester similar to that in vogue at the Front Street and Clinton Avenue North store-rooms.

Mr. James W. Culligan, Assistant Supervisor, and Sidney L. Tirrell, of the Meter Reading Department, enlisted in the Signal Corps (aviation section) United States Army. The boys left for Fort Slocum, N. Y., on December 13, 1917. A large delegation of friends and employes were at the train to say goodbye. Mr. Culligan was presented with a wrist

watch by the boys and girls of the Meter Reading Department and Main Office before leaving.

Mr. Edward Gosnell recently received repeated requests from one of the Company's customers asking whether there wasn't a man in his Department by the name of Small. After Mr. Gosnell had assured the customer that he had no such employe, the customer insisted that he send a man by the name of "Small" or "Little" to read the meter, because the Company had been sending a man by the name of Mr. More and the more he read the meter the higher the bills were.

Federal Licenses to handle explosives have been secured for Messrs. Albert H. Lamey, Frank Rich, William E. Mattice and Francisco Azzico, under the Federal Explosives Acts, in effect November 15, 1917. All employees of the Company are hereby reminded that it is a standing order in the Company that explosives are not to be used except under the direction of Messrs. Lamey and Rich, to whom Messrs. Mattice and Azzico report for instructions. Under the new law it is a misdemeanor to sell, buy or use explosives without a Federal License.

The death of Samuel B. Russell of Station 4 on December 4, 1917, ended the career of one of the oldest employes of the Railway & Light Co. Mr. Russell started work as a trimmer for the old Brush Electric Light Company from whence he gravitated to the position of lineman. He was then transferred to Station 4, then known as the Brush Electric Company, where he worked as a dynamo man until 1903, and from that day continued in the capacity of operator of the two large direct current generators situated at the bottom of the pit at this station.

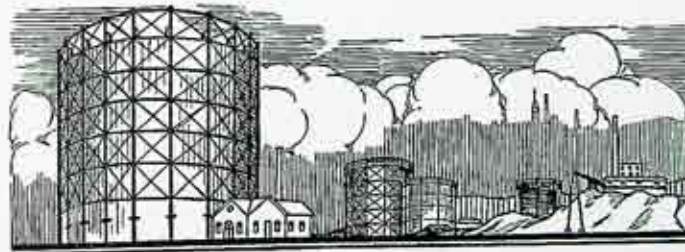
Mr. Russell was of a quiet, unassuming nature, performing his duties with a loyalty and cheerfulness that made him a popular man among those with whom he worked. Mr. Russell, we believe, has a record that is unusual and of which we cannot speak too highly. During his 32 years of service with

this Company, he never was absent a day on account of accidents or illness, although his work came in the so-called hazardous class, and the positions in which he worked gave him more or less exposure to sickness.

Mr. Willis B. Fiske, who died on December 21, was born in Stafford, Genesee County, N. Y., 57 years ago. He was employed by the Railway & Light Company in April, 1884, making him one of its oldest employes. Mr. Fiske was employed as a stationary engineer during the first part of his employment, he later acted as lamp trimmer for a short time, and was then transferred to the Front Street yards where he worked as yardman for a long time. Mr. Fiske was a man of clean habits, and his going means the loss of a very willing and faithful worker.

LET it be your pride, therefore, to show all men everywhere not only what good soldiers you are, but what good men you are, keeping yourselves fit and straight in everything and pure and clean through and through. Let us set for ourselves a standard so high that it will be a glory to live up to it and then let us live up to it and add new laurel to the crown of America.

—Woodrow Wilson.





## Don't Weaken!

### I

When you feel on the bum an' the outlook is glum  
An' you're wondering what's comin' next  
When everything's drear an' life loses its cheer  
An' the Skipper an' First Luff are vexed—  
If this tropical South puts you down in the mouth  
Till your shipmates, they ain't even speakin',  
Just don't rock the boat—keep a turn 'round your goat;  
It's a great life—IF you don't weaken.

### II

If the Admiral's boat refuses to mote,  
And the cat spoils your clean quarter-deck  
During Captain's inspection, don't show your dejection—  
Though the chief blows out soot by the peck—  
Just tighten your grip, keep a stiff upper lip,  
Though your feelings may hurt something horrid;  
Getting low ain't worth while, so force out a smile,  
Take your hat in your hand and go For'ud.

### III

If you should lose sight of the flagship by night  
An' get lost alone on the ocean.  
An' you go under hack just smile and "come back"  
Don't fume and stir up a commotion.  
When we're running around if you put her aground  
By mistaking a star for a beacon;  
Why there's no greater sport than a General Court,  
It's a great life, my son, but don't weaken.

### IV

Don't stick in your room and radiate gloom;  
Cheer up! For the worst is to come  
If the roasted spring lamb tastes just like the ham  
An' the rest of the Pay's chow on the bum,  
Don't sit in your chair in silent despair  
An' that hole in your face never crack—  
Don't shut up like a clam, say something, say "Damm!"—  
Anything—though you may take it back.

### V

When the fireroom's hot, and the feller "up top,"  
Keep's hollering down for more steam,  
And your back's full of woe when you handle the hoe,  
And the scoop handle feels like a beam,  
If you find that your chest, and all of the rest,  
Just acts like a bucket that's leakin',  
Just burn your own smoke, the whole dam' thing's a joke,  
If you hold up your steam and don't weaken.

### VI

When we're darkened at nights an' there ain't any lights  
An' you beat it on deck to your station,  
An' flatten your face on a stanchion or brace—  
Remember it's all for the Nation.  
If you fall down a hatch Surge will put on a patch  
To bind up your holes and stop leakin',  
Don't get sore like a pill, for it's part of the drill—  
It's a great life, my boy, but DON'T WEAKEN!