

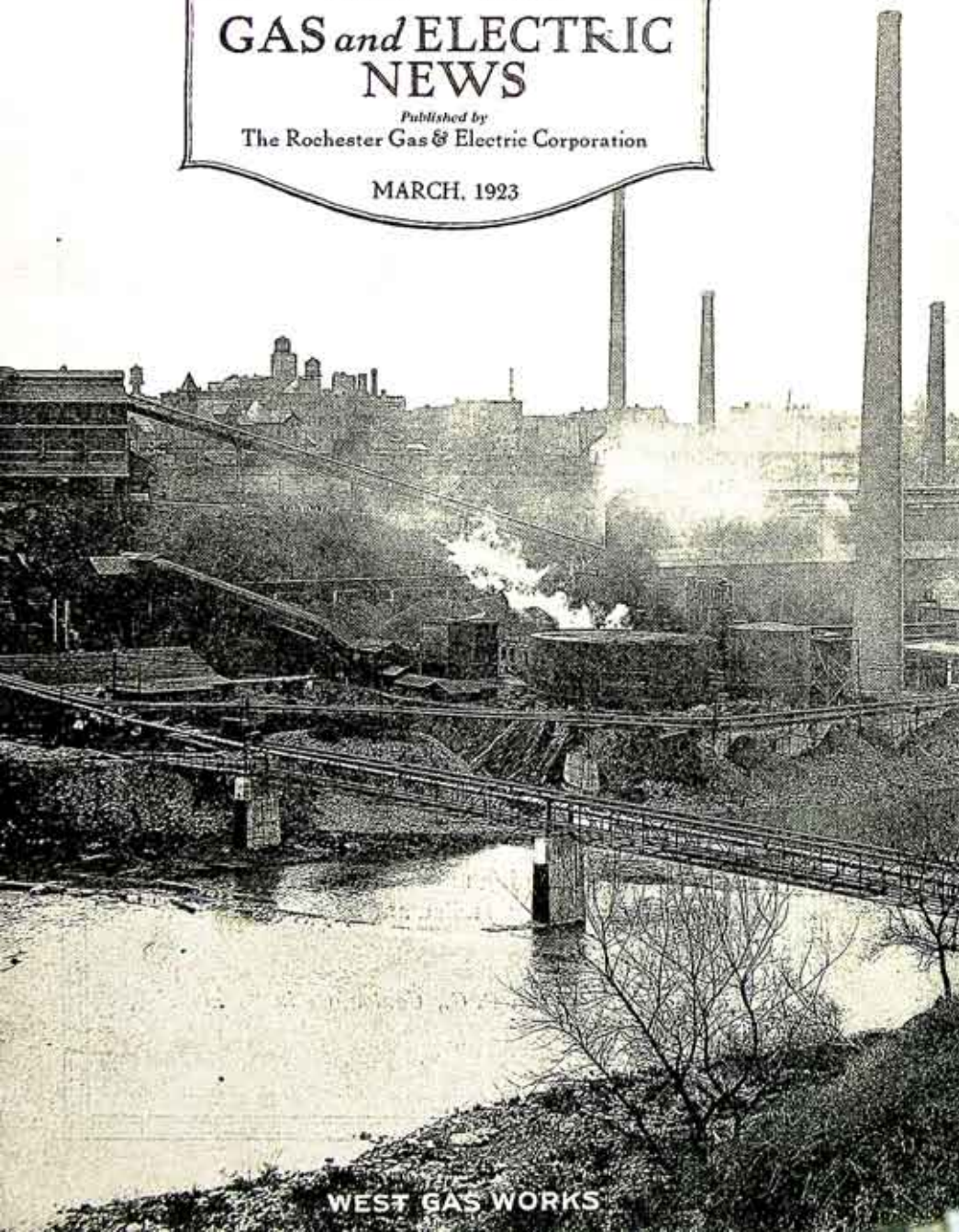
Volume 10

Number 9

GAS and ELECTRIC NEWS

Published by
The Rochester Gas & Electric Corporation

MARCH, 1923



WEST GAS WORKS

"It's a Great Morning"

"It's a great morning, isn't it?" called a cheery business man to a passer-by, as he hurried down the steps of his home to catch a train.

"Why, so it is," thought the student, looking up in surprise from his moody contemplation of the sidewalk. And unconsciously he straightened his shoulders and stepped out more briskly as he went on his way.

"It's a great morning, isn't it?" said the business man to the bootblack as he stopped for a shine. And the urchin gave a vigorous polish to a spot on the heel that he had been minded to leave unshined, and whistled as he went on his way.

"It's a great day, isn't it?" said the man to the stenographer as he entered his office. And the girl's fingers flew faster, the keys clicked merrily, and the tired eyes smiled as she worked that day.

"It has been a great day," said the man to his wife, as business over, he sank with a sigh of comfort into the easy-chair at home.

And the recording angel, closing the account of that man's day, smiled and echoed softly: "A great day!"

Contributed by B. P. G., Canton, O. in "Vision."

GAS AND ELECTRIC NEWS

Vol. 10

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The Company's Prize Essay Contest

MORE than a year ago the Management of the Company planned to conduct a Prize Essay Contest to interest both the children and their parents in the territory served by it in the problems and processes connected with its daily operation. The object of this contest which was more or less of an experiment was, in the words of Mr. Russell, "to bring the Public and the Company into closer contact and thereby bring about a better mutual understanding".

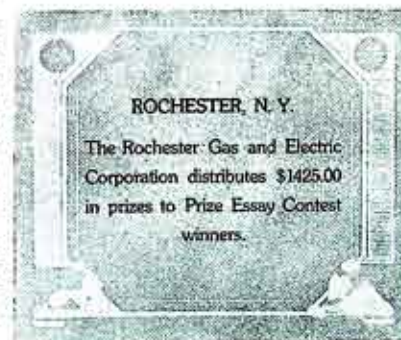
A series of 26 advertisements or complete stories were written by the Essay Committee, each one detailing an important operation or process connected with the Company's service in supplying the public of Rochester and its environs with gas, electricity, motor fuel and coke. This service which is

such a vital element in our domestic, industrial and civic life, was thus presented as an interesting continued story in the daily press.

Each advertisement was very carefully written and received the close scrutiny of Company experts in the Departments involved in the technical details. Close cooperation and the final check of Mr. Russell assisted the writers of the advertisements in picturing the story "The Rochester Gas and Electric Corporation—What it is, What it does".

Each advertisement was attractively illustrated by Mr. Charles Bracker, a Rochester illustrator.

The prizes were limited to boys and girls under 19 years of age in the territory served by the Company, and were divided into two classes to insure fairness, as follows:



One of the "Movie" Captions Used in Presenting the Film Story of the Party in Honor of the Prize Winners

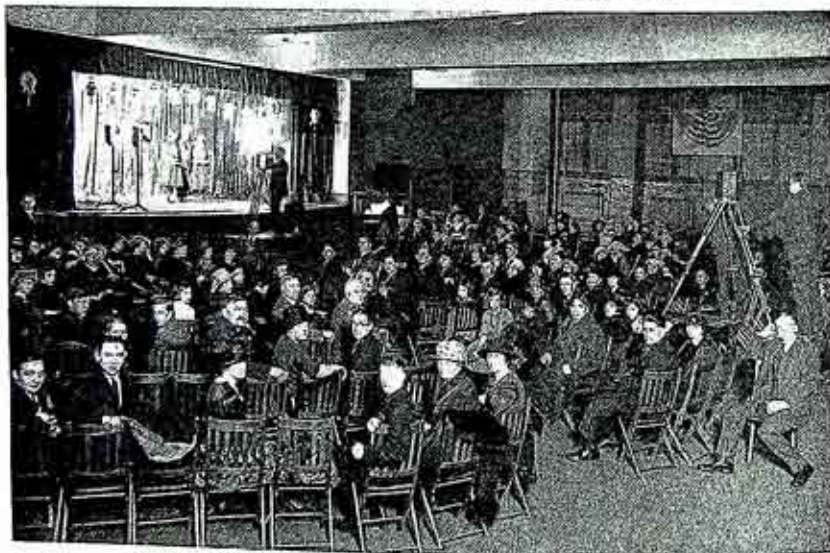
	Persons 15 years of age and under	Persons between 15 and 19
\$1250 in Prizes Awarded to the General Public		
Two First Prizes, each of	\$100	\$100
Two Second Prizes, each of	75	75
Two Third Prizes, each of	50	50
Twenty Fourth Prizes, each of	25	25
Thirty Fifth Prizes, each of	10	10
\$200 in Prizes Awarded to Children of Employees		
Two First Prizes, each of	50	50
Two Second Prizes, each of	25	25
Ten Third Prizes, each of	5	5

Consecutively, the advertisements covered the following topics, Service, The Rochester Gas and Electric Corporation, Coal Supply Problem, Water Power, Electric Generation, Electric Distribution, Station 3, Station 5, Electric Power for Street Railways, Electric Power for Street Lighting, Gas Manufacture, By-Products, Gas Distribution, The Gas Meter, The Electric Meter, Electric Lamps and Gas Mantles, Utilization of Gas and Electricity, Service Demand, Niagara Power, Reasons Why We advertise, Rates and Bills, Our Steam Business, Territory Served, Co-operation, and Our Financial Problem.

In conducting the contest advantage was taken of all the available avenues of publicity. In addition to the daily press, publicity was created by hand bills delivered to

homes of patrons by the Meter Reading Department when delivering bills, and through large attractive cloth signs placed in a prominent position on the sides of our 24 or more coke trucks which daily traverse all sections of the city. The space on the back of our gas bills was also utilized, and this brought the Prize Essay message directly to all the customers which the Company serves. A large sign bearing a notice of the Contest was hung in the Main Office where the customers coming in to pay their gas and electric bills could see it and carry the information home to their children. The display windows at the Main Office were also pressed into service in this connection. The large electric sign which the Company operates at Station 6, adjoining the old aqueduct near South Avenue, also had a message on the contest.

How they do it in the Movies. A Still Picture Taken While 2 Moving Picture Cameras were Grinding out a Photographic Record of the Party. All of the Cuts on the first 5 Pages of this article, with the exception of the 2 large ones, are prints or enlargements from this Film.



Success in business or life is more often won by persons who are steady conscientious pluggers than by the brilliant on-again off-again type.

—Robinson Crusoe

It was no unfamiliar thing to see persons reading the newspaper advertisements while on the street cars, and frequent comments of an encouraging nature were overheard in many public places during the two months of their running, so that the results obtained are not to be judged entirely from the number of children who wrote essays. Many adults studied the advertisements, and requested additional copies. School teachers, libraries and business concerns in Rochester and elsewhere quite generally asked for the entire sets of 26 advertisements.

The Educational Department kept in touch with many entrants by means of the telephone and through personal calls of interested persons. Queries were answered and information concerning the Company freely given. In some cases entire school classes were interested.

The essays quite generally showed a remarkable grasp of the Company's magnitude and problems as well as a keen understanding of its function in the community.

Following is a list of the children who were awarded prizes at the party on March 3:



Reproduction of a small strip of film. Actual size. Showing President Searle congratulating the Misses Gupino and Handy.

Prizes Awarded to Children Under 15 Years of Age

First prize, \$100—Marion M. Handy of 1009 Park avenue.

Second prize, \$75—Albert Felderstein of 10 Frederic street.

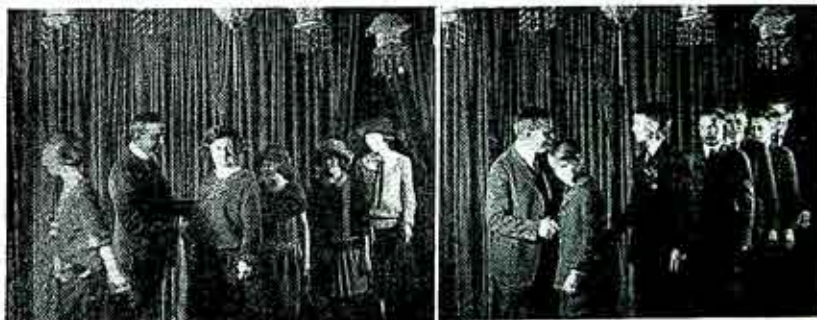
Third prize, \$50, Henry Weunsch of 209 Avenue E.

Fourth prize, \$25—Echel Bloom, 349 Joseph avenue, W. O. Faxon, 2nd. of 6 Portsmouth terrace, Jonathan Gillan of 95 Aab street, Lucille Klauck of 323 Durnan street, Anna LePine of 72 Shelter street, Roy Lingg of 733 Joseph avenue, Mary Rae of 227 Breck street, Elizabeth Reeps of 408 Hudson avenue, Harriett Roupp of 89 Roslyn street, Frank Sheard of 55 Locust street.

Fifth prize, \$10—Margaret Beattle of 7 Champeny terrace, Clifford Bristow of 9 Norwood street, Helen Eastland of 432 Tremont street, Josephine Francesse of 28 Gillette street, Arline Fuller of 93 Bedford street, Isadore Hoffman of 28 Buchan park, Frederick Kates of 23 Werner park, Minnie Klein of 156 Avenue C, Irene Naas of 59 Ellicott street, George, 'Brien of Cobblestone Farm, Canandaigua, Kathryn

O'Reilly of 61 Pearl street, Elizabeth Peck of 226 Elmdorf avenue, Charles Sheard of 55 Locust street, Helen Sheffield of 15 Mayflower street, Anna Strieger of 6 Cole street.

Honorable mention, \$5—Mary R. Besano of 828 Flower City park, Joseph Coco of 223 East Chestnut street, East Rochester, Edwin Dooley of 69 Roslyn street, Thelma Dys of 45 Presque street, Margaret Eckl of 442 Genesee street, Ephriam Kauffman of 472 Alexander street, Clarice Melville of 403 Jefferson avenue, Katherine Murphy of 619 Lake avenue, Ruth Neubauer of 442 Genesee street, Elizabeth Perwitz of 25 Darrow street, Edna F. Rivarde of 22 Iroquois street, Isabel



The Prize Essay Contest Attracted Boys as well as Girls as this Enlargement from a Film Negative shows. Each of the 70 Prize Winners was cordially welcomed and congratulated by Mr. Searle.

Talarico of 145 W. Chestnut street East, Rochester, Stella Vosburgh of 324 Reynolds street.

Prizes Awarded to Children between 15 and 19 Years of Age

First prize, \$100—Mamie Gugino of 11 Montrose street. Second prize, \$75—Selle M. Schult of Hilton.

Third prize, \$50—Irving E. Horsey, Highland park, Reservoir avenue.

Fourth prize, \$25—Jacob Cusimano, 78 Miller street; Helen Fremd of 379 Genesee street; Elaine Frye of 469 Electric avenue; Thomas Gouger of Dewey avenue station, R. D. 6; J. Lawrence

Hill, Jr. of 40 Warwick avenue; Florence Lush of 49 Clifton street, Manchester; Ethel V. Maurer of 1653 Main street east; Florence McKenna of 35 Langslow street; Russell E. Warren of R. D. 2, Rochester; Philip Zenkel of 295 Wilder street.

Fifth prize, \$10—Margaret Connolly of 246 Cypress street, Blanche Frontuto of 110 Madison street, East Rochester, Gordon Grant of 24 Britton road, Edwin Johnson of 26 Bristol street, Canandaigua, Julia Nicoletti of 198 Hillcrest street, Mary Nolan of 51 Fulton avenue, William Reid of 1019 Harvard street, Rose Rothstein of 49 Vienna street, Laura Sutton of Red Creek, Clarence Thompson of 31 Hazel street.

Prizes Awarded to Children of Employees Under 15 Years of Age

First prize, \$50—Hilda B. Howes of 22 Aubunon street.

Second prize, \$25—Viola L. Vrta of 56 Wilbur street.



Mr. Searle had an enviable task and Performed it Gracefully. At his Right is Miss Gugino, at his Left Miss Handy, whose Essay is reprinted in this Issue.



Registering Happiness. Left to Right, Hilda Howes, Mr. Searle and Viola Vrta.

Prizes Awarded to Children of Employees Between 15 and 19 Years

First prize, \$50—Helen Noyes of Weiland road and Dewey avenue.

Second prize, \$25—Edwin A. Noyes of Weiland road and Dewey avenue.

Third prize, \$5—Alice Noyes of Weiland road and Dewey avenue, Gertrude Shippy of 4 Caffery place.

As stated in the announcement which preceded the contest we take pleasure in reproducing directly following this article one of the essays which was awarded a first prize of \$100, it being the work of Marion Handy, 1009 Park Ave., who is a pupil at East High School Annex.

The Party

In further appreciation of the efforts of the children who won prizes, a party was given on Saturday afternoon, March 3, at the R. B. I. Auditorium at which the children, their parents and teachers were entertained by music, moving pictures, a sleight-of-hand performance, ice-cream and cake, and, last but not least, the "shooting" of some real movie films in which the prize essay winners together with President R. M. Searle were the actors and actresses.

In addressing the children, President Searle commented upon the freedom from drudgery which characterizes the age in which we are living. He mentioned the comparative hardships and unpleasant tasks which were a part of the childhood life of the boys and girls of the preceding generation. Many of these hardships have been eliminated through the service of gas and electricity. As a result of this, he explained, many golden hours are saved to the modern boy and girl for helpful study or recreation. The moving pictures,

"The Electric House", and "Back of the Button" accentuated these points, pleasing children and adults alike.

After the regular program, some still pictures were taken followed by the taking of the movie showing President Searle greeting each prize winner. Other pictures taken in the park across the street showed the boys and girls waving the checks they had received as a reward for their efforts.

The enthusiasm of children, parents and teachers at this party as well as the interest known to have been aroused through the publicity inci-

dent to the contest speaks louder than words for its success. Not only was a "better mutual understanding between the Company and its customers", secured, but the young people who will be the customers of tomorrow were interested in the Company. The Essay Committee Messrs. Fisher, Rissberger and MacSweeney together with the technical experts who helped prepare the advertisements probably have themselves as a result of the contest a better comprehension of the Company and its business.

Still Picture Taken in the Park after the Party. The Prize Winners are Shown Holding the Checks They Received as Rewards for Their Efforts



The Father of Success is Work. The Mother of Success is Ambition. The oldest son is Common Sense. Some of the other boys are Perseverance, Honesty, Thoroughness, Foresight, Enthusiasm, Co-operation. The oldest daughter is Character.—C. Beck

The Rochester Gas and Electric Corporation— What it is, What it Does

MARION M. HANDY

This is one of the Essays that won a First Prize of \$100 in the Prize Essay Contest

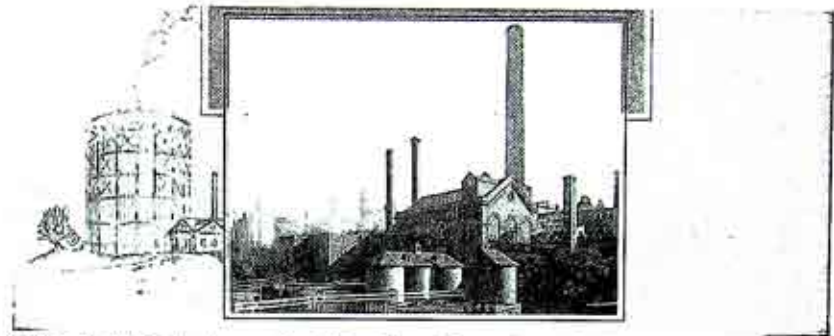
WHEN we turn on the gas to cook our meals, or push a little button to turn on the electricity, or ride on the street car, or watch the street lights go on, many of us take it all as a matter of course, and do not consider the many problems that confront those who make it possible for us to do these things, neither do we consider how they do it. How differently we regard all of these things which we do every day and with what a new interest we look at the great gas tank on Blossom Road, and the Niagara power steel conveyors near South Park, the Company's buildings to be seen from Driving Park Avenue Bridge, and every thing relating to gas and electricity, after we have read and studied the advertisements and booklets prepared by the Rochester Gas and Electric Company for those who enter the Essay Contest. Always hereafter electric wires and coke wagons, electric signs and Bengas will bring to mind all that we have learned as to the how and why of them.

To begin with, then, although the Company deals materially in gas, electricity, coke, motor fuel and other by-products, it really gives to the citizens of Rochester and vicinity a service that makes life more comfortable and business conditions easier and better. Its products save time, and make living conditions healthier and more convenient, and homes more beautiful and streets safer. Its products serve us every moment of the day and night. And so what the Company really produces is this service through its products. Another kind of service which it renders is advice and assistance to business men and housekeepers as to the best and most economical use of its products through appliances or otherwise.

The Rochester Gas and Electric Company is a stock company incorporated under the laws of New York State. Much of its stock is owned by residents of Rochester and vicinity. The Company is especially interested in three groups of people,—its 128,000 customers, and 1,500 employees and its 3,700 stockholders. It has \$31,000,000 invested in real property and it serves a population of 325,000 and an area of over 400 square miles. Every year it has an income of over \$7,000,000, and every year it invests on an average \$1,500,000 in improvements and extensions which are required because the territory it serves is growing so rapidly. Most businesses turn over their capital more often than the Rochester Gas and Electric Company whose capital is turned over only once in five years. This slow turnover necessitates the most careful, economical management in order to be a success.

Three-fourths of the total power used by Rochester and vicinity in 1921 was supplied by the Company. Coal is the principal material out of which most of the products of the Company are made. In 1921 the expense of buying the coal amounted to \$1,600,000. This was paid for \$240,000 tons of coal, 660 tons being the average amount used per day. All the coal is bought in Pennsylvania on a competitive basis. For the manufacture of electricity the crushed "mine-run" coal can be used, while for the making of gas, coal from a special district is used, because it contains an unusual amount of gas making elements. Before the Company buys the coal it is analyzed to determine the number of gas making qualities. It takes 5000 cars to bring this coal from Pennsylvania, a distance of about 200 miles. These 5000 cars would make 100 trains of 50, 50-ton cars each. Men are employed to prevent delays in the transportation which would effect the manufacture and delivery of the Company's products. 40,000 tons of coal are kept in reserve in case of delays or coal famine and during the present shortage it has several times been necessary to draw upon this reserve store. Special machinery is owned by the Company to economically store and handle the coal. By the use of automatic stokers it has become possible to use hard coal screenings and low grade soft coal in the manufacture of electricity. No business is more vitally affected by a coal shortage than the Rochester Gas and Electric Company. Every-

thing depends upon its obtaining coal. Therefore, the present shortage requires the most careful planning and management in order to obtain a supply sufficient to



Station 3. Which Supplements Our Hydro-Electric Power Output During Low Water Periods and Furnishes Industrial and Heating Steam to Adjacent Factories

keep the people of Rochester furnished with gas, electricity and power.

Since it is so expensive to buy coal and since there is always danger of a coal shortage such as exists at present, the Company has utilized to the fullest possible extent, the water power which is derived from the four falls of the Genesee River at Central Avenue, Ravine Avenue, Driving Park Avenue and the Lower Falls. At the present time about 65% of the electricity is generated by means of water power. Some day a great storage dam will undoubtedly be built on the Genesee River at Portage that will increase the Rochester capacity 18,000 continuous horse power. And the power will not be affected by flood or drought. This is not done at present because the expense is too great, being \$18,200,000 including the additions it would be necessary to make at Rochester. Without this dam, however, the Genesee River varies in the volume of water from 250 to 45,000 cubic feet of water per second, and, therefore, the water power used to generate electricity varies proportionately. So, during low water periods auxiliary steam generating equipment is required. The steam and hydraulic plants can be operated together or separately whichever is more economical according to the conditions which exist. The demand for electricity made upon the Company also determines when it is necessary to use the steam generators in addition to the hydraulic plants. As a protection to the public against any interruption of service the Company used power purchased from the Niagara system when it is necessary to do so. Although the operating cost of the water power plants is lower than the operating cost for steam plants, nevertheless the investment for water power plants is greater, but by using the water power plants at full capacity during high water periods the saving in operating costs results in a comparatively low average production cost.

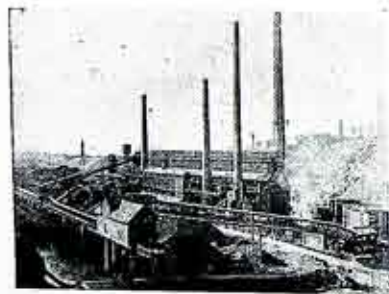
Electricity is produced from some form of energy such as that produced from the combustion of coal, from the mechanical energy resulting from falling water, or from the chemical energy produced by batteries. When electricity is generated by a steam turbine it is the converted energy of coal. The coal is received from the mines and placed in coal bunkers. From there it is taken to automatic stokers attached to the boilers. The heat of the burning coal produces steam in the boilers. This is conveyed through pipes to the steam turbines. The steam from the boiler rotates the shaft of the steam turbine at high speed. The electric generator is attached to the steam turbine shaft, and the result is the production of electricity. In hydraulic generation, weight of falling water is used to rotate water wheels which in turn, operate generators. The electricity which comes from the generators must be very carefully taken care of. It is conveyed on copper cables to the power house switch-boards, and it is there measured and then switched to a variety of transmission or distribution lines which run directly to customers and sub-stations. In the sub-stations the electricity is transformed to different voltages or converted from alternating to direct current before it is sent out to the distribution lines. Electricity is distributed in four main divisions of service, first, street lighting service; second, direct current 575-volt street railway service; third, direct current 125 to 250-volt Edison service for light and power consumers within a limited distance of the center of the City; fourth, alternating current 125 to 250-volt for light and power service for customers beyond the direct current territory. Special regulating transformers which automatically maintain constant current values on the circuit supply street lighting circuits from power houses and sub-stations. The street lamps are connected in series and the voltage of each series varies according to the number of lamps. The current for the street railway and Edison service has to be converted from alternating to direct current by large machines called convertors. Electricity, when it is generated, has a voltage of 11,000 volts. It is reduced at the sub-stations to 4,150 volts. Near the consumers' premises the voltage is again lowered by means of small transformers. Heavy inter-connecting circuits called tie-lines, con-



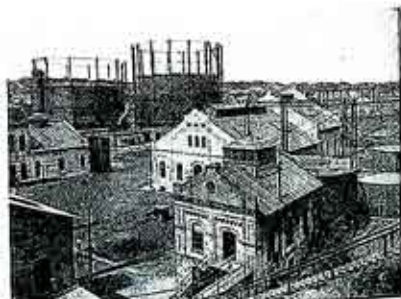
nect all the various electric stations of the Company, and these are installed in duplicate. There are automatic cut-outs in all of the distributing lines which protect the system from local or temporary failure of individual lines. Most of the large distributing lines are installed underground in subways. This has cost the Company hundreds of thousands of dollars but it eliminates the trouble caused by rain, snow, sleet or falling branches, and so forth. The overhead wires are either copper or aluminum. Wood and concrete poles and sometimes steel poles are used to carry the wires. At present there are about 2300 miles of overhead wires and about 1300 miles of underground wire. Through the co-operation of property Owners many poles are in the rear of house-lots which improves the safety and appearance of the streets. From daily charts which are made it can be known any time of the day or night what varying amounts of electricity are being used.

The largest electric power house where electricity is generated is Station 3. This is a steam generating plant. It is located below the Upper Falls at the intersection of Mill Street, Brown's Race and Factory Street. The convenient location of this Station in the heart of the city necessitates only a small amount of wire cable for distribution purposes; also, its nearness to the New York Central Railroad tracks makes the handling of coal and supplies, easy. Its location on the Genesee River gives it an ample supply of water for boiler purposes. In the spring, almost all of the power sold by the Company is generated by the hydraulic stations. The responsibility of supplying most of the electricity from July until the thaw of the following spring, falls upon Station 3. The monthly maximum steam generation has been 247,000,000 pounds of water evaporated by the boilers and the monthly maximum electric generation has been 15,761,000 h. p. hours. This output can, however, be greatly exceeded in the future, since the Company is installing at the present time at a cost of \$451,000 a new steam turbine of the very latest type with a capacity half again as great as any now installed in this Station having a capacity of 15,000 kilowatts. This new turbine has been made necessary by the increasing demand for electricity. Also, new switching apparatus and a new electric boiler are being installed in this Station. This boiler is of a kind entirely new to Rochester since it will use condensed steam returned from the heating apparatus of the steam station and the heat for it will be supplied by surplus current generated by the Genesee River. Neither river water nor Hemlock water can be satisfactorily used in this boiler. To meet the varying demand for coal the Station is equipped with a coal bunker of 4,500 tons capacity. The maximum monthly consumption has been 19,200 tons and daily 786 tons. Most of the electric power generated in this power house is sent to other stations for re-distribution. The remainder is distributed to the street railway company, the Edison direct current and the alternating current distribution circuits. Also, nearby industries are furnished with steam from this station. 145 men are employed here. There are three large smoke stacks rising from this Station,—one, 265 feet high, and two 178 feet high.

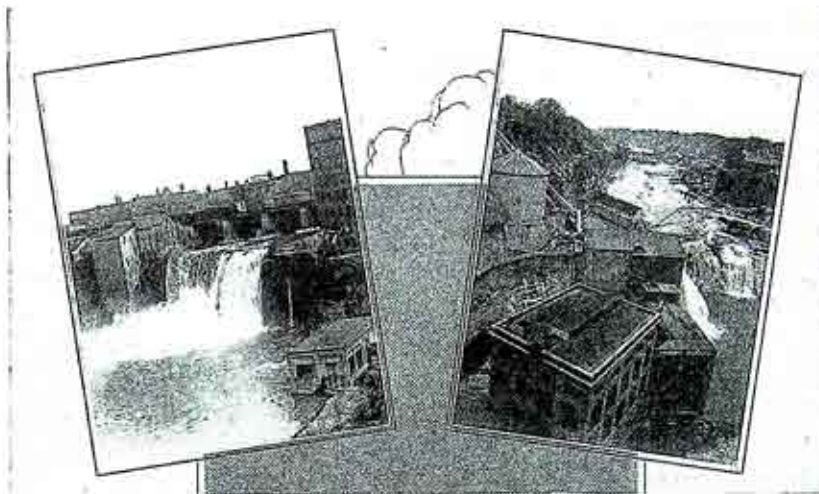
Another Station located on the Genesee River below the Lower Falls is Station 5, the Company's largest hydraulic plant. It has an ultimate capacity of 48,000 h. p. In 1917 at a cost nearing \$2,000,000 a great storage dam, a new power house, and a water tunnel leading from the dam were constructed. The dam which is a movable steel structure is one of the largest of its type which has ever been built. 20,000,000 cubic feet of water is stored in the pond as a result of the dam, and this will produce 60,000 horse power hours of energy. The water tunnel is over one-quarter of a mile in length and about twenty feet in diameter, and it leads into pipes thirteen feet in diameter which carry the water to the hydraulic turbines. An inclined railway having a capacity of forty tons reaching up to the Driving Park Avenue level has been installed. Future developments can be added to this plant as it becomes necessary. In addition to the energy



West Station Coal Gas Plant Just North of Station 3 on Genesee River, South of Smith Street Bridge



East Station Gas Works where in normal times Approximately 8,600,000 cubic feet of Carburetted Blue Gas is made daily



At the left is shown Station 4 on the Upper Falls of the Genesee River. At the right is Hydraulic Station 5, our 48,000 horse power development at the Lower Falls on the Genesee River

supplied to other stations the street lighting and other power requirements for the northern part of the city are supplied from this Station. During the war when this Station was first placed in operation it was of great assistance in providing the increased service which was required.

This Company is required to furnish more power for the street railway system than for any other customer. Power is supplied to the Charlotte, the Rochester and Sodus Bay, and the Rochester and Eastern Railways besides the local system. Street cars are propelled by direct current at a pressure of 500 volts which is kept constant by having feeder cables at suitable points. Most of the electric power when generated is alternating current. This is converted to direct current at power houses and sub-stations. The Company must always be able to provide the power necessary for the maximum demands of the street railway, such as the morning and evening rush hours, great conventions, ball-games, circuses or fairs.

Well-lighted streets are one of the greatest forces toward making it safe for those who have to be out in the evening. Rochester has 75 street lighting circuits which contain over 11,000 incandescent and arc street lamps which use 3000 h. p. A constant current value is maintained in each circuit by means of automatic transformers. The circuit cables to a large extent, have been placed underground in order to decrease trouble from wind, snow and sleet. The lights are always turned on one-half hour after official sunset time, and turned off one-half hour after official sun-rise time. A corps of men is constantly patrolling the streets at night to discover defects in the lighting system, and the police and public generally, co-operate helpfully by reporting broken or extinguished lamps. The style of lamps used must meet with the approval of the Rochester Art Commission.

Gas has been made by the Company since 1848. The present site of the manufacturing plant, at the foot of Falls Street on a New York Central siding, is especially fine because of the nearness to the railroad to ship products and to unload coal. As the coal arrives from the mines it is unloaded into receiving bunkers. On belt conveyors it is taken to a crushing plant then by belt conveyors it is taken to other bunkers over retorts. Here it is automatically weighed and then it is discharged by gravity into 252 vertical retorts or gas-making chambers each of which hold about 2200 pounds of coal. It is left here for eleven hours in a temperature of 2300 degrees Fahrenheit. This great heat separates the gas from the coal. The remaining substance is coke. The coke is discharged by gravity into an electric car and carried to a quenching house where it is partially cooled by means of water. It is entirely cooled on special racks and carried on belt conveyors through crushers and screens to storage bins. From them it is sold to customers. Very fine coke screenings which would otherwise be of little value are used in gas producers which make the gas with which the retorts are heated. 13,000,000 cubic feet of this producer gas is needed every day. At first the gas contains tar and ammonia. These elements are washed out by machines called washers and scrubbers. In crude gas there is also hydrogen sulphide. This is removed by passing the gas through a sodium carbonate solution and porous filter beds of iron oxide. The purified gas passes through the Company's metres into large storage holders from

which it is delivered to consumers. Only 4% of the coal burned in the making of gas is unaccounted for. For the 525 tons of coal carbonized daily there is produced 6,000,000 cubic feet of gas 368 tons of coke, part of which is used by the Company, 6,000 gallons of heavy coal tar, 3000 pounds of ammonia, several hundred gallons of ammoniacal oil, light coal tar, and crude light oil used in making Bengas.

Carburetted blue gas is often erroneously called "water gas". It has the same characteristics and properties as coal gas. In making this gas, steam generated in nearby boilers is passed through a fuel bed of coke. The heat of the white hot coke decomposes the steam into hydrogen and oxygen. The oxygen combines with the carbon in the coke which forms carbon monoxide. These two gases hydrogen and carbon monoxide form what is known as "Blue Gas". Blue Gas is then passed through a fine oil spray of intense heat and by the addition of the gases from the oil spray carburetted blue gas results. This gas is mixed with coal gas in the gas holders before it enters the gas distribution system. During 1922, 60% of the gas made was coal gas and 40% was carburetted blue gas. All of the gas is tested frequently during the day to ascertain whether it conforms with the standard set by the Public Service Commission.

The price of the Company's products would necessarily have to be much higher if the by-products such as coal tar, Bengas, ammonia and coke were not made and sold.

Coke is a high-grade fuel a ton of which is guaranteed to last as long as a ton of anthracite coal. As the Company's coke customers are increasing it proves that the people recognize the merits of coke. During the present coal shortage there has been such a demand for coke that the Company has had to restrict its sale to its old customers.

Nearly 2,000,000 gallons of coal tar was manufactured in 1921 averaging about 12 gallons to each ton of coal. This by-product has many uses from road building to delicate perfumes.

Ammonia is another by-product which is sold in concentrated form to be used as the basis of fertilizers, explosives and other products.

Light oils are also made and were used during the war for war purposes and are now used in making the motor fuel called Bengas.

By reason of the revenue from all of these by-products being credited to the cost of making gas, the rate for gas in Rochester is the lowest in New York State and one of the lowest in the United States.

Rochester requires 8,000,000 cubic feet of gas storage capacity and 540 miles of gas mains. The mains and storage tanks correspond to the ware houses and railroads or delivery wagons that deliver ordinary merchandise. The Company owns three storage tanks—one of 1,000,000 cubic feet capacity,—the one of 2,000,000 cubic feet capacity, located at the gas works on the east side of the river. The other, located on Blossom Road in the town of Brighton has a capacity of 6,000,000 cubic feet. The most expensive single piece of equipment operated by the Company is a gas tank, although if considered from the standpoint of economical operation, it is also the cheapest. These tanks require constant attention especially during the winter months. The gas tank is peculiarly constructed. It is similar to an inverted, collapsible drinking cup. When the tank is full it is extended to its full size, but as the gas is used the sections of the tank sink into one another. During periods of heavy demand for gas, gas pumps are used to increase the pressure. The Company has 85,500 gas customers. The distribution system consists of a network of underground pipes in the city's streets. These pipes terminate in smaller pipes which convey the gas through the cellar walls into the consumers' premises. The gas mains range from three inches to thirty inches in diameter. The city is encircled by a special high pressure main 16 inches in diameter. The gas holders feed the low pressure mains. The medium pressure mains are supplied through regulators which automatically keep the pressure constant. At various advantageous locations recording instruments are placed to record the gas pressure. Cast iron is generally used for the street mains. Steel pipes are used somewhat in the suburban districts. About 67,000 gas services are in use, 95% of which supply gas for home use. The remaining 5% supply gas for industrial purposes. There are about 86,000 gas meters installed. The Company maintains a department that is subject to the call of the public at any hour, to inspect, test, adjust and repair meters and appliances.

One of the most accurate measuring devices existing is the gas meter. They are more accurate than the average watch as they come within 2%. Both the Company and a representative of the Public Service Commission test the meters before they are to be used. All the meters are regularly tested and inspected. The Company does not make its own meters. The practice of the consumer reading his own meter is very much encouraged by the Company.

Electricity is also measured by meter.



A Familiar Sight During the Contest

An electric meter is really a small motor which runs on jewelled bearings with practically no friction. More than eighty different sizes of meters are kept in stock so that the correct size and kind required by different industries and

for domestic use can be installed. Upon receiving a certificate of approval of the wiring from the Board of Fire Underwriters, the Company install a meter. Electric and gas meters are read in the same manner.

By means of an electric current in a glass globe from which the air has been exhausted, Thomas Edison, on October 21st, 1879, first succeeded in an attempt to burn a carbonized cotton thread. The filament was heated white hot by the electric current, but because of the lack of the presence of oxygen, it did not burn up. Edison said, "We sat and looked and the lamp continued to burn, and the longer it burned, the more fascinated we were." Now, the carbon filament has been replaced by Tungsten metal which has made it possible to obtain three times the amount of light for the same amount of energy. In 1881, 30,000 incandescent lamps were produced, and in 1921, 500,000,000. 230,207 lamps, varying from 8 to 1000 candle power were sold by the Company to its customers in 1921. Incandescent gas lighting is based upon the work of Dr. Robert Bunsen who invented the Bunsen gas burner, and Dr. Auer von Welsbach, an Austrian chemist. A modern burner of to-day that uses a high grade mantle will produce about thirty candles of light per cubic foot of gas consumed. This is from six to eight times as much light as the open flat flame or fishtail burner will give for the same amount of gas.

Gas is taking the place of other fuels as electricity is taking the place of other power. The cleanliness and convenience of gas, making the carrying of coal and the carrying out of ashes unnecessary, make it the favorite fuel for housekeepers.

Electricity is being used more and more to light houses and for electric signs, for electric irons, vacuum cleaners, toasters, plates, electroliners and many other appliances. In a recent article in a popular magazine, a woman tells of her electric home where she has over sixty electric household appliances, including an electric range, dish-washer, fireless cooker, and one appliance that does nineteen different things including grinding coffee, mixing bread, beating ingredients and freezing ice-cream.



Our Six Million Cubic Feet Gas Holder at Searle Park, Blossom Road

The Company maintains a department where advice in regard to the use of gas and electricity and all household appliances can be had. Small repairs to domestic appliances sold by the Company are made here at cost.

The weather, the season, and the time of day all determine the amount of power which the Company is called upon to provide. Early in the morning in the winter, electricity is used for street lighting, and the demand increases as the people of the city awaken and use electricity for house lighting. The demand increases again until seven or eight o'clock by the need of the street cars for power during the morning rush hour. Then, the house lighting ceases but the power demands of the industries begin. From then until noon the demand is fairly constant. For an hour at noon when the industries close down for lunch, there is a material decrease in the demand. In the afternoon for about half an hour during the dark days of winter the demand is at its maximum because houses and factories are lighted, the industries are still going, the street lights are lighted and the demand for street car service is on the increase.

The demand for gas fluctuates in the same manner, the greatest demand being when meals are being prepared, and during the spring and fall canning season, and in the winter when gas is used for house heating.

Gas can be stored but electricity cannot because of the expense so the Company must own enough equipment to meet the heaviest demand. Electricity which is produced at times when the equipment would otherwise be idle is called "Marginal Power" and is sold to large consumers at special rates.

The Company uses Niagara current to supplement the power generated here when it is necessary. The plants which generate the Niagara power are owned by the Ontario Power Company, located on the Canadian side of the Niagara River just below the Falls; about 60 miles from Syracuse on the Salmon River and at Minetto on the Oswego River. A plant at Lyons also feeds into this system. Duplicate 60,000 volt power lines convey the electricity across New York State from Niagara Falls to Syracuse. A modern sub-station has been erected at Elmwood Avenue and South Park in order to utilize the power. At this station the voltage is reduced and transmitted

underground to the Company's down town plants. A large part of this current is used for street railways and some of it is transmitted to Canandaigua. The amount purchased from the Niagara system varies for this power is used as a supplement only when it is profitable to do so.

The Company believes in extensive advertising because through it the advantages of using its products and by-products are brought to the attention of the people. Also, through advertising the Company stimulates the idea of thrift, warns the public against fakirs, reminds manufacturers of the possibilities of increased production and better conditions, acquaints car-owners with Ben-gas as a motor fuel, encourages the youth of the city to have respect for property rights, tells people that they have a right to demand fair and courteous treatment and tells them where to get it.

Every month gas and electric meters are read by trained men in the Company's employ. An admirable system has been perfected for the reading of meters and paying of bills. The territory served by the Company is divided into twenty-two districts, so that in one district the meters are being read while in another district bills are being paid. This is a great advantage because it keeps a continuous round of bill paying and prevents congestion in the office on bill-paying days. For the purpose of quickly and correctly checking operations the Company has adopted mechanical devices for book-keeping. A penalty payment on overdue bills helps to keep down bad debts. When bills are paid by mail, the date of the post-office cancellation stamp is accepted as the date of payment.

Another source of income about which the public is not so well informed is the sale of steam by the Company. At present there are over one hundred steam customers, requiring over six miles of piping. About 550,000,000 pounds of steam is used annually. Manufacturers, located near the Company's three plants are the principal customers. Station 3, 26 and 38 are located at Mill and Factory, Graves and Aqueduct, and Litchfield Streets respectively, are the steam plants. Some steam is used at either one hundred or one hundred ninety pounds per square inch from the boilers. Steam is used for heating from September until June at low pressure, at from one to five pounds per square inch. Some of the steam used for heating is waste from electric generation. The pipes are from one to sixteen inches in diameter and they are both underground and overhead. They must be insulated to keep the heat from escaping. Steam, like gas and electricity, is sold on a meter basis.

The Company serves a territory of over 400 square miles in which 360,000 people live. The following towns, besides Rochester, are supplied with both gas and electricity: Brighton, Chili, Gates, Greece, Irondequoit, Penfield, Perinton, Pittsford, Canandaigua, both city and town. The following towns are supplied with electricity alone: Parma, Ontario, Sodus, Williamson, Wolcott, Farmington, Hopewell, Manchester, Victor. At the present time a petition is before the Public Service Commission to extend the electric lighting system into the town of West Henrietta. In order to supply this large territory, there must be sub-stations and subsidiary power houses in various places, for instance there is a coal gas manufactory at Canandaigua. There is also a hydro-electric power house at Littleville, six miles from Canandaigua. There are also sub-stations for the conversion and distribution of electric current at Float Bridge, Webster, Ontario, Williamson, Sodus, Wolcott, Gates, Manchester, Canandaigua, Hilton, Victor, Pittsford, and East Rochester. Some of these sub-stations are locally owned but they all are supplied with electricity from this Company.

To serve this great territory the Company has 2,256 miles of overhead wire, 1,307 miles of underground wire, and 535 miles of gas mains, all of which are constantly being added to as the territory served is rapidly increasing.

The co-operation of the public is absolutely essential to the success of the Company's business. There are many things the customers can do to help improve the service such as ordering meters and other services required as far in advance as possible; reading their own meters and so avoid ing waste and unnecessarily high bills; promptly reporting any defects in the service or any dangerous condition, such as a fallen wire or broken street lights. It is also of great service for the public to promote safety by discouraging boys from climbing electric light poles or attempting to use the poles for radio purposes. Also, it is of great benefit to the Company to have for its stockholders, so far as possible, local people, whose interest will thereby be bound up in the Company's success.

The gross annual income of the Company received from the sale of gas, electricity, and by-products is planned so that it is sufficient only to pay operating expenses, taxes, and dividends on the stock issued and interest on the bonds. Every year the additions and extensions cost about \$1,500,000 but this amount is obtained by issuing stocks and bonds which are bought almost entirely by the people of Rochester. These extensions and additions are planned three years ahead, and after being approved by the management and authorized by the Board of Directors, they are submitted to the Public Service Commission from which permission must be obtained to carry them out.

In a recent interview, Mr. Robert M. Searle, president of the Rochester Gas and Electric Company, told of many developments which will take place here in Rochester within the next

(Continued on Page 282)

Station 3 Blacksmith Shop

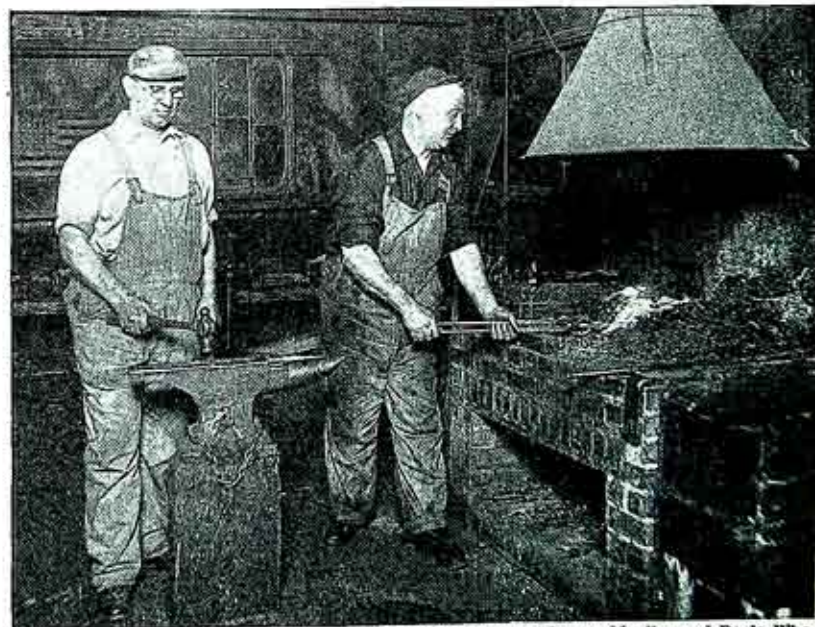
TUCKED away in back of Station 3 a little out of the beaten path of most employees there is a Company blacksmith shop which does a thriving business of a rather miscellaneous nature. They do about everything in this shop except shoe horses, and if the truth is known, no horse ever darkened the doorway of this place. When one speaks of blacksmith shops, however, it seems but natural to think of horses, horseshoes, the village smithy and flying sparks accompanied by the ringing of the old anvil, and many of us still remember the old leather bellows that wheezed and puffed and made such hard work of fanning the pungent soft coal fire before the advent of electricity.

But the old-time blacksmith shop has changed materially along with

many other things of modern life. The old bellows is extinct and in its place is the more modern electric fan that transforms a piece of tool steel to a cherry red or a white heat almost instantaneously. As for lighting, the modern shop has its electric lights which add materially to the skill of the most efficient smithy and make his hours of work practically free from eye strain.

As long as there are horses to be shod, and there are still a few, there must be horseshoers, but most of the men who were in this line of work some years ago have graduated step by step into the broader fields of skilled mechanics and are now tool makers, automobile experts, etc. In this class is to be found Mr. Peter Mueller, of the Station 3 blacksmith shop, and his helper

(Continued on page 282)



Interior of Station 3 Blacksmith Shop Showing Left to Right Messrs. Mueller and Doyle Who Believe in "Hitting the Iron while it is Hot."

Electric Vitreous Enameling Furnaces at the Galusha Stove Company

EDWARD W. ROESER

THE unusual demands for enameled kitchen ware within the past few years have caused similar demands to be made for enameled stoves. For a great many years the application of vitreous enamel to steel and iron products has been accomplished through the agency of fuel fired furnaces; using coke, coal, oil or gas as a heating medium. The skill required in this art was until recently regarded as quite secret, due largely to the operator's familiarity with the system of temperature control devised by himself from experience.

Electric heating has for many years been regarded as too expensive and until very recently little experience had been accumulated concerning the uses to which nickel-chromium wire could be subjected. Like any new departure from accustomed practise the use of electric heat for high temperature work met with criticisms which are now relics of the general tendency to fear the outcome of heralded improvements. Excessive cost, the failure of the heating elements, and their destruction due to impurities which might come in contact with them when at high temperature, were among those most frequently mentioned.

The cost in inconvenience and lack of control when having enameled work done in other plants caused the Galusha Stove Company to consider the proposition of installing an enameling plant of their own. Coke, Coal and Oil fired furnaces received careful attention but the difficulty of securing accurate and comparable information caused some confusion as to realizing the actual merits of each except in a very general way. From prescribed performance data

the cost of operation of an electric furnace was estimated. The installation cost together with the inherent advantages of electric operation were factors that determined the selection.

CONSTRUCTION

The Galusha furnace consists of a lower and upper rectangular chamber the side walls of each carrying refractory supporting bricks upon which nichrome ribbon is suspended. The space occupied by the heaters is in a sidewall niche so as to avoid contact with incoming work. A winding has been placed on the front wall of the lower chamber to provide compensation for door losses. On each side wall in the lower chamber one third of the capacity is distributed as a double winding. The remaining third is distributed on the side walls of the upper chamber as a single winding excepting near the charging door the winding is doubled to assist the front lower chamber single winding in compensating for door losses. Such a disposition of heating elements enables the operator to utilize the entire depth of the furnace and further contributes to the distribution of a uniform heat throughout the working space.

The products to be enameled are placed on thermalloy triangular bars which rest on the arms of the charging fork shown in the illustration. When charging the furnace the load is advanced in the chamber and the bars are lowered onto the projecting refractory ledge which separates the lower and upper chambers. The charging fork is then withdrawn, the door closed and the work subjected to the radiant heat of the elements for the firing period. In unloading the above operations are reversed in sequence.

INSULATION

In order that the external radiation losses may not be too great air cell insulating brick 12" thick surrounds the heating chamber. Such brick has little mechanical strength and is therefore re-enforced by an outside wall made up of one course of red brick.

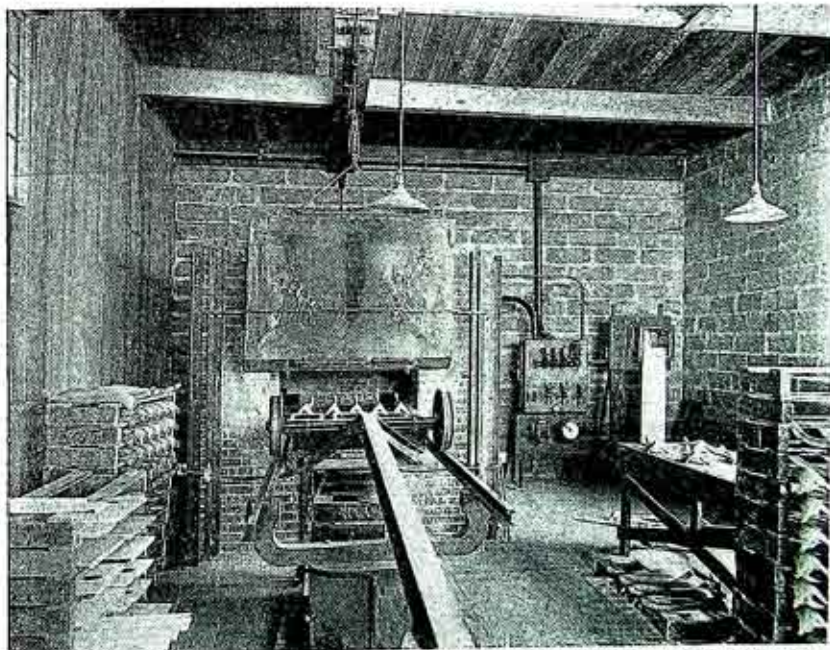
ELECTRICAL CONNECTIONS

The windings are connected in delta and this network is supplied power from the consumers service at 234 volts, 3-phase, and 60 cycle through the contactors shown at the top of the switchboard. The control switch energizes the contactor magnet closing the circuit. At the bottom of the board three relays are located. The one at the left controls the energy supply as dictated by the Leeds-Northrup temperature control, and the other two provide protection against overloads.

TEMPERATURE CONTROL

The Leeds-Northrup control receives a voltage from the thermocouple inserted in the rear of the furnace chamber. This voltage creates an unbalanced condition in the galvanometer system proportional to the temperature. The galvanometer control element through the mechanical train devised indicates the temperature in the chamber. A dial in the rear of the instrument is so operated that when the temperature is low the closing relay at the left closes the contactors at the top of the board. When the temperature exceeds the predetermined value the opening relay, which is combined with the closing relay, operates to disconnect the contactors from the circuit. By this arrangement the temperature may be controlled within five degrees Fahrenheit.

Such accurate control makes it



Two Years ago This Furnace was the Second Electric Vitreous Enameling Furnace in Operation in This Country. The Great Demand for Enameled Stoves has made it Imperative that Another Furnace of Similar Capacity be Installed

possible to duplicate results in such a furnace whereas some difficulty is experienced in this connection in other types. It also contributes to the economy of operation which is important when employing electric energy as a heating medium, in that the automatic control limits the power consumption to the actual production requirements of the furnace.

PERFORMANCE AND COST

Furnaces are now being designed which will produce 6.5 to 7 pounds of metal enameled per K.W. hour at a temperature of approximately 1600 degrees Fahrenheit. An efficiency of this character is indeed inviting when electric energy can be purchased at low cost. Some furnaces have been installed where the rate per K.W. hour is as high as 2.5 cents. Lower rates than this are possible locally, the actual rate being dependent on the manner of use in accordance with provisions in the rate schedule. The furnace under consideration operates after the foundry load is off and in addition, during the winter months, remains off from 4 to 7 P. M., thereby earning a very favorable rate.

When the foundry closes down the control switch is thrown in and the temperature allowed to attain its working value whereupon the control equipment disconnects the energy supply. The time required to raise the temperature 500 degrees Fahrenheit is about 45 minutes. When the operator arrives the furnace is at proper temperature and enameling is begun.

An electric load of this type is particularly desirable for several reasons, first it generally uses energy 24 hours per day, and when properly operated a load factor as high as 80% may be obtained; Second it does not require any more capacity from the central station than its connected load; in other words it is a non-inductive load and therefore operates at unity power factor. This is a

vital consideration in central station equipment investment.

TREATMENT OF PRODUCTS

Cast iron products are sand blasted and then cleaned by compressed air after which enamel is sprayed on them. It is then dried and fired. The temperature at which the product is fired largely depends upon the constituent parts of the enamel used but with cast iron, temperatures from 1200 degrees to 1400 degrees Fahrenheit are employed. The finish is hard and glossy being made up in a variety of colors such as white, gray, blue and black.

Steel for enameling is used in sheets and is treated in an acid bath before the enamel is applied. The enamel is flowed on the work and allowed to drip before being placed on the rack to dry. The firing is conducted in the same manner as with cast iron with the exception that the firing period is but 2 or 3 minutes and the temperature higher, somewhere about 1600 degrees Fahrenheit.

FUTURE DEVELOPMENTS

Recent developments and experience clearly indicate the wide application of electric heat for industrial processes. The cost of electricity as normally used has established an unwarranted fear in the minds of many that its use would be suicidal for furnace operation whereas it can be utilized to advantage in most heating operations at a cost justifying its use in competition with other fuels. It cannot be used economically unless careful technical judgment is brought to bear in design of equipment and operating knowledge to use the rate schedule to the best advantage is acquired by responsible employees.

Two years ago the Galusha Stove Co.'s electric enameling furnace was the second furnace in operation on a commercial scale in this country; today over 30 furnaces employing

(Concluded on page 282)

Our Underground Lines

MR. Thomas H. Yawger, Superintendent of the Company's Electric Department, when interviewed recently was in a reflective frame of mind and allowed his thoughts to steal back for a period of twenty-five years as he sketched a mental picture of conditions existing in those earlier days of electricity. "At that time", "Mr. Yawger said," our downtown sections were a mass of overhead wires and poles both unsightly and unsafe. Some of the poles near the Four Corners were ninety feet in height, and the trouble they could cause during severe wind and snow storms such as we have experienced this past winter can be imagined. "This cumbersome overhead system was a constant cause of anxiety to the Electric Distribution Department, as it could be depended upon to cause a large amount of trouble each year". Mr. Yawger stated that it was now a great satisfaction to reflect that that tremendous source of trouble had been entirely eliminated in our downtown and much of the residential section.

Continuing, Mr. Yawger said: "It is extremely fortunate that the policy of the Company in those early periods of its history, as it is at the present time, was moulded by a management that had foresight sufficient to look ahead over a period of over twenty years before formulating its plans for current construction work. This Company was one of the very first to inaugurate a policy of underground lines and the first underground manhole constructed by the Company was built at the corner of Main Street East and University Avenue in 1902. This manhole is still in use and is functioning perfectly although the growth of the Electric Distribution System may ultimately require its enlargement.

Since that time the underground

plan has been followed consistently and each year sees additional miles of subway added to our system. At the present time the Company has 1395 miles of underground cable, and 1087 miles of subway duct. During the past year 140 miles of underground cable, and 64 miles of subway duct have been installed. More than \$700,000 has been invested in the past ten years in underground conduit alone, and Mr. Yawger explained that this sum, and a total of \$1,400,000 which has been invested up to the present time in ducts will help to bring out the fact that underground installations are expensive. Their increased cost over overhead installations limits the amount of new underground installations that can be financed during any one year. Over 65 per cent of Rochester's street lighting lines are fed by underground cables.

During the severe storms which usually characterize our winters, as Mr. Yawger stated, we now know that our downtown wires are safe and sound underground where the liability of interruption to service or danger to the public is at a decided minimum. Much of this underground system was completed some years ago when labor and materials were less expensive than today and its early adoption not only confirms the judgment of the management in inaugurating a pioneer movement in line construction but also accentuates the great value of getting things done when economic and labor conditions are most favorable. Rochester is believed to have more miles in its underground conduit system than any other city of its size in the country, which as Mr. Yawger says should be encouraging to all officers and employees who have helped to place our home town in this very desirable position.

GAS and ELECTRIC NEWS

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Vol. 10 March, 1923 No. 9

In the effort to restimulate prosperity, greater service, better products and fairer values will positively accomplish something; but other means are doubtful.

—The Traveler.

Quality In Electric Service

ROCHESTER stands for Quality. Throughout this land of ours the name Rochester and the word quality have come to be synonymous—"Rochester made means quality".

In connection with the random talk about governmental hydro-electric development and the loose comparisons which are being made between the operations of governmental and privately owned hydro-electric enterprises, it seems wise to reiterate that in discussions of this nature the matter of quality, which in many instances is taken for granted to be equal in both cases, must be considered. The question doesn't hinge on how much we pay per K. W. hour for electricity but rather what

we are getting for what we pay, i.e. what is the character of the service rendered? Is the cheaper service one which those who have been accustomed to good service would be satisfied with at any price?

Certain governmentally operated hydro-electric enterprises to which particular reference is made render for instance a twenty-five cycle service on an exclusively overhead line construction and without steam standby. This service while far better than none and a credit to the people responsible for it, is nevertheless unsatisfactory and inadequate in communities which have for years received a sixty cycle service distributed largely underground and backed up by steam auxiliary. In the first instance, interruptions are frequent, in the second, unusual. Further, in addition to the character of service rendered to the private home and to industry there is the question of the character of the service rendered to the municipality, i. e. the excellence of the street lighting system. Not only is the character of the illumination important, a result secured by proper light sources together with uninterrupted source of power supply, but the safety of citizens from the dangers of overhead wires which are almost certain to be blown down in storms is of even greater moment. In Rochester where the underground system is the most extensive in proportion to size of any city in the country, this danger exists in some degree, and it is with pride that we note how the educational authorities warn the children of these dangers whenever severe storms reach Rochester.

It is evident to the careful observer that the people of the United States in general, and Rochester in particular have in general received and have rightfully come to expect an electric service of the highest

possible type. This is a service which is backed up by adequate sources of supply, is delivered largely underground and is maintained and utilized to the fullest possible extent through the services of an especially skilled operating staff. It is probably true that the localities in the United States and elsewhere which have through necessity been satisfied with an electric service less good than that described—one which has frequent interruptions due to the instability of its lines or the inadequacy of its sources of supply—will through a progress of education demand better service in the future. People are realizing more fully the benefits of high grade lighting, the safety, esthetic and business advantages derived from the underground distribution system and the personal service in utilization of electricity, which means large savings in home and business life, rendered through the superior equipment and skilled advice of the better type of organization in privately conducted public utilities.

In electric service as in all the other elements of business life, price is not the only thing that counts. Anything which may be cheap may not necessarily be a wise purchase whether we are dealing with electricity or a suit of clothes. It is an axiom of business that we get what we pay for, nevertheless many do not believe it, especially those who do not stop to reflect that in the electric rate in a community which has the superlatively good service which we have described, there is and must be a charge for the elements of service satisfaction and reliability which in these communities we have come to look upon as a matter of course.

In connection with electric service we repeat, the question is not how cheap one wants electric service but how good. The inexorable economic laws of supply and demand naturally

adjust the question of price when the question of quality has once been settled. We believe that Rochester wants quality electric service as well as quality goods and quality men and women, and until the people tell us differently the ideal of this Company will be to render the best quality service at the lowest possible cost consistent with such service.

Unfinished Tasks

LEAVE today's work undone and you mortgage tomorrow. And tomorrow may bring the big opportunity you have been looking for so long.

Try to keep tomorrow for yourself. Try to keep it free. Don't load it up with work that should be done when you leave your desk tonight.

You never know what it may bring. You never know what chances there may be tomorrow—if you have it clear—to show somebody who can pay a big salary what you can do.

Your days are important, every one of them. Each has its own work that must be done.

Start every day with a clean sheet. Say: "This is the work that is to be done today—that must be done today."

Then do that work, and do not leave any of it hanging over into the next day.

Once fall behind in your work and your tomorrow will soon be mortgaged for a long way ahead. That means wage slavery. It means lack of a chance to seize opportunity—or to make opportunity.

Look forward to your tomorrows as days of achievement—days in which to plan and do new tasks—not to finish old ones.

You will be glad to see them then. You will be glad of the fresh eight hours that can be employed in something that is valuable and interesting.

—Selected

(Concluded from Page 278)

similar temperatures are in daily operation and their number is being added to at a phenomenal rate. That the Galusha furnace is giving satisfaction is more clearly emphasized by saying that plans are now under way for the installation of an additional unit, having a capacity of 95 K. W. This new unit will be operated 24 hours per day.

Another plant having had experience of one year and a half with six electric furnaces has completed its plans for the installation of six additional furnaces each having a capacity of 60 K. W. which speaks well indeed for the electric furnace in enameling practise.

(Concluded from page 275)

Mr. James Doyle. Messers Mueller and Doyle have each been with the Company for over twelve years, the former working previously for the Judson Governor Company before the advent of the present Station 3 shop, when Company blacksmith work was done by that Company. As Station 3 grew in size and importance as a steam generating unit the need of a Company blacksmith shop was apparent and its requirements have been adequately handled for many years by these two men whose photographs appear in the cut. They are capable of doing the finest kind of work and make no end of special tools, forgings, bars and hangers for pipe lines, as well as fixtures and miscellaneous hardware equipment which a unit like Station 3 constantly needs for its scores of boilers and engines.

(Concluded from Page 274)

twenty-five years, in many of which this Company will have a great share. He said that all homes will be heated by gas, and that electric motors will remove all drudgery from households as well as from industrial operations; that all streets will be brilliantly lighted, and that trackless trolleys and trucks will be used. The streets will be cleaned with electric vacuum cleaners. Snow and ice will be compressed by electric machines into cubes and stored in vaults to melt in the summer and run into the sewer. Mr. Searle said that the Company intends to build such a vault for demonstration purposes next spring.

As every year, new additions and extensions are being added because of the rapid growth of Rochester, one can see that the Company will become much greater in the future than it is to-day and that every year it will increasingly make living conditions easier, happier and better for the people of Rochester.

Stockholder Interest

THE kind reception which has been given to Gas and Electric News by the Company's stockholders, and the interest which has been shown in the Company by them at the Special Stockholders Meetings is very gratifying to all employees, especially the Management.

Due to the better spread of Company information, and the greater stockholder interest, many valuable comments and suggestions having to do with the Company's more efficient operation and its consequent better service have been received. Such comments and suggestions are very valuable and are sincerely welcomed. Gas and Electric News speaking to the Stockholders invites continuing interest and participation in the management of your property, and will be pleased to act as a clearing house for suggestions.

This magnificent business with its unparalleled opportunity for service has been continually improved by cooperation, and we desire to utilize every interest which will help us make our service better.

Electric Flashlight Twenty Years Old This Year

The electric flashlight, which served Peary in the Arctic dark, which Roosevelt used in Africa and on his trip along the River of Doubt, and which formed part of the equipment of the NC4 when she made her historic flight across the Atlantic, is twenty years old this year. The first flashlight was made in a one-man shop in Providence, R. I.



Children of Employees

- 1—Kathleen Virginia Dagen 2—Jack and Fred Crofts 3—Kathleen Gladys Fulton 4—Clover Laidlaw 5—Clifford Roy Fulton 6—Viola and Helen Vrin 7—Dorothy Jesse Merredew 8—Roger William Huff 9—Anne Seaman Allington.



Housekeeping Suggestions



How To Cook Potatoes

Good food material is lost if potatoes are pared before they are cooked. Besides a loss with the paring itself even when carefully done, food substance is dissolved out of potatoes when they are pared and then soaked or cooked in water, especially if they are put on to cook in cold water. Steaming and baking cause the least loss of food value. If potatoes are cooked in water, (1) they should not be pared until after they are cooked; (2) they should be put on to cook in boiling salted water. If, in order to save time, they are pared and diced before cooked, the water used in cooking should be saved and used in soup, gravy, bread, or stews.

Soaking potatoes in cold water before cooking them is a bad practice unless they are so old and strong that this is necessary to make them fit to use. In this case, the water has to be discarded.

Potatoes may be cooked in a great variety of ways and served as soup, vegetable, or salad; they may also be used in place of some of the wheat flour in breads, cookies, cakes and pastry.

BAKED POTATOES

Select potatoes of uniform size, scrub them with a vegetable brush, place them on a grate in a hot oven, and bake them for 45 minutes, or until they are tender. If they are overcooked they will be soggy rather than mealy. Crack the skin, or pierce it as soon as the potatoes are done in order to let out the steam which otherwise would condense and cause soggy.

STUFFED POTATOES

Cut baked potatoes in half, remove the pulp, mash it, add enough milk for the usual consistency of mashed potatoes, and season with butter, salt, and pepper. Fill the cases with this mixture, dot the tops with butter or brush them with milk, and bake them for 8 or 10 minutes in a hot oven. Potatoes may be stuffed in the morning and heated at noon or in the evening for dinner.

Variations—To the mashed potatoes, before the cases are filled, may be added any one or a

combination of the following.

- Beaten white of egg (1 egg to 3 medium-sized potatoes).
- Grated cheese ($\frac{1}{2}$ cup to 3 medium-sized potatoes).
- Chopped meat ($\frac{1}{2}$ cup to 3 medium-sized potatoes).
- Chopped parsley (1 tablespoon to 3 medium-sized potatoes).

BOILED POTATOES

Select potatoes of uniform size, scrub them with a vegetable brush, and drop them into boiling water. Cook them with the cover of the kettle ajar just until they are tender, about 20 or 30 minutes. Drain off the water immediately, and slip off the skins with a sharp paring knife. If the potatoes are not to be served immediately cover them with a cloth which will absorb the moisture, and place them where they will keep warm. Overcooking in water makes a soggy, unpalatable potato.

STEAMED POTATOES

Prepare the potatoes as for boiling, place them in a steamer, cover them tightly, and steam them for about 30 minutes, or until just tender. Remove the skins, and serve the potatoes at once.

RICED POTATOES

Potatoes that are not perfect in shape or color may be steamed or boiled, run thru a strainer into a serving dish, dotted with butter sprinkled with paprika, and served immediately; or they may be browned in a buttered baking dish in the oven before being served.

MASHED POTATOES

Thoroughly mash cooked potatoes. Add 4 tablespoons of hot milk, 1 tablespoon of butter, and a little salt and pepper, to each pint of potatoes. Beat the mixture with a fork until it is light and pile it lightly in a hot serving dish.

POTATO CAKES

Shape mashed potatoes into small cakes. Brown them in a frying pan in a small amount of fat.

POTATO PUFF

Add beaten whites of eggs to mashed potato (2 eggs to 6 medium-sized potatoes). Pile the mixture lightly in a baking-dish, and bake it in the oven until it puffs and browns. The yolks of the eggs and $\frac{1}{4}$ cup of grated cheese may be added.

POTATO PIE

Line a baking-dish with a layer of mashed potato 1 or 2 inches thick. Fill the center with creamed fish or chicken, and cover the top with mashed potato. Sprinkle buttered crumbs over the top, and bake the dish in a moderate oven for about 25 minutes.

POTATO BORDER

Spread a wall of mashed potatoes 1 inch thick around the outside of a buttered pan. Remove the pan, and fill the center with creamed chicken or fish. Reheat the dish before serving it.

POTATO SOUP

- 2 cups hot riced or mashed potatoes
- 1 quart milk
- $1\frac{1}{2}$ teaspoons salt
- 2 slices onion
- 3 tablespoons butter
- 2 tablespoons flour
- Celery salt
- pepper
- Cayenne
- 1 teaspoon chopped parsley

Scald the milk with the onion; remove the onion; add the milk slowly to the potatoes. Melt the butter; add to it the dry ingredients; stir the mixture until it is well blended. Add this to the liquid mixture, stirring it constantly, and boil the soup for one minute. Strain it if necessary, add the parsley, and serve it. Water saved from cooking celery is a good addition to potato soup. Two cups

of tomato juice and 1-16 teaspoon of soda may be substituted for 2 cups of milk.

CODFISH BALLS

- 2 cups mashed potatoes
- 1 egg
- $1\frac{1}{2}$ cups shredded cod- 1 tablespoon butter
- fish (freshened slightly 1 tablespoon milk
- and parboiled until soft)

To the mashed potatoes add the codfish, the butter and the milk. Beat the mixture until it is light. Add the egg which has been well beaten. Drop spoonfuls of this mixture into a pan containing a small amount of fat, and brown the pats on both sides.

POTATO LOAF

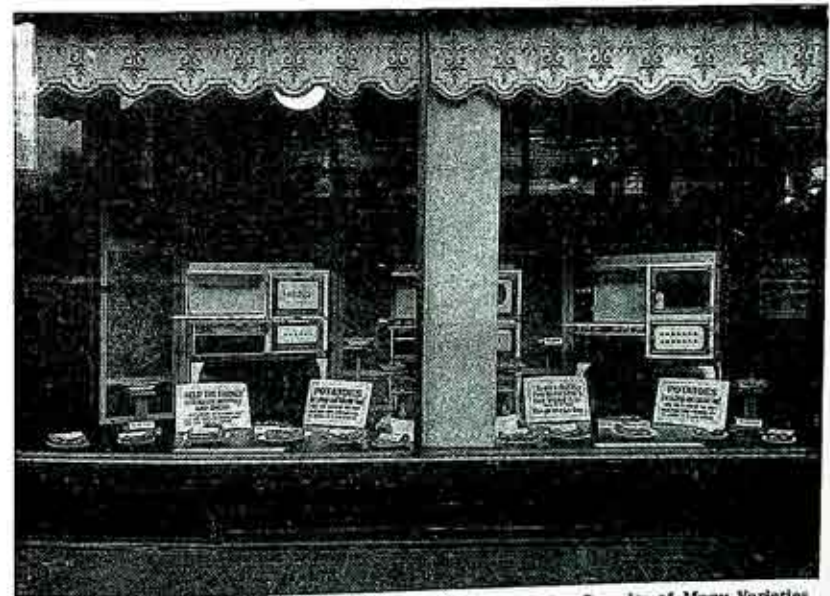
- 2 cups mashed potato
- 4 tablespoons minced onion
- 2 tablespoons green pepper or pimento
- $\frac{1}{2}$ cup canned tomato
- 1 egg
- 1 teaspoon salt
- Pepper
- $\frac{1}{2}$ cup ground peanuts

Mix the ingredients well together. Turn the mixture into a buttered baking-dish. Brush it over with melted butter or drippings. Bake it in a moderate oven for 25 minutes.

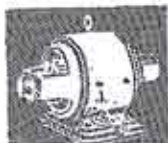
Lucile Brewer.

POTATOES IN FISH OR MEAT LOAF

Riced or mashed potatoes may be very satisfactorily substituted for part or all of the bread crumbs generally used in making fish or meat loaf.



Window Display at the Main Office During Potato Week Featuring Samples of Many Varieties of this Staple Article of Food, and Some Red Cross and Sterilizing Gas Ranges on which all Foods May be Cooked To Perfection.



Sales



Versage Brothers, of 162 Monroe Avenue, who maintain a grocery and market, have planned to install a refrigeration plant. This will add 5-H.P. to the present load, the addition making necessary the change from direct to alternating current.

Vetter & Rasser, of 136 Monroe Avenue, are adding 5-H. P. to their load in the form of an ice machine for the refrigerator. To take care of the extra load the current has been changed from direct to alternating.

Rapp's Inc., Dry Cleaners & Tailors, have remodeled and enlarged their South Avenue plant, installing a completely new system for lights and power. The new equipment has added approximately 6 K. W. in power and 20 K. W. in lights. This installation is one of the few supplied with 3 phase, 4 wire system.

Most every modern plant has its factory lunch room operated for the convenience of its employees. The equipment at the lunch room of the Alling and Cory Company was recently augmented by the installation of one section of Garland Hotel Range.

Mr. John Berrult, who operates a restaurant at 213 Portland Avenue, has installed a gas fired bake oven to aid him in keeping abreast of his growing requirements.

With the installation of Company gas mains in Sea Breeze many coal ranges lost perfectly good jobs. An instance of this kind is the recent installation in the Sea Breeze Congregational Church of one section of Hotel Range which will add much to

the efficient and convenient service in connection with church suppers.

An example of what is strictly up-to-date in apartment houses is the 48-apartment structure built by Mr. Sam Tendler at 86 South Union Street. This apartment house is being outfitted with gas ranges in each of its 3 to 5-room apartments. In the basement there is a large house kitchen where meals are to be prepared for the apartment restaurant. A large electric ice machine will also supply ice to each apartment, it being located in the cellar. Other modern facilities are an electric elevator and an apartment recreation room for the benefit of all tenants. This apartment will utilize a 25 kilowatt, three-phase service.

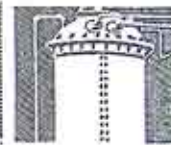
The Jensen-MacCollum Company, 727 East Main Street, have signed up for a 20 kilowatt, three-phase electric service to care for the requirements of its new garage and sales room at that location.

The Sill Stove Company recently had its entire factory re-wired and installed a modern lighting system which will make it one of the best-lighted factories in this vicinity.

The Empire State Ice Company whose headquarters is in Chicago is building a \$300,000 ice plant along the New York Central Railroad tracks in the vicinity of Atlantic Avenue. This company will ice New York Central cars as well as supply local consumers. This plant will require a connected load of about 1000 H. P. which will be off peak so that the Empire State Ice Company will receive an attractive rate of about 1.15 cents per kilowatt hour.



Elec. Generation and Distribution



There have recently been installed by the Electric Distribution Department between Station 5 and Kodak Park, two three-conductor 350,000 C. M. sector cables of 11,000 volts capacity. After some additional work has been done at the Kodak Park and the Station 5 terminals of these circuits they will be ready to relieve the present lines serving this important industrial plant. They will also be used next summer in connection with the service of the new Charlotte sub-station soon to be started.

A new line extension has been installed south of the Barge Canal on the West Henrietta Road to care for the fast-growing section in and about the Furlong and Crittenden Roads. This line follows the state highway for about one mile, and extends another half-mile over the two roads mentioned.

It is gratifying to note that the serious break in the water main on Culver Road south of East Avenue which occurred recently failed to interfere with the accustomed good lighting service rendered by this Company. Although all of the Company manholes in the vicinity were filled with water and many transformers and fuse boxes were inundated, still, the hard work of Company employees, some of whom were called from the enjoyment of Washington's Birthday pleasures, sufficed to keep every light burning brightly. The timely offering, by Mr. Haftenkamp, of a recently purchased gasoline diaphragm water pump ordered for use in the Gas Distribution Department helped to save the day. With it, under the operation of Mr. Sykes, Mr. Swarth-

out and his department kept a constant stream of water running from the exit end of the adequate 4-inch hose. This successful coping with a rather hard situation, shows the great value of team-work and inter-department cooperation which is surely an asset to the Company.

The old Booth building, which adjoined Station 3, and which was recently torn down had been used to partly support the large duct-bank coming from the station. This duct-bank carries the majority of the large power lines from the station, and had to be very carefully "shored up" to insure it from any injury while construction is going on.

Unit number 1 at Station 5, one of the two large units, burned out a bearing recently. The rotating parts are supported by a large thrust bearing and ride on a thin film of oil, there being no metal contact at any point of the bearing surface. The proper operation of the bearing depends upon the presence of this thin film of oil at all times while the unit is running. It was started up by mistake while the oil supply had been temporarily shut off, and the babbitt immediately melted out. However the unit was quickly repaired and gotten back into shape in time to take its share of the high water coming down the river.

The 500 K. W. motor-generator set number 15 at Station 3 recently came to grief. An armature coil burned out in one of the generators, severing the steel band wire, a piece of which was thrown into the motor causing that also to burn out. The unit is now undergoing the necessary repairs to put it back into service again.

Work has been started on the dismantling of the large storage battery at Station 3. Even the tearing down of a large battery like this involves considerable labor and must be carefully and systematically carried out. The men working on it are clad in rubber from head to foot and wear goggles to protect them from the acid. There is very little of the battery wasted; the acid can be used again, the plates represent several tons of lead when melted down, and even the "mud" at the bottom of the cells can be reclaimed and will bring a good figure, the price of lead being particularly high at this time.

The first step towards making Station 37 a reality has been taken. Station 37 is the Company number for the new sub-station which will be built this year at Lincoln Park. It will be tied to the system through Station 35 by two tie lines. This necessitates putting in two 11,000-volt switch cells at Station 35 for these lines, and the masonry work on these cells has been already started.

Another new arc circuit has been put into service at Station 5. It is known as circuit Number 22 and will relieve circuits 28 and 69, which had become heavily overloaded.

The right-of-way men and inspectors of the Electric Distribution Department are very busy looking out for the details connected with new services and line extensions. Many of the older houses are apparently being wired for electricity and this, in connection with the large number of new residences being built and a goodly number of new rural line extensions is making their work rather arduous.

The electric distributing business as conducted by the modern central station is a vast machine. The essence of operation in connection with the machine is good management, and good management means simply running the business with all parts in harmony. In order to obtain

harmony there must be lubrication, and as oil lubricates the engine and keeps down friction, so does courtesy in business intercourse smooth out the rough places, disarm unreasonable criticism and invite goodwill.—*Select-ed.*

Gas Manufacture

The first big job of the spring season was started recently by the Gas Distribution Department and consists of the work in connection with laying the new 48-inch pipe line for the new water gas plant at West Station. As soon as the weather clears up satisfactorily the Department will start upon an intensive drive to clean up the large amount of work which generally awaits the coming of spring when all classes of outside work can be done.

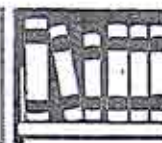
At the present time there is three times the amount of work ahead of the Gas Shop that they had to look forward to last year. These orders for work to come augur well for an extremely busy season this year.

Purchasing

The General Storehouse has about completed its work of ordering materials for the oncoming season. It is expected that sufficient materials and supplies have been ordered to circumvent the possibility of any hold-ups for them during the rush of work that is ahead for all Departments. Some idea of the size of the orders for various staple supplies always required may be had from noting the size of the order sent in for copper wire. Mr. Banks placed an order recently for 350,000 pounds of copper wire alone, also an order for 100,000 feet of just one size of aluminum cable.



Auditing



	New Business		
	Net Increase in Consumers in Year		
	Ending January 31, 1923		
	Jan. 31, 1923	Jan. 31, 1922	Incr.
Gas.....	84,395	81,627	2,768
Electric.....	49,536	40,838	8,698
Steam.....	115	104	11

	134,046	122,569	11,477
	Net Increase in Consumers by Months		
	1921	1922	1923
Incr. in January.....	104	489	560
Incr. in February.....	28	483	
Incr. in March.....	191	649	
Incr. in April.....	528	931	
Incr. in May.....	611	977	
Incr. in June.....	270	1056	
Incr. in July.....	667	879	
Incr. in August.....	578	935	
Incr. in September.....	631	1176	
Incr. in October.....	780	1271	
Incr. in November.....	738	1186	
Incr. in December.....	894	1374	

	Miscellaneous Data		
	Jan. 31, 1923	Jan. 31, 1922	Incr.
Miles of Gas Main.....	548	531	17
Miles of Overhead Line.....	2562	2188	374
Miles of Undergr'd Cable.....	1395	1255	140
Miles of Subway Duct.....	1087	1023	64
No. of Street Arc Lamps.....	1466	1628	*162
No. of Street Inc. Lamps.....	10260	9504	756
Total No. of Street Lamps.....	11726	11132	594
No. of Employees.....	1570	1353	217

	Stock Sales January, 1923	
	Subscribers	Shares
7% Stock Sales To March 1st., 1923.....	5517	38822

Jan.	Statement of Consumers by Departments as of January 31st.				
	Gas	Electric	Steam	Total	Incr.
31st.....					
1913.....	61904	13709	23	75636	
1914.....	66885	16199	27	83111	7475

	Mo. of Jan. 1923	Mo. of Jan. 1922	Increase
	Amount of Pay Roll.....	\$218,828.49	\$185,719.47
K. W. H. Generated—Steam.....	3,568,050	3,351,400	216,650
K. W. H. Generated—Hydraulic.....	13,123,588	10,441,478	2,682,110
K. W. H. Purchased.....	3,951,663	3,228,601	723,062
M. Cu. Ft. Coal Gas Made.....	185,819	145,065	40,754
M. Cu. Fu. Water Gas Made.....	119,540	109,609	9,931
Tons Steam Coal Used.....	11,887	12,200	* 313
Tons Gas Coal Used.....	17,407	13,427	3,980
Gallons Gas Oil Used.....	417,703	425,169	* 7,466
Tons Coke Made.....	12,424	9,384	3,040
Gallons Bengas Made.....	58,996	80,117	* 21,121

* Denotes Decrease.

1915.....	70142	19417	37	89596	6485
1916.....	71587	22518	41	94146	4550
1917.....	75817	25496	43	101356	7210
1918.....	78606	27879	51	106536	5180
1919.....	78927	28948	75	107950	1414
1920.....	79919	31220	75	111214	3264
1921.....	81095	34992	81	116168	4954
1922.....	81627	40838	104	122569	6401
1923.....	84395	49536	115	134046	11477

Incr. in 10 yrs. 22491 35827 92 58410 58410

36.3% 261.3% 400.0% 77.2%

E. B. A. for January, 1923

Balance 1st of Month.....	\$8,045.39
Dues—Members.....	\$923.98
Dues—Company.....	923.98
Fees—Members.....	9.00
Fees—Company.....	9.00
Assmt. No. 47—Members.....	25
Assmt. No. 48—Members.....	50
Assmt. No. 49—Members.....	273.75
Assmt. No. 47—Company.....	25
Assmt. No. 48—Company.....	50
Assmt. No. 49—Company.....	273.75
Int. on Bk. Bals. & Investments.....	
Group Life Insurance.....	14.57
Members' Add. Life Ins.....	247.68
Total Receipts.....	\$2,677.21
Total Receipts plus Balance.....	\$10,722.60

Disbursements	
Sick Benefits.....	\$1,062.46
Acc'd't Off Duty Benefits.....	88.50
Acc'd't On Duty Benefits.....	119.87
Group Life Insurance.....	3,859.95
Medical Examiner's Expense.....	36.00
Members' Add. Life Insurance.....	599.26
Total Payments.....	\$5,766.04
Balance on Hand.....	\$4,956.56

Membership	
Members, January 31, 1923.....	1109
Affiliated February, 1923.....	75
Terminated February, 1923.....	14
Gain.....	61
Membership, February 28, 1923.....	1170

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Personals

It is with the utmost regret that we announce the following deaths, and the bereaved families have the deepest sympathy of the employees of this Company:

Mr. Joseph Matthews recently went to Wyandotte, Michigan, to attend the funeral of his mother.

The mother of Mr. Joseph Trapolano was recently buried from the family home on Cole Street.

The death of Mr. William Whitney's father occurred during the month of February, burial being made at Holley, N. Y., on February 14.

Mr. Howard Rapp, of the Gas Distribution Department, is very much pleased at having a desk all his own. The Gas Shop office has been somewhat congested and Howard for some time has been sharing desk space with some of his associates. Now he has a bright green blotter, ink wells n'everything all to himself and knows right where to look for anything when he wants it. Howard says this may be a small matter to us, but it means a lot to him. Efficiency is built upon just such small items, we'll say.

Mr. Collier, of the Electric Distribution, has gone into the baby chick business with his father, at Brockport, N. Y. He is now interested in laying hens, rather than laying ducts.

A party was held on February 24, at the home of Mr. Edwin Schluter, of Sea Breeze. Many of the members of the Suburban Club, as well as friends of Mr. Schluter in this Company, passed a very enjoyable evening.

If you have some good snap shots or photographs of your little folks,

send them in to the Library so that we may use them on our children's page. Mark on the back of photo the child's name, and where we are to return the print.

Mrs. Peck left the employ of the Company on February 17. Just before her leaving, a party was given in her honor by the Misses Crum, Pratt and McGrath at the Odenbach. Her amiable disposition and pleasant smile will make her departure a real loss to her associates.

A bowling party was held at Elm Hall, on the evening of Thursday, March 8, by some of the men and women of the Industrial Sales Department. Some of the employees of other departments also attended and helped to make up two teams. As there were not enough ladies present to form a complete feminine team, Mr. Smith substituted for one of the absent ladies. In an earlier game this season the men of the department won by a small margin. This time, however, the girls held them to a tie score. Miss Norah Henehan rolled high score for the ladies, and Mr. Otto Davidson featured for the men.

Mr. John B. Allington, who has been in the middle and far west on an extended business trip for the Company, has returned to his desk in the Industrial Sales Department.

Mr. Andrew Brostrom and Mr. Peter Sevensma, of Andrews Street are seeing which one can hear the farthest on the radiophone. Mr. Brostrom recently tuned in New Orleans on an inside aerial which is going some. "Pete" says he will not rest now 'till he has succeeded in getting a foreign station, preferably the "Kink" of Sweden.

Mr. John Velozzi, foreman in the Gas Street Department, and Mr. Charles O'Loughlin, Industrial Hotel Maintenance man will soon be back in their respective departments after some weeks out as a result of accident and sickness respectively.



Mr. and Mrs. Chas. V. Miller and Their Novel Electric-Lighted Float Which Won First Prize at the Shriner's Bal-Mask

Born on March 2, to Mr. and Mrs. Leo Caprio, a baby daughter which they have named, June Audrey. Leo says this is one time when June came in March, and that it is just like springtime to hear little June coo-ing.

Mr. Stein, of the Garage, recently received his first shipment consisting of 100 baby chicks from Athens, Ohio. All but four arrived in fine condition and were immediately placed in an electric brooder. Pretty soft for modern chicks.

Mr. Charles Geimer has purchased a new Ford coupe and is looking forward to some pleasant trips this coming summer.

Mr. Samuel Price, Electric Distribution Department, who has a summer cottage along the Genesee

River, took a trip to that vicinity following the recent high water to see if his home was still there. It was.

Mr. MacIntosh, of the Garage, who is living in part of his partially-completed new home, on the River Road, will be glad when the raging Genesee quits raging. For a number of days, "Mac" says, he and his wife had their suit case packed and in readiness for a quick move. Their fears, however, were unnecessary and all danger of flooding seems now passed.

Mr. Frank Weeks, who has been an ardent poultry fancier, has gone out of the chicken business and has transferred his spare time hours to the study of matters radio. Frank recently, in jest, tried hooking his set to a section of discarded chicken wire fence and, lo and behold—it made a first-rate aerial. It was even better music, he says, than the cackling of his former biddies.

Mr. Ray Hefferman was recently bitten by a bug and as a result spent many of his spare hours indoors, at home. This bug has been quite prevalent in and about the Garage of late and has other victims on its list. The only antidote for this bug's inoculation, it is said, is to make a radio set and be compelled to listen to a lot of squeaks and whistles while learning how to tune in beautiful music. The disease as well as the cure is perfectly harmless.

Mr. Bundschuh, of the Transportation Department, is "tickled to death" he says to have the roads between Front Street and Spencerport in passable condition, making the use of his Ford again available for his daily transportation.

One evening recently Mr. Herbert Lattimer while visiting at the home of a friend had the opportunity to listen to some famous chimes being rung in the city of Nuernberg, Bavaria. This city is famous for its cathedrals, and it was the chimes in one of these edifices that Mr. Lattimer listened to

over his friend's radiophone. "Isn't the world getting small," says Herbert.

Mr. Frank Smith was unable to attend church on Sunday morning recently so he tuned in on his radiophone and listened to a fine sermon broadcast from a Pittsburgh church. The parson mentioned that a collection would be taken but—well, Mr. Smith says he will double his ante next time he attends church in person.

Mr. Ross, of the Service Department, recently spoke very highly of the employees of the Telephone Department in connection with their often having to be called upon for over-time service during severe storms. At such times, Mr. Ross says, he has always found these employees anxious to cooperate, and they are always ready and waiting so as not to cause unnecessary delay when the Company's conveyance calls at their home for them.

Mr. Frank Henthorne, of the Meter Reading Department, has severed his connection with the Company to enter the chicken business. The location of his poultry farm is on the Hincer Road, Greece, N. Y.

Mr. Howard A. Yatteau, son of Mr. Frank Yatteau of the Service Department, recently returned to his home in this city after passing four interesting years in the United States Navy. At the time of his leaving the navy, Mr. Yatteau was ranked as Assistant Engineer on the U. S. S. Oklahoma. He expects soon to enter the merchant marine, and take advantage of the course in steam engineering he took while with Uncle Sam.

The employees of the Appliance Department, practically all of them, are greatly interested in thrift. Miss Mildred Herr started it off and did so well at saving her spare change that others were encouraged to begin. Some of the girls have a goodly-sized roll saved, to date, and each week

the collection of nickles and dimes is getting larger and larger.

The Misses Mariott and Robena availed themselves of about the last opportunity for sleigh-riding by journeying to Sea Breeze via "bobs". There was a nice feed and some dancing at the end of the long ride which helped to pass a pleasant evening.

A very enjoyable birthday party was held in honor of Miss Mable Kramer, 53 Rutledge Drive, a short time ago. The girls of the Auditing Department were all in attendance and the evening was made exceedingly pleasant by the playing of games, doing stunts, and a wonderful luncheon.

Mr. Wiley, of the Carpenter Shop, is a member of the team of Wiley and Clark that entertained so interestingly recently over the radiophone. They appeared in a humorous skit entitled, "Black and White", which was augmented by the singing of songs. Their services were a part of a nightly program transmitted from station W. H. A. M., by the Rochester Radio Dealers Association.

Mr. E. L. Wilder attended a meeting of the Executive Committee of the National District Heating Association held in Detroit on March 1st.

Mr. E. L. Wilder, Chairman of the Western Division of the Commercial Section of the Empire State Gas and Electric Association called a meeting of his Division which was held at the Company's main office on March 8th. The meeting was informal in character and the discussion covered a wide range of subjects. Mr. F. W. Fisher gave a brief description of the Prize Essay Contest recently completed, which brought out a good deal of discussion, and favorable comment. Mr. MacSweeney led a discussion on merchandizing methods. The subject of rural line extensions was also discussed quite fully.

The Investment Department is again bustling with business, mostly orders for the new quota of the Company's 6 percent stock. Messers Briggs, Schake, and Vail have again been transferred from other departments to their former positions in the Investment Department. Mr. MacCauley, who has remained there during the winter, and Mr. Gosnell, head of the Department, bring the stock-selling force up to five men. During the first day of the present stock's sale, over 108 shares were sold before 2 o'clock.

Messers Alling and Burch recently visited the plant of the General Electric Company at Schenectady where they availed themselves of the opportunity to use that company's

short circuit determining equipment. The object of their trip was to determine the short circuit currents on the Company's 11,000 volt, 60-cycle system for the year 1933. This was carried out satisfactorily, special reference being given to switch equipment in connection with the new switch house to be built on the Booth property at Station 3. It might be stated that this Company has at its Motor Department a short circuit calculating board. In this particular case however, it was not practical to use it as it has fixed resistances adaptable to use on present Company lines. The board at Schenectady has variable resistances and is especially adaptable to figuring out problems in connection with future conditions.

Employees of the Carpenter Shop, General Construction Department

"The Men Who Keep the Wheels Turning" Series



Standing: Messrs Jas. Young, Lewis Cary, Philip Cronk, Karl Kobish, and Arthur Rosin. Sitting: Max Wohlgenuth, Fred Blakeslee, Foreman; Thomas Barnes and Orin Wiley. Employees of this Shop not in Picture: Claude Draft, John Latson and Jacob Lauth.



Fumes and Flashes



SPAGHETTI DE ITALIEN

Ann: We listened in on an Italian Opera broadcasted from W. E. A. F. last evening. It was wonderful.

Tenna: No wonder you got it so well, all your wires are insulated by spaghetti.

SOMETHING TO STRIVE FOR

A rooster discovered an ostrich egg and rolled it into the hen house and said—"Now, ladies, I do not want to embarrass you, but here's a sample of what other folks are doing."—*Selected.*

HE DID WELL

Wife (with newspaper) Just think of it! A couple got married a few days ago after a courtship which lasted fifty years."

Hub—"I suppose the poor old man was too feeble to hold out any longer."—*Epworth Herald.*

ANYTHING IS POSSIBLE

A little boy in a city school refused to sew, thinking it beneath the dignity of a ten-year-old man.

"George Washington sewed," said the principal, taking it for granted that a soldier must; "and do you consider yourself better than George Washington?"

"I don't know; time will tell," said the boy seriously.—*Good Hardware.*

SAFETY FIRST.

There was a man in Texas who went to a revival meeting and was prest to repent. He wavered for a time and finally arose and said: "Friends, I want to repent and tell how bad I have been, but I dasn't do it when the grand jury is in session."

"The Lord will forgive," the revivalist shouted.

"Probably he will," answered the sinner, "but he ain't on that grand jury."—*Lawyer and Banker.*

SOME COW

Harry Mahan has bought a cow and is now supplying his neighbors with butter and fresh eggs.—*From an Illinois Small City Daily.*

ALL THEY CAN

Stranger—"Rastus, do the people who live across the road from you keep chickens?"

Rastus—"Dey keeps some of 'em sah."—*Tips and Topics.*

SOUNDS REASONABLE

Wanted—Will pay \$5 cash, 10 bags potatoes, a side-car used 4 years, 1 single harness and a student lamp for a Ford car in first-class condition. Address E. P. O.—*Eric Railroad Magazine.*

GOT HIS WISH

For hours they had been together on the front porch. The moon cast its tender gleam down on the young and handsome couple who sat so far apart.

He sighed. She sighed. Finally "I wish I had money," he said, "I'd travel."

Impulsively she slipped her hand in his, then rising swiftly, she sped into the house.

Aghast, he looked at his hand. In the palm lay a nickel.—*Harvard Lampoon.*

A REAL ONE

Auctioneer (Trying to arouse enthusiasm) "Gentlemen! Gentlemen! What offer have I for this horse? (a bony horse is exhibited) will some one start the bidding?"

Voice from rear—"Two dollars."
Auctioneer (protesting bitterly), "Gentlemen, Gentlemen, the horse is alive."—*Selected.*

TRUE ENOUGH

The preacher was out on the links and thought a small moral lesson might not be amiss.

"I notice," he remarked, "that the players who get the lowest scores are not those who swear."

"Why the hell should they?" snorted the gloomy golfer as he dug up a slice of turf.

LIGHT VS. SAFETY

The stingy farmer was scoring the hired man for carrying a lighted lantern to call on his best girl.

"The idea," he exclaimed, "when I was courtin' I never carried no lantern; I went in the dark."

"Yes," said the hired man, sadly, "and look what you got."

NOSED OUT

Teacher to the class—"Does any one know how iron was discovered?"

Pupil—"Yes, sir."
Teacher—"Well, tell this class your information."

Pupil—"Please, sir, they smelt it."—*Hollywood High School News*

Did You Ever Stop to Think That—

While the banks close for a holiday.

While the stores shut up shop for Sunday,

While the grocer says, "We have some ordered,"

While the coal man tells you to wait awhile,

While the merchant moves to another town,

While labor in other industries is on strike,

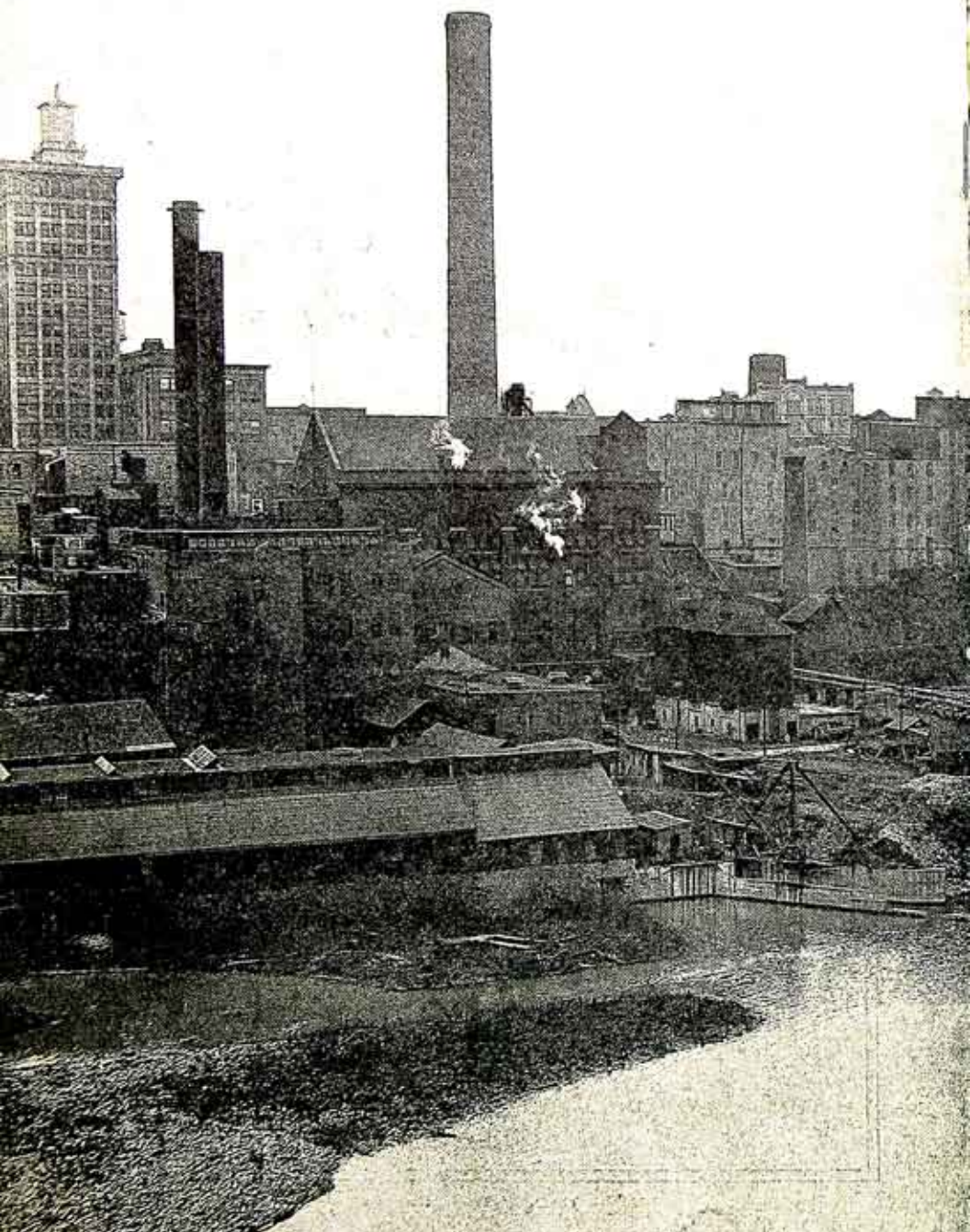
While the manufacturer goes out of business,

While the butcher makes you take something else,

While the farmer says, "I'll sell when prices go up,"

Your gas, electric light, telephone, street car, and water supply companies keep right on serving the public, rich and poor alike, 365¼ days, 8,766 hours a year?

—Southwestern Waterworks Journal.



ELECTRIC STATION NO. 3