

# GAS AND ELECTRIC NEWS

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No. 10





## *Patriotism*

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**L**ET our object be our country, our whole country and nothing but our country. And, by the blessings of God, may that country itself become a vast and splendid monument, not of oppression and terror but of wisdom, of peace and of liberty upon which the world may gaze with admiration forever.

—*Daniel Webster.*



# GAS AND ELECTRIC NEWS

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## The Stars and Stripes

"No tyrant hath claimed that flag for his own;  
Its bright folds were never unfurled  
To flatter or shelter the glare of a throne;  
That banner was born for the world."

AMERICANS rightly claim that the most beautiful flag in the world is the Star Spangled Banner. It symbolizes the union of the greatest Republic on earth. It stands for all that is just, and true, and progressive, in National government. The American flag has been unfurled in more movements for the protection, the liberty, and the elevation of man, than any other flag that ever waved triumphantly on the wings of the wind. Almost a million human lives have been laid on the altar of Freedom that the Stars and Stripes might wave over a united and peaceful people. Not counting the changes which have been made in the number of stars which brighten its blue field, our flag is older than that of either Great Britain, France, Germany, Italy, Sweden, Portugal or Spain. The true story of a banner that has never waved on any battlefield or ship-of-war but for the single purpose to defend and uplift mankind, is an inspiring study.

Almost one hundred and forty years ago the American Congress in session at Philadelphia, Pa., established by its resolution of June 14th, 1777, a national flag for the United States of America. This resolution as passed was as follows:

"Resolved that the flag of the thirteen United States be thirteen stripes; alternate red and white, that the Union be thirteen stars, white in a blue field, representing a new constellation. . . ."

Although nearly a year previous, July 4th, 1776, these thirteen United States had been declared independent, this resolution is the first legislative action recorded pertaining to a national Flag for the new Sovereignty.

All the pictures of New England flags for 1707 to 1776 show a red or blue ensign, field white, with a pine tree or globe in the upper corner, sometimes covering the entire field. Massachusetts used the pine tree as her symbol for some time. The Connecticut troops had a state banner with the state arms and the motto, "Qui transtulit sustinet." Early New York records speak of different standards, indeed the regiments from various states, hastening to the aid of Washington or his generals carried flags of various devices. Among the flags described the pine tree is the most frequently mentioned, also a serpent coiled, ready to spring with the motto, "Beware! Don't Tread On Me," or "Come If You Dare!"

The issue of the thirteen stripes was not a new feature as this had

been introduced (in alternate white and blue) on the upper left hand corner of a standard presented to the Philadelphia Light Horse by its captain in the early part of 1775 and moreover a union flag of the thirteen united colonies raised at Washington's Headquarters at Cambridge, January 2nd, 1776, had the thirteen stripes just as they are today; but it also had the crosses of St. George and St. Andrew on a blue ground in the corner. There is no satisfactory evidence, however, that any flag bearing the union of stars had been in public use before the resolution of June, 1777.

It is not known to whom the credit of designing the Stars and Stripes is due. It is claimed that a Mrs. John Ross, an upholsteress, who resided on Arch Street, Philadelphia, Pa., was the maker of the first flag, combining the Stars and Stripes. Her descendants assert that a committee of Congress, accompanied by General Washington, who was in Philadelphia in June, 1776, called upon Mrs. Ross and engaged her to make the flag from a rough drawing which, at her suggestion, was redrawn by General Washington with pencil in her back parlor, and the flag thus designed was adopted by Congress. Mrs. Ross suggested changing the stars that Washington had drawn with six points, the English rule, to five points, the French rule. Her suggestion was accepted. Our flags always have the five-pointed stars, our coin the six-pointed.

Although the resolution establishing the flag was not officially promulgated by the Secretary of Congress until September 3, 1777, it is said that the Stars and Stripes were carried at the battle of Brandywine, September 17th, 1777, and thence forward during all the battles. It seems well authenticated that the first using of the Stars and Stripes in actual military service was at Fort Stanwix, renamed Fort Schuyler, now Rome, New York, in

1777. August third of that year the fort was besieged by the English and Indians, while the brave garrison of 600 were without a flag. They had heard that six weeks before Congress had created a new flag, and being determined to fight with American colors flying they cut up shirts to form the white strips, pieces of scarlet cloth were joined for the red, and the blue ground for the stars was made of a cloth cloak belonging to Captain Abraham Swartwout.

Soon after its adoption the new flag was hoisted on the Naval Vessels of the United States. The ship Ranger, bearing the Stars and Stripes and commanded by Captain Paul Jones, arrived at Quiberon Bay, France, about December 1st, 1777, and her flag received on February 14th, 1778, the first salute ever paid to the American Flag by Foreign Naval Vessels.

The flag of the United States remained unchanged for about eighteen years after its adoption. By this time two more States (Vermont and Kentucky) had been admitted into the Union, and on January 13th, 1794, Congress enacted "That from and after the first day of May, 1795, the Flag of the United States be fifteen stripes, alternate red and white; that the Union be fifteen stars, white in a blue field." This flag was the national banner from 1795 to 1818, during which period occurred the war with Great Britain. By 1818 five additional States (Tennessee, Ohio, Louisiana, Indiana and Mississippi) had been admitted into the union, and therefore a further change in the flag seemed to be required.

After considerable discussion in Congress on the subject the act of April 4th, 1818, was passed which provided: FIRST—"That from and after the 4th day of July next, the flag of the United States be thirteen horizontal stripes, alternate red and white; that the Union have twenty



With red background and cross—pine tree flag of New England, 1704. With blue field and red cross on white—Bunker Hill Flag 1775.



Liberty Tree Flag, 1776. There were several varieties of pine tree flags in use during the early part of the Revolution.



Flag carried by Culpepper Minute Men of Virginia—part of a regiment commanded by Patrick Henry in latter part of 1775.



Markoe Banner of 1775. Made of yellow silk 40" x 34". First flag of Revolution to display thirteen stripes. This flag is still preserved in Philadelphia.



The "Great Union Flag" hoisted at Cambridge by Washington, Jan. 2, 1776. Stripes red and white, with crosses in red, white and blue in the canton.



First Flag of the United States, June 14, 1777



Second Flag of the United States—1795. Fifteen stars and fifteen stripes.



March 24, 1818. Old Glory—thirteen stripes alternate red and white—with stars on a blue field to represent the States in the Union.

Stars, white in a blue field." SECOND—"That on the admission of every new State into the Union, one star be added to the union of the flag, and that such addition shall take effect on the 4th of July next succeeding such admission."

The first state to add a star to the constellation of the new flag, was Illinois; admitted December, 1818.

The return to the thirteen stripes of the 1777 flag was due in a measure to a reverence for the standard of the revolution but it was also due to the fact that a further increase of the number of stripes would have made the width of the flag out of proportion to its length unless the stripes were narrowed and this would have impaired the distinctness when seen at a distance. A newspaper of the time said: "By this regulation, the thirteen stripes will represent the number of States whose valor and resources originally effected American independence, . . . and the additional stars . . . will mark the increase of the United States since the present Constitution.

No act has been passed by Congress altering this feature of the flag, and it is the same as originally adopted, except as to the number of stars in its union. In the war with Mexico the national flag bore 29 stars in its union; during the late Civil War, 35 stars; during the Spanish American War, 45 stars and since July 4th, 1912, 48 stars.

It was about the time of the Civil War that the term "Old Glory" was first applied to our flag by Stephen Driver who had been a sea captain before the war and sailed from Salem, Massachusetts, to foreign lands where he was presented with a beautiful American flag which he promised to defend with his life if need be. Giving up the sea, he made his home in Nashville, Tenn. He opposed secession. When the war began, to secrete the flag he sewed it in a quilt, and

every night slept beneath it. He named it Old Glory.

In none of the acts of Congress relating to the flag has the manner of arranging the stars been prescribed and in consequence there has been a lack of uniformity in the matter and flags in use by the public in general may be seen with the stars arranged in various ways. The early custom was to arrange the stars in parallel rows across the blue field, and this custom has, it is believed, been observed in the Navy at least since 1818, at which time the President ordered the stars to be arranged in such manner on the national flag of the Navy. In the Army, too, it is believed, the stars have always been arranged in horizontal rows across the blue field but not always in vertical rows, the effect, however, being about the same as in the Naval flag. Hereafter, there will be no difference in the arrangement of the stars between the Army and Navy, as an agreement has been arrived at between the War and Navy Departments on the subject.

In its general form "Old Glory" is older than any flag of Europe except Denmark, which has been in use since 1219. The present flag of Spain was adopted in 1785; the tri-color of France in 1794; the Union Jack of Great Britain in 1801; the banner of Portugal in 1830; of Italy, in 1848; and of the German Empire in 1871.

The Aleutian Islands, a part of Alaska, extend so far to the westward that when it is sunset on the most westerly part it is sunrise in Eastport, Maine. So it is that since 1867 in the earth's swift journey there is now no hour when the Starry Banner is not kissed by the radiant sun; as it sinks beneath the waters of Orient seas, the splendor of the opal and the rose illumines a new day on the Atlantic coast of proud America.

"God leads, we follow the flag, and the Republic never retreats."

## Baking Japanned Piano Plates in Gas-heated Ovens

LEO J. SULLIVAN

**I**F you open your piano from the front you will see a bronzed plate over which the strings are strung. This is an essential part of every piano and must be made of the finest grade of cast iron to withstand the strain of the strings which amounts to a pull of about 40,000 pounds.

Our story will deal briefly with the manufacture of this important part of a piano and more fully with the finishing which is necessary to make

drilled and "pinned." After the mechanical details of the plate have been taken care of it is essential that a high grade finish be applied. Every part of a piano must have a beautiful finish, and the use of gas has helped to accomplish this purpose at the Foster-Armstrong Company factory in East Rochester. Each plate is first coated with a filler and baked; after this it receives two coats of Japan, being baked after the application of each

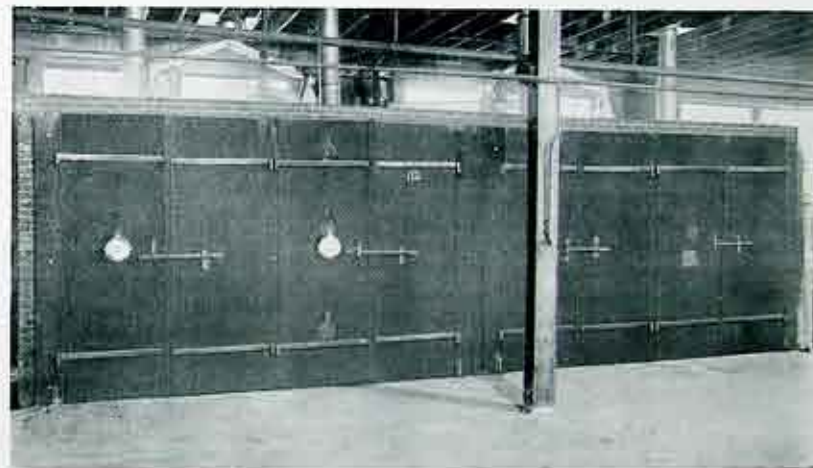


Fig. 1. Two gas heated jappanning ovens installed in the Foster-Armstrong Factory at East Rochester. Note the recording thermometers installed on the front of each oven section

it durable and in harmony with the excellent finish of the rest of a piano.

The history of this plate is interesting. Iron ore from the mines is refined in blast furnaces and is then cast into "pigs." This refined iron with a proper mixture of silicon to increase its toughness and strength is then melted in a cupola so that it can be poured into the moulds which have been prepared and made of sand. When the cast plate has cooled it is made smooth by an air chipping hammer and sand blast before it is

coat. The plate is then bronzed and baked at a lower temperature. A finishing coat of varnish is applied before the final baking. This whole treatment gives to the plate a permanent finished surface.

Figure 1 is a view of the front of the two ovens in which these plates are now being baked successfully with gas, and the cross-sectional views in Figure 2 show the interior construction of the ovens. Plates were formerly placed in these ovens on permanent racks and heat was

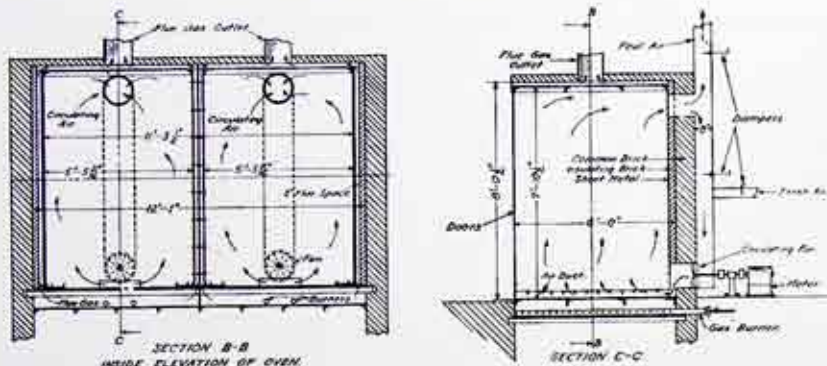


Fig. 2. Section and elevation diagrams of the gas-fired ovens shown in figure 1

supplied from below by a coke furnace. To utilize gas in the same ovens it was only necessary to divide each oven into two compartments and install sheet metal ovens well insulated with special brick. Two burners have been placed below each section and the heat from these burners as shown in the sectional views passes up the sides, over the top and then to the stack. During this process the large amount of metal surface surrounding the interior of the oven has been conducting the heat to the inside of the oven where it is used to heat the plates and bake the japan. The speed of this operation is increased by circulating the air inside the oven with fans and a uniform heat is obtained in all parts of the oven. There is one fan in each section of the ovens and as shown they are mounted on shafts and hangers at the rear. All the fans are belt connected to one 1800 r. p. m. motor. These fans draw the hot air from the top of the oven and force it back through the air duct on the floor of the oven. The temperature of the air is increased in this duct due to its passing over the hottest part of the floor.

The heavy vapors of the japan are thrown off at the back and fresh air is admitted below as shown. The amount of fresh air taken in, and the

amount re-circulated is controlled by changing the position of the dampers.

The plates are japanned by the spraying process and are loaded on trucks one of which is shown in Figure 3. Each truck will accommodate twelve plates which vary in weight from 150 pounds to 225 pounds. The baking temperature is 450° F. and the average time to bake a truck load is two and one-half hours. The ovens have a capacity of two hundred forty plates in twelve and one-half hours. Formerly, to bake this number of plates it was necessary to operate four of the coke ovens twenty-four hours a day. The japanning department



Fig. 3. Truck (capacity 12 plates) used for hauling piano plates into the ovens

no longer limits production but defies the foundry to keep it busy. The quality of the product is now far superior to the former product because all dust and dirt on the plates has been eliminated, thus giving the finish a better lustre and eliminating laborious rubbing to remove this dirt with pumice stone and water. This work was formerly done by hand and the cost of labor amounted to a considerable sum in the course of a year.

The cost of the coke, the labor of hauling it, the firing of the furnaces, the removing of the ashes and the loading and unloading of the ovens are all eliminated. In addition to this, the labor saved in not rubbing alone pays for all the gas used. Therefore, the net cost of production in the gas ovens is lower than with coke.

Gas is supplied through the high pressure welded main from No 10 gas holder at Blossom Road. Regulators have been installed on the service and the pressure is reduced from three pounds per square inch to three inches of water. The gas is then metered in three one hundred Light B Meters and burned in the ovens in two and one-half inch atmospheric drilled pipe burners extending the depth of the oven.

### A Recommendation

A New York firm applied to Abraham Lincoln, some time before he became President of the United States, for information as to the financial standing of one of his neighbors. Mr. Lincoln replied as follows:

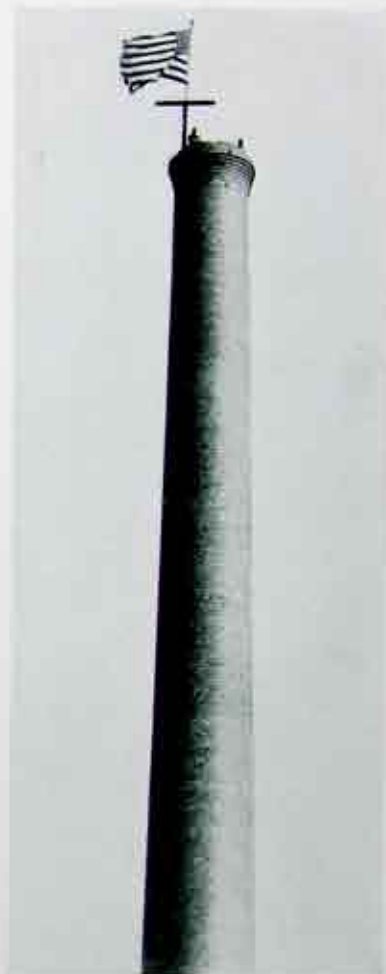
"Yours of the 10th received. I am well acquainted with Mr. X., and know his circumstances.

"First of all, he has a wife and baby; together, they ought to be worth \$50,000.

"Secondly, he has an office, in which there are a table worth \$1.50 and three chairs, worth, say, \$1.

"Last of all, there is in one corner a large rat hole which will bear looking into.

Respectfully,  
A. Lincoln."



### Completion of New Stack Celebrated

THE completion of the larger of the new stacks at the Gas Works, was appropriately celebrated on April 4th. The boys at the Station prepared an elaborate menu for the noon day meal which was served at the top of the 275' stack amid a most timely setting. The wind blew, Old Glory waved, and the boys ate heartily, because they felt that at

last they were on a level with the H. C. L. It is said that Mr. Haftenkamp delivered an address, but we go to press too late to print the full text.

### American Flag Contribution

Marked feeling and patriotic loyalty is being displayed in every department of the Company. Spontaneous and liberal contributions were made by the members for an American flag for their respective departments. At some of the stations Old Glory can be seen by night as well as by day. In such times of stress one realizes and experiences the deepest feelings of patriotic emotion, and it is only natural that we should want to keep before us the flag which symbolizes the greatest Republic on earth, the flag which stands for all that is righteous and good, the flag for which our forefathers so valiantly fought and died.

### National Commercial Gas Association Pledges Its Support to the President

*The President:*

The Board of Directors of the National Commercial Gas Association, at a meeting held in Chicago, Illinois, on March 23, authorized a special committee, composed of the undersigned, to convey to the President of the United States its pledge of support in the present emergency and to tender herewith the facilities of its organization to co-operate with the proper authorities in prompt preparation for the national defense.

Very respectfully,  
(Signed) W. GRIFFIN GRIBBEL,  
OSCAR H. FOOG,  
PERCY S. YOUNG.

The President of the United States,  
Washington, D. C.

### Yale Seniors Inspect Construction Work

On Friday, March 30, about 65 senior students and 5 professors of the Sheffield School of Science of Yale University came to Rochester to get an insight into Rochester's many industries. In the morning they

inspected the new Construction Work at Station 5, and at noon they were entertained at luncheon given at the Chamber of Commerce. Mr. I. Lundgaard addressed the visitors—taking as his subject, "Industrial Rochester."

Before leaving Rochester the class also visited the factories of the Eastman Kodak Co., Bausch and Lomb, German-American Button Co., and the Gleason Works.

### Changes in Company Organization

Mr. V. A. Miller, Supt. of the Canandaigua Gas Light Co. and the Ontario Light & Traction Co., has been appointed Supt. of the Rochester Railway & Light Company's Transportation Department, taking over the duties formerly looked after by Mr. Hellen in connection with this Department. Mr. Miller moved to Rochester April 1st, and assumed his new duties at that time.

Mr. J. W. Morphy, Company Adjuster, has been granted a six months leave of absence beginning April 1st, to give his entire attention to his business. During Mr. Morphy's absence the work formerly carried on by him will be taken over by Mr. F. W. Fisher and his Department.

### Baseball and Tennis

Spring is here and with it has come the enthusiasm and vigor for outdoor spring and summer sports.

It is expected that a baseball team will be organized to represent the Company, the same as last year. We expect to get the full details from Manager Stokes for the next issue of the magazine.

The tennis players are no less active. An industrial tennis league will no doubt be organized and the boys expect to round up a winning team to represent the Company. All those who are interested should communicate with Mr. Yorkey.

## Gas and Electricity in the Home

BY THE GAS DEMONSTRATORS

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

### Eggs—Their Value, Cooking and Storage

EGGS like milk form a typical food inasmuch as they contain all the elements necessary for the support of the body and these in a form easily digested. However, because this nutrition exists in such a concentrated form, it is necessary to combine the eggs with foods of a more bulky nature, as bread, potatoes, etc.

In comparing the food value of eggs with meat we find that it takes about nine eggs to equal a pound of sirloin steak so that even at a moderate rate per dozen they cannot be termed an inexpensive food. However, they make a very satisfactory meat substitute and one which most people relish for a variety in the diet.

Analysis has proved that the color of the shell has nothing to do with the nutritive value of the egg. It has also shown that the light and dark colored yolks have the same food value, this color being largely determined by the food the fowl has eaten.

The decomposition of the egg is caused by two sets of causes, the germination of fertile eggs which is a natural cause, and the growth of molds and bacteria due to some outside cause. Many producers make a specialty of infertile eggs for storage and if it is possible to get them, they are very desirable. In storage, whether it be commercial or in the home, the object is to prevent decomposition. In commercial storage this is done by keeping them at a temperature so low that life will not grow. In home storage all air is kept out by a method of preserving, thus preventing the entrance of molds or bacteria and hindering the growth of those already present.

Since the supply of eggs must necessarily change during different

times of the year, it would be well for every housewife to store eggs when they are cheap so that she may enjoy them when they soar to fifty and seventy-five cents a dozen. Eggs for storage should be fresh and clean. It is undesirable to wash them as washing opens the pores, so choose clean ones. Probably the best method is to use water glass, one part of the water glass solution to ten parts pure water, preferably water that has been boiled.

The eggs should be packed in a crock, keg or barrel which has been thoroughly scalded just before using, and should be completely covered with the preserving liquid. They should be stored in a cool place. Eggs stored in this way will be found entirely satisfactory for all baking purposes and often more desirable for table use than some of the so-called fresh eggs in the market. If cooked in the shell, the broad end should be pricked to prevent the eggs from cracking.

Cooking at a high temperature hardens the albumen of the egg so that it is very difficult to digest. For that reason eggs or egg mixtures should be cooked at a moderate temperature; if baked, it should be in a rather moderate oven, and if boiled or poached the water should be at simmering point—about 175°F. The term soft or hard boiled eggs is gradually giving way to a better one—soft or hard cooked eggs. Boiling water is poured over the eggs and the pan placed where the water will keep hot, but not boil. Five or six minutes for soft cooked eggs and forty to forty-five minutes for hard cooked. In using hard cooked eggs for making other dishes, they should when taken from the hot water, be plunged into

cold water to prevent if possible the discoloration of the yolks.

Poached eggs are often given to those who are ill and with good reason. Like soft cooked eggs, if cooked properly they are easily digested. The liquid for poaching should be at the simmering point (the point where little bubbles form in bottom and sides of pan) when eggs are put in, and kept at that temperature until the eggs are firm but tender. Eggs are usually poached in water but sometimes milk or a sauce like tomato sauce is used. If a sauce is used it is poured over the egg and toast just before serving.

### Eggs and Their Value as Food

The above is the title of a very practical and pithy bulletin written by C. F. Langworthy, Chief, Office of Home Economics, and is published by the Department of Agriculture. The cost is five cents—Address, Superintendent of Documents, Washington, D. C.

"Farmers' Bulletin No. 471."

### A Few Good Recipes

#### OMELET

Separate white from yolk. To each yolk add 1 tablespoon of cold water and beat until thick and lemon colored. To this add white beaten until stiff and dry, cutting and folding them together carefully. Heat omelet pan with about one teaspoon of butter to each egg. Turn in mixture and cook slowly until the omelet is delicately browned underneath, then place pan in oven to finish cooking on top. The omelet is cooked if it is firm to the touch when pressed by the finger. If it clings to the finger like the beaten white of egg, it needs longer cooking. Fold and turn on platter.

Omelets are varied by pouring over different sauces or folding in vegetables or fruit. Some of the things used are jelly, oranges, tomato, spinach, peas, cauliflower, asparagus tips.

#### STUFFED EGGS

Cook eggs under the boiling point for 40 minutes. Cut in halves lengthwise, remove yolks and mix well with deviled ham or tongue, moistening with a little salad dressing.

Refill the whites, press together and wrap each egg in oiled paper.

#### CHEESE SOUFFLE

2 tablespoons butter Few grains cayenne  
3 tablespoons flour  $\frac{1}{4}$  cup grated Old  
 $\frac{1}{2}$  cup scalded milk English or Young  
 $\frac{1}{2}$  teaspoon salt America cheese  
Whites 3 eggs Yolks 3 eggs

Melt butter, add flour, and when well-mixed add gradually scalded milk. Then add salt, cayenne and cheese. Remove from fire; add yolks of eggs beaten until lemon-colored. Cool mixture, and cut and fold in whites of eggs beaten until stiff and dry. Pour into a buttered baking-dish, and bake twenty minutes in a slow oven. Serve at once.

#### EGG A LA GOLDENROD

3 hard cooked eggs  $\frac{1}{2}$  teaspoon salt  
1 tablespoon butter  $\frac{1}{8}$  teaspoon pepper  
1 tablespoon flour 5 slices toast  
1 cup milk Parsley

Make a thin white sauce with butter, flour, milk and seasonings. Separate yolks from whites of eggs. Chop whites finely, and add them to the sauce. Cut four slices of toast in halves lengthwise. Arrange on platter, and pour over the sauce. Force the yolks through a potato ricer or strainer, sprinkling over the top. Garnish with parsley and remaining toast, cut in points.

#### EGGS IN A NEST

Separate egg, to white add few grains salt, beat until stiff. Pile on a circular piece of toasted bread first dipped in boiling salted water; make depression in center and drop in yolk. Bake in a moderate oven until delicately browned. Serve with Bechemel Sauce or Tomato.

#### BECHEMEL SAUCE

2 teaspoons butter  $\frac{1}{2}$  cup cream  
2 teaspoons flour and chicken stock  
Few Grains Salt

Melt butter, add flour, cook until it bubbles, then add liquid and cook until thick.

#### EGG SUSETTE

Wash and bake six large potatoes, cut slice from top of each, scoop out inside and mash. Add pepper, salt, butter and hot milk until potatoes have a creamy consistency. Line potato shells with mixture, break into each cavity an egg and almost cover this with more of the potato mixture. Put back in oven and bake until eggs are set and potatoes are browned slightly.

#### EGGS A LA BUCKINGHAM

Make five slices milk toast, and arrange on platter. Use recipe for Scrambled Eggs, having the eggs slightly underdone. Pour eggs over toast, sprinkle with four tablespoons grated mild cheese. Put in oven to melt cheese, and finish cooking eggs.



## Sales

After a month's use of steam from the Company's mains at the Bristol and Savoy Hotels and the Fire Department Headquarters, on Central Avenue, a comparison of the estimated and actual steam consumptions shows a close similarity. The following are the results obtained:

#### BRISTOL AND SAVOY HOTELS

| Steam used during Month of March |                |                |
|----------------------------------|----------------|----------------|
|                                  | Estimated      | Actual         |
| Heating.....                     | 1,855,000 lbs. | 1,635,400 lbs. |
| Industrial.....                  | 200,000 lbs.   | 264,800 lbs.   |
| Total.....                       | 2,055,000 lbs. | 1,900,200 lbs. |

#### FIRE DEPARTMENT HEADQUARTERS

| Steam used during Month of February |              |              |
|-------------------------------------|--------------|--------------|
|                                     | Estimated    | Actual       |
|                                     | 817,000 lbs. | 745,900 lbs. |

Wm. Buedingen & Son have purchased the Schlegel Building, 33 Canal Street, into which they will move their Paper Box Factory now located at Allen and Plymouth Avenue. This firm will use electricity for 60 two-quart electric glue pots, for electrically heated embossing machines, and for motors and lights. Steam for heating purposes will be supplied from No. 35 Station.

The Selden Motor Vehicle Company recently decided to install additional motor equipment in its new building. Twenty-five horsepower in motors will be installed to run a drill press, ventilating fans, and an air compressor which compresses air for paint spraying.

A new system of illumination is being installed in the knitting factory of Max Lowenthal & Bro. In the yarn storage rooms where trouble had

always been experienced in color matching advantage is being taken of the day-light qualities of the blue glass nitrogen lamp.

The 500 kilowatt rotary converter at the Stecher Lithographic Company was started on March twelfth and has been operating very satisfactorily. It is expected that this rotary will carry all of the power load except that required to furnish exhaust steam for factory heating.

The Flower City Ice Cream Company, formerly the Chamberlain Ice Cream Company, 180 Meigs Street, has installed a 5-horsepower motor to replace a gasoline engine.

The Foster Armstrong Piano Company, at East Rochester, has equipped the appliances in its plating department with gas burners which will displace steam.

The Bridges Machine Tool Company has installed a Garland Hotel range in its new factory lunch room.

Colby and Foster, of 1215 Lake Avenue, have installed a gas range in their new restaurant.

The Church of the Epiphany has installed one Garland Hotel range and a steam table.

Eastman Kodak Company has ordered one 700 pound soft metal furnace.

C. W. Willson, 188 Melville Street, has purchased a Vulcan Baker's oven.





## Gas Manufacture



### An Adjustable Suction Pipe

IN any type of sedimentation tank, it is usually desirable to have some method whereby the separated fluids may be pumped out, regardless of the level at which they may stand in the tank. This is especially true in the various wells and separators at a gas works where tar and weak ammonia liquor accumulate. The liquor must frequently be pumped off from the tar, and the line of separation is not always at the same level. Hence some form of adjustable suction pipe is necessary.

The accompanying sketch illustrates a suction pipe which has been developed by Mr. James Greech who operates the ammonia still at East Station, and who is also responsible for the handling of the coal tar and ammonia.

The sketch is self explanatory. Adjustment is made by means of the half-inch pipe which serves primarily as a rod for raising or lowering the suction line. The movement of these parts is properly controlled by means of the stuffing boxes indicated, which also prevent the indrawing of air. The stop-cock at the top of the half-inch pipe serves as a vent which permits draining out the lines after pumping. If the weight of the pipes should tend to make them slide down below any given point, this tendency may be overcome by putting a loose collar with a set screw around the exposed end of the half-inch guide pipe.

The apparatus is connected for use either with a pump or with a steam syphon and is in use at present in the tar well at the Gas Works.

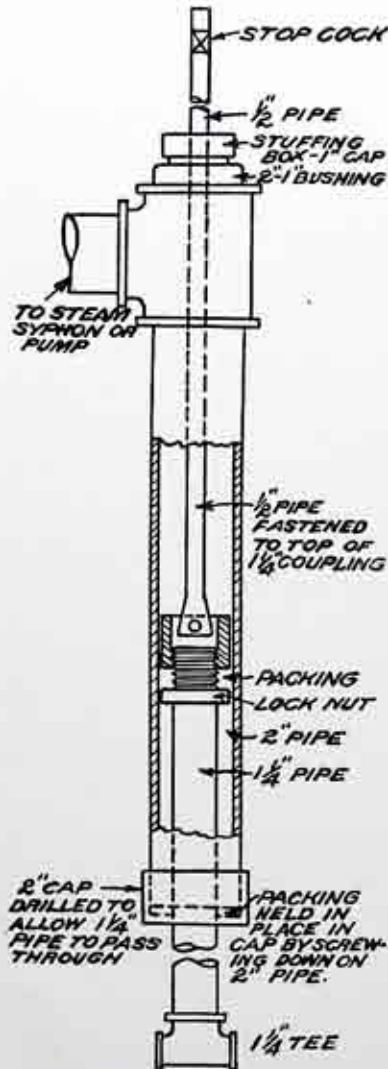


Diagram showing adjustable suction pipe which is in use at the Gas Works



## Gas Distribution



### Location of Street Work on Gas Mains

EDWARD J. CRANE

IN laying gas mains, services and service laterals or stubs, not only must good work be taken into consideration, but an accurate record must be kept of all material used. It is also essential that an accurate measurement be taken of mains, service drips, gates and specials. These are located from street or property lines, which are determined by means of monuments which are generally located at street corners. The street line is four feet from the monument, that is as a rule about two feet inside of the walk. In this way various pipes and ducts in the ground can be located when necessary. The gas mains are laid to the grade of the street, and at the lowest point in the street a "special" known as a Tub Drip is placed to receive the condensation.

Figure 1 illustrates how the mains and "specials" are located by measuring from the street lines.

On all streets that are to be improved and where vacant property is to be taken care of at some future time, service laterals or stubs are laid from the mains to the curb before the new pavement is laid. If no main has been laid on the street, the stubs are "laid blind" and are tied into the main pipe when it is extended to supply consumers that require gas at some future time.

In some cases the stubs are run from the main to the street line, but as a rule they are laid just beyond curb line. Figure 2 illustrates how the stubs are laid and measured. In nearly all cases, and especially in new work, the main is laid behind the curb on one side of the street, thereby making it necessary to lay stubs only for the opposite side of the street.

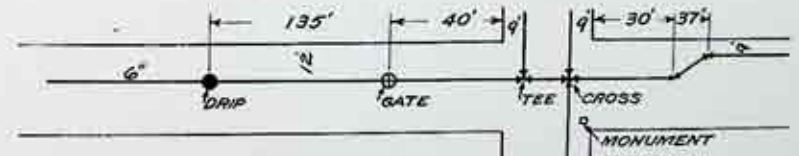


Fig. 1. Diagram showing how gas mains and "specials" are measured from the street line

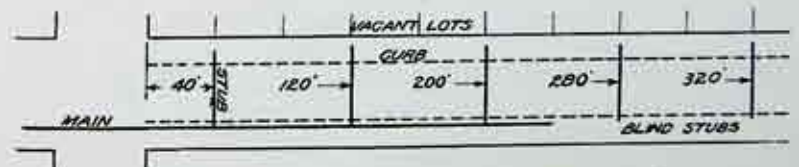


Fig. 2. Diagram showing how "stubs" are laid and measured.



## Auditing



### Monthly Report on New Business

| Net Increase in Consumers in February 1917 |               |               |                 |
|--|---------------|---------------|-----------------|
|  | Jan. 31, 1917 | Feb. 28, 1917 | Increase (Dec.) |
| Gas.....                                   | 72,724        | 72,523        | 201             |
| Electric.....                              | 22,403        | 22,575        | 172             |
| Steam.....                                 | 43            | 48            | 5               |
|  | 95,170        | 95,146        | 24              |

### Net Increase in Consumers in Two Months Ending Feb. 28, 1917

|               | Dec. 31, 1916 | Feb. 28, 1917 | Increase (Dec.) |
|---------------|---------------|---------------|-----------------|
| Gas.....      | 72,721        | 72,523        | 198             |
| Electric..... | 22,282        | 22,575        | 293             |
| Steam.....    | 43            | 48            | 5               |
|               | 95,046        | 95,146        | 100             |

### Statement of Consumers by Departments as of Feb. 28th.

| Feb. 28th      | Gas    | Electric | Steam | Total  | Increase Each Yr. |
|----------------|--------|----------|-------|--------|-------------------|
| 1908           | 37,358 | 5,362    | ..... | 42,720 | .....             |
| 1909           | 40,811 | 5,743    | ..... | 46,554 | 3,834             |
| 1910           | 45,458 | 6,459    | ..... | 51,917 | 5,363             |
| 1911           | 50,686 | 7,841    | 14    | 58,541 | 6,624             |
| 1912           | 55,338 | 9,414    | 19    | 64,771 | 6,230             |
| 1913           | 60,039 | 11,985   | 23    | 72,047 | 7,276             |
| 1914           | 64,814 | 14,169   | 29    | 79,012 | 6,965             |
| 1915           | 67,824 | 17,133   | 37    | 84,994 | 5,982             |
| 1916           | 69,381 | 19,844   | 41    | 89,266 | 4,272             |
| 1917           | 72,523 | 22,575   | 48    | 95,146 | 5,880             |
| Inc. in 9 Yrs. | 35,165 | 17,213   | 48    | 52,426 | 52,426            |

### Net Increase in Consumers by Months

|                           | 1915 | 1916 | 1917 |
|---------------------------|------|------|------|
| Increase in January.....  | 364  | 252  | 124  |
| Increase in February..... | 144  | 219  | 24   |
|                           | 508  | 471  | 100  |

### Company's Savings Depositors

| STATEMENT TO APRIL 1ST, 1917         |            |
|--------------------------------------|------------|
| No. of depositors April 1, 1917..... | 91         |
| Decrease during March, 1917.....     | 4          |
| Amount deposited during March.....   | \$827.50   |
| Total deposits to April 1, 1917..... | \$9,343.76 |

### Miscellaneous Data

|                                       | Feb. 29, 1916 | Feb. 28, 1917 | Increase   |
|---------------------------------------|---------------|---------------|------------|
| Miles of Gas Main.....                | 435           | 443           | 8          |
| Miles of Overhead Line.....           | 1,767         | 1,818         | 51         |
| Miles of Underground Cable.....       | 1,039         | 1,063         | 24         |
| Miles of Subway Duct.....             | 906           | 945           | 39         |
| No. of Street Arc Lamps.....          | 4,184         | 1,586         | 2,598      |
| No. of Street Incandescent Lamps..... | 4,466         | 7,444         | 2,978      |
| Total No. of Street Lamps.....        | 8,650         | 9,030         | 380        |
| No. of Employees.....                 | 994           | 1,127         | 133        |
| Amt. of Pay-roll (Mo.).....           | \$79,213.71   | \$88,859.90   | \$9,645.92 |

### Treasurers Report of Employees' Benevolent Association

| Receipts                       |            |
|--------------------------------|------------|
| Bal. on hand 1st of month..... | \$1,910.08 |
| Dues—Members.....              | \$488.91   |
| Dues—Company.....              | 488.91     |
| Fees—Members.....              | 27.00      |
| Fees—Company.....              | 27.00      |
| Assessment No. 5—Mem.....      | .75        |
| Assessment No. 5—Com.....      | .75        |
| Group Life Insurance.....      | 12.81      |
| Mem. Additional Life Ins.....  | 11.79      |
| Total.....                     | \$1,057.92 |
|                                | \$2,968.00 |

| Disbursements                 |            |
|-------------------------------|------------|
| Sick Benefits.....            | \$872.23   |
| Accidents off Duty Ben.....   | 22.50      |
| Accidents on Duty Ben.....    | 91.99      |
| Group Life Insurance.....     | 20.11      |
| Medical Examiner's Exp.....   | 13.50      |
| Mem. Additional Life Ins..... | 23.66      |
| Total.....                    | \$1,043.99 |

|  |            |
|--|------------|
| Bal. on hand April 1, 1917.....              | \$1,924.01 |
| Members in good standing March 31, 1917..... | 724        |
| Affiliated during March.....                 | 39         |
| Unaffiliated during March.....               | 6          |
| Gain.....                                    | 33         |
| Total Membership ending March 31, 1917.....  | 757        |

### Employment Managers Meet

A NATIONAL Employment Managers' Conference was held in Philadelphia on April 2nd and 3rd, under the auspices of the Philadelphia Association for the discussion of Employment Problems, The University of Pennsylvania, The Board of Education, The Chamber of Commerce, The American Academy of Political and Social Science, The Public Education Association and The Industrial and Technical Conference. This conference was attended by F. W. Fisher of this Company.

The general problem of employment was considered under the subjects of "The Labor Turnover in Industry," "The Figuring and Analyzing of Labor Turnover," "The Selection of Employees and Termination of Employment," and "Following up after Hiring." There were several features of special interest to this Company. The well-known fact that the turnover or change in the force employed is unnecessarily expensive was verified by statistics presented by Mr. M. W. Alexander of the General Electric Co. Methods of reducing this expense, which are modifications or amplifications of the methods now in use in this Company and in Rochester, were presented by several speakers. The significant feature of these methods is that they all depend upon carefully kept records, an intensive and thorough study of business conditions and human relations by the Employment Department, and a well developed "Esprit de corps."

Special emphasis was made by Mr. Roger W. Babson, a leading statistician, on the part which ambition, initiative, enterprise and imagination play in the achievement of success, and his remarks formed fitting corollaries to statements made by other speakers on work being done to develop these and other qualities which are latent in many individuals.

### Some Recent Accidents

Mr. Fred Miller, of the Electric Meter Department, strained his side while opening a window.

Mr. Wm. H. Smith, teamster at the Gas Works, had a rib fractured when a horse which he was grooming crowded him against the top rail of stall partition.

Mr. C. G. Wright, of Station 3, was blowing tubes on a boiler when the plank on which he stood broke, causing him to be thrown a distance of about seven feet to the ground, injuring his head and shoulder.

While Mr. Eugene Calman, of the Gas Works, was lowering a window, it stuck and as he put additional force on it, it loosened and his hand went through a pane of glass, which cut the palm of his right hand.

Mr. Jeremiah A. Curtin, of the Construction Department, was holding a chisel while another man was hitting with a sledge. The chisel jumped out of place onto Mr. Curtin's finger which was cut quite badly.

Mr. W. C. Hegeman, of Station 3, was standing near one of the steam turbines and had occasion to look up to see if seals were tight. As he looked a drop of hot water from the steam line dropped into his eye slightly scalding same.

Mr. Nathan Pitcher, at Station 3, was loading ashes into a wagon, when a fellow employee hit his hand with a shovel, causing same to be cut. Injury was not reported immediately and the cut did not heal satisfactorily. As a result later on Mr. Pitcher had to be laid off for over a week.

While Mr. Ernest Rooth, of the Electric Construction Department, was pulling a cable at Station 3, the loose end of the cable swung and hit an oil cell, knocking off the door. As a result the cable came in contact with a live 11,000 volt oil switch tank. Mr. Rooth was overcome by the shock and received burns on his arm, hand, chest and foot.

## Personals

Mr. John Logan, of the Line Department, is a very proud father—a son was born on March 7th.

Mr. Edwin Russell, father of Assistant General Manager Russell, died March 31st, at his home in Manistee, Michigan.

Miss Ruby Kemp, of the Billing Group, has left the employ of the Company to return to her home in Carrington, Ont., Canada.

Mr. F. Bohem has been transferred from Station 35 to Station 3. Mr. Jas. Mackle has been engaged to take Mr. Bohem's place.

Miss Frances E. Moore, of the Domestic Sales Department, spent Easter week in the country to recuperate from her recent illness.

Mr. Harry T. Donovan, Inspector of Meter Readers, has been transferred from the Meter Reading Group to the Industrial Sales Department.

Mr. E. R. Crofts, formerly Designing Engineer in the Engineering Department, has taken up his new duties as Engineer in the Purchasing Department.

Mr. James Gooney has been employed as errand boy in the Mailing Department to fill position vacated by Arthur Franklin, who has been transferred to the Shop mail.

Mr. Arthur Wagner, of the Electric Department, is very happy these days. An 8½ pound boy, David Willoughby, arrived at the Wagner residence, on April 1st, for a permanent visit.

Mr. Eldred Koehler resigned as clerk at the lamp counter to follow up farm work on his father's farm four miles south of the city. Mr. T. R. Buckley is now clerk at the lamp counter.

Mr. F. A. Bond has recently entered the Company employ as an Engineer at Station East. Mr. Bond

is a graduate of Colgate University in the class of 1913. Following graduation he worked for the United Gas Improvement Company in Philadelphia, both in gas distribution and manufacturing departments. In 1915 he went to the Chester, Pa., coke oven plant of the Philadelphia Suburban Gas and Electric Co. He has recently had considerable experience in the construction and operation of apparatus for the extraction of benzole.

The boys at Station 4 have always had a large quantity of fish to eat during the spring high water period. This year the fish went on a strike and refused to help out the H. C. L. problem.

Messrs. C. W. Smith and W. H. Davidson, of Michigan University, Mr. E. L. Cartright, of Cornell, and Mr. E. L. Richardson, of Carnegie "Tech," have been added to the Engineering Department staff. These men have all had several years engineering experience and come to us well recommended.

Miss Hazel H. Scofield, daughter of Mrs. F. E. Scofield, and Charles V. Miller, Jr., of Station 1, were married on Thursday, March 1st, at 5:30 o'clock at the home of Rev. Charles H. Rust. A wedding supper was served at the home of the bride. Mr. and Mrs. Miller are residing at 101 University Ave.

On Friday, March 23rd, a dinner was given at the Rochester club in honor of and as a welcome to Mr. James Hamilton who was recently appointed General Manager of the New York State Railways, Rochester Lines. The dinner was given by about 40 heads of various departments in both the Railway and the Lighting Companies. Mr. D. M. Beach acted as toastmaster, and addresses were delivered by Mr. J. F. Hamilton, Mr. J. T. Hutchings, Mr. J. C. Collins, Mr. E. J. Cook and Mr. E. C. Scobell.

## America

My country, 'tis of thee,  
Sweet land of liberty  
Of thee I sing;  
Land where my fathers died,  
Land of the pilgrim's pride,  
From every mountain-side  
Let freedom ring.

My native country, thee,  
Land of the noble free,—  
Thy name I love;  
I love thy rocks and rills,  
Thy woods and templed hills;  
My heart with rapture thrills  
Like that above.

Let music swell the breeze,  
And ring from all the trees,  
Sweet freedom's song;  
Let mortal tongues awake,  
Let all that breathe partake,  
Let rocks their silence break,—  
The sound prolong.

Our fathers' God, to Thee,  
Author of liberty,  
To Thee I sing;  
Long may our land be bright  
With freedom's holy light;  
Protect us by thy might,  
Great God our King.