

Fire Clay and Iron Gas Retorts.


On page 291 of the present volume of the SCIENTIFIC AMERICAN we described the operations and mode of making fire brick, condensed from Mr. Stephenson's lecture on the subject, published in the London Engineer. We now give in substance the concluding part of his paper relating to the manufacture of fire clay retorts.

MOLDING.


The clay for making retorts is not ground so fine as for bricks. It is passed through a riddle or screen having about four meshes to the inch, and to render the retorts porous, about 20 per cent of sawdust or fine coke is mixed with the clay and put in the pug mill with it. The retorts are molded by hand by pressing small lumps of the clay against the side of the mold, which is set vertically, until the length, form and thickness are secured. Each retort is built slowly, about nine inches of clay being put on the mold at intervals of several hours to insure soundness, as the clay is liable to crack in drying. The process of building a retort is continued every day, or as often as necessary, till any length of retort is obtained, the top end always being kept perfectly moist, to guarantee perfect adhesion throughout the whole. The sheds in which these retorts are made are constructed like brick sheds, excepting that more height is allowed from the level of the floor to the joists. Fires are constantly kept burning under the floor on which the retorts are being built, and this process of drying is perhaps one of the most important of the manufacture. If not carefully and properly dried, cracks will show all over the surface.

In order to make the mass of clay porous, and yet prevent this porosity causing a leakage when distilling coal in making gas, a mixture, composed of about equal parts of unburnt and calcined fire clay finely pulverized, with the addition of as much water as renders it of a consistency of thick paste, is applied day by day to the internal and external surfaces of the retorts, and well worked in by the hand; thus an even, smooth and unbroken surface, free from cracks and flaws, is produced, and the retort presents a uniform appearance throughout.

BURNING.

The burning of the retorts requires much care and attention, and generally continues for a period of ten or twelve days. The retorts being placed vertically on rows of bricks on the bottom of the kiln, the great desideratum is to procure a steady draft, the exclusion of atmospheric air, and a gradually progressive heat. Opinions differ very widely as to the best shape of clay retorts, the circular, oval or elliptical, and , being those commonly advocated and in use. In the leading works the 15-inch round, and 21-inch x 15-inch oval, in settings of five and seven retorts in a bench, appear to be in favor; these retorts being from 18 feet 6 inches to 20 feet in length, open throughout, and charged at each end. They are constructed in three or four pieces to suit convenience.

HISTORY OF CLAY RETORTS.

The introduction of clay retorts seems to be due to Mr. Grafton, who, as early as the year 1820, took out a patent in England for their use. His retorts were at first square, but soon after were altered, and were constructed in sections of about 16 inches in length. These retorts were 5 feet wide and 18 inches high, being 7 feet long, resembling an oven in their general contour. This shape was used for many years in some of the provincial works of Great Britain, and are perhaps still employed to some extent, although they have been generally replaced by the oval, circular and common  shaped retort.

The gasworks of Scotland were among the first to apply clay retorts, and their use is now almost universal in that country. They were there employed for a considerable period before their general introduction into England.

MERITS OF CLAY AND OF IRON RETORTS.

The comparative merits of clay and of iron retorts is a subject which has attracted much attention from the gas engineering profession during the past few years.

The superior qualities claimed for clay retorts over those made of iron are as follows:—Their cost is less than iron; they are more durable; they have more carbonizing power; they produce a greater quantity and a better quality of gas. There are some parties who still advocate the use of iron retorts, and who, of course, will not admit these claims. At the South

Metropolitan Works, in London, seventeen months have been considered a fair duration for clay retorts, each one having produced 1,800,000 feet of gas; the expenditure of coal being no greater than that of iron retorts. Mr. Barlow, the editor of the *Journal of Gas Lighting*, estimates 700,000 cubic feet of gas as the average yield of iron retorts. In the report of the chairman of the City of London Gas Company, January, 1859, the strongest testimony is adduced in favor of clay over iron retorts.

Out of 468 clay retorts in constant use by the above company, 196 had been in operation for four years.

The advocates of iron retorts have contended that a much greater amount of fuel is required for carbonizing with clay retorts. It is true that the heat deemed most suitable for generating gas from them is several hundred degrees higher than that used with iron, but with this intensity they are efficient in producing a larger amount of gas than would be generated at the lower degree of heat required by iron retorts.

There is quite a difference of opinion among gas engineers respecting the merits of iron and clay retorts, and as this is a question of great importance to communities where gas is burned, we will give both sides of the question.

In the last annual report of the engineer of the Philadelphia Gas Works, he says:—

Prominent among the many questions that engage the attention of the gas engineer, are those of the material and form of retorts. Iron, both cast and wrought, and fire clay, either made into bricks or molded, are the materials in common use. Experiments on these materials were begun at our works in 1838, and have been repeated from time to time, whenever some alleged improvement made such trials expedient. Recently the growing interest in the subject has led to a more extensive series of trials than any before attempted. The number of retorts used in these experiments is nearly one hundred, supplied by different makers, both American and foreign. Thus far they have not yielded results as economical as we usually obtain from plain cast iron, but the trials are not considered to be entirely conclusive, and they will therefore be continued with other retorts of different forms of American manufacture, some of which appear to be of better quality than those before used.

In London it is held that fire clay retorts have enabled the gas companies to reduce the price of gas; in Philadelphia, such retorts have not yielded such good results as those made of iron. How is this to be explained?

THE PATENT OFFICE—PATENT CLAIMS.

Business is being conducted at the Patent Office as usual, and a good list of cases was passed for issue last week and the week previous, but owing to the some derangement in the Recording rooms, the copyists have not been able to get the documents engrossed and mailed as punctually as usual. For the same reason we had not received our official list of claims at the time of going to press, but we are assured that all these delays will be remedied hereafter. Our next issue will probably contain the claims of all the patents issued since April 23d.



E. W., of Pa.—A series of experiments made a few years since by one of the officers of our army, at Washington, demonstrated conclusively that a gun is less liable to burst if the wad is not driven down upon the powder, and the harder it is driven, the greater is the danger of bursting.

W. L., of Pa.—Mr. Downing recommended for live fences, the osage orange for the Southern States, and the buckthorn for the Northern. We have tried the buckthorn. If it is cultivated in very rich ground, kept clear of weeds, and very thoroughly pruned down, while young, it will make a good hedge in four or five years. Put a little glue in common whitewash, to make it adhere.

R. J. E., of England.—Copies of the drawings desired by you would cost \$4; each of the specifications, \$7.

C. B. B., of Pa.—We will furnish you one stereotype of the map for \$3.

R. J., of Ohio.—On page 129, Vol. VI. (old series) of our journal, you will find an illustrated description of machinery for making and baking bread, raised by water impregnated with carbonic acid gas. There is no patent in force, so far as we know, claiming the use of carbonic acid gas for raising bread. No such patent, if granted, would be valid.

W. N. C., of Cal.—I. Arnaboldi, No. 69 Fulton-street, this city, will furnish you with the curved glass tube which you desire to obtain.

H. M., of Col. Ter.—You can make a most excellent writing ink by boiling 4 lbs. of logwood and 2 lbs. of sumac in 5 gallons of water for two hours; then adding 5 ounces of copperas and 2 ounces of gum-arabic. Of course you must strain the liquid, and use only the free, flowing fluid.

C. F., of N. Y.—You can obtain all the books necessary for you to learn the art of military engineering at Van Nostrand's, No. 192 Broadway, this city.

R. A. K., of La.—We regret that we are unable to supply the information you seek in reference to the frigate *Pennsylvania*, recently burned at Norfolk. She was the largest ship of the line ever built by our government; she mounted 120 guns; tonnage, 3,241.

J. F. P., of N. Y.—The peat which you send us is a very good article, and will make both gas and oil. Peat, however, never has been found to compete with coal in making oil. It is cheaper than coal for gas in situations where coal costs more than about \$10 per ton. The formation under the peat is marl, a very valuable manure. The peat, too, makes good manure.

W. S. G., of N. Y.—Giffard's Injector has been patented in this country.

A VOLUNTEER, Ill.—Your wrought iron cup attached to a ball is an old thing, and not patentable. The patent records show several examples of it.

T. S., of Pa.—A wheel 40 feet in diameter is double the power of one 20 feet in diameter, using the same quantity of water, if the fall is in proportion to the diameter of each wheel—20 feet in one case, and 40 in the other. There is no power in the wheel itself; the power is in proportion to the quantity of water and perpendicular height of the fall.

H. B., of Mass.—The composition employed by blacksmiths for welding cast steel consists of five ounces of borax and half an ounce of salammoniac pounded together, then fused in an iron vessel, and poured out in a cake and cooled. It is now ground to powder, and in this condition used for welding. The steel is now raised to a yellow heat in a clear fire, then rubbed with some of the powder, which should be kept upon a stone on the hearth; then the steel is again treated as before, and is fit to be placed under the hammer. Iron and steel may be welded together with this powder by carefully managing the heat of each.

S. H. C., of N. J.—The stone which you have sent us is composed of black and white mica and some silica. It came originally from the highlands of New York.

F. H. C., of N. Y.—If you can obtain a classical education before commencing to learn the trade of a machinist, we advise you to go to college as soon as possible.

A. B. G., of Conn.—There are several instruments for army use by which distances of objects can be ascertained. They are generally complicated and expensive. Yours may be patentable; if we saw a model, we could give you more definite information.

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, May 11, 1861:—

F. R., of Ind., \$15; A. B. C., of N. Y., \$25; E. S., of Mass., \$25; J. C. B., of N. Y., \$15; N. H. B., of Mass., \$15; J. B., of Ind., \$25; A. S. W., of N. Y., \$15; T. S. & T. W. R., of N. Y., \$15; S. J. M., of Ohio, \$25; F. & M., of N. Y., \$15; J. K., of Scotland, \$15; J. B., of Ohio, \$15; S. M. & Co., of Vt., \$25; U. B. V., of Pa., \$15; R. K., of Mass., \$40; W. W. H., of N. Y., \$30; J. G., of N. Y., \$25; A. H. J., of Cal., \$30; J. A., of Conn., \$15; C. Van N., of N. Y., \$25; J. & G. B., of Wis., \$25; J. A. T., of N. Y., \$35; R. W., of Pa., \$10; T. G. E., of Mo., \$30; M. J. K., of N. Y., \$25; M. & K., of N. J., \$15; F. L. H., of Vt., \$25; A. M. O., of Wis., \$15; P. & B., of Mich., \$15; S. J. P., of Conn., \$15; F. N., of Conn., \$10; S. D. C., of Conn., \$15; A. S. Jr., of N. Y., \$40; E. D. C., of Vt., \$20; S. R. W., of N. Y., \$25; J. A. B., of Mich., \$10; C. & C., of N. Y., \$30; H. C., of Cal., \$30; A. C. C., of R. I., \$10; L. H. D., of Iowa, \$25; M. N., of Mass., \$25; J. N. H., of N. Y., \$25; J. H. & H. J., of N. Y., \$25; W. B. S., of N. Y., \$25; I. F., of Ky., \$15; W. H. M., of R. I., \$15; T. & R., of N. J., \$200; T. P., of N. Y., \$12; T. A., of N. Y., \$10; J. B. D., of N. Y., \$20; G. S., of Iowa, \$25; C. H. M., of Pa., \$40; A. B., of N. J., \$20; G. B., of N. Y., \$20; N. R. M., of N. Y., \$20; G. & C., of N. Y., \$25; A. D., of N. J., \$25; W. C. C., of Wis., \$20; T. S., of N. J., \$40; R. B., of Iowa, \$25; C. H., of La., \$25; J. R. A., of Ill., \$25; S. & A., of Iowa, \$25; G. R. D., of N. Y., \$25; E. & H., of N. J., \$25; A. M., of Maine, \$25; J. J. H., of Ky., \$25; C. F. V., of Ill., \$15; G. S. R., of Ill., \$25; J. J. H., of Ky., \$20; S. S. H., of Mass., \$15.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending May 11, 1861:—

C. H. M., of Pa.; T. S., of N. J.; J. H. J., of Cal.; J. B., of N. Y.; J. N. H., of N. Y.; A. B. C., of N. Y.; E. S., of Mass.; M. N., of Mass.; S. J. M., of Ohio; C. & C., of N. Y.; G. S., of Iowa; R. E., of Mass.; S. R. W., of N. Y.; J. A. B., of Mich.; G. & C., of N. Y.; M. J. K., of N. Y.; L. H. D., of Iowa; J. G. B., of Wis.; J. G., of N. Y.; T. P., of N. Y.; A. D., of N. J.; E. D. C., of Vt.; W. W. H., of N. Y.; T. H. & H. J., of N. Y.; W. B. S., of N. Y.; C. H. B., of Pa.; C. Van N., of N. Y.; F. L. H., of Vt.; J. A. T., of N. Y.; N. B., of N. Y.; G. S. R., of Ill.

TO OUR READERS.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on Design Patents, when two good drawings are all that is required to accompany the petition, specification and oath, except the government fee.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1863, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

BINDING.—We are prepared to bind volumes, in handsome covers, with illuminated sides, and to furnish covers for other binders. Price for binding, 50 cents. Price for covers, by mail, 50 cents; by express or delivered at the office, 40 cents.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of *Instructions to Inventors*, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application to this office. Address MUNN & CO., No. 37 Park-row, New York.

CHANGE IN THE PATENT LAWS.

NEW ARRANGEMENTS—PATENTS GRANTED FOR SEVENTEEN YEARS.

The new Patent Laws, recently enacted by Congress, are now in full force, and promise to be of great benefit to all parties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the government fee required on filing an application for a patent is reduced from \$30 down to \$15. Other changes the fees are also made as follows:—

Table listing fees for various patent services: On filing each caveat, \$10; On filing each application for a patent, except for a design, \$15; On issuing each original patent, \$20; On appeal to Commissioner of Patents, \$30; On application for Re-issue, \$30; On application for Extension of Patent, \$50; On granting the Extension, \$50; On filing Disclaimers, \$10; On filing application for Design, three and a half years, \$10; On filing application for Design, seven years, \$15; On filing application for Design, fourteen years, \$30.

The law abolishes discrimination in fees required of foreigners, except in reference to such countries as discriminate against citizens of the United States—thus allowing English, French, Belgian, Austrian, Russian, Spanish, and all other foreigners except the Canadians, to enjoy all the privileges of our patent system (except in cases of designs) on the above terms.

During the last sixteen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the Inventors throughout the country, we would state that we have acted as agents for more than FIFTEEN THOUSAND Inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of Inventors and Patentees, at home and abroad. Thousands of Inventors for whom we have taken out Patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the Inventors whose Patents were secured through this Office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive Offices, and we are prepared to attend to Patent business of all kinds in the quickest time, and on the most liberal terms.

Testimonials.

The annexed letters, from the last three Commissioners of Patents, we commend to the perusal of all persons interested in obtaining Patents:—

Messrs. MUNN & Co. —I take pleasure in stating that, while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HANDS. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the Office, a marked degree of promptness, skill and fidelity to the interests of your employers. Yours, very truly, CHAS. MASON.

Immediately after the appointment of Mr. Holt to the office of Postmaster-General of the United States, he addressed to us the subjoined very gratifying testimonial:— Messrs. MUNN & Co. —It affords me much pleasure to bear testimony to the able and efficient manner in which you have discharged your duties of Solicitors of Patents while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and, I doubt not, justly deserved) the reputation of energy, marked ability and uncompromising fidelity in performing your professional engagements. Very respectfully, Your obedient servant, J. HOLT.

Messrs. MUNN & Co. —Gentleman: It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of Inventors before the Patent Office was transacted through your agency, and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy. Very respectfully, Your obedient servant, WM. D. BISHOP.

The Examination of Inventions.

Persons having conceived an idea which they think may be patentable, are advised to make a sketch or model of their invention, and submit it to us, with a full description, for advice. The points of novelty are carefully examined, and a reply written corresponding with the facts, free of charge. Address MUNN & CO., No. 37 Park-row, New York.

Preliminary Examinations at the Patent Office.

The advice we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a Patent, &c., made up and mailed to the Inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through our Branch Office, corner of F and Seventh-streets, Washington, by experienced and competent persons. Over 1,500 of these examinations were made last year through this Office, and as a measure of prudence and economy, we usually advise Inventors to have a preliminary examination made. Address MUNN & CO., No. 37 Park-row, New York.

Caveats.

Persons desiring to file a Caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The government fee for a Caveat, under the new law, is \$10. A pamphlet of advice regarding applications for Patents and Caveats furnished gratis on application by mail. Address MUNN & CO., No. 37 Park-row, New York.

How to Make an Application for a Patent.

Every applicant for a Patent must furnish a model of his invention, if susceptible of one; or if the invention is a chemical production, he must furnish samples of the ingredients of which his composition is composed, for the Patent Office. These should be securely packed, the Inventor's name marked on them, and sent, with the government fee, by express. The express charge should be prepaid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of Munn & Co. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New York correspondents; but if not convenient to do so, there is but little risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & CO., No. 37 Park-row, New York.

Rejected Applications.

We are prepared to undertake the investigation and prosecution of rejected cases, on reasonable terms. The close proximity of our Washington Agency to the Patent Office affords us rare opportunities for the examination and comparison of references, models, drawings, documents, &c. Our success in the prosecution of rejected cases has been very great. The principal portion of our charge is generally left dependent upon the final result.

All persons having rejected cases which they desire to have prosecuted are invited to correspond with us on the subject, giving a brief history of their case, inclosing the official letters, &c.

Foreign Patents.

We are very extensively engaged in the preparation and securing of Patents in the various European countries. For the transaction of this business, we have offices at Nos. 66 Chancery-lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through our Agency.

Inventors will do well to bear in mind that the English law does not limit the issue of Patents to Inventors. Any one can take out a Patent there.

Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park-row, New York, or either of our Branch Offices.

Interferences.

We offer our services to examine witnesses in cases of interference, to prepare arguments, and appear before the Commissioner of Patents or in the United States Court, as counsel in conducting interferences or appeals.

For further information, send for a copy of "Hints to Inventors," furnished free. Address MUNN & CO., No. 37 Park-row, New York.

The Validity of Patents.

Persons who are about purchasing Patent property, or Patentees who are about creating extensive works for manufacturing under their Patents, should have their claims examined carefully by competent attorneys, to see if they are not likely to infringe some existing Patent, before making large investments. Written opinions on the validity of Patents, after careful examination into the facts, can be had for a reasonable remuneration. The price for such services is always settled upon in advance, after knowing the nature of the invention and being informed of the points on which an opinion is solicited. For further particulars, address MUNN & CO., No. 37 Park-row, New York.

Extension of Patents.

Valuable Patents are annually expiring which might be extended and bring fortunes to the households of many a poor Inventor or his family. We have had much experience in procuring the extension of Patents; and, as an evidence of our success in this department, we would state that, in all our immense practice, we have lost but two cases, and these were unsuccessful from causes entirely beyond our control.

It is important that extension cases should be managed by attorneys of the utmost skill to insure success. All documents connected with extensions require to be carefully drawn up, as any discrepancy or untruth exhibited in the papers is very liable to defeat the application.

Of all business connected with Patents, it is most important that extensions should be entrusted only to those who have had long experience, and understand the kind of evidence to be furnished the Patent Office, and the manner of presenting it. The heirs of a deceased Patentee may apply for an extension. Parties should arrange for an application for an extension at least six months before the expiration of the Patent.

For further information as to terms and mode of procedure in obtaining an extension, address MUNN & CO., No. 37 Park-row, New York.

Assignments of Patents.

The assignment of Patents, and agreements between Patentees and manufacturers, carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park-row, New York.

It would require many columns to detail all the ways in which the inventor or Patentee may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call at our extensive offices, No. 37 Park-row, New York, where any questions regarding the rights of Patentees, will be cheerfully answered.

Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park-row, New York.

RATES OF ADVERTISING.

Thirty Cents per line for each and every insertion, payable in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement sent for publication.

STEAM AND WATER GAGES—GLASS TUBES, PATENT Gage Coeks, Steam Whistles, Indicators, Ashcroft's Low Water Alarm, &c. Send for prices. E. BROWN, 29 3/4 Ave. No. 311 Walnut-street, Philadelphia, Pa.

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GUANO \$10 PER TUN, \$1.25 PER BARREL.—FIBRIN Guano, composed of the bones and muscular parts of animals, prepared in such a manner as to retain their valuable properties which are usually lost through the ordinary methods of preparation. For references and further information, apply to W. H. PINNER, No. 112 West Seventeenth-street, New York. 19 4*

AMESSIEURS LES INVENTEURS.—AVIS IMPORTANT. Les Inventeurs non familiers avec la langue Anglaise et qui préfèrent nous communiquer leurs inventions en Français, peuvent nous adresser dans leur langue natale. Envoyez nous un dessin et une description concise pour notre examen. Toutes communications seront reçues en confiance. MUNN & CO., SCIENTIFIC AMERICAN Office, No. 37 Park-row, New York.

TO OIL MANUFACTURERS.—ADVICES ON THE fabrication of sweet and seed oils, epuration and disinfection of oils; recipe to prepare mineral, vegetable, animal, volatile and medicinal oils; process to purify, bleach and disinfect fish oils and transform them into machinery and illuminating oils of first quality, standing 10° below zero; process to manufacture, purify and disinfect lard oils; essay on oils. Address Professor H. DOSSAUCE, chemist, New Lebanon, N. Y.

PHOTOGRAPHS FOR THE MAGIC LANTERN, comprising all the scenes relative to the civil war, consisting of artillery drilling at an encampment in Washington, Fort Sumter on fire, fleet off Fort Pickens, the reinforcement, riot at Baltimore, &c. &c.; also the portraits of General Scott and Major Anderson. 21 3/4 C. F. AMSELBERG, Optician, No. 635 Chestnut-street, Philadelphia.

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