

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. Many thousands such examinations have been made through this office. 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 consists, for the Patent Office. These should be securely packed, the inventor's name marked on them and sent, with the Government fees, by express. The express charge should be pre-paid. 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.

The revised Patent Laws, enacted by Congress on the 2d of March, 1861, are now in full force, and prove 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 charges in the fees are also made as follows—

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The law abolishes discrimination in fees required of foreigners, excepting natives of such countries as discriminate against citizens of the United States—thus allowing Austrian, French, Belgian, English, Russian, Spanish and all other foreigners except the Canadians, to enjoy all the privileges of our patent system (but in cases of designs) on the above terms. Foreigners cannot secure their inventions by filing a caveat; to citizens only is this privilege accorded.

During the last seventeen 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 at least TWENTY 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.

**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, and the government fee for a caveat, under the new law, is \$10. A pamphlet of advice regarding applications for patents and caveats, printed in English and German, is furnished gratis on application by mail. Address MUNN & CO., No. 37 Park Row, New York.

**ASSIGNMENTS OF PATENTS.**

Assignments of patents, and agreements between patentees and manufacturers are 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 inventors or patentees 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.

**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 story of the 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 the Scientific American Patent Agency, No. 37 Park Row, New York.

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 Government Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park Row, New York, or any of our branch offices.



A. M. B., of Mich.—Many inquiries of a business nature are made of us, from time to time, which we do not consider ourselves called upon to undertake to answer, unless the correspondent remits an amount sufficient to pay us for our trouble to look up the information. You do not even inclose a postage stamp to pay for a reply to your inquiries; and it is unreasonable to expect us to advertise, through our column of "Notes and Queries," a dealer in oatmeal and barley mills, unless we are paid for it. Few newspaper publishers in the United States are more willing to accommodate their readers than ourselves, but there is such a thing as putting an unreasonable pressure upon us in this respect. We hope you find the SCIENTIFIC AMERICAN worth what it costs you.

M. S. O., of Mass.—You inquire how much power there is in a rectangular magnet three feet in diameter and four inches in thickness; and you also wish to know what weight it will draw on a carriage. A magnet of such a great size has never yet been made. The power of a magnet does not depend upon its mass, but resides on the surface, and no person can tell you the amount of attractive power in a magnet from its size. Two permanent magnets of the same size oftentimes differ greatly in power. A small magnet exhibits more attractive force, proportionately, than a large one. The strongest magnet described is one which was worn by Sir Isaac Newton in a finger-ring; it lifted 150 times its own weight. A horse-shoe electro-magnet, one inch long (which is entirely different from a permanent magnet) has lifted 420 times its own weight.

E. K. B., of Va.—There are no recorded experiments published respecting the pressure exercised by the explosion of gases. Hydrogen gas charged with carbon and the gas derived from naphtha are the same in nature and substance. When hydrogen gas is mixed with three volumes of atmospheric air it explodes almost instantaneously when ignited; but one volume of pure oxygen mixed with two of hydrogen produces a more violent explosion. By assuming the expansion of combustibles to be 1,728 times that of their original bulk, the full pressure of exploded naphtha would be equal to 25,000 pounds on the square inch.

S. H., of Vt.—We have not received the paper containing a notice of the iron-ore bed to which you refer. The value of ore can only be ascertained by experiment conducted by a competent person. Good steel can be made from all our American magnetic iron ores.

F. J. C., of Philadelphia.—You will find a spray steam boiler, such as you suggest, described on page 185, Vol. VII (new series) of the SCIENTIFIC AMERICAN. Water exposed to an extensive heating surface evaporates into the atmosphere (if the latter is dry) at all temperatures, but the pressure is in proportion to its temperature. A low temperature of steam indicates low pressure.

S., of Pa.—We cannot guarantee to furnish back numbers at any time during the year. It frequently happens that we run out of certain numbers long before the close of the year. You had better make sure of the complete volume by subscribing now.

C. R. D., of Ill.—We do not see why your draught should be bad; the chimney is high enough certainly. You had better see if there is no defect in the setting of your boiler or some other local cause which affects the draught before you alter the chimney. We cannot say positively whether the arrangement alluded to would be of any value until we know more about it. Our impression is that it would be beneficial.

S. W., of Pa.—Your communication is upon an interesting subject, but there are some parts of it so obscurely treated that we cannot understand your meaning, hence it cannot be published.

L. E. A., of S. C.—We are obliged for your good opinion and the information you send us, but it comes too late to be of service. Be so kind as to forward any other details in reference to the engine in question that you possess.

R. E. R., of Pa.—You will find a hot-air engine illustrated on page 97, present volume of the SCIENTIFIC AMERICAN, which we think very highly of. Wilcox's air engine is illustrated on page 161, Vol. IV (new series), of the SCIENTIFIC AMERICAN.

L. C. R., of N. J.—The idea you suggest, in reference to the cancellation of postage stamps, is to simply use the old stamp as now, except that you slide one end of it over the edge of the letter, so that it may be torn off at the Post-office. The plan will not work. Not one person in a hundred would ever put stamps on in that way unless especially told to do it.

E. K. H., of N. Y.—The amount of pressure upon the surface of an exhausted receiver is 15 pounds on the square inch. This is called one atmosphere. A perfect vacuum cannot be obtained either in a condenser or air pump, hence the interior pressure is usually subtracted from the exterior pressure in speaking of the vacuum in the condenser of an engine.

**Money Received**

At the Scientific American Office, on account of Patent Office business, from Wednesday, February 11, to Wednesday February 18, 1863:—

- T. C. McK., of Tenn., \$46; B. R. A., of N. Y., \$40; S. B. C., of N. Y., \$10; J. W. C. H., of Denmark, \$20; W. P. W., of N. Y., \$20; C. O. F., of Maine, \$20; J. H., of Ohio, \$14; D. J. O., of Pa., \$15; P. D., of N. Y., \$30; L. B., of Wis., \$25; J. W. B., of Ind., \$25; W. D. G., of Va., \$16; H. B., of Iowa, \$15; J. A., of Ky., \$12; G. & V., of N. Y., \$16; Z. W., of Cal., \$150; W. H. H., of Cal., \$25; W. A. D., of Ohio, \$20; I. L., of N. Y., \$20; J. L. A., of N. Y., \$45; I. S. S., of N. Y., \$22; A. F. N., of N. Y., \$10; J. M. A., of Mass., \$10; L. & D., of Ill., \$15; G. H., of Ill., \$15; B. L. W., of Mass., \$29; W. P., of Md., \$25; J. C. H., of Mass., \$45; D. & T. W., of Cal., \$25; J. McL., of Ohio, \$12; T. D. R., of N. Y., \$10; T. C., of R. I., \$30; B. F. S., of Iowa, \$16; A. B., of N. J., \$15; J. W., of Iowa, \$45; J. N., of N. Y., \$20; W. S. T., of Iowa, \$20; G. T. L., of Pa., \$56; J. H. B., of Mass., \$10; W. T. R., of N. S., \$25; M. D. H., of N. Y., \$16; T. K., of Ill., \$15; J. F. J., of N. Y., \$16; G. H., of R. I., \$15; M. V. D., of N. J., \$10;

- J. K., of Conn., \$56; A. A. G., of N. Y., \$16; A. W., of Ill., \$15; W. D. S., of N. Y., \$25; S. T., of Mass., \$16; H. B., of England, \$19; W. F., of Mass., \$32; P. J. C., of Conn., \$16; L. A., of Wis., \$15; J. H., of N. Y., \$32; G. G., of Ill., \$10; S. C. K., of Mass., \$15; F. W. G., of N. Y., \$36; L. W., of N. Y., \$26; T. B. V., of N. Y., \$26; B. F. H., of N. Y., \$16; J. Van D., of N. Y., \$15; T. R. C., of Mo., \$15; R. S. C., of Iowa, \$16; D. C. S., of Conn., \$25; J. C. H., of Mass., \$30; E. J. W., of N. Y., \$26; J. T., of N. Y., \$26; J. B. W., of R. I., \$16; D. D. C., of Mass., \$16; H. B. M. & Son, of Mich., \$15; J. H. P., of Mass., \$15; J. W., Jr., of Ky., \$20; J. D., of Ill., \$26.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and inform us the amount, and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Wednesday, February 11, to Wednesday, February 18 1863:—

- B. R. A., of N. Y., (2 cases); J. C. H., of Mass.; W. D. S., of N. Y.; E. J. W., of N. Y.; T. K., of Ill.; J. D., of Ill.; T. B. V., of N. Y.; I. S. S., of N. Y.; D. C. S., of Conn.; L. B., of Wis.; B. L. W., of Mass.; L. R., of N. Y.; F. W. G., of N. Y.; L. W., of N. Y.; G. G., of Ill.; T. D. R., of N. Y.; J. K., of Conn., (2 cases); W. P., of Md.; W. T. R., of N. S.; J. T., of N. Y.

**RATES OF ADVERTISING.**

Twenty-five Cents per line for each and every insertion, payable in advance. To enable all to understand how to compute the amount they must send in when they wish advertisements inserted, 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 they may deem objectionable.

**A VALUABLE WORK FOR INVENTORS, PATENTEES AND MANUFACTURERS.**

The publishers of the SCIENTIFIC AMERICAN have just prepared, with much care, a pamphlet of information about Patents and the Patent Laws, which ought to be in the hands of every inventor and patentee, and also of manufacturers who use patented inventions. The character of this useful work will be better understood after reading the following synopsis of its contents:—

The complete Patent Law Amendment Act of 1861—Practical Instructions to Inventors, how to obtain Letters Patent, also about Models—Designs—Caveats—Trade-marks—Assignments—Revenue Tax—Extensions—Infringements—Infringements—Appeals—Re-issues of Defective Patents—Validity of Patents—Abandonment of Inventions—Best Mode of Introducing them—Importance of the Specification—Who are entitled to Patents—What will prevent the Granting of a Patent—Patents in Canada and European Patents—Schedule of Patent Fees; also a variety of miscellaneous items on patent law questions.

It has been the design of the publishers to not only furnish, in convenient form for preservation, a synopsis of the PATENT LAW and PRACTICE, but also to answer a great variety of questions which have been put to them from time to time during their practice of upwards of seventeen years, which replies are not accessible in any other form. The publishers will promptly forward the pamphlet by mail, on receipt of six cents in postage stamps.

Address MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, No. 37 Park Row, New York.

**LES INVENTEURS—AVIS IMPORTANT.** Les Inventeurs non familiers avec la langue Anglaise et qui préféreraient 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.

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INVENTORS AND CONSTRUCTORS OF NEW AND USEFUL CONTRIVANCES OR MACHINES, OF WHATEVER KIND, CAN HAVE THEIR INVENTIONS ILLUSTRATED AND DESCRIBED IN THE COLUMNS OF THE SCIENTIFIC AMERICAN ON PAYMENT OF A REASONABLE CHARGE FOR THE ENGRAVING.

No charge is made for the publication, and the cuts are furnished to the party for whom they are executed as soon as they have been used. We wish it understood, however, that no secondhand or poor engravings, such as patentees often get executed by inexperienced artists for printing circulars and handbills from, can be admitted into these pages.

We also reserve the right to accept or reject such subjects as are presented for publication. And it is not our desire to receive orders for engraving and publishing any but good inventions or machines, and such as do not meet our approbation in this respect, we shall decline to publish.

For further particulars, address—

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Publishers of the SCIENTIFIC AMERICAN, New York City

DR. G. W. SCOLLAY'S

AIR-TIGHT DEODORIZING BURIAL-CASE. PATENTED MARCH 15, 1862.

The undersigned desires to call the attention of Undertakers, and all parties interested to a new and useful improvement in Burial-Cases, by means of which a human body may be withheld from interment some sixty to ninety days, or more, without the emission of the usual offensive odor, and at a small expense beyond that of the ordinary burial-case. The invention is simple, effective, and not liable to derangement.

When the invention was completed, and its efficacy tested by numerous experiments to the satisfaction of the undersigned, he brought it before the Western Sanitary Commission of St. Louis, who, on the 25th of April, 1862, appointed a Scientific Committee to investigate its merits, and report thereon. This Committee, under date of May 15, 1862, presented an elaborate report, for which there is no room in this advertisement to mention. The conclusion of the report, however, is here given:

"In conclusion, your Committee cannot but feel that the advantages of the improvement are obviously many and great, and the probable points deductible from the foregoing, and which your Committee regard as established, are as follows:

"FIRST—Dr. Scollay has succeeded in making the common wooden coffin water-tight and air-tight, up to a certain degree of pressure. "SECOND—Beyond this point, by the judicious application of a self-adjusting valve, the gases are allowed to escape, and the coffin secured against explosion.

"THIRD—By the introduction of a chemical compound, he renders the escaping gases innocuous and disinfecting. "FOURTH—Its cheapness is such as to place it within the reach of all.

"FIFTH—Having examined the improvement carefully, and conducted satisfactory experiments, we regard it as our duty in the present exigency to bring it speedily before the public, and recommend its general adoption.

"All of which is respectfully submitted.

(Signed) "J. POLLAK, M.D. "CHAS. A. POPE, M.D. "JOHN T. HODGEN, M.D. "M. SCHUYLER, D.D. "JOHN B. JOHNSON, M.D. "R. R. HAZARD, JR.

"St. Louis, May 15, 1862." When the foregoing had transpired, the subscriber went immediately to Washington with the following letter of introduction, to lay the matter before the proper authorities there:

"ROOMS WESTERN SANITARY COMMISSION, ST. LOUIS, JUNE 26, 1862.

"DR. Wm. G. HAMMOND, Surgeon-General U. S. A. "DEAR SIR—I take pleasure in introducing to you Dr. G. W. Scollay, of this city, who, on our recommendation, visits Washington to bring to your notice an improvement in Burial-cases, which is regarded by this Commission as of great value. I would simply state that a Scientific Committee was appointed by this Commission to investigate the merits of this invention, the result of which investigation is an elaborate report, in which the Commission fully concur, and to which I respectfully refer you.

"Yours, very truly, "JAMES E. YEATMAN, President." The result of the visit of the undersigned to Washington is best set forth by the following certificate of the Surgeon-General and the Assistant-Surgeon-General of the U. S. A.

"OFFICE SURGEON-GENERAL U. S. A. "WASHINGTON, July 18, 1862.

"My attention has been called by the Western Sanitary Commission at St. Louis, to an invention of Dr. G. W. Scollay, called an 'Air-tight Deodorizing Burial-case.' I have examined the same; and at my request, Dr. Scollay has conducted and concluded an experiment therewith, under my personal observation.

"The result is perfectly satisfactory, and has convinced me that the claims made for this case are substantial, and that the improvement is one of great practical utility; that the principle of its most important feature—the deodorizer—is correct; while the application of it, as made by Dr. Scollay, to an ordinary burial-case, is so simple, cheap and effective, as to commend it strongly for general use. For sanitary and other reasons, I cordially recommend its adoption for army purposes, especially in all cases where it is desirable to withhold a body from interment an unusual length of time, or to transport it to distant points.

"WILLIAM A. HAMMOND, "Surgeon-General U. S. A."

"I fully concur in the above opinions and recommendation of the Surgeon-General, and think the invention of Dr. Scollay very valuable in its sanitary relation.

"R. C. WOOD, Assistant Surgeon-General, "Surgeon-General's Office, Washington, July 18, 1862."

The undersigned takes great pleasure in also submitting for public perusal the following communication from "the great Surgeon of the Age," the celebrated Doctor Valentine Mott, who has kindly permitted its publication:—

"NEW YORK, "December 27th, 1862."

"At the request of Mr. Boyle, and accompanied by him and Mr. Todd I visited to-day and carefully examined the 'Air-tight Deodorizing Burial-case' of Dr. Scollay, of St. Louis, Mo. "In times like the present, when so many are bereft of one or more members of their families by the calamities of a horrid war, it is humane and natural that their remains should be sought and transported to their homes, in order that their bones may repose with their kindred.

"The rich and the titled can afford to be embalmed, but the commoner must be pitched into the pit unheeded and unknown.

"Dr. S. is entitled to great credit for his newly-invented Coffin, as having done a public good.

"The lightness and cheapness of the case are what will recommend it to the public.

"The composition that is put in the Deodorizing Box at the foot of the Coffin seems quite sufficient to prevent the least disagreeable odor.

"In the experiment which I witnessed, the Body had remained in the Coffin for nearly eight weeks in a chamber without emitting the least offensive smell.

"The small patent elastic, self-acting and self-adjusting valve placed at the foot of the coffin, in direct connection with the Chemical Box or Deodorizer, and serving the two-fold purpose of permitting the escape of the offensive gases generated by the decomposition of the Body enclosed therein, and, at the same time, excluding the entrance of atmospheric air, evinces, on the part of Dr. Scollay, from the simplicity of its mechanical construction—no inventive skill, and he assuredly merits deserved praise for his ingenuity.

"VALENTINE MOTT, "No. 1 Gramercy Park."

"NEW YORK, "February 2d, 1863.

"A period of nearly five weeks having elapsed since I wrote the above, I have this day again made another careful examination of the experiment alluded to. The decomposition of the subject (which I

omitted to say is enclosed in an ordinary 'Walnut' or 'Whitewood' coffin, with Dr. Scollay's invention attached) has rapidly increased, and although it has remained upwards of three months in a room or chamber, at a mild temperature, I cannot discover the slightest approximation to any disagreeable or offensive odor.

"I, therefore, have no cause to alter the opinions which I have heretofore expressed in relation to Dr. Scollay's ingenious invention.

"VALENTINE MOTT, "No. 1 Gramercy Park."

The undersigned would state, as a sequel to this mode of bringing his invention before the public, that his "Air-Tight Deodorizing Burial-Case" has been adopted, and is now in general use in some of our large Western cities; and that it can be immediately furnished by any of our undertakers to parties desirous of having the remains of their deceased relatives or friends removed from this or other cities, or from distant localities. As before stated, this case is not expensive. It is extremely light and therefore convenient for transportation—is not liable (like the Iron Burial-case in present use) to explosion from the expanding pressure of gases generated by ordinary decomposition; and, which is more important than all, the very expensive, disagreeable and sometimes unsuccessful process of the present method of Embalming is entirely avoided—the simple application of this invention to the ordinary Wooden Coffin rendering a recourse to the latter mode of interment altogether unnecessary.

G. W. SCOLLAY, M.D.

These Cases are now being manufactured, and can be immediately supplied by

Messrs. McGraw & Taylor, No. 163 Bowery, New York; Mr. John A. Smithers, undertaker, St. Louis, Mo.; Mr. C. S. Wheeler, undertaker, Baltimore, Md.; Mr. J. M. Hall, undertaker, Philadelphia, Pa.; Mr. Wm. H. Bigelow, No. 451 Pennsylvania Avenue, Washington City.

Parties desiring information, or wishing to purchase the right of using this invention in either of the States or Territories, will please address O. W. CHILD, No. 78 Cedar street, New York.

New York, Feb. 20th, 1863. 9 2\*

THE PRACTICAL MODEL CALCULATOR FOR THE

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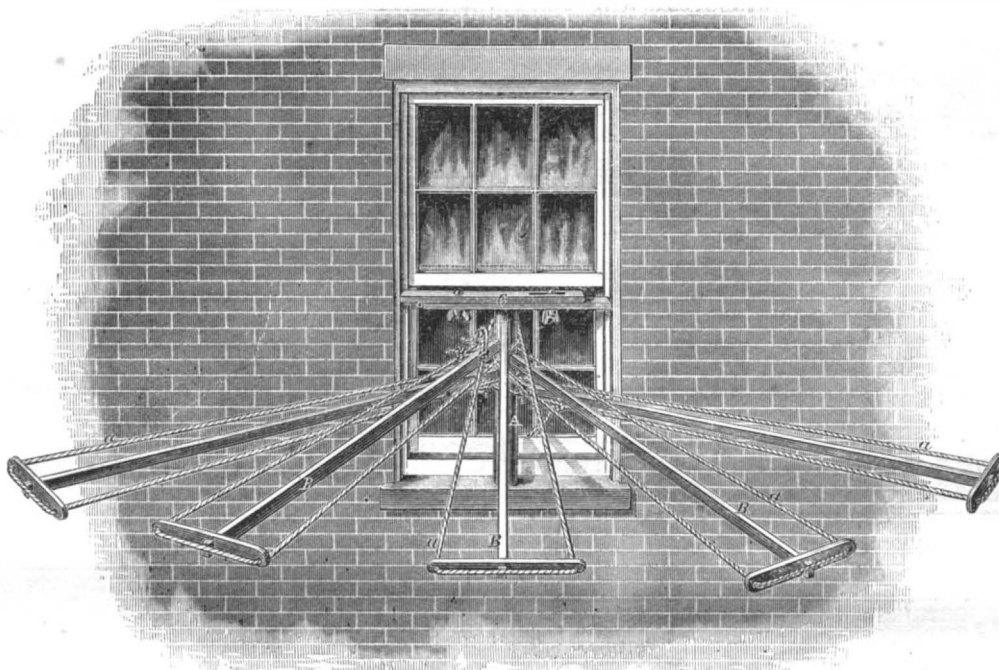
**Powers's Patent Clothes-dryer.**

In large cities, where the housewife has no facilities for bleaching her linen, or indeed but little room for even drying it, advantage must be taken of every inch that can be had for the purpose. The windows of houses, the roofs of them, and even balconies and piazzas may be seen filled with the family garments on the recurrence of washing-day. In some places we have noticed poles planted in the ground to which pulleys were attached having lines run through them leading to the upper windows of the tenements; this plan is very inconvenient and unsightly. The invention we illustrate herewith will be readily understood by referring to the letters affixed to the several parts.

ganese and iron. Liebig states that an infusion of tea "contains the active constituents of the most powerful mineral springs." In the use of tea and coffee the same eminent chemist states that a cup of strong coffee after dinner instantly checks digestion, but tea has not the same power. According to the observations of Liebig, therefore, the very common practice with many persons of taking strong coffee after dinner is unfavorable to digestion. With respect to the use of tea and coffee he says: "We think it highly probable, not to say certain, that the instinct of man, feeling certain blanks—certain wants of the intensified life of our times, which cannot be satisfied or filled up with mere quantity, has discovered in these products of vegetable life, the true

old. This invention was patented Feb. 5, 1861, by Mr. John C. Briggs, of Concord, N. H. The entire patent is for sale; further particulars can be obtained by addressing the inventor as above.

**RECOVERED TREASURE.**—A telegram from San Francisco says that the steamer *Constitution* had arrived from Panama with \$300,000 recovered from the wreck of the *Golden Gate*. The British steamer *Robert Low* has arrived from Victoria and taken her place in the new line of steamers between San Francisco and China. She sails for China on March 1st. Advices from the wrecking expedition express the belief that nearly all the treasure lost in the *Golden Gate* will be recovered.



**POWERS'S PATENT CLOTHES-DRYER.**

The upright post, A, has several mortices in it, through which the bars, B, are thrust; this post turns readily upon its center, so that the arms can be moved in any direction laterally. The clothes lines are rove through the transverse heads at the end of the bars, carried around behind the swivel post and there secured. The slotted bar, C, is provided with thumb-screws so that it can be secured when it is adjusted to the size of the window frame; there is also a key, or horizontal piece of wood, provided, which goes through the swivel post, A, and prevents it from turning spontaneously during the process of hanging out the clothes. The operation of this machine is as follows:—When it is desired to hang out the wet clothes, the bars are drawn through the slots into the room; the clothes are hung upon the lines, fastened there and the bars are pushed out with the garments attached; thus the danger and inconvenience of reaching out of the window is obviated. When not in use this apparatus can be readily taken apart and stowed away so as to occupy but little room.

This invention was patented on January 6, 1863, by Wesley Powers, of Preston, N. Y., and further information can be had by addressing him at that place.

**TEA.**

Mixtures of tea and substitutes for it are very generally repudiated; but probably there are just as many mixtures of this vegetable product sold as there are of coffee. Whenever an article becomes high in price it tempts men to adulterate it, and this undoubtedly is the case at present with tea as well as coffee, though perhaps, not to the same extent. Tea, like coffee, contains a peculiar vegetable principle, called *thein*. It is composed of carbon, 8 parts; nitrogen, 2 parts; hydrogen, 5 parts; oxygen, 3 parts. It is said to possess the same properties as caffeine in preventing the waste of animal tissue. There is a very small quantity of thein in the leaves of tea—not much above one half per cent. An infusion of tea differs from that of coffee in containing man-

means of giving to his food the desired and necessary quality. Every substance, in so far as it has a share in the vital processes, acts in a certain way on our nervous system, on the sensual appetites and the will of man."

**BRIGG'S PATENT SAD-IRON ENVELOPE.**

Our engraving is a representation of an attachment to the hand or smoothing iron, whereby its efficiency as a household implement is much enhanced. Our inventors are rapidly invading the precincts of



the kitchen, and with patent washing machines, clothes-driers, wringers and a host of others, so reducing the labor of "Bridget" that her position will soon be a sinecure. The invention in question consists in applying a metallic envelope or guard, A, to the iron, whereby a film of air is interposed between the iron and covering, thus preventing heat from radiating. It would appear from the use of this appendage that the iron can be heated sooner, remain hot longer and be less inconvenient to the ironer than without the envelope. This envelope can be readily adapted to all irons, either new or

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