

railroad cars to prevent the entrance of dust, etc., by the action of the surrounding air on deflectors combined with the sides of the car substantially as specified, and operating on the principle set forth.

Coffin.—An Act for the Relief of the Heirs of Salmon D. Plisk, deceased. Approved Feb. 17, 1865. Patented Nov. 14, 1848. Reissued March 6, 1860:

First, Claims the manufacturing of coffins of cast or raised metal, when made substantially in the form and manner above described; that is to say, corresponding nearly with the human form, and making the coffin in two nearly equal parts or shells united by a flanch, substantially as set forth.

Second, The manufacture of coffins of raised or cast metal, in two shells each, formed with recesses of greater or less depth, which shall respectively constitute a portion of the receptacle of the corpse, thus approximating the coffin more nearly in shape to that of the human body than could otherwise be done.

Revolving Frame for Drying Fruit and other articles.—J. C. Dickey, Saratoga Springs, N. Y. Patented June 3, 1851:

I claim the center, E, with three or more arms to support a cord, netting or other cloth, for the purpose of exposing cloths, clothes, glue, fruits, seeds, etc., with facility to be dried; so constructed that the arms may be raised up and brought together, to expedite the collection of the articles dried, and so that it may be conveniently removed when not in use, substantially as described.



PATENTS

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FOR SEVENTEEN YEARS.

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In connection with the publication of the SCIENTIFIC AMERICAN, have acted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries during the past seventeen years. Statistics show that nearly ONE-THIRD of all the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in preparing specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex-Commissioners of 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.

Judge Mason was succeeded by that eminent patriot and statesman, Hon. Joseph Holt, whose administration of the Patent Office was so distinguished that, upon the death of Gov. Brown, he was appointed to the office of Postmaster-General of the United States. Soon after entering upon his new duties, in March, 1859, he addressed to us the following very gratifying letter.

Messrs. MUNN & Co.—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as 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.

Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Holt as Commissioner of Patents. Upon resigning the office he wrote to us as follows:

Messrs. MUNN & Co.—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 written reply, corresponding with the facts, is promptly sent, free of charge. Address MUNN & CO., No. 37 Park Row, New York.

As an evidence of the confidence reposed in their Agency by inventors throughout the country, Messrs. MUNN & CO. would state that they have acted as agents for more than 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 they have taken out patents have addressed to them most flattering testimonials for the services rendered them; and the wealth which has inured to the individuals whose patents were secured through this office, and afterwards illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! Messrs. MUNN & CO. would state that they never had a more efficient corps of Draughtsmen and Specification Writers than those employed at present in their extensive offices, and that they are prepared to attend to patent business of all kinds in the quickest time and on the most liberal terms.

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Persons who are about purchasing patent property, or patentees who are about erecting 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.

The 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.

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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 is \$10. A pamphlet of advice regarding applications for patent and caveats is 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 is 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 a draft on New York, payable to the order of Messrs. 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 no little risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & CO., No. 37 Park Row, New York.



J. J., of Me.—Your communication in relation to a very small household steam engine is interesting to us, but you can make one far more valuable for our columns when you get your ideas more fully developed and in more definite form.

E. A. H., of Ill.—Allotropic sulphur gradually returns to its normal condition. The new atomic weights adopted by Miller, we judge, are coming into general recognition.

A. M. D., of Mass.—Perhaps niter might be separated from maple sugar by crystallizing the sugar. The best plan would be not to put any niter into the sugar.

W. A. B., of Conn.—There is much difference of opinion in regard to the best kind of water wheel. In the cotton manufactories of New England undershot breast wheels were in almost universal use, but they are now being superseded to a great extent by turbines. All the best turbines you will find illustrated in the SCIENTIFIC AMERICAN.

W. W., of Me.—Any substance which will coagulate vegetable albumen tends to preserve timber from decay. Corrosive sublimate is the most efficient, as it gives up its chlorine, which combines with the albumen to form muriate of albumen. Perhaps the chloride of zinc acts in the same way.

A. S., of Conn.—The only use of oil on a belt is to make it soft and pliable, when it gets dry and hard; besides, there is a certain glutinous consistency to coarse, heavy oils, which, in connection with the dirt adnat in the shop, cause the belt to adhere well to the surface of the pulley.

W. F. R., of Mass.—The training requisite for a person desiring to become a locomotive engineer or engine-driver, is to work for three or four years where such machines are built, keep his eyes open, his ears open, read and study all he can, ask questions, and, in short, become thoroughly conversant with his prospective business. If he cannot get a situation then he is not worth one, and will never be. We will add that the common way is to "fire" on an engine for six months; at the end of that time the man that never saw a locomotive before is supposed to be capable of running one.

A Reader, of Me.—We can only direct you to the columns of the SCIENTIFIC AMERICAN for a practical recipe on a tin dip.

W. A. S., of N. Y.—The beverage called soda water is water impregnated with carbonic acid. Water has the property of absorbing its own volume of carbonic acid gas at all pressures, and the beverage is prepared by compressing the gas with a force pump, thus multiplying the quantity in a given volume, or by simply generating the gas in a close vessel containing the water in such quantity as to produce pressure. Carbonic acid taken into the lungs produces immediate death, but in the stomach it is agreeable, and congenial to most systems.

F. S. B., of N. Y.—Pale lacquer for brass is, alcohol, 2 gals.; cape aloes, cut small, 3 oz.; pale shellac, 1 lb.; gamboge, 1 oz., or in that proportion.

M. S. F., of Mo.—We are informed by one of our large wool dealers that foreign wool is generally imported in bales pretty firmly pressed—about the same as cotton; and that it is not injured in the least.

W. H. G., of N. Y.—Talent is the first thing necessary to success as a designer of ornamental work. A man may be a good artist but have little originality; without this he is lost in the crowd. Text books can be had in all stores for artists' materials! Designs are patentable, as you can see at any time by turning to the list of patent claims.

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TWENTY-FIVE 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 eight 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.

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