

IMPORTANT TO INVENTORS.

PATENTS FOR SEVENTEEN YEARS.

Messrs. MUNN & CO., PROPRIETORS OF THE SCIENTIFIC AMERICAN, continue to solicit patents in the United States and all foreign countries, on the most reasonable terms.



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 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.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

The service 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.

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.

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 to \$15.

Table listing fees for patent applications: On filing each caveat, \$10; On filing each application for a patent, \$15; On issuing each original patent, \$20; On appeal to Commissioner of Patents, \$20; On application for Re-Issue, \$30; On application for Extension of Patent, \$50; On granting the Extension, \$50; On filing a Disclaimer, \$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, 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.

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!

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.

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 the case, inclosing the official letters &c.

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.

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.

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.

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.



H. C. J., of N. J.—The lathe you speak of is a good one for the purpose for aught we know to the contrary.

O. T. B., of Pa.—Construct your boiler passages with bridge walls, and you will obtain better results than if not so fitted.

U. S., of Mich.—The typographical error in your article is not important, although we regret it, and are careful that no such irregularities occur.

A. S., of Vt.—We are not in possession of the information you desire to obtain in regard to prices of barrel headings, profits, &c. It would require a great deal of time to obtain it, and we are not disposed to undertake it.

S. F. P., of Mass.—We do not know of any good machine for cutting down standing wood, but if you want a sawing machine for cutting wood into lengths, you can procure one from F. J. Richmond, Ashford, Conn.

N. C. S., of U. S. A.—The idea of operating an engine by successive explosions of powder is not new. It is possible that the construction of your engine differs from those heretofore made, and if you desire, we can determine this question by an examination in Washington, upon receipt of the usual fee of \$5.

E. H. W., of Wis.—Such a work as you desire on hominy mills and grain elevators has not yet been published.

J. N., of Maine.—We do not know of any treatise or manual published on book binding; we are pleased to see that you manifest a desire to keep up with the improvements of the day.

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G. F. W., of N. Y.—You will find a description of Professor Henry's electro-magnetic mechanism on page 560 of Booth's "Encyclopedia of Chemistry;" and you will find an illustrated description of Dr. Page's electro-magnetic engine on page 65, Vol. VII. (old series) of the SCIENTIFIC AMERICAN.

G. S. L., of N. H.—The best way to become a mechanical engineer is to apprentice yourself to a machinist, and learn the use of tools thoroughly; in the meantime study all the mathematical works you can get hold of, also natural philosophy and such other sciences as you can find time for.

E. M. T., of N. Y.—We have published in the back volumes of our journal engravings of a large number of artificial legs. We refer you to our files, which you are at liberty at any time to examine in the office.

A. W., of Conn.—Correspondents who write to us for favors cannot expect to receive answers unless they sign their names to their letters. We cannot recommend any composition for the purposes you name.

A. W. A., of Mass.—Chester Bros., 104 Center street, this city, manufacture very convenient batteries for electro-plating. Communicate with them respecting what you want. We do not deal in such articles ourselves.

N. S., of Pa.—Your business is progressing as rapidly as possible. We always keep applicants for patents made through our agency well informed of the progress of their cases.

Money Received.

At the Scientific American Office, on account of Patent Office business, from Wednesday, Oct. 21, to Wednesday, Oct. 28, 1863:—

- List of names and amounts received: S. H., of N. Y., \$25; J. M., of Cal., \$25; H. & H., of N. Y., \$25; V. & M., of N. Y., \$25; S. W. H. W., of N. Y., \$41; E. M., of N. Y., \$20; J. G. P., of R. I., \$75; W. T. A., of N. Y., \$10; S. E. T., of N. J., \$20; H. & K., of Ind., \$20; W. D., of Ind., \$20; A. S. L., of N. Y., \$41; H. B., of Pa., \$20; H. F. & T. R. B., of Iowa, \$20; H. G., of N. Y., \$20; S. B., of N. Y., \$36; G. B. F., of N. Y., \$16; J. M. R., of Conn., \$16; I. K. B., of Ohio, \$16; J. E. T., of Mass., \$16; W. M. R., of Ind., \$61; R. S. H., of Iowa, \$25; S. R. M., of Pa., \$121; B. & B., of Mo., \$16; O. & F., of Mass., \$17; L. E. P., of Mich., \$15; H. & E., of Mass., \$16; G. T., of Madeira, \$50; V. T. P., of Ill., \$12; L. A. F., of N. Y., \$36; G. F., of N. Y., \$25; H. T. M., of N. Y., \$25; J. D., of N. J., \$25; H. S. L., of Mo., \$25; I. R., of D. C., \$44; T. M., of N. Y., \$20; W. W., of Conn., \$44; H. L., of N. Y., \$20; P. H., of N. Y., \$16; E. C. B., of Cal., \$20; G. C., of N. Y., \$16; W. D. H., of La., \$58; L. H., of Hungary, \$16; W. H. B., of N. Y., \$45; J. H. K., of La., \$20; R. T., of N. Y., \$22; J. B. B., of N. Y., \$16; T. H. M., of Mass., \$25; A. C. E., of Mass., \$16; D. S. S., of Ind., \$28; J. M. F., of Ohio, \$16; J. H. P., of Pa., \$22; J. A., of Pa., \$25; B. L., of Vt., \$362; H. M., of Ill., \$16; M. & H., of N. Y., \$15; C. H. G., of Mass., \$15; P. F. C., of Va., \$24; J. T., of N. Y., \$56; T. F. B., of N. Y., \$20; J. H. C., of Ky., \$20; T. L. C., of N. Y., \$20; T. B., of Ohio, \$20; J. W. R., of N. Y., \$66; A. K., of Pa., \$20; T. H., of N. Y., \$16; H. L., of N. J., \$16; H. & D., of N. Y., \$16; H. M., of N. Y., \$20; G. C. K., of N. Y., \$15; L. & G., of Pa., \$45; T. F. B., of N. Y., \$16; J. D. H., of Pa., \$30; F. J. R., of Conn., \$25; H. & S., of Ill., \$25; J. C., of Ohio, \$21; D. E. H., of Nevada, \$100; W. E. W., of N. Y., \$25; T. & T., of N. Y., \$150; J. A., Jr., of Ill., \$16.

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 acknowledgement 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, Oct. 21, to Wednesday, Oct. 23, 1863:—

- List of initials: L. A. F., of N. Y.; H. T., of N. Y.; H. S. L., of Mo.; R. T., of N. Y.; D. S. S., of Ind.; J. A., of Pa.; C. H. G., of Mass.; S. H., of N. Y.; H. & H., of N. Y.; S. W. H. W., of N. Y.; W. E. W., of N. Y.; F. J. R., of Conn.; R. S. H., of Iowa; J. H. P., of Pa.; J. T., of N. Y.; G. F., of N. Y.; J. D., of N. J.; I. R., of D. C.; S. G. T., of Md.; F. H. M., of Mass.; H. & S., of Ill.; T. F. C., of Va.; J. M., of Cal.; V. & M., of N. Y.; S. B., 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 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 they may deem objectionable.

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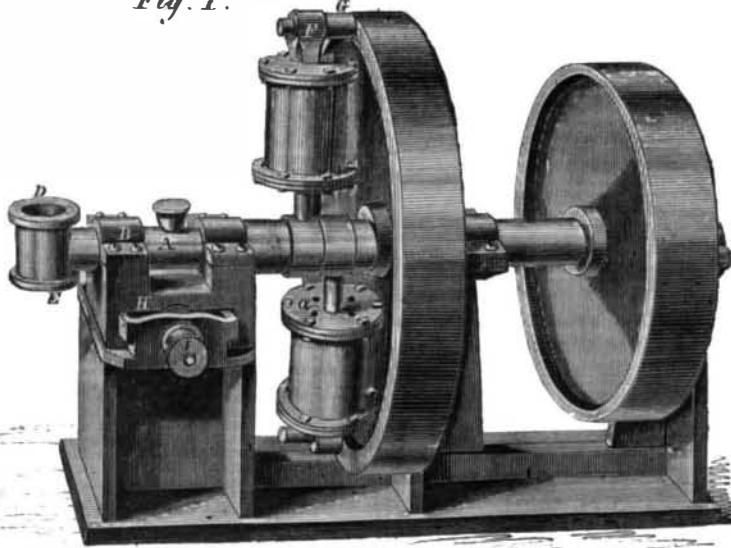
The introduction of a convenient and simple steam engine into the lighter manufactures and operations carried on in the arts, is a thing greatly desired. The inventor of the engine herewith illustrated claims precedence on these grounds for his machine over all others that have been invented. The plan of the engine is to suspend two or more cylinders from the rim of a strong wheel. These cylinders have pistons and rods in them, as have ordinary engines. The rods are hollow, however, and are connected to a permanent shaft, A, which is carried in the bearings, B. In this shaft there is a series of steam passages terminating in ports (as seen in Fig. 2). As the cylinders revolve, the rods, being hollow, receive steam as they pass the openings in the shaft, A,

ders receive steam through the ports, J, (see Fig. 2) the wheel revolves and each cylinder discharges its steam through the rod again, after it has performed its duty. The action is so simple that it requires no further elucidation. This steam engine was patented on July 8, 1862, by Allen Judd, of Springfield, Mass. Further information concerning it can be had by addressing him at that place.

Advice Gratis to the Slow-coach Family.

Don't take a newspaper; don't read one of any kind. If you hear persons discussing this or that great battle, ask stupidly what it all means. Emulate Rip Van Winkle; steep your senses in moral and mental oblivion, and pay no attention to what is passing about you; in this way you may save two or

Fig. 1.



JUDD'S REVOLVING CYLINDER ENGINE.

which expands against the upper cylinder head, and forces the piston down; the shaft, A, being out of line or offset with the fly-wheel, acts as a crank, and thus gives an impulse to the wheel. The fly-wheel shaft, and that one about which the rods revolve, are not connected, of course, and the cylinders exhaust their contents as they pass ports constructed for the purpose in the lower part of the shaft, A. The steam pipe is connected at D, and the exhaust at E. It will be seen by referring to the engraving that the cylinders are not permanently fastened to the fly-wheel, but that they have lugs, F, by which they are suspended from the bearings, G, thus permitting

three dollars—the price of a paper—and lose \$500 or \$5,000 by not being informed about markets, supply and demand, and a thousand other things as essential to an enterprising man as light and air. If you have children don't take any paper for them; tell them "book larnin' ain't no 'count." Let them tumble in the highway unwashed, uncombed, and in rags and tatters. If they don't graduate in the States Prison it will be through no fault of yours. If you are a farmer, plow, sow, and reap as your stupid old father did before you; scoff at agricultural papers, and sneer and deride at progress of all kinds; then if you do not succeed in making other people think that they are all wrong, and that you alone are sagacious, it must be that the world is curiously awry and needs reforming badly. The sooner you undertake it the better. By not reading papers you will succeed, if a farmer, in having the finest crop of knotty, wormy apples that can be found; potatoes that would take the prize at any fair for rot; cabbages that are all leaves and no head; turnips destroyed in the shoot by worms; hay mouldy and musty, because you despised barometers and cut it just as the mercury was falling; corn half a crop, because you exhausted the land with it for years and starved Nature to such a pitch that she had nothing to yield in return; all these calamities and many more will befall you because you don't keep pace with the times. You call it "hard luck," but men of common sense call your course by a name you never heard of—stupidity; that's more "book larnin'."

A man that does not take a paper of some kind or another in this time of the world must expect to be a prey to all sorts of swindlers, a victim to bad management, and out of spirits, out of pocket, temper, money, credit; in short everything under the sun that tends to make life bearable. The newspaper is the great educator of the people after all; so let us then exclaim "*The Press forever.*"

Mine of Antimony in Canada.

The *Gazette* (Quebec) states that a vein of rich antimony ore has been discovered in the township of South Ham, Canada, and samples of it have been examined by the editor. Antimony is one of the most valuable metals known to commerce, and is of

essential service in the useful arts for manufacturing type metal, which is an alloy of 4 parts lead and 1 antimony. A ductile alloy is also made with 10 parts of tin and 1 of antimony; Britannia metal, which is employed for making teapots and cheap spoons, consists of 100 parts tin, 8 antimony, 2 of bismuth, and 2 of copper. Antimony combines with a very great number of metals—iron, lead, copper, tin, platinum, &c.—forming alloys. Its principle ore is the sulphide, which is reduced by mixing 8 parts of it in fine powder with 6 of tartar and 3 of niter; subjecting the mixture to heat in a crucible, by which action the sulphur is driven off, and an oxide obtained. This is then smelted in a crucible with charcoal, and the pure metal secured. It is a bluish-white color and fuses at about 840° Fah.



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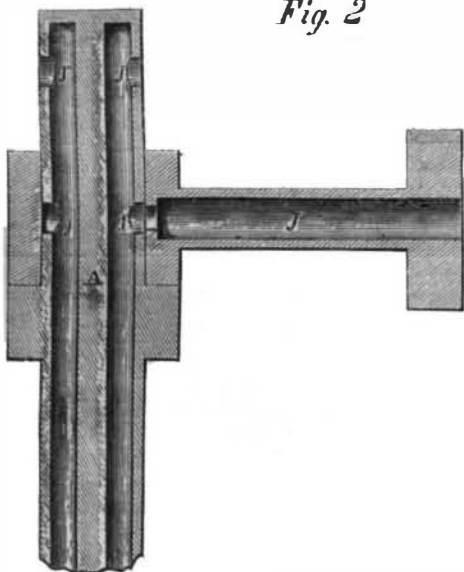
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Fig. 2.



a free vibration of the cylinder; this is one of the points claimed in the patent. The stroke of the piston can be varied by moving the bearings, B, in or out, they being fitted to a sliding carriage, H, and supplied with a screw and hand-wheel, I, for the purpose of adjustment. Steam is admitted to the cylinders on one side of the piston only; atmospheric pressure is admitted to the other side through the four holes, a, in the cylinder head. The operation is readily understood by examining the engraving, as the cylin-