

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges, with much pleasure, the receipt of original papers and contributions upon the following subjects:

- On the Composite Lens. By A. F. K.
On Letting Air into Pumps. By E.
On the Water Cooling Monkey. By J. W. H.
On Hot Air Engines. By F. G. W.
On Algebraical Problems. By M.
On Lunar Acceleration. By J. H.
On the Hight of the Atmosphere. By S. B.
On the Zodiacal Light. By T. R. L.
On How Pianos are Ruined. By H. C. F.
On Large Pumping Engines. By W. L. C.
On the Sun's Heat. By W. C.
On the Million Dollar Telescope. By F. M. B., and by J. P. W.

On the International Patent Congress. By B. B. H.

- On Propulsion on Canals. By F. G.
On Caloric Engine Valves. By F. H. R.
On the Patent Right Question. By W. R. R.
On Patent Wrongs. By W. P. P.
On a Balloon Valve. By S. W. G.
On an Improved Journal Box. By C. W. C.
On a Theory of Heat and Light. By J. A. H.

Also enquiries from the following:

- H. J. C.—P. S. A.—C. A. C.—W. B. N.—W. E. M.—C. R.—R. D. J.—G. H.—F. Z.—J. H. C.—J. A. C. & Bro.—S. M. L. Jr.

Correspondents who write to ask the address of certain manufacturers, or where specified articles are to be had, also those having goods for sale, or who want to find partners, should send with their communications an amount sufficient to cover the cost of publication under the head of "Business and Personal," which is specially devoted to such enquiries.

Correspondents in different parts of the country ask: Where spark arresters can be obtained, suitable for chimneys in which shavings are burned? Who make reliable wind mills for pumping water? Where can the best fire extinguishers be obtained? What is the price of, and where obtained, the best cement for jacketing steam boilers? Where can diamond drills be purchased? Makers of the above articles will probably promote their interests by advertising, in reply, in the SCIENTIFIC AMERICAN.

[OFFICIAL.]

Index of Inventions

FOR WHICH

Letters Patent of the United States WERE GRANTED FOR THE WEEK ENDING

July 29, 1873,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

Table listing inventions and their patent numbers, including Alarm, burglar, M. H. Perkins, Auger bits, machine for forming, J. Swan, Auger, earth, S. H. Dickerson, etc.

Table listing inventions and their patent numbers, including Electromagnetic date stamp, J. C. Hinchman, Engine, ammonia, W. H. Smith et al., Engine, rotary, G. W. Cummings, etc.

Table listing inventions and their patent numbers, including Teaching apparatus, school, M. McVicar, Thread cutter, M. J. Pirat, Trap, animal and insect, W. W. Hannah, etc.

APPLICATIONS FOR EXTENSIONS.

Applications have been duly filed, and are now pending for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the days hereinafter mentioned:

EXTENSIONS GRANTED.

- 24,947.—JOURNAL BOX.—J. A. Montgomery.
24,997.—FISHING REEL.—W. Billingham.
25,061.—ELEVATOR.—O. Tufts.

DISCLAIMER.

- 25,061.—ELEVATOR.—O. Tufts.

DESIGNS PATENTED.

- 6,785.—MONUMENTAL URN.—N. Brayer, Rochester, N. Y.
6,786 to 6,789.—OIL CLOTHS.—C. T. Meyer, Lyon's Farms, N. J.
6,780.—CARPET.—H. Smith, Kladderminster, Eng.

TRADE MARKS REGISTERED.

- 1,833.—CIDER, ETC.—Berlin Mineral Water Co., Boston, M.
1,834.—BLUING PAPER.—Dole Brothers, Boston, Mass.
1,835.—APPLE PAPER.—D. H. Goodell, Antrim, N. H.
1,836.—PRESERVING LEATHER.—J. G. North, Brookline, M.
1,837.—BUTTER.—S. Straight & Son, Hudson, O.
1,838.—CHEWING TOBACCO.—Wall & Co., St. Louis, Mo.
1,839.—MEDICINE.—C. D. Bradley, Taunton, Mass.
1,840.—SOAP.—J. O. Draper & Co., Pawtucket, R. I.
1,841.—ROOT BEER.—S. F. Stowe, Providence, R. I.
1,842.—MEDICINES.—Wilson Carbolated Cod Liver Oil Co., New York city.

SCHEDULE OF PATENT FEES:

Table listing patent fees: On each caveat \$10, On each Trade-Mark \$25, On filing each application for a Patent (17 years) \$15, etc.

VALUE OF PATENTS, And How to Obtain Them.

Practical Hints to Inventors

PROBABLY no investment of a small sum of money brings a greater return than the expense incurred in obtaining a patent even when the invention is but a small one. Large inventions are found to pay correspondingly well. The names of Blanchard, Morse, Wiglow, Colt, Ericsson, Howe, McCormick, Hoe and others, who have amassed immense fortunes from their inventions, are well known. And there are thousands of others who have realized large sums from their patents.

HOW TO OBTAIN Patents.

This is the closing inquiry in nearly every letter, describing some invention which comes to this office. A positive answer can only be had by presenting a complete application for a patent to the Commissioner of Patents. An application consists of a Model, Drawings, Petition, Oath, and full Specification. Various official rules and formalities must also be observed. The efforts of the inventor to do all this business himself are generally without success. After great perplexity and delay, he is usually glad to seek the aid of persons experienced in patent business, and have all the work done over again. The best plan is to solicit proper advice at the beginning. If the parties consulted are honorable men, the inventor may safely confide his ideas to them; they will advise whether the improvement is probably patentable, and will give him all the directions needful to protect his rights.

How Can I Best Secure My Invention?

This is an inquiry which one inventor naturally asks another, who has had some experience in obtaining patents. His answer generally is as follows, and correct: Construct a neat model, not over a foot in any dimension—smaller if possible—and send by express, prepaid, addressed to MUNN & Co., 37 Park Row, together with a description of its operation and merits. On receipt thereof, they will examine the invention carefully, and advise you as to its patentability, free of charge. Or, if you have not time, or the means at hand, to construct a model, make as good a pen and ink sketch of the improvement as possible and send by mail. An answer as to the prospect of a patent will be received, usually, by return of mail. It is sometimes best to have a search made at the Patent Office; such a measure often saves the cost of an application for a patent.

Preliminary Examination.

In order to have such search, make out a written description of the invention, in your own words, and a pencil, or pen and ink, sketch. Send these, with the fee of \$5, by mail, addressed to MUNN & Co., 37 Park Row, and in due time you will receive an acknowledgment thereof, followed by a written report in regard to the patentability of your improvement. This special search is made with great care, among the models and patents at Washington, to ascertain whether the improvement presented is patentable.

Reissues.

A reissue is granted to the original patentee, his heirs, or the assignees of the entire interest, when, by reason of an insufficient or defective specification, the original patent is invalid, provided the error has arisen from inadvertence, accident, or mistake, without any fraudulent or deceptive intention.

A patentee may, at his option, have in his reissue a separate patent for each distinct part of the invention comprehended in his original application by paying the required fee in each case, and complying with the other requirements of the law, as in original applications. Address MUNN & Co., 37 Park Row, New York, for full particulars.

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 patents and caveats is furnished gratis, on application by mail. Address MUNN & Co. 37 Park Row, New York.

Design Patents.

Foreign designers and manufacturers, who send goods to this country, may secure patents here upon their new patterns, and thus prevent others from fabricating or selling the same goods in this market.

A patent for a design may be granted to any person, whether citizen or alien, for any new and original design for a manufacture, bust, statue, alto relievo, or bas relief, any new and original design for the printing of woolen, silk, cotton, or other fabrics, any new and original impression, ornament, pattern, print, or picture, to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture.

Design patents are equally as important to citizens as to foreigners. For full particulars send for pamphlet to MUNN & Co., 37 Park Row, New York.

Rejected Cases.

Rejected cases, or defective papers, remodeled for parties who have made applications for themselves, or through other agents. Terms moderate. Address MUNN & Co., stating particulars.

Value of Extended Patents.

Did patentees realize the fact that their inventions are likely to be more productive of profit during the seven years of extension than the first full term for which their patents were granted, we think more would avail themselves of the extension privilege. Patents granted prior to 1831 may be extended for seven years, for the benefit of the inventor, or of his heirs in case of the decease of former, by due application to the Patent Office, ninety days before the termination of the patent. The extended time inures to the benefit of the inventor, the assignees under the first term having no rights under the extension except by special agreement. The Government fee for an extension is \$100, and it is necessary that good professional service be obtained to conduct the business before the Patent Office. Full information as to extensions may be had by addressing MUNN & Co., 37 Park Row, New York.

To Make an Application for a Patent

The applicant for a patent should furnish a model of his invention if susceptible of one, although sometimes it may be dispensed with; or, if the invention be a chemical production, he must furnish samples of the ingredients of which his composition consists. These should be securely packed, the inventor's name marked on them, and sent by express, prepaid. Small models, from a distance, can often be sent cheaper by mail. The safest way to remit money is by a draft, or postal order, 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.

Trademarks.

Any person or firm domiciled in the United States, or a firm or corporation residing in any foreign country where similar privileges are extended to citizens of the United States, may register their designs and obtain protection. This is very important to manufacturers in this country, and equally so to foreigners. For full particulars address MUNN & Co., 37 Park Row, New York.

Canadian Patents.

On the first of September, 1872, the new patent law of Canada went into force, and patents are now granted to citizens of the United States on the same favorable terms as to citizens of the Dominion.

In order to apply for a patent in Canada, the applicant must furnish a model, specification and duplicate drawings, substantially the same as in applying for an American patent.

The patent may be taken out either for five years (government fee \$20), or for ten years (government fee \$40) or for fifteen years (government fee \$60). The five and ten year patents may be extended to the term of fifteen years. The formalities for extension are simple and not expensive.

American inventions, even if already patented in this country, can be patented in Canada provided the American patent is not more than one year old.

All persons who desire to take out patents in Canada are requested to communicate with MUNN & Co., 37 Park