

quickly and cover with warm pipe clay for a time. The working parts should be polished perfectly before attempting to replace them in the watch.

(29) W. C. W. asks: What process or preparation will prevent strips of lead from blacking the hands? A. Coat them with a thin covering of varnish or melted paraffin.

(30) B. & B. say: We wish to build a large brick factory, 50 x 100 feet, four stories high, and wish the three upper stories to be damp or sweat proof. What is the best mode of building it? A. Build hollow walls laid up in a good cement mortar.

(31) J. McT. asks: 1. Will concrete do for a cellar wall and foundation for a frame building? A. Yes. 2. Will common lime do to mix it with, or will it require cement, or some of each? A. Pure cement is best.

COMMUNICATIONS RECEIVED.

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

- On Newspaper Subscriptions. By J. H. P.
On Marine Propulsion. By R. F.
On a Discovery in an Ancient Temple. By J. E. W.
On a Body in a Hollow Sphere. By J. W.
On the Material Theory of Light. By G. L. B.
Also inquiries and answers from the following:
J. C. W.—J. G. A.—W. D.—U. R. D.—J. S.—W. M.—G. C.—C. S.—S. P. F.—C. Z.

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them. The address of the writer should always be given.

Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here. All such questions, when initials only are given, are thrown into the waste basket, as it would fill half of our paper to print them all; but we generally take pleasure in answering briefly by mail, if the writer's address is given.

Hundreds of inquiries analogous to the following are sent: "Who makes marbled slate? Whose is the best steam-heating apparatus? Whose sells the most accurate barometers? Why do not makers of agricultural implements advertise in the SCIENTIFIC AMERICAN?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose, subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained.

[OFFICIAL]

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were Granted in the Week Ending

July 25, 1876,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

Table listing inventions such as Air brake and signal, Anchor, Arch, hollow tile, Bag holder, etc., with corresponding page numbers.

Table listing inventions such as Car coupling, Car for railways, Car seals, machine for making, etc., with corresponding page numbers.

Table listing inventions such as Lock, seal, G. B. Phillips, Lock, time, Overmyer & Huston, Locks, time attachment for, J. L. Hall, etc., with corresponding page numbers.

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THE VALIDITY OF PATENTS.

The inexperienced purchaser of a patent does not generally appreciate the importance of having its claims examined, and their validity and scope defined by some person experienced in such matters, before parting with his money. It is not unusual for the assignee, just as he is commencing the manufacture of articles under his recently purchased patent, to find that it is an infringement upon some previously issued patent, and that he has not only made a worthless investment, but that he is likely to get mulcted in damages if he proceeds with his manufacture. Cases are continually coming to our knowledge wherein parties have made purchases in good faith, and paid considerable sums of money on the assurances of the patentee and a mere glance at the patent, presuming that all that the drawing of the invention showed was protected by the claims, when, in fact, the point covered was almost infinitesimal. Another manner in which purchasers are sometimes deceived is that the claims, although broad enough and worded properly to cover the invention, contain a single element protected by some prior patent, which covers the very part in the new machine which is necessary to insure its efficiency. The Howe sewing machine patent illustrates this. It protected but little that any of the manufacturers cared to use, except the one small part essential to all sewing machines; and all manufacturers had to pay Howe a royalty, and he derived from that apparently trivial item an immense income.

We therefore recommend any person who is about to purchase a patent, or about to commence the manufacture of any article under a license, to have the patent carefully examined by a competent party, and to have a research made in the Patent Office to see what the condition of the art was when the patent was issued. He should also see that the claims are so worded as to cover all the inventor was entitled to when his patent was issued; and it is still more essential that he be informed whether it is an infringement, as above suggested, or not. Parties desiring to have such searches made can have them done through the Scientific American Patent Agency, by giving the date of the patent and stating the nature of the information desired. For further information, address MUNN & CO., 37 PARK ROW, New York.

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