

water nearest the steam is heated. This also is the cause of thumping in steam pipes used in heating buildings. An outlet for the water destroys part of the force of the blow, although there is danger then if steam is turned on too suddenly.

(69) D. L. says, in reply to J. R. A., who asked how to cure cracked heels in horses: Take powdered gum camphor 1/2 oz., powdered gum myrrh 1 oz., sulphuric acid 1 oz., spirits of turpentine 1 oz., and lard 1 pint. Mix thoroughly, and rub on the affected limbs once a day. Wash the legs with soapsuds, and wipe dry before using. To prevent the affection, keep your stable and lot clean, and be sure that your horse is well groomed.

(70) H. S. J. says, in reply to J. M. H. Jr., who asks for a recipe for œcalcomanie varnish: For preparing a fastening varnish for sticking the pictures to the object, take 5 ozs. Canada balsam (frequently called balsam of fir) and 1 oz. each of alcohol (90 per cent) and spirits of turpentine; mix thoroughly, and let stand a few days. For finishing, use white dammar varnish, or a varnish made of bleached sheila 2 drachms, dissolved in 10 ozs. stronger alcohol.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

X. X. Y.—All the specimens contain iron, but not in paying quantity.—J. S. B.—No. 1 is quartz sand, no emery or corundum. Sulphur of iron is valueless.—A. M. S.—The boot lining is dyed with aniline green.—F. M. M.—The water is hardly entitled to the name of mineral, inasmuch as many natural waters contain as much mineral matter of a similar character, and are not supposed to be of a medicinal character.—R. F. A.—Your ferrotype plate is probably coated with a fine variety of japan varnish.

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 Witch Wand. By C.
On Eating Quails. By C. W.
On an Electric Shock. By J. C.
On Capital Punishment. By C. W. E.
On a Psychological Phenomenon. By A. Y. M.
On Poisonous Plants. By H. H.
On Bank Robberies. By M.
On Consumption. By I. R.
On Aerial Navigation. By E. R.
On Restoration of Life. By C. F. S.
On Puget Sound. By G. W. B.
On Thoughts on Astronomy. By W. C.

Also inquiries and answers from the following: S. H. L. Jr.—J. P. M.—C. V. B.—D. M. N.—C. J. M.—C. F. E.—J. K.—B. L.—H. T.—A. H. T.—F. T.—T. W.—J. B.—G. P.—J. C. D.—F. K.—N. T. W.—J. J.—P. S.—G. D.

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: "Where can hives of bees be obtained? Who sells small engines? Who sells rotary rock drills? Who sells an ice-making machine, capable of making 2,000 lbs. per day? Whose is the best railroad tie? Where can rubber-coated duck, etc., cloth be obtained?" 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 January 25, 1876, AND EACH BEARING THAT DATE. [Those marked (r) are reissued patents.]

Table listing various inventions and their patent numbers, including items like Abdominal supporter, Air compressor, Amalgam for teeth, Animal matter, etc.

Main table of inventions and patent numbers, including items like Boxes, nailing, Brick walls, etc., cleaning, Bridle bit, Brush, paint, D. N. Lanyon, Buckle and trace carrier, Bindings, construction of, N. Poutiloff, Butter cutter, H. F. Patton, etc.

CANADIAN PATENTS. LIST OF PATENTS GRANTED IN CANADA, January 28 to 31, 1875. Table listing Canadian patent numbers and descriptions.

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