

(25) H. W. H. asks: Is there any means by which I can find the pressure of steam in a boiler with the safety valve alone, without the use of a steam gage? A. You will find rules for such calculations in Bourne's "Handbook of the Steam Engine."

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

L. A. S.—It consists of heavy spar or sulphate of baryta, along with oxide of iron.—J. E. H.—It is pyrites.—R. W. H.—All the specimens are composed of scales of mica and small crystals of hornblende, which give them their sparkling character, imbedded in felspar and quartz.—W. M.—One specimen is pure quartz sand; the other is quartz sand mixed in with clay. Of no value for shipment.—G. W. L.—No. 1 is mispickel. No. 2 is pyrites. Nos. 3 and 4, pyrites in quartz rock. No. 5 is quartz rock which, like the foregoing, is very possibly auriferous. It would require a larger quantity to determine this, and a careful gold assay would be required.

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 Measurement of Light. By H.
On the Tails of Comets. By C. E. M.
On Spiritualism. By F. W. E.
On Burning Coal Dust. By W. F. S.
On Gear Indices. By B. P. G., by S. M., and by G. B. K.
On Coprolite Beds. By E. K.
On the Gateways of Nations. By W. T. S.
On "Ethereic" Force. By J. P. H.

Also inquiries and answers from the following: S.—H. P.—J. A. B.—R. E. S.—W. S. O'C.—P. J. R.—J. C. H.—E. L. W.—H. J. T.—J. F. D.—E. J. 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Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here.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: "Who sells aniline black? Where can flat-bottomed steamers be purchased? Who makes steel springs, suitable for use in a spring power? Who sells magnetic chains for medical purposes?" 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

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Table listing inventions with names and dates, such as 5,465.—R. L. Webb, New Britain, Conn., U. S. Box coffee mill. Dec. 4, 1875. 5,466.—F. N. Du Bois, New York city, U. S. Machine for making plumber's traps. Dec. 4, 1875. 5,467.—D. L. Chase, Boston, Mass., U. S. Steam governor. Dec. 4, 1875. 5,468.—O. Jull, Orangeville, Ont. Turbine water wheel. Dec. 4, 1875. 5,469.—E. A. Rice, New York city, U. S. Seats for vehicles. Dec. 4, 1875. 5,470.—T. Snell et al., Toronto, Ont. Paint brush bridle. Dec. 4, 1875. 5,471.—I. Milette, Three Rivers, P. Q. Self-acting sluice doors and lock gates for canals. Dec. 4, 1875. 5,472.—S. Lee, Ottawa city, Ont. Shoe rack. Dec. 4, 1875. 5,473.—D. N. B. Coffin, Jr., Newton, Mass., U. S., et al. Chain stopper. Dec. 9, 1875. 5,474.—A. S. Dennison et al., Watertown, N. Y., U. S. Paper bag. Dec. 9, 1875. 5,475.—A. S. Dennison et al., Watertown, N. Y., U. S. Waterproof bag. Dec. 9, 1875. 5,476.—J. P. Taylor, Elizabethton, Tenn., U. S., et al. Machine gun. Dec. 9, 1875. 5,477.—D. N. B. Coffin, Jr., Newton, Mass., U. S., et al. Capstan and windlass. Dec. 9, 1875. 5,478.—J. Shedd, Waltham, Mass., U. S. Window blind fastener. Dec. 11, 1875. 5,479.—D. E. Lillis, Jackson, Miss., U. S. Foot treadle. Dec. 11, 1875. 5,480.—A. Marland, Pittsburgh, Pa., U. S. Making nuts. Dec. 11, 1875. 5,481.—I. Casgrave, Chatham, Ont. Machine for pumping water out of vessels, etc. Dec. 11, 1875. 5,482.—H. Knight, Liverpool, England. Manufacture of certain oxides and sulphides. Dec. 11, 1875. 5,483.—J. Lang, Arnprior, Ont. Mop wringer. Dec. 11, 1875. 5,484.—R. Forward, Cincinnati, Ohio, U. S. Paddle wheel. Dec. 11, 1875. 5,485.—J. E. Nute et al., New Glasgow, N. S. Pumping water from ship holds, etc. Dec. 11, 1875. 5,486.—J. C. Schoonmaker, Hamilton, Ont. Combined stove pipe sheaf and dryer. Dec. 11, 1875. 5,487.—H. Reed, Vineland, N. J., U. S. Tanning apparatus. Dec. 11, 1875. 5,488.—W. Dippert, Des Moines, Iowa, U. S. Harness pad press. Dec. 11, 1875. 5,489.—J. McLean, St. George, N. B. Scale pan, etc. Dec. 11, 1875. 5,490.—J. C. Schoonmaker, Geddes, N. Y., U. S. Making lightning conductors. Dec. 11, 1875. 5,491.—J. E. Fisk, Salem, Mass., U. S. Whitening and buffing leather. Dec. 14, 1875. 5,492.—J. R. Lantz et al., Marrowbone, Ill., U. S. Adjustable wagon axle. Dec. 14, 1875. 5,493.—R. K. Boyle, New York city, U. S. Electric telegraph. Dec. 14, 1875. 5,494.—W. Ellard, Skeads Mills, Ont. Cutting belt nippers. Dec. 14, 1875. 5,495.—A. C. Snowden, South Norwalk, Conn., U. S. Horse overshoes. Dec. 14, 1875. 5,496.—E. Gray, Chicago, Ill., U. S. Transmitting musical sounds telegraphically, etc. Dec. 14, 1875. 5,497.—W. H. Newton, Chicago, Ill., U. S. Hydraulic and peat excavators. Dec. 14, 1875. 5,498.—J. Foley, Orangeville, Ont. Printer's quoin. Dec. 14, 1875. 5,499.—G. Lupton, Indianapolis, Ind., U. S. Sheet metal pipe elbow. Dec. 14, 1875.

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CANADIAN PATENTS. LIST OF PATENTS GRANTED IN CANADA, December 4 to December 14, 1875.

Table listing Canadian patents with names and dates, such as 5,465.—D. W. De Forest, Brooklyn, N. Y., U. S. Mechanism for propelling sleds. Dec. 4, 1875. 5,464.—C. W. Williams, Rochelle, Ill., U. S. Hay loader. Dec. 4, 1875.