

Business and Personal.

The Charge for Insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in next issue.

Inventors wishing Premium Lists of the N. Y. State Fair, free by mail, address Lingemfelter & Co., Patent Sellers, Publishers of Patent Herald, Amsterdam, N. Y. Wanted.—Address of Parties Making Rolls for Leveling Half-inch Iron. W. H. Butler, 291 Broadway, N. Y.

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Wanted—The address of 40,000 Sawyers and Lumbermen for a copy of Emerson's Hand Book of Saws. New edition 1880. Over 100 illustrations and pages of valuable information. Emerson, Smith & Co., Beaver Falls, Pa. For Separators, Farm & Vertical Engines, see adv. p. 157.

Elevators, Freight and Passenger, Shafting, Pulleys and Hangers. L. S. Graves & Son, Rochester, N. Y. For Patent Shapers and Planers, see illus. adv. p. 156. Comb'd Punch & Shears; Universal Lathe Chucks. Lambertville Iron Works, Lambertville, N. J. See ad. p. 78.

Moles & Queries

HINTS TO CORRESPONDENTS. No attention will be paid to communications unless accompanied with the full name and address of the writer. Names and addresses of correspondents will not be given to inquirers.

(1) F. W. L. asks if there is any way to test for gold as an alloy of other metals, and if so, what? A. Rub the alloy upon a piece of hard slate...

(2) J. A. G. writes: 1. In making a dynamo-electric machine, half the size of the one described in SUPPLEMENT No. 161, what Nos. of wires should be used? The Nos. given are 16 and 18.

(3) V. V. S. writes: I wish to drill a hole one-quarter inch in diameter through a piece of 21-ounce glass. How can I do so without breaking it? A. It can be done by means of an ordinary steel drill hardened in mercury...

(4) O. & C. ask: 1. For a cheap substitute for shellac varnish. Is there another solvent for shellac, besides alcohol, that will answer as a varnish, and which will dry moderately quick? A. Shellac is soluble in alcohol, wood naphtha (crude methylic alcohol)...

(5) A. R. C. asks: 1. Would a square foot of cold iron belarger or smaller if heated to 4,000° or 5,000° Fah.? A. It would occupy less space.

(7) W. C. B. asks if there is anything that will render canvas fireproof. I am making an awning for steam launch, and she throws sparks so badly as to burn the awning.

INDEX OF INVENTIONS FOR WHICH Letters Patent of the United States were Granted in the Week Ending August 10, 1880.

Acid, pulverulent preparation of phosphoric, E. N. Horsford..... 230,874 Air compressing apparatus, R. M. Catlin..... 231,007

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Asbestos sheet for roofing, etc., compound, H. W. Johns..... 230,945 Ash box, Michel & Schirmeister..... 231,073 Awning, C. E. Fritsch..... 231,033

Band tie, G. P. Richardson..... 231,100 Beefsteak masticators, mould for, J. B. Fleck..... 231,023 Belt fastening, W. W. Green..... 230,936

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Hog cholera remedy, S. M. Youree..... 231,137 Hopper for middlings, etc., feeding, J. T. Cook..... 231,010 Horseshoe machine, J. H. Snyder..... 230,113

Table listing various mechanical parts and their prices, including shutters, sifters, spinning rings, and steam engines.

Table listing designs for calendars, dinner sets, and lamp founts.

Table listing trade marks for cigars, detergents, flour, and shirts.

English Patents Issued to Americans. From August 6 to August 10, 1880, inclusive.

Advertisements. Inside Page, each insertion -- 25 cents a line. Back Page, each insertion -- \$1.00 a line.

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