

**Business and Personal Wants.**

**READ THIS COLUMN CAREFULLY.**—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry.

MUNN &amp; CO.

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 8547.—Wanted, playing cards with raised spots for those that cannot see.

Pattern Letters. Knight &amp; Son, Seneca Falls, N. Y.

Inquiry No. 8548.—Wanted, machinery for the manufacture of alcohol from apples, molasses and sugar.

"U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 8549.—Wanted, a musical alarm clock, 7 inches high by 5 inches wide, nickel-plate brass frame with glass sides, visible works, retail price \$248; wanted to purchase same by wholesale.

Handle &amp; Spoke Mch. Ober Mfg. Co. 10 Bell St., Chagrin Falls, O.

Inquiry No. 8550.—Wanted, a machine for pointing meat skewers in large quantities, such as 50,000 skewers a day.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 8551.—Wanted, machinery for drilling vegetable ivory buttons.

Make Alcohol from Farm Products.—New book, \$1.00. Spon &amp; Chamberlain, 123 S. A. Liberty Street, N. Y.

Inquiry No. 8552.—Wanted, makers of portable sanitary closets.

WANTED.—Copies of our "Manufacturers' Index" issued some eight years ago. State price. Munn &amp; Co., 361 Broadway, New York.

Inquiry No. 8553.—Wanted, name and address of the makers of the Perplexity Puzzle recently sold by the Union News Co.

The celebrated "Hornsby-Akroyd" safety oil engine. Koerting gas engine and producer. Ice machines. Built by De La Vergne Mch. Co., Ft. E. 138th St. N. Y. C.

Inquiry No. 8554.—Wanted, name and address of wholesale dealers in galvanized corrugated iron and galvanized iron roofing.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machine work and special size washers. Quadrige Manufacturing Company, 18 South Canal St., Chicago.

Inquiry No. 8555.—Wanted, manufacturers of the following: trunk board, lamp colors, sheet aluminum, coal-oil burner without chimney.

Inquiry No. 8556.—Wanted, the address of a German firm which manufactures souvenir post cards and one which makes prism field glasses.

**HINTS TO CORRESPONDENTS.**

Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.

References to former articles or answers should give date of paper and page or number of question.

Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(10279) M. O. C. asks: Can you inform us how to copper common iron castings without a battery so they will not rust, or how to whiten them by dipping? A. To copper iron castings, the articles must be made perfectly clean, and then dipped in a solution of 1½ pounds copper sulphate in water to which 1 ounce sulphuric acid has been added. They are then washed and dried.

(10280) W. H. asks: Please give me the best formula for a dry primary battery. A. One of the best dry cells is said to be filled with the following mixture: Oxide of zinc, 1 part by weight; sal-ammoniac, 1 part; plaster of Paris, 3 parts; chloride of zinc, 1 part; water, 2 parts.

**NEW BOOKS, ETC.**

PRINTING ART. Vol. VII. Cambridge, Mass.: Issued by the University Press, 1906. 4to.; pp. 412.

The volume before us is one of the most luxuriant, from a typographical point of view, that we have ever seen. It should be on the desks of all managers of printing establishments, and every compositor should subscribe for this beautiful publication, which will teach him how to produce the most artistic composition and printing. All of the advertisements are bound in, which is an excellent idea, as they are most informing. There are a large number of inserts showing cover papers of various weights and colors. The text is devoted to articles on the printing art written by experts, and freely illustrated by examples from the very best presses. A large number of samples of commercial work are tipped in. One can see at a glance what the up-to-date printers are doing in the line of commercial work. This publication should be subscribed for regularly by all those who are in a position to buy printing, as it enables them to keep abreast of a rapidly-advancing art. The publication is highly creditable to editor and printer alike.

**INDEX OF INVENTIONS****For which Letters Patent of the****United States were Issued**

for the Week Ending

December 18, 1906.

**AND EACH BEARING THAT DATE**

[See note at end of list about copies of these patents.]

Corrugating machine, I. W. Numana.....	838,569	Jewel remover and seater, H. Straw.....	839,45
Coupling device, H. Hills.....	838,859	Journal bearing, F. M. Nash.....	838,566
Crown, porcelain and metallic, C. A. Davis.....	838,925	Journal bearing, J. F. Walsh.....	838,925
Cultivator, W. W. Mitchell, Sr.....	838,798	Jug top, J. F. Haffey.....	838,852
Current heater, alternating, J. F. McElroy.....	838,885	Knife, J. W. Eckley.....	838,544
Curtain fastener, H. A. Cairns.....	838,995	Lacing tool, belt, S. Freeze.....	838,973
Curtain fixture, Lawson & Silvermail.....	838,627	Ladder, extension step, F. Wilson.....	838,831
Curtain pole, J. F. Lalus.....	838,867	Lamp burner, L. D. Landrum.....	838,791
Cutter guard, revolute, N. M. MacLeod.....	838,730	Lamp guard, incandescent, H. Hubbell.....	838,860
Desk pad and clip for holding papers, combination, M. Vernon.....	839,052	Lamp, incandescent electric, G. A. Neilis.....	839,023
Detector bar, J. T. Hamby.....	838,709	Lamp, miner's, P. S. Keenan.....	839,002
Dish washing machine, Dapro & Froelich.....	838,955	Lamp socket adapter, Forbes & York.....	838,613
Display rack, R. M. & H. M. Bowser.....	838,517	Lamp, therapeutic, Coger & Marshall.....	838,950
Door and window screen, J. A. Dietz.....	838,695	Latch, door, J. B. Engstrom.....	838,701
Door hanger, J. W. Harris.....	838,710	Leak stopper, C. C. Collette.....	838,524
Door lock, J. Major.....	839,017	Leg, artificial, G. A. Erickson.....	838,779
Door register and alarm, J. Speidler.....	838,660	Lighthouse construction, T. K. Thomson.....	838,821
Door, sheet metal, J. Tyra.....	838,672	Linotype machine, P. T. Dodge.....	838,609
Drill socket, multiple, J. P. Hylander.....	838,999	Liquid heating or cooling apparatus, H. Feldmeier.....	838,853
Drilling machine, A. Walker.....	838,923	Liquid separator, centrifugal, C. A. Edlund.....	838,697
Drilling machine crank, J. H. Engleman.....	838,700	Liquid separator, centrifugal, D. W. Jordan.....	838,718
Dust collector, P. C. Miller.....	838,879	Lithophone having a sulfite of baryta base, formation of, L. Brunet.....	838,769
Dust guard, G. F. Godley.....	838,707	Lock key, F. W. Schroeder.....	838,910
Dynamos, automatic regulator for direct current, G. S. Neely.....	838,802	Lock mechanism, B. Phelps.....	838,808
Dynamos, automatic voltage regulator for, G. S. Neely.....	838,800	Locomotive ash pan, E. E. Nettleton.....	838,740
Easel frame, S. Bodinger.....	838,516	Loom shuttle, Coldwell & Gildard, reissue of.....	12,579
Edge setter iron with stitch wheel, M. F. Lindberg.....	839,012	Loom shuttle, cotton, J. E. Lemyre.....	838,629
Educational device, G. W. Chapman.....	838,840	Low water alarm, W. I. Thomson.....	838,823
Electric circuits, automatic cut-out device for, W. O. Taylor.....	839,048	Mail carrying device, H. Pearson.....	838,746
Electric contact device, P. O. Pedersen.....	839,027	Manifolding and flining apparatus, J. Bailey.....	838,513
Electric furnace, pyro, F. E. Roach.....	838,647	Marking apparatus, clothes, J. D. Caldwell.....	838,683
Electric generators, regulating the field density of, G. S. Neely.....	838,801	Massage and manicure machine, O. C. De Selms.....	838,959
Electric heater, plural coil, J. F. McElroy.....	838,884	Mat, C. F. Doeberl.....	839,059
Electric machine, dynamo, B. A. Behrend.....	838,605	Matted or felted material, machine for finishing the surfaces of, G. Goldman.....	838,616
Electric motor and controlling the same, A. Kimble.....	838,547	Measuring device, foot, F. L. Kerr.....	838,720
Electric transmission of intelligence, I. Kitsee.....	838,788	Measuring vessel, liquid, R. C. Ricketts.....	839,035
Electrical construction, cross arm for, E. S. Hamilton.....	838,537	Meat hook, D. L. Walls.....	838,826
Electrical receptacle, B. E. Salisbury.....	838,811	Metal cutting machine, G. H. White.....	838,675
Electroplating, W. S. Hutchinson.....	838,717	Metal strips edgewise, machine for bending, G. S. Dunn.....	839,060
Electroplating apparatus, W. S. Hutchinson.....	838,716	Mills, etc. wind governor for, C. H. & A. J. Richards.....	838,646
Electrotyping, solution for use in, A. Gerster.....	838,977	Miner's cap and lantern holder, Lattimore & Parmley.....	839,070
Elevator, G. F. Steedman.....	838,819	Mirror and chip blower and flushing and spraying device, combination hand mouth, O. T. Robertson.....	838,648
Elevator car safety apparatus, H. H. Busch.....	838,770	Mirror holder, adjustable, S. E. Crane.....	838,953
Elevator safety device, C. H. Leffingwell.....	838,726	Mirror, multiple, J. H. Petroskey.....	838,807
Engine, See Gasoline engine.		Molding machine, O. W. Baldwin.....	838,908
Engraving machine, pantographic, J. W. Lewis.....	839,011	Monkey and pipe wrench, convertible, J. T. Landers.....	838,552
Envelope and box, safety, Dobson & Gallagher.....	838,964	Mop holder, J. Larson.....	839,086
Envelope opener, J. Ringsberg.....	838,750	Mortising and boring machine, J. S. Waugh.....	838,827
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Excavating machine, J. W. T. Stephens.....	838,663	Mowers, rotary cutter for lawn, A. B. Case.....	838,521
Excavating scoop, J. W. Page.....	838,665	Mowing machine, Robinson & Cutsforth.....	838,904
Excavating shovel, J. W. Page.....	838,026	Musik rack, U. S. G. Waldron.....	838,825
Excavator, dippers, ejector for, C. Strom.....	838,914	Nails, making cement coated, J. M. Dix.....	838,526
Excavating apparatus, A. P. Schmidt.....	838,40	Nut for bolts, frictional lock, G. Bryar.....	838,948
Extension table, circular, J. E. Turner.....	838,671	Nut lock, Magill & Polson.....	838,558
Fabrics, apparatus for repairing defects in textile, Oehler & Bauer.....	838,890	Nut lock, H. T. Moler.....	838,734
Fastener, I. M. Sylvester.....	839,047	Nut lock, C. N. Treadwell.....	838,917
Felt roll, detachable, D. Crane.....	838,771	Nut lock, gland, V. L. Allebach.....	838,833
Fence post, P. E. Smith.....	838,592	Oil can, Mease & Sechrist.....	838,635
Fence splice, wire, W. Clement.....	838,522	Oil feeding apparatus, C. J. Lockwood.....	838,728
Fermentation of liquids, Johnson & Hare.....	839,067	Oils, etc. apparatus for extracting, H. A. Silvers.....	838,658
Fertilizer distributor, E. L. Hahn.....	838,812	Oiler and wiper for piston rods, combined, Rudd & Stout.....	838,650
File case, A. Dixon.....	838,962	Optical device, G. W. MacDonald.....	839,016
Finger nail trimmer, J. H. Smith.....	838,755	Ordnance sighting apparatus, Dawson & Buckingham.....	838,957
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Fire extinguisher, chemical, E. D. Matteson.....	838,794	Outlet box, M. J. McGowan, Jr.....	838,886
Fire extinguishing apparatus, S. A. Collins.....	838,688	Overshoe, A. E. Roberts.....	838,751
Fire resistance construction, B. E. Loomis.....	839,015	Package and the like carrier, G. Staib.....	839,081
Fireproof building construction, C. Collins.....	838,845	Pads for matted or felted fibers, machine for finishing garment, G. Goldman.....	838,615
Fisherman's combination tool, R. M. Varner.....	838,901	Paper and folding the same, device for perforating or slitting sheets of, C. A. Sturtevant.....	839,046
Fishing reel, S. Sykes.....	838,920	Paper, etc., grease proofing and moisture proofing, L. P. Brown.....	838,607
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Furnace grate, D. J. McKenzie.....	838,639	Perambulator, G. Lauterer.....	839,009
Furnace mouth lining for boilers, B. B. Lamprey.....	838,868	Perch bracket, J. F. Dropeskey.....	838,851
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