

Business and Personal.

The Charge for Insertion under this head is One Dollar a line for each insertion. If the Notice exceeds four lines, One Dollar and a Half per line will be charged.

Pattern Makers can get Metallic Pattern Letters, to letter patterns, of H. W. Knight, Seneca Falls, N. Y.

Wanted—Quantity large coils Springs. Miller, Barlow & Co., Cookshire, Quebec, Canada.

West's New Yankee Tire Setter. Sets them cold on the wheel. Shrinks all around alike. J. B. West, Rochester, N. Y.

Wanted—A new 50 horse Engine and Boiler. Engine of latest style. Combining simplicity and economy. Enquire of A. M. Johnston & Co., Rockford, Ill.

Manufacturers of Felt Papers send samples and prices, by quantity, to S. T. Carr, Elmira, N. Y.

For Sale.—One Spinning Lath. Good as new. Address White Sewing Machine Co., Cleveland, O.

Wanted—Burglar Alarm. Box 111, Saratoga Sp's, N.Y. One third-class Amoskeag Steam Fire Engine built to order and highly finished, to be drawn by hand or horse, fully equipped with hose carriage, hose, pipe, and tools; engine was never in service, and can be seen at Rhode Island Locomotive Works, Providence, R. I.

Inventors.—All patents not received before June 25th must hold over until September Sale. G. W. Keeler, Auctioneer. See Advt.

A Device for Preventing the Accumulation of Frost and Steam upon Store Windows has been patented by C. T. Anthony and J. Manheim, of Taunton, Mass., to whom all letters should be addressed. Territory for sale.

Reliable Oak Leather and Rubber Belting. A specialty of Belting for high speed and hard work. Charles W. Arny, Manufacturer, Phila., Pa. Send for price lists.

How to make Violins—Write J. Ranger, Syracuse, N.Y.

Shaw's Noise-Quelling Nozzles, for Escape Pipes of Locomotives, Steamboats, etc. Quiets all the noise of high pressure escaping steam without any detriment whatever. T. Shaw, 915 Ridge Ave., Philadelphia, Pa.

For 13, 15, 16, and 18 in. Swing Screw-Cutting Engine Lathes, address Star Tool Company, Providence, R. I.

For Sale.—Second-hand 4 Sided-Moulder, with about 300 knives; good as new; price \$500. T. R. Bailey, Agt., Lockport, N. Y.

Combined Miller and Gear-Cutter; capacity large; almost new; a bargain. C. A. Conde & Co., Phila., Pa.

For Boulton's Paneling, Moulding, and Dovetailing Machine, and other wood working machinery, address B. C. Machinery Co., Battle Creek, Mich.

John T. Noye & Son, Buffalo, N. Y., are Manufacturers of Burr Mill Stones and Flour Mill Machinery of all kinds, and dealers in Dufour & Co's Bolting Cloth. Send for large illustrated catalogue.

Steel and Iron Set Screws, manufactured by L. F. Standish & Son, New Haven, Conn.

Electric Gas Lighting Apparatus, applied to public and private buildings. The latest improvements. A. L. Bogart's patent. Address 702 Broadway, N. Y.

Patent Taper Sleeve Fastening and Wooden Pulley Works are now in full operation. Orders solicited. Satisfaction guaranteed. A. H. Gray, Erie, Pa.

Painters, etc., get circular, prices, etc., of New Metallic "Wiping out" Graining Tools; 75,000 now in use. J. J. Callow, Cleveland, O.

Removal.—Fitch & Meserole, Manufacturers of Electrical Apparatus, and Bradley's Patent Naked Wire Helices, have removed to 49 Cortlandt St., N. Y. Experimental work.

Power & Foot Presses, Ferracute Co., Bridgeton, N. J.

For Best Presses, Dies, and Fruit Can Tools, Bliss & Williams, cor. of Plymouth and Jay Sts., Brooklyn, N.Y. Lead Pipe, Sheet Lead, Bar Lead, and Gas Pipe. Send for prices. Bailey, Farrell & Co., Pittsburgh, Pa.

Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing metals. E. Lyon & Co., 470 Grand St., N. Y.

Solid Emery Vulcanite Wheels—The Solid Original Emery Wheel—other kinds imitations and inferior. Caution.—Our name is stamped in full on all our best Standard Belting, Packing, and Hose. Buy that only. The best is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, N. Y.

Steel Castings from one lb. to five thousand lbs. Invaluable for strength and durability. Circulars free. Pittsburgh Steel Casting Co., Pittsburgh, Pa.

For Solid Wrought Iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

Small Fine Gray Iron Castings a specialty. Warranted soft and true to patterns. A. Winterburn, 16 and 18 De Witt St., Albany, N. Y.

Silver Solder and small Tubing. John Holland, Cincinnati, Manufacturer of Gold Pens and Pencil Cases.

Patent Scroll and Band Saws. Best and cheapest in use. Cordesman, Egan & Co., Cincinnati, O.

Best Glass Oilers. Cody & Ruthven, Cincinnati, O.

Diamond Saws. J. Dickinson, 64 Nassau St., N. Y.

Chester Steel Castings Co. make castings for heavy gearing, and Hydraulic Cylinders where great strength is required. See their advertisement, page 414.

Help for the weak, nervous, and debilitated. Chronic and painful diseases cured without medicine. Pulvermacher's Electric Belts are the desideratum. Book, with full particulars, mailed free. Address Pulvermacher Galvanic Co., 292 Vine St., Cincinnati, Ohio.

Hand Fire Engines, Lift and Force Pumps for fire and all other purposes. Address Rumsey & Co., Seneca Falls, N. Y., U. S. A.

Oval and Disk Cutting Machines for Lithographers, Printers, Paper Box Manufs., etc. Send for illustrated circular. Frank Thomas & Co., Home St., Cincinnati, O.

Reliable information given on all subjects relating to Mechanics, Hydraulics, Pneumatics, Steam Engines, and Boilers, by A. F. Nagle, M. E., Providence, R. I.



S. S. will find something on desiccating eggs on another page of this issue.—J. T. W. will find a

recipe for aquarium cement on p. 80, vol. 31.—J. P. M., Jr., will find on p. 123, vol. 29, directions for making a storm glass.—Mrs. J. G. B. is informed that galvanized pipes and vessels are very deleterious to water. See p. 139, vol. 33.—R. W. S. will find something on regulating the heat of an incubator on p. 273, vol. 33, and p. 213, vol. 34.—A. R. S. should read the answer on p. 396, vol. 36, as to moulding in plaster of Paris. As to cleaning carpets, see p. 89, vol. 25.—P. M. B. will find on p. 395, vol. 36, directions for removing oil stains from granite.—J. E. M. will find directions for bluing steel on p. 123, vol. 31.—D. H. B., of Aby-Thorslag, Sweden, is informed that we do not know the address for which he inquires.—L. B. will find the description of high and low pressure engines on p. 42, vol. 25. As to the rule for horse power, see p. 33, vol. 33.—B. Y. can try the preparation described on p. 154, vol. 32, to preserve his silver objects from being tarnished.

(1) C. W. B. asks: 1. How can I make hair rope fireproof? A. Strong, warm solutions of tungstate of soda (crude), or of sulphate of soda (Glauber salt), in water may be used for this purpose. It is not necessary to repeat the tungstate of soda treatment unless the material has been exposed to continued wet weather, in which case it is recommended to precipitate the insoluble tungstic acid in the fiber by soaking it, after impregnation, in diluted muriatic acid. The sodium chloride (salt) formed should be dissolved out with warm water. For hair ropes, it would be best to pass the material through a bath of warm alkali before impregnating with the tungstate. 2. Does the process make it heat-proof? A. We do not know what is meant by "heat-proof." Impregnating the ropes with inorganic salts will much alter its heat conductivity.

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

O. B.—No. 1 is not a lithographic stone, and would be of little value for lithographic purposes. It might answer for rubbing down rough metal, and in marble polishing. It is too soft and porous to make a good hone. No. 2 is a limestone; and if properly burnt, it might make a cement.—D. E. W.—The mineral contains (besides carbonate of lime) crystals of barite and celestite. You should send a larger piece.

A. I. asks: Has there been anything invented to throw a paddle wheel off of its center? Many such wheels, and stationary engines also, stop in the dead center, and have to be pried off before they can start again.—W. G. B. asks: How is the low temperature produced and maintained in the refrigerators on exhibition at the Centennial? I noticed that the thermometers in them showed about 20° Fah.—C. L. P. asks: Will C. H. S., who uses coal oil to make his hair grow, inform me how he applied the oil, how often, and how much at one time, and whether he washed or bathed his head with water?

COMMUNICATIONS RECEIVED.

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

- On a New Motor. By W. B. M.
On Steam Economy. By J. W. T.
On Torpedo Balloons. By T. F.
On a Fire Escape. By W. C. M.

Also inquiries and answers from the following: J. D. H.—F. J. B.—J. B. M.—W. H.—J. B. B.—G. G. J. H. W.—A. A.—H. S.—G. F. K.—J. B.—C. A. S.

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.

Inquiries 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 the best boiler scale preventive? Who makes imitation marble? Who sells glazed porcelain tiles? Who sells iron stable fittings? Who sells aquaria, with fish, reptiles, and suitable plants? Who sells astronomical telescopes?" 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

May 22, 1877,

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.

- Agricultural cooker, Farley & Blackwood 191,127
Alum, etc., making, C. Lennig 191,169
Animal trap, P. A. Herbert 191,052
Apple parer, W. M. Griscom 191,138
Auger, hollow, C. S. Bonney (r) 7,689
Bag machine, E. Stanley 191,013
Baker, L. Drew 191,035
Baking pan, Kagey & Stoneburner 191,059
Bale tie, wire, L. Stewart 191,192
Beetle, invad., C. T. Moore 91,068
Beetle, war, robe, R. Cleland 190,957
Beeswax, bleaching, H. T. Yaryan 190,995
Blacking box, J. H. Weeks 190,992
Blind slats, compressing ends of, E. Cather 191,111
Boiler and steam heater, G. W. Blake 190,949

- Boiler flue brush, J. H. Davis 190,960
Boiler, sectional, E. H. Graham 190,966
Boot soles, nailing, L. Goddu (r) 7,692
Bottle opener, E. Bacher 191,093
Bracelet, Hammond & Krymer 191,140
Breech loading fire arm, E. Engel 191,124
Breech loading fire arm, F. W. Tiesing 191,197
Brick moulds, sanding, S. W. Babcock 191,018
Briole bit, W. M. Hutton 190,969
Broom winding machine, J. Gray 191,048
Brush machine, J. D. Baker 190,999
Buckle, trace, W. B. Walker 191,014
Bung cutting machine, P. Medart 191,066
Bureau drawer, I. Mason 191,162
Burglar alarm, W. J. Decker 190,961
Burglar alarm, Miner & Seelye 191,067
Butter mould, S. Giles 191,045
Camp stool, E. M. Sammis 191,182
Can opener, R. H. Rose 191,075
Canal boats, propelling, B. H. Muehle 190,975
Car axle box, R. B. Eason 191,037
Car coupling, Dobbs & Robinson 191,122
Car coupling, S. N. Keith 191,060
Car coupling, J. D. Ross 190,984
Car coupling, G. W. Wilson 190,214
Car heater, E. O. Huntington 191,056
Car sleeping berth, A. E. Barthel 191,098
Car window, Barker & Shill 191,095
Carboard, ornamenting, Adams & Bott 190,997
Carpet stretcher, A. T. Safford 190,985
Carpet sweeper, E. T. Prindle 190,982
Carriage top, C. Fockler 191,129
Cattle stall, E. E. Waddell 191,086
Centrifugal machine, A. A. Goubert 191,137
Chair, J. Hess 190,967
Chair, folding, E. H. Mahoney 190,974
Chair, folding arm, W. A. Webb 191,015
Chandelier, adjustable, R. Marsh 191,064
Check register, Stewart & Van Heven 190,988
Check rower, etc., De Veaux & Rosser 191,003
Churn, reciprocating, A. Heartsill 191,142
Churn, rotary, D. L. Westcott 191,210
Cigar, J. H. Campfield 191,038
Cigar box, A. E. Ebert 191,038
Clams, preserving, H. W. Buttles 191,024
Clothes washer, J. W. Cheek 191,028
Clothes washer, A. Kimber 191,157
Coal hod, E. F. O'Toole 191,071
Cockeye and trace clip, J. W. Hoffman 191,143
Coffee-making apparatus, A. G. Buzby 191,106
Coin, metal alloy for, W. W. Hubbell 191,146
Corn and seed planter, H. F. Baker 191,019
Corn planter, Miller & Wright (r) 7,695
Corn planter and drill, J. L. Hill 191,054
Cultivator, Brewster & Neher 191,101
Cultivator, Robertson & Knight 191,179
Cultivator, E. M. & M. L. Kissell 190,972
Distillation, continuous, S. Van Syckel 191,203
Door fastening, C. R. Arnold 190,998
Draft equalizer, L. W. Frederick 191,041
Drawing metal rods, etc., Brankman & Brightman 191,000
Electric light, N. E. Rejnyer 191,177
Engine and pump donkey, J. Stannah 191,190
Engine, oscillating, Gibson & Eberhart 191,134
Engine, air pump connection, G. H. Corliss 190,958
Explosive compound, O. Burstenbinder 190,954
Eyeglass, F. P. Iannarone 191,149
Faucet, self-closing, H. C. Meyer (r) 7,694
Fence barb, A. J. Nellis 191,011
Fence barbs, wire, H. N. Frestress (r) 7,697, 7,698
Fence, portable, A. S. Chaney 191,113
Filtering apparatus, J. Gainey 191,131
Finger nail cutter, R. W. Stewart 190,989
Fire escape, A. L. Clark 191,115
Fire escape, Dartt & Post 191,118
Fire escape, D. B. Ewing 191,125
Fire escape, E. Row 191,181
Fireproof ceiling, J. Gilbert 191,135
Fish hook, snap, G. C. Miller 191,165
Flower pot supporter, W. F. Sampson 191,183
Fluid meter, C. M. Van Tine 191,205
Fork table, L. S. White (r) 7,700
Fruit dryer, W. S. Plummer 191,072
Fruit jar, C. Hastings 191,050
Furnace, J. Jenkins 191,005
Furnace and hot blast oven, A. Wilson 191,213
Furnace grate, C. Deguine 191,002
Furnace, heating, S. W. Morgan 191,069
Furnace, metallurgic, W. M. Watson 191,209
Gage, F. K. Hesse 191,053
Gage for bits, R. Gardiner 191,133
Game and cartridge belt, Case & Beadell 191,027
Game apparatus, F. E. Nutting 191,169
Garment holding device, C. E. Johnson 191,152
Gas apparatus, dip pipe for, J. Dittmar 191,121
Gas cocks, electric opening of, D. M. Smyth 191,012
Gas, manufacture of, M. H. Strong 191,082
Gate, Cherry & Elliott 191,114
Gate, I. D. Jewett 191,151
Gear wheel, D. Jones 191,155
Glass mould, shade, etc., H. Brooke 191,102, 191,103
Glue, manufacturing, C. O. Garrison 191,132
Governor, marine engine, W. A. Brice 191,023
Governor, steam engine, H. Taber 191,084
Grain and seed separator, C. A. Weed 190,991
Grain binder, W. R. Baker 190,996
Grain binder, S. D. Locke (r) 7,701
Grain binder, Werts & Gilmer 190,993
Grain separator, C. A. Weed 190,990
Grasshopper destroyer, J. V. Barger 191,097
Grate shelf, J. Boorum 190,951
Hammer, tack, F. R. Glasscock 191,136
Harness to shafts, attaching, W. C. Smith 191,081
Harness tug, C. Hauff 191,051
Harrow, sulky, G. M. Furman 191,043
Harvester cutter, A. Walter 191,207
Harvester lever, H. & H. L. Wells 191,087
Hat, F. P. Flanagan (r) 7,691
Hat, H. Kuhlman 191,061
Hay stacker, J. Chase 191,001
Hen's nest, H. B. Morrison 191,166
Hoisting gear, cattle, W. H. Axford 191,091
Horse hay rake, D. Martin 191,161
Horse hay rake, Smith & Cowles (r) 7,696
Horse power link, J. Westinghouse 191,211
Hose nozzle, E. B. Tomlinson 191,199
Hose couplings, attaching, D. T. Ellis 191,039
Hose to couplings, securing, J. A. Caldwell 191,026
Hot air register, L. E. Smith 191,080
Hydrocarbon burner, etc., C. Holland 191,144
Hydrocarbon vapor burner, R. W. Park 191,170
Ice plow, J. F. Behm 191,020
Infusions, making, R. U. Etzenberger 190,964
Inlay work, designing, J. U. Mueller 191,167
Iron castings, hardening, A. F. Andrews 191,089
Key hole guard, C. Eisele 191,123
Kits and buckets, making, J. P. & S. N. Blood 191,099
Knife handle and sheath, Manuel & Whitehouse 191,063
Knitting machine, J. L. Branson 190,952
Knitting machine, J. Sibson 191,186
Ladle for metal founding, W. Fawcett 191,128
Lamp burner, H. Hempstead 191,141
Lamp, pneumatic, G. W. Cook 191,032
Latch for doors, etc., A. C. Woolman 191,216
Latch, gate, J. Neill 190,976
Lawn mower attachment, A. H. Wood 190,994
Leaf turner, D. W. G. Humphrey 191,055
Leather, cutting, etc., J. W. & R. H. Lufkin 191,006
Leather, whitening, etc., W. A. Perkins 191,173
Lifting jack, T. J. & C. C. Case 191,110
Liquids, elevating, T. Hanson 191,049
Lock, alarm, G. W. Graham 191,046
Locks, face plate for, A. Stewart 191,191
Locomotive furnace door, W. W. Hubbell 191,147
Loom, stop motion, J. M. Linscott 191,062
Lubricator, C. H. Marshall 191,171
Magazine firearm, F. W. Tiesing 191,196
Milk cooler, E. D. Bennett 191,021
Milking stool, E. Avey 191,090
Mould board, conical, C. V. Dyer 191,036
Mortising machine, H. Carter 191,109
Mower, J. H. Cain 191,025
Mower, R. Dirks 190,962
Mower, W. N. Whiteley 191,016
Musical instrument, M. H. Collins 191,029
Napkin holder, M. Campbell 191,077
Napkin holder, R. W. Huston 191,148
Nut lock, Hahn & Mayers 191,139
Nut lock, E. R. Shepard 191,079
Nuts, making, S. S. Townsend 191,200
Oil can, J. Graves 191,047
Oil can spout, H. C. Campbell 191,000
Oil still, S. Van Syckel 191,204
Oven and oven door, W. C. Davis 191,119
Padlock, R. Thompson 191,195
Paint composition, C. Brown 190,953
Paper box, L. B. Plimpton 190,980
Paper box, L. B. Plimpton 190,981
Pasteboard blanks, cutting, A. Chase 191,112
Pavement, wood, H. M. Stow 191,194
Pen, E. S. Johnson 191,154
Pipe joint, A. W. Foster, Jr 190,965
Pitman, O. Cooley 191,116
Pitman box, E. M. Krum 191,159
Plow, J. D. Bowen 191,022
Potato digger, D. M. Kink 190,971
Propeller guard, A. Marschall 191,007
Pump, J. F. & W. W. Furnas 191,044
Pump piston, J. M. Springer 191,188
Punching metal, A. Robertson 191,074
Radiator, steam, R. L. Kernochan 191,156
Radiators, air box for, G. W. Blake 190,950
Railway switch, C. L. Cooke (r) 7,690
Railway signal, circuit closer, H. N. Rowell 191,076
Refrigerator lining, G. H. Levis 191,973
Respiratory brace, G. F. French 191,042
Revolving firearm, C. H. Richardson 191,178
Rolling bars, etc., I. Reese 190,983
Roofing material, C. M. Warren 191,208
Running gear, M. Atwood 191,017
Sash holder, L. R. Withell 191,215
Saw, circular, E. W. Tilton 191,198
Saw, jig, L. T. Stanley 191,189
Saws, sharpening, etc., S. Whitesides 191,212
Sawing shingles, T. H. Delaney 191,034
Sawing staves, A. Knipper 191,158
Seed planter, Bryant & Partridge 191,104
Sewing needles, straightening, Thompson et al. 191,085
Sewing shuttle lever, R. H. St. John 191,193
Sewing machine stop, H. D. Baker 190,948
Sheet metal can machine, G. H. Perkins 191,172
Sheet metal, seaming, J. F. Starr, Jr 190,987
Shelves, supporting, F. G. Johnson 191,108
Shutter worker, Buttler & Zweidinger 191,055
Shutter worker, M. M. Zellers 190,996
Signal light, floating, R. Pintsch 190,979
Sky light lifter and lock, J. F. Wollensak 191,088
Slate frame attachment, K. F. Meyer 191,009
Soldering apparatus, S. Uhlich 191,202
Spark arrester, I. B. Smith 191,187
Spoon and fork, L. S. White (r) 7,699
Steam generator, J. & G. Firmenich 191,004
Steering, surge reliever for, R. M. Mountfort 191,070
Stone, drilling, F. Johnson 191,057
Stove pipe thimble, Selden et al. 190,986
Stove polish, J. W. Hill 190,968
Straw cutter, T. E. Marable 191,008
Street sweeper, N. Campbell 190,956
Sucker rod, L. Rogers 190,180
Sugar liquor, saving, F. O. Matthiessen 191,163
Suspenders, A. Shenfield 191,184, 191,185
Syringe case, B. F. Sutton 191,083
Tablets, etc., making, H. Pfeil 191,174
Tag, E. Culver 191,117
Tamping tool, I. W. Mead 191,164
Telegraph, chemical, C. A. Randall 191,176
Telegraph system, T. M. Foote 191,130
Thill loop or supporter, T. Eaton, Jr. 190,963
Tires, etc., bending, L. W. Tyler 191,201
Tobacco cutter, J. Farrar 191,126
Tobacco pipe, B. Lorillard (r) 7,693
Tobacco pipes, moulding clay, J. G. Oliver 190,977
Tool handle, L. H. Roberts 191,073
Toy money box, E. J. McLoughlin 191,065
Toy pistol, C. A. Bailey 191,094
Toy skating rink, S. E. Bachmann 191,092
Toy, trundle, H. P. Pfum 190,978
Traveling bag, S. R. Raffel 191,175
Type writer, P. Deming 191,120
Valve, safety, F. B. Scovell 191,078
Vehicle spring, F. W. Faber 191,040
Vehicle spring, H. L. Isham 191,150
Velocipede, E. L. Hornig 191,145
Ventilator, C. J. Darling 191,033
Ventilator for grain, H. Y. Cahill 190,955
Wagon step, platform, C. Conderman 191,030
Water meter, J. H. Connell 191,031
Water wheel, W. T. Keaser 190,970
Windmill, J. Nesbitt 191,168
Window cornice, S. Sargeant 191,077
Window screen, J. C. Walker 191,206
Wire cutter, J. Johnson 191,153
Wrench, H. Davis 190,959
Wrench, J. P. Mitchell 191,010

DESIGNS PATENTED.

- 9,992.—TYPES.—W. F. Captain, Chicago, Ill.
9,993.—CLOCK FRAME, ETC.—H. J. Davies, Brooklyn, N. Y.
9,994 to 9,997.—CARPETS.—J. Hamer, Dutchess Co., N. Y.
9,998.—RUGS.—J. Hamer, Dutchess county, N. Y.
9,999.—CARPETS.—J. Hamer, Dutchess Co., N. Y.
10,000.—PUMPS.—O. Heingke, New York city.
10,001.—SHOES.—G. W. Meader, Woonsocket, R. I.
10,002.—CARPETS.—J. Neil, New York city.
10,003.—LACE FABRIC.—J. Robinson, Brooklyn, N. Y.
10,004.—CARD RACKS.—P. Rosenbach, New York city.
10,005.—CARPET.—T. J. Stearns, Boston, Mass.
10,006.—DIRECTORY BOARDS.—W. H. Thackeray, Pittsburgh, Pa.
10,007.—METAL BOXES.—W. Wilkinson, Phila., Pa.
10,008.—CASTERS.—A. H. Wirz, Philadelphia, Pa.
[A copy of any one of the above patents may be had by remitting one dollar to MUNN & Co., 37 Park Row, New York city.]