

of iron. No. 8 is oxide of manganese, containing carbonate of lime.—J. E. G.—It is actinolite, a silicate of magnesia and lime with a small percentage of the oxides of iron and manganese. It is not valuable as an ore.—J. C. B.—It is a compact slate, containing a considerable amount of iron pyrites; this has been converted by exposure to the weather to a white incrustation of sulphate of iron, which is soluble and gives the disagreeable taste. No. 2 is a fine sand rock containing some alumina.—B. S.—The specimen of granite sent has a fine color, is tough, and would come into use for the purposes to which red granite are applied.—H. L. A. C.—The red mineral is red ochre, or sesquioxide of iron; the crystals in the cavities are quartz, which have occupied the place of crystals of another species; the other mineral, glassy but softer than quartz, is sulphate of barytes or heavy spar.—J. C. B. T.—It is sulphide of lead, or galena.

E. J. B. asks: What will cure blindness in chickens? The disease, which is contagious, consists in a sort of yellow scum growing over the sight of the eye, and comes, I have been told, from overfeeding with corn.—D. G. asks: How can I prepare small blocks of wood so that they will not expand when exposed to the action of steam, nor contract when exposed to the atmosphere of 100° Fah.?—H. B. asks: Does the hair grow after death? If so, why?—W. says: A cast iron ball 18 inches outside diameter, cored out to 12 inches, leaving a shell 3 inches thick, with one hole 1½ inches in diameter through the shell, lay in such position that it filled with water. The water froze, and with a loud report the ball was torn in three pieces. How many tons pressure did it take to tear asunder the ball, and why did it give a report in bursting?—W. J. B. asks: What is the best method of grinding leger blades for shearing woolen cloth?

#### COMMUNICATIONS RECEIVED.

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

- On Propelling Yachts. By H. W. H.
- On the Birth Rate. By F. Y. A.
- On the Fish-Jointed Rail. By F. A. B.
- On an Ore-Roasting Furnace. By E. H.
- On Talking Ants. By J. S.
- On Rifle Projectiles. By J. M.
- On Spiritualism. By F. H. R.
- On an Invisible Gas Lighter. By E.
- On Telegraph Alphabets. By J. W. C.
- On the Sagacity of the Partridge. By J. K.
- On Mathematical Problems. By A. E. O.
- On Perpetual Motion. By J. W.
- On Small Steam Engines. By E. W.
- On Engine Valves. By L. F.
- On Pneumatic Transmission. By S. P. D.
- On Balloons. By W. A. W.
- On the Drive Wheel of a Locomotive. By J. A. R.
- Also enquiries and answers from the following:
- F. A. R.—H.—G. C.—J. W. C.—J. N. N.—A. M. C.—J. C.—J. E. B.—W. J. D.—G. A. B.—J. V. M.—R. D. C.—M. F. R.—P. P. J.—T. F. & Co.—F. A. G.—R. W. G.—C. T. E.

#### 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 enquiries analogous to the following are sent: "Who sells dollar steam engines? Who makes pens for ruling machines? Who sells sextants and quadrants? Who makes endless chain? Who makes a machine for cutting dough into pieces of similar weight? Who sells hemispherical anemometers? Who makes blowers suitable for furnaces for melting iron? Who sells nitroglycerine? Who sells stereotyping appliances? Who sells materials for decalcomanie, vitrination, and diaphanies?" 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

February 23, 1875,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

Animal hopple, J. D. Wilson	160,181
Battery, earth, J. C. Bryan	160,152
Battery for boilers, J. F. Donoghue	160,009
Bed bottom, H. S. Hale	160,185
Bells to shafts, attaching, A. A. Bevin	160,146
Blanket and pantaloons, horse, C. Franke	160,012
Blind stop, W. A. Clark	160,051
Boiler, wash, J. B. Camyre	160,158
Boiler scale compound, J. H. Pitts	160,030
Book holder, A. L. Wilson	160,014
Boom, sheer, H. Anderson	160,070
Boot, etc., sole, H. E. Van Benshoven	160,042
Box machine and box, J. W. & C. M. Hyatt	160,199
Box, spice, J. E. Camp	160,157
Braiding machine, F. W. Huppelsberg	160,198
Brake machinery, C. Kahler	160,202

Breweries, cooling floor for, A. Brandt	160,077
Brush attachment, fly, G. S. Beekman	160,141
Brush for grain cleaners, G. E. Throop	160,243
Brush, shoe, I. & J. A. Joseph	160,184
Bustle, R. Biering	160,048
Butter worker, J. L. Englehart	160,089
Buttons, etc., attaching, D. Heaton	160,056
Caoutchouc screw mold, G. H. Roberts	160,235
Car axle, railway, S. L. Harrison	160,095
Car brake, C. C. Clark	160,033
Car brake, Hiner & Fessler	160,190
Car coupling, A. H. Clark	160,080
Car coupling, J. M. Clem	160,162
Car coupling, W. Cline, Jr.	160,006
Car coupling, H. T. Lovell	160,057
Car coupling, H. Meriam	160,025
Car coupling, J. West	160,133
Car, dumping, R. Roberts	160,122
Car lamp, Hicks & Smith	160,097
Car, passenger, I. Bridgeman	160,079
Carriages, jump seat for, N. Starkey	160,086
Cartridge loading implement, B. Burton	160,046
Casting bobbins, machine for, M. D'mock	160,008
Chain link and chain, S. D. Locke	160,107
Chair, tilting, D. E. Teal (r)	6,309
Chimney top, H. Becker	160,074
Churn, D. C. Bailey	160,139
Clock-operated horse crib, Gribbin & McMillan	160,092
Clothes frame, P. Cameron	160,156
Clothes frame, J. H. Chadwick	160,160
Clothes frame, A. Wright	160,046
Coal hod, G. Seyfang	160,035
Coat shaper, E. B. Vieta	160,246
Cooking stirrer, F. M. Roush	160,083
Cors, clamp for anchoring, L. E. Roberts	160,061
Corn cutter, green, W. J. Potter	160,119
Corn sheller, T. J. Hoover	160,193
Corpse-preserving casket, B. Hartwell	160,186
Cotton scraper, etc., W. H. McClaugherty	160,111
Cultivator, J. Behel	160,142
Cultivator, Lawrence & Thomas	160,210
Cutlery die, W. H. Miller	160,059
Dasher flap fastener, J. A. Kincaid	160,026
Dish drainer, J. A. Fox	160,176
Elevator, C. H. Guiles	160,183
Elevator, ice, X. Wittner	160,250
Elevators, dumping gage for, J. McCulloch	160,112
Embroidery stamping, J. McGavin	160,113
Engine, steam, J. W. Middleton	160,218
Engines, portable, J. W. Hill	160,189
Faucet, beer, M. J. Sullivan	160,242
Faucet, measuring, L. L. Dennick	160,035
Fertilizing compound, C. H. Hoffmann	160,191
Fire arm, revolving, F. W. Hood	160,192
Fire escape for safes, Hackett & Crounse	160,184
Fire extinguisher, G. E. Barker	160,072
Fire kindler, B. S. Harrington	160,054
Flat iron heater, E. D. Dudley	160,011
Floors for passage of pipes, W. H. Gedney	160,014
Floral decorations, body for, C. A. Warren	160,247
Flue cleaner, Kees & Schmid	160,203
Fuel, compound for gas, C. Jentz	160,201
Funnel, measuring, I. W. Hoagland	160,017
Furnace, hydrocarbon, H. Napier	160,027
Furnace, metallurgical, B. Bayliss	160,140
Furnace fire chamber, H. H. Gilmore	160,180
Gam board, M. Biedinger	160,234
Garden sprinkler, P. Muller	160,220
Gas engine, P. Vera	160,180
Gas from hydrocarbon, H. S. Maxim	160,216
Gas fuel, compound for, C. Jentz	160,201
Gas in water, absorbing ammonia, J. M. Beath	139,993
Gas lighting apparatus, Potter & Thomas	160,228
Gas meter, J. Radston	160,031
Gearing, H. L. Gordon	160,181
Generator for cooking, etc., steam, W. Cooper	160,165
Grain cleaners, brush for, G. E. Throop	160,243
Grain dryer, J. B. Wheeler (r)	6,307
Gun carriage, N. E. Johnson	160,100
Gunpowder, manufacturer of, E. Greene	160,033
Harvester reel, G. G. Read	160,001
Hat brim, curling, A. Freshfield	160,051
Hay loader, F. Marion	160,03
Heater, feed water, H. S. Maxim	160,215
Holst, hydraulic, H. Richmann	160,222
Hoisting machine, H. Richmann	160,233
Horse blanket and pantaloons, C. Franke	160,012
Horse power, E. J. & J. W. Hoyle	160,098
Horses, hitching, E. Ohm	160,223
Horses, interfering boot for, A. D. Westbrook	160,248
Horseshoe, S. B. Henry	160,188
Horseshoe magnets, bending, J. C. Bryan	160,155
Horseshoes, making, W. Horsfall	160,193
Hose, engine, T. L. Pierce	160,226
Hubs to axles, attaching, D. Dalzell	160,007
Indexing books, F. R. Alderman	160,137
Inkstand, S. Darling	160,171
Kiln and furnace, drying, Cawthon & Conner	160,004
Ladder, firemen's, P. P. Carnes	160,081
Lamp, A. Albertson	160,069
Camp, car, Hicks & Smith	160,097
Lantern extinguisher, J. W. Waterman	160,067
Land pulverizer, A. Underwood	160,129
Landau, C. Thomas	160,039
Leather straps, etc., finishing, S. B. Randall	160,231
Lightning rods, J. C. Bryan	160,151
Loom, Davis & Stone	160,084
Loom, W. V. Gee (r)	6,301
Loom shuttle, F. Blanding	160,001
Lounge, adjustable reclining, E. Bartels	160,073
Lumber carrier, Pinney & Hasty	160,029
Magnet, electro, M. A. Rice	160,120
Main springs to arbors, attaching, W. C. Maynard	160,109
Meat and vegetable slicer, J. W. Murkland	160,221
Meat chopper, J. Perkins	160,223
Metal plates, pickling, Gething et al.	160,178
Metal, turning tool for, W. Clay	160,161
Milk safe, J. F. Pool	160,227
Miter machine, D. A. Fisher	160,090
Molding machine, A. Miller	160,114
Mower lawn, E. E. Passmore (r)	6,305
Musical mouthpiece, C. G. Conn	160,164
Musical strings, Farmer & Ballie	160,173
Neck tie shield, R. R. Parker	160,117
Needle blanks, turning, E. Sauter	160,238
Nut lock, B. B. Snyder, Jr.	160,241
Nut machine, W. Horsfall	160,194
Ordnance, breech-loading, N. E. Johnson	160,101
Ordnance, projectile for, C. Arrick	160,071
Ore separator, B. Tyson	160,041
Organ case, J. R. Lomas	160,213
Organ, reed, L. K. Fuller	160,052
Paints, gloss compound for, J. B. Tascoff	160,038
Paper box, E. D. F. Shelton	160,239
Paper, etc., protecting rolls of, J. L. Firm	160,175
Paper perforating machine, R. Hemingray	160,016
Pavement, Filbert and Hoffman	160,174
Plane, G. L. Weaver	160,132
Planter row check, G. D. Haworth	160,055
Plow, Dugdale and Breed	160,086
Plow, A. Hanpe	160,094
Plow carriage, D. W. Raiston	160,230
Plow, gang, J. B. Hunter	160,099
Pocket book, C. Strauss	160,126
Poker and tongs, combined, I. J. Conklin	160,006
Pot lid, A. E. Colgrave	160,163
Press, T. J. Jenne	160,200
Press, horizontal hay and cotton, Bennett et al.	160,143
Press, lever, W. O. Watson	160,131
Printing surface, Friedlaender and Moeller	160,177
Propellers, blade for screw, J. H. Loftus	160,212
Pruning implement, W. H. Johnson	160,103
Pruning shears, W. H. Johnson	160,102
Pump, double, submerged, Hartwick and Marx	160,096
Pump, force, L. J. Knowles	160,207
Pump sucker, J. M. Springer	160,065
Pump air chamber, etc., L. J. Knowles	160,206
Pump bucket for chain, D. F. Stow	160,125
Purifier, flour and middlings, G. W. Brown	160,180
Railway crossing, gate for, S. Cox	160,166