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 the following week's issue

For mining engines. J. S. Mundy, Newark, N. J.

"U. S." metal polish. Indianapolis. Samples free.

Stave machinery. Trevor Mfg. Co., Lockport, N. Y.

Edmonds' Automatic Oil Burner, Bradford, Pa. Circulars free.

Fruit stoner patent for sale. See illus. notice page 357. Joseph Boeri, 626 5th Avenue, N. Y., basement.

Bookbinding.—All classes of work. Magazines a specialty. Haddon & Co., 139 Center St., New York.

Microbe Killer Water Filter, McConnell Filter Co., Buffalo, N. Y.

Distance Reading Thermometers.—See illus. advertisement, page 319. Ward & Doron, Rochester, N. Y.

Steam Hammers, Improved Hydraulic Jacks, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Cheapest Water Power.—See top of 1st column, page 170. Also top of 2d column, page 239. Look, it will pay.

Screw machines, milling machines, and drill presses. The Garvin Mach. Co., Laight and Canal Sts., New York.

Centrifugal Pumps. Capacity, 100 to 40,000 gals. per minute. All sizes in stock. Irvin Van Wie, Syracuse, N. Y.

Inventors wishing to bring their inventions to the public notice should confer with H. Pittock, Room 61, 1 Beacon St., Boston, Mass.

Guild & Garrison, Brooklyn, N. Y., manufacture steam pumps, vacuum pumps, vacuum apparatus, air pumps, acid blowers, filter press pumps, etc.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, $4; Munn & Co., publishers, 361 Broadway, N. Y.

For the original Bogardus Universal Eccentric Mill, Foot and Power Presses, Drills, Shears, etc., address J. S. & G. F. Simpson, 26 to 36 Rodney St., Brooklyn, N. Y.

Patent Electric Vise. What is claimed, is time saving. No turning of handle to bring jaws to the work, simply one sliding movement. Capital Mach. Tool Co., Auburn, N. Y.

Patent for Sale.—Newly patented machine for cutting toothpicks, match sticks, kindling wood, etc., from veneer. Nine millions per hour. J. Powers, 45 Varet St., Brooklyn, E. D., N. Y.

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Notes & Queries

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 This is for our information and not for publication.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 a 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.

(6063) M. L. R. asks: 1. Should it be made a point, when putting wire in a house for a telephone, to keep it away from the roof? How near may it come without danger? A. No special care need be taken. A foot or two is ample distance. 2. Please explain the phenomenon caused by striking sugar with a piece of metal, when a flash of bluish light may be seen. A. It is phosphorescence due to mechanical and electrical disturbance of the molecules.

(6064) W. G. M. asks: 1. Can I connect a small sewing machine motor on to electric wire in place of an incandescent lamp? A. Not unless wound for the potential of the circuit. 2. Will the telephone spoken of in query No. 5985 of April 28, 1894, operate successfully in a city among electric wires, and for how long a distance could it be used? A. It will work fairly well up to a distance of several miles. 3. Two palm leaf fans connected to an arm five feet long, suspended from the ceiling, make a three foot stroke and thirty strokes each way per minute. How heavy a weight attached to clockwork, and falling eight feet, will be required to operate the fan continuously for eight hours? A. It would require several tons weight.

(6065) A. F. W. writes: 1. I have removed the copper plating from electric light carbons by placing them in the fire for three-quarters or a half an hour. I have then used them for a bichromate battery. A. We are glad to give our readers this suggestion. 2. In a Brush lamp are there two arcs or one? A. One arc. 3. How often do the carbons have to be renewed? A. Every day. 4. Do you know of any book that tells fully how to do sleight of hand tricks? A. We can supply the following books: "Sleight of Hand," by Sachs, London, price $3; "Modern Magic," by Professor Hoffman, price $2.50; "Art of Modern Conjuring," price $1.50, mailed.

(6066) G. L. C. asks: How much will it take of ammonia at 26° Baume to neutralize 1 ounce of tartaric acid (crystal). A. For 1 part tartaric acid 0·69 of ammonia solution is needed, all parts by weight.

(6067) C. B. S. asks: 1. What kind of wood would be best to burn for potash manure? A. Elm and vine. 2. Would the ashes from pine wood sawdust be good? A. They are very poor. 3. How is sulphate of potash made? A. By neutralizing the carbonate with sulphuric acid, evaporating and crystallizing. 4. Will you name a good book on the above subject? A. We can supply "Chemistry of Acids, Alkalies, and Salts," by Richardson & Watts, 3 large volumes, price $20. Also Wagner's "Chemical Technology," price $7.50.

(6068) F. A. asks: I have dynamo No. 600. The armature is wound with No. 18 B. & S. wire. Can I wind fields to generate a current to light six or eight 16 candle power 110 volt lamps, and if so, how much of what size wire? A. The armature will need rewinding, as well as the field, for change of voltage. No. 18 wire is too large.

(6069) F. R. B. asks: Would an incandescent lamp that requires ½ ampere of current on a 110 volt circuit have 220 ohms of resistance? If so, would the candle power be about 16? A. Yes.

(6070) J. O. L. asks: Will you inform me how to make copper wire flexible? A. If you mean to make copper wire springy, it can be done by drawing from a larger size and not annealing.

TO INVENTORS.

An experience of forty-four years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequaled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broadway, New York.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

May 29, 1894,

AND EACH BEARING THAT DATE.

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

Acid proof composition, J. A. Just 520,600
Advertising wagon, J. N. Russell 520,541
Air compressor, Birner & Messing 520,405
Alumina, making porous sulphate of, J. Enequist 520,416
Arm rest for writing purposes, movable, J. W. Shea 520,711
Asphalt heating and mixing machine, R. Butcher 520,560
Auger, hollow, J. Swan 520,502
Awning attachment, R. Bowles 520,556
Ax, J. P. Kelly 520,738
Axle lubricator, G. W. Pero 520,450
Ballot box, registering, L. M. Foster 520,482
Banjo mute, H. E. Le Valley 520,439
Barrel by recoil of first, inertia piece, releasing second, A. Burgess 520,559
Bars or rods, machine for drawing, Haas & Dutton 520,592
Battery. See Electric battery.
Battery element, secondary, Rosenthal & Doubleday 520,614
Bearings, dust guard for pedal, H. M. Pope 520,537
Bed, invalid, J. B. Scearce 520,576
Bed joint, folding, C. Bostad 520,751
Bed, sofa, A. F. Conant 520,635
Bedstead, W. Goodliffe 520,733
Belt tightener, C. C. Stuart 520,580
Berth raising or lowering mechanism, G. H. Poor 520,760
Bicycle, W. A. Courtland 520,728
Billiard games, apparatus for one ball, G. Gschwendtner 520,423
Board. See Talking board.
Boiler. See Steam boiler. Wash boiler.
Boiler and furnace, R. Muller 520,569
Boiler front angle plate, G. Fox 520,674
Book holder, A. A. Ambler 520,627
Book stapling machine, E. T. Greenfield 520,734
Boot or shoe nailing machine, F. D. Locke 520,437
Bouquet holder, A. Mente 520,650
Box. See Ballot box. Cock box.
Box pile, A. H. Moore 520,487
Bracket. See Shade bracket.
Bracket, W. D. Gridley 520,564
Braiding machine spool holder, W. Mundt 520,655
Branding iron, J. L. Torrey 520,503
Brick presses, sectional mould for, P. L. Simpson 520,455
Broom, corn, J. L. Stevenson 520,546
Broom corn, machine for removing stems from, P. Lamboy 520,568
Brush, A. E. Magoris 520,740
Brush, cleansing, G. W. Park 520,449
Brush, tooth, O. F. Hager 520,593
Buckle, C. A. Conger 520,588
Buff wheel, W. T. Reylman 520,679
Buffing wheel, T. J. Cleary 520,516
Building, fireproof, M. F. McCarthy 520,489
Burner. See Gas burner.
Butter, preserving or renovating, W. N. Blakeman, Jr 520,513
Button, C. E. Stowe 520,621
Button riveting machine, F. A. Ryno 520,451
Calipers, watchmaker's, A. F. Brockway 520,558
Cambering machine, H. C. Ryding 520,708
Camera shutter, W. J. McCollom 520,696
Can. See Oil can.
Can filling machine, J. W. Kales 520,683
Cane transferring device, sugar, C. D. Armstrong 520,720
Car buffer, W. F. Richards ..... 520,573 to 520,575
Car coupling, E. W. Kelley 520,601
Car coupling, W. S. Miller 520,443
Car fender, railway, J. W. Madden 520,739
Car lighting or heating system, C. R. Arnold 520,403
Car standard, A. Johnson 520,454
Carpet stretcher, W. Hover 520,736
Carriage, W. M. Ward 520,746
Carriage, baby, O. Thielemann 520,622
Carriage top, J. P. Johnson 520,433
Cash register and indicator, L. Ehrlich 520,672
Cattle guard, electric, D. H. Wilson 520,510
Chair. See Surgical chair.
Chuck, drill grinding machine, J. S. Baucroft 520,749
Churn, J. P. Bolding 520,724
Churn, G. W. Crabb 520,561
Churn attachment, J. M. Hughes 520,566
Cigar lighter, electric, D. Misell 520,445
Cigar tip cutter, A. P. Thompson 520,461
Cigarette making machine, H. F. M. Lemaire 520,580
Circuit closer, G. W. Hey 520,427
Cleaner. See Comb cleaner. Grain cleaner.
Clip, F. C. Atherton 520,553
Clock case, A. Bannatyne 520,628
Clock, electrically illuminated, D. Misell 520,446
Clock striking mechanism, electric, C. D. Warner 520,585
Cloth cutting machine, P. Howe 520,598
Clothes drier, E. S. Sutton 520,501
Clutch, E. L. Jones 520,528
Clutch, McMahon & Carver 520,447
Clutch, rope, D. W. Orcutt 520,570
Coal separator, W. H. Herring 520,524
Cock box, stop, T. J. Ryan 520,542
Coin discharging and delivering device, P. G. Wagner 520,623
Collar, horse, P. K. Coover 520,415
Comb cleaner, H. Fisher 520,711
Comb cleaner, G. W. Richardson 520,613
Cooking device, steam, G. Yinger 520,470
Cork compressor, Wile & La Casse 520,625
Cork cutting machine, F. C. Truslow 520,744
Cork feeder, Wile & La Casse 520,550
Cork shell cutting machine, A. L. Mitchell 520,605
Coupling. See Car coupling. Pipe coupling.
Crane, charging, T. R., Sr., & W. H. Morgan 520,488
Crib, folding, S. C. Neal 520,699
Cuff blank turning machine, G. E. Norris 520,535
Cuff holder, W. W. Anderson 520,552
Current motor, alternating, W. Stanley, Jr 520,620
Curtain rod, adjustable, W. A. Turner 520,584
Curtains, etc., adjustable rack for stretching lace, C. L. Kuehn 520,690
Cut-off, rain water, W. C. Hillike 520,484
Cutter. See Cigar tip cutter.
Cutter heads, power attachment for side, C. C. Stuart 520,581
Cycle driving mechanism, F. L. Eager 520,638
Damper, W. E. Patchin 520,495
Dating and stamp canceling machine, J. J. B. McElrath 520,698
Derrick, floating, T. T. H. Harwood 520,676
Desk and seat, school, A. J. Palmberg 520,702
Desk support and hinge, combined, F. W. Tobey 520,492
Disinfecting apparatus, R. A. Rosenblatt 520,540
Distilling water, method of and apparatus for, Hodges & Havenstrite 520,525
Door check, T. Curley 520,637
Door lock, sliding, A. Dillenback 520,415
Dress goods rack, R. C. Parsons 520,494
Drier. See Clothes drier.
Drill. See Rock drill.
Eggs, compound for and method of preserving, F. M. Underwood 520,549
Electric battery, S. H. Hoggson 520,429
Electric motors, operating, J. S. Bancroft 520,748
Electrode, therapeutic, W. B. Farrar 520,673
Elevator, J. H. Clark 520,755
Elevator, W. H. McCoy 520,697
Engine. See Rotary engine. Steam engine.
Engine steering gear, traction, C. W. Kramer 520,688
Evaporating apparatus, A. P. Lent 520,438
Excelsior machine, T. M. Shark 520,618
Eyelet, E. L. Dapke 520,588
Fats from animal or vegetable substances, extracting, A. Schweizer 520,743
Feed rolls, device for weighting, C. C. Stuart 520,582
Fence machine, wire and picket, G. E. Simmons 520,544
Fence post, E. J. McCullough 520,656
Fence wire, machine for stretching or removing, W. M. Barger 520,475
Fender. See Car fender. Pen fender.
Filling device, automatic, A. E. Briggs 520,557
Fire alarm apparatus, F. J. Thunhorst 520,547
Firearm, recoil-operated, A. Burgess 520,752
Fire pail, F. B. Comins 520,727
Fireproof structure, M. F. McCarthy 520,490
Fish line reel, C. B. Corbin 520,517
Fish line reel, N. H. McGregor 520,607
Floor ceiling, etc., fireproof, M. F. McCarthy 520,492
Floors, etc., construction of fireproof, M. F. McCarthy 520,491
Flypaper, sticky, O. & W. Thum 520,715
Food for horses, preparing, H. B. Kaiserstein 520,682
Food products from cereals, machine for the manufacture of, H. D. Perky 520,496
Furnace. See Gas furnace.
Furnace, J. W. Wilkinson 520,551
Furnace door, L. Duffner 520,730
Furnaces, wind jacket for blast, Walker & Murphy 520,719
Gauge. See Weatherboard gauge.
Garment fastener, E. S. Smith 520,545
Gas burner, H. Epprecht 520,521
Gas furnace, G. Axdorfer 520,404
Gas making apparatus, W. A. Koneman 520,687
Gas service pipes, condenser and drip for, A. H. Gindele 520,675
Gate. See Railway train gate.
Gate, J. H. Morris 520,533
Gate, J. B. Van Nada 520,717
Gear, reversing, G. W. King 520,647
Grain binder, A. Stark 520,458
Grain binder tension device, Whitcomb & Wotring 520,624
Grain cleaner, C. J. Mober 520,653
Grain meter, H. P. Dennis 520,518
Grain separator, J. H. Creter 520,729
Grave or lot markers, machine for making, M. B. & F. J. Misbler 520,652
Grinding machine, Benham & Barlow 520,665
Gun, recoil-operated magazine, A. Burgess 520,753
Hame link, J. Stanley 520,457
Hat fastener, J. J. Riordan, Jr 520,609
Hat rack, C. E. Cochrane 520,634
Hay rake and loader, Bell & Stewart 520,422
Head rest, A. Schwaab, Jr 520,577
Heater and table, E. M. Burchard 520,632
Heaters, cast iron conduit for steam or hot water, C. J. Balthasar 520,747
Heating apparatus, hot water, A. T. Henderson 520,677
Heel, A. P. Gotham 520,522
Hinge, J. J. Berry 520,629
Hitching device, horse, J. W. McHenry 520,608
Hoisting machine, L. Hamerly 520,426
Holdback, W. Rice 520,612
Hook. See Mousing hook.
Hook, J. M. Reid 520,539
Horseshoe, nailless, G. Burgstaller 520,409
Humidifying fibrous substances, means and apparatus for, J. T. Pearson 520,703
Insulator, C. E. Conover 520,412
Insulator, H. H. Luscomb 520,602
Insulator, L. McCarthy 520,606
Iron. See Sad iron.
Iron, apparatus for breaking pig, J. S. Kennedy 520,685
Kiln, F. Halbeisen 520,641
Kitchen cabinet, M. S. Thomas 520,488
Knitting machine, L. E. Salisbury 520,452
Knob attachment, T. E. Wardwell 520,508
Lamp shade, Knight & Smith 520,649
Lamp, oil regulator for continuously-fed, H. S. Pullman 520,611
Lantern, bicycle signal, F. Rhind 520,658, 520,659
Leather scoring machine, J. R. Scott 520,709
Legged articles, construction of, W. J. Humphreys 520,432
Liquid distributor, automatic, P. Leoni 520,531
Lock. See Door lock.
Locomotive attachment, J. R. Rutherford 520,615
Loom for weaving bordered fabrics, Goss & Varley 520,421
Loom lease rods, A. Minney 520,444
Loom let-off mechanism, J. H. Mayer 520,603
Lubricator. See Axle lubricator.
Matrix drying apparatus, R. H. Healey 520,642
Measuring machine, cloth, J. H. Vanderburgh 520,463
Mechanical movement, S. F. Alberger 520,626
Meter. See Grain meter.
Milling machine, V. W. Mason, Jr 520,486
Mirror adjusting device, Tobey & Tower 520,548
Motor. See Current motor. Pump motor.
Mousing hook, self, C. H. Biggs 520,721
Mowing machine, J. H. Jones 520,646
Mud and oil trap and water purifier, Day & Hunter 520,670
Net frame, landing, G. Kamp 520,567
Nipple wrench, A. Dudly 520,562
Nut lock, J. J. Bentley 520,512
Nut lock, H. J. Van Nest 520,718
Oil can, C. S. Upton 520,505
Oil or oils with another material, etc., mechanically compounding, J. F. Newell 520,493
Orange sorting machine, E. N. Maull 520,440
Ore roaster, O. W. Davis, Jr 520,481
Packing for rock drill pistons, H. M. Osborn 520,448
Paper bags, making, E. E. Claussen 520,587
Pattern tracing and cutting machine, C. E. Reed 520,500
Pen fender, B. F. Smith 520,683
Pencil sharpener and eraser, combined, H. Fisher 520,732
Photography, reproducing objects in relief or intaglio by the aid of, M. Russo 520,707
Pianoforte action, T. Cabill 520,667
Piano stringing machine, F. W. Hedgeland 520,595
Picture hanging device, H. Redmond 520,706
Pin. See Scarf pin.
Pins, bolts, and rivets, tool for making, P. J. Conroy 520,636
Pipe. See Tobacco pipe.
Pipe coupling, A. Bryant 520,514
Pipe wrench, chain, Streeter & Mosher 520,712
Pistol, magazine, Blachon & Minard 520,666
Placer machine, dry, Walmsley & Wright 520,745
Planing machines, adjustable bearing for upper feed rolls of, J. R. Thomas 520,714
Planter, corn, B. F. Darby 520,669
Planter, hand, J. Chadwell 520,726
Plow, wheeled, J. H. Jones 520,645
Pneumatic tired wheel, W. Turner 520,504
Pneumatic transmitter or store service, Yale & Ames 520,664
Pocketbook holder, F. Holzhauer 520,431
Pocketbooks, etc., corner or frame for, L. B. Prahar 520,705
Polishing or buffing wheel, T. J. Clerry 520,515
Post. See Fence post.
Propeller, O. B. Genty 520,563
Pulping and grinding machine, G. Hibbert 520,680
Pulverizer and planter, combined, E. Showell 520,454
Pump, hydraulic air, E. H. Weatherhead 520,466
Pump motor, electric, J. F. Blake 520,722
Pump rods, grip for polished, M. Turton 520,716
Rack. See Dress goods rack. Hat rack.
Railway, cable, C. W. Hunt 520,644
Railway chair, A. F. Naylor 520,534
Railway danger signal, pyrotechnic, Fox & Yates 520,639
Railway fog signal apparatus, J. G. Dixon 520,671
Railway rail chairs, making, A. J. Moxham 520,654
Railway rail joint, Hall & Baker 520,425
Railway safety system, W. H. Elkins 520,520
Railway signal, electric, Selden & Riley 520,661, 520,710
Railway track structure, J. H. White 520,469
Railway train gate, J. Wayland 520,464
Railway trolley, conduit, W. Lawrence 520,735
Railway turntable, electric, R. M. Hunter 520,527
Rake. See Hay rake.
Rakes and loaders with wagons, device for connecting hay, M. Mann 520,532
Reel. See Fish line reel.
Refrigerator, L. B. McClanathan 520,695
Refrigerator car, Miller & Du Bois 520,442
Register. See Cash register.
Revoluble screen, D. E. Phillips 520,571
Revolver lock mechamsm, D. B. Wesson 520,468
Roaster. See Ore roaster.
Rock drill, J. H. Smith 520,619
Rotary engine, A. R. Benn 520,554
Sad iron, M. V. Trube 520,583
Sash fastener, F. Burmeister 520,754
Saw, drag, J. A. Geselius 520,640
Scalpel, J. W. Jones 520,435
Scarf pin, C. C. Partridge 520,610
Scraper, road, M. G. Bunnell 520,479, 520,480
Screen. See Revoluble screen.
Screwdriver, J. J. Edwards 520,519
Sear, safety, G. A. Horne 520,596
Semaphore, J. W. Davis 520,756
Separator. See Coal separator. Grain separator. Steam separator.
Sewing machine, J. Reece 520,657
Sewing machine, shuttle-actuating mechanism, H. Moore 520,759
Shade bracket, window, Klein & French 520,648
Shaft support, vehicle, J. J. Barker 520,750
Shaping fleecy masses, machine for, E. Goldman 520,419
Shingle marker, C. Guyer 520,424
Shoe, inside, J. H. Foss 520,417
Shoestring fastener, S. E. Blake 520,555
Shutter blower, H. Zimmerman 520,471
Signal. See Railway signal. Railway fog signal.
Smelting and refining apparatus, copper, J. C. Bull 520,631
Smocking cloth, clasp for, F. S. Pinkham 520,704
Smoke consumer, F. S. Sejnoha 520,453
Smoking apparatus, mouthpiece and stem for, W. O'Brien 520,700
Soldering caps on cans, machine for, M. J. Hawkins 520,523
Soldering tool, Orr & Thomas 520,701
Spinning frame tension device, R. Atherton 520,473
Spool making machine, J. F. Wardle 520,505
Sprinklers, sprinkling head for street, W. H. Miller 520,693
Stamps, labels, etc., apparatus for affixing, E. C. Phillips 520,497
Stand, table, or analogous article, S. H. Hoggson 520,430
Stapling machine, E. T. Greenfield 520,735
Starching machine, A. Conkling 520,668
Stay, dress, F. W. Lyon 520,485
Steam boiler, W. Saur 520,742
Steam boiler, radial tube, E. S. T. Kennedy 520,684
Steam engine, J. L. Gourley 520,757
Steam engine, B. F. Sparr 520,456
Steam separator, C. J. Mellin 520,604
Stone or cement composition, artificial, C. A. Shank 520,662
Stove and lamp, oil, J. F. Place 520,499
Stove for drying matrices, F. Schreiner 520,578
Stove, gas, C. S. Upton 520,507
Stove hearth and ash box, combined, E. L. Flood 520,591
Stove, lamp, C. S. Upton 520,506
Stove, oil, J. F. Place 520,498
Stove, oil cook, C. H. Boeck 520,407
Stove, vapor heating, B. S. Koll 520,686
Surgical chair, adjustable, Shackelford & Miltonberger 520,579
Suspender cast-off, C. Bloomberg 520,723
Switch. See Tongue switch.
Switch, H. P. Ball 520,474
Switchboards, testing system for multiple, C. E. Scribner 520,543
Table for draughtsmen, etc., J. W. Bramwell 520,630
Tables, blinds, desks, etc., flexible cover for, C. S. Homer 520,526
Tag, marking, S. Dancyger 520,414
Talking board, M. Schirman 520,616
Tank. See Water closet flushing tank.
Telephone, magneto, A. F. Boardman 520,406
Telephone speaking attachment, W. Weber 520,467
Thrashing machine concave and feed board, D. W. Broatch 520,725
Tinning machine, J. Hirschmann 520,428
Tire, pneumatic, R. Hoffman 520,643
Tire, pneumatic, Pierce & Dickson 520,536
Tobacco, cooling channel for ordering, S. P. Mayo 520,441
Tobacco pipe, O. M. Jonasson 520,599
Tongue switch, A. J. Moxham 520,694
Transplanter, D. D. & F. H. Bemis 520,477
Transplanter, F. H. Bemis 520,478
Trap. See Mud and oil trap.
Trolley wire support, B. J. Jones 520,737
Trolling spoon, J. R. Harlow 520,594
Trunk, F. Lyford 520,682
Type, device for removing leads from, W. Weatherby 520,465
Typewriting machine, G. B. Webb 520,586
Unicycle, R. Hendrich 520,678
Vamps to uppers, machine for pasting, H. Fischer 520,590
Vehicle spring and axle attachment, W. Beckert 520,476
Vessel, screw-propelled, C. G. Lundborg 520,691
Voting machine, J. McTammany 520,609
Wagon, dumping, W. S. Phillips 520,572
Wash boiler, D. J. H. Davies 520,589
Washing machine, E. C. Brewer 520,408
Watch jewels, mechanism for loading, G. E. Hunter 520,681
Watch, stem winding and setting, D. H. Church 520,633
Watches, plate for stem winding, W. W. Hastings 520,483
Water closet flushing tank, Kirchner & Spears 520,436
Weatherboard gauge, T. L. Wint 520,511
Weatherboard gauge and adjuster, Abshier & Lacke 520,472
Wheel. See Buff wheel. Buffing wheel. Pneumatic tired wheel.
Wheel guard, hand, J. W. Cameron 520,410
Whistle, steam chime, H. R. Frisbie 520,418
Winding cotton web, etc., machine for, E. Goldman 520,420
Window, door, or the like, horizontally sliding, C. Summermann 520,713
Wire machine, barb, S. Swanburn 520,459
Wire twisting machine, R. Sedgwick 520,617
Wood, vulcanizing, C. Howard 520,597
Wood, vulcanizing and drying, C. Howard 520,565
Wrench. See Nipple wrench. Pipe wrench.
Wrench, T. E. Chatten 520,411
Wrench, K. A. Klose 520,529
Wrench, H. Krebs 520,689
Zither, guitar, F. Menzenhauer 520,651

TRADE MARKS.

Axes and other tools, Collins Company 24,802
Belts and wearing appliances, electric, Owen Electric Belt and Appliance Company 24,778
Books, pass, W. J. Darrow Publishing Company 24,774
Blood purifiers, J. T. Farrell 24,784
Blood purifying herb teas, Weber's Medical Tea Company 24,783
China, French, T. Haviland 24,773
Cotton goods, woven, Massachusetts Cotton Mills 24,775
Faucets, E. Stebbins Manufacturing Company 24,804
Flour, wheat, A. M. Seixas 24,793, 24,794
Hair restoratives, F. E. Bostwick 24,791
Liniment for internal and external use, E. F. Kessler 24,790
Medicinal lozenges or tablets, California Eucalyptus Company 24,789
Paints, kerosene, resin, turpentine, and lubricants, coloring and finishing, Shaw Brothers 24,792
Pile fabrics, mohair, Lister & Company 24,776
Pistols, revolving, Chicago Fire Arms Company 24,801
Plows, shovels, spades, hoes, picks, and mattocks, Collins Company 24,803
Pumps, air, Cleveland Faucet Company 24,800
Remedies for certain named diseases, Robert-Milton Manufacturing Company 24,786
Remedy for corns, J. C. Proctor 24,788
Remedy for nervous diseases, A. H. Parker & Company 24,785
Remedy for the asthma, F. E. Drumheller 24,787
Salt, dairy, Union Pacific Salt Company ..... 24,795 to 24,798
Shingles, staves, casks, and barrels, Shaw Brothers 24,799
Waterproofed cloths and garments made thereof, H. Shorey & Company 24,777
Whisky, E. Lynch 24,779
Whisky, brandy, gin, rum, and wines, M. Manning ..... 24,780 to 24,782
Wire, steel, iron, and copper, Washburn & Moen Manufacturing Company 24,805

DESIGNS.

Bowl or similar article, H. Berry ..... 23,313 to 23,315
Box, S. W. Babbitt 23,312
Clothes line holder, Hoffmann & Hoffman 23,321
Door frame, screen, W. B. Phillips 23,319
Electric wire fastening, H. Hubbell 23,322
Emery wheel dresser, A. Bender 23,323
Glass vessel, J. D. Bergen 23,316, 23,317
Spoon, C. C. Thompson 23,310
Spoons, etc., handle for, W. C. Codman 23,311
Table top, lab, J. C. Miller 23,318

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 25 cents. In ordering please state the name and number of the patent desired, and remit to Munn & Co., 361 Broadway New York.

Canadian patents may now be obtained by the inventors for any of the inventions named in the foregoing list, provided they are simple, at a cost of $40 each. If complicated the cost will be a little more. For full instructions address Munn & Co., 361 Broadway, New York. Other foreign patents may also be obtained.

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