TO INVENTORS.

An experience of forty 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

June 23, 1891,

AND EACH BEARING THAT DATE.

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

Acid, amido-naphthol-monosulphonic, L. Gans... 454,645
Adding machine, D. I. Craig... 454,715
Advertising device, W. E. Roberts... 454,769
Air compressor, E. Hill... 454,590
Animal stock, W. Stemen... 454,501
Animal trap, E. L. McClain... 454,657
Atomizer, A. H. Brown... 454,709
Automaton, walking, G. R. Moore... 454,570
Axle lubricator, car, L. J. Phelps... 454,763
Axles, process of and apparatus for making, W. J. Parmelee... 454,685
Baling press, C. Peterson... 454,495
Bit and cutter and feeder, L. Sweet... 454,505
Banjo tail piece, H. Fenton... 454,728
Bank, automatic registering, Cooley & Balzer... 454,556
Bar. See Chain bar.
Bars by electricity, method of and apparatus for heating, E. E. Angell... 454,698
Barrel forming and hooping machine, J. Pleukharp... 454,764
Barrel hooping machine, L. D. Morrison... 454,803
Barrel hooping machinery, L. Hunter... 454,800
Barrel rack or truck, J. H. Barley... 454,448
Barrel tapping device, W. Lindenmann... 454,749
Baths, hygienic seat for, M. Alter... 454,510
Battery. See Galvanic battery.
Bed and dressing case, folding, J. Speed... 454,833
Bedclothes and baby holder, combined, C. Kanzler... 454,479
Bedclothes fastener, C. E. Angell... 454,695
Bedpan, Kynett & Van Dusen... 454,826
Bicycle, F. H. S. Moynahan... 454,583
Blackboard, etc., W. N. Cuthbert... 454,597
Blacking machine, R. Nagle... 454,755
Blower, grate, J. D. Foster... 454,468
Board. See Cutting and drawing board. Dash board. Press board.
Boiler. See Steam boiler.
Boiler setting, steam, S. Runser... 454,771
Boilers, constructing the flues of Galloway, W. Sellers... 454,571
Boilers, feed apparatus for heating, J. R. Hanlon 454,733
Bolster, extension, Roberts & Pullen... 454,620
Bolt operating mechanism for safe doors, E. & H. C. Stockwell... 454,595
Boring and turning mill, W. Lewis... 454,801
Boring cutter, L. S. Wright... 454,585
Boring machine, Kopacek & Vutech... 454,654
Bottle stopper, D. C. Guiltinan... 454,731
Bottle stoppering device, Elb & Moser... 454,463
Box. See Letter box. Match box. Paper box.
Brace. See Furniture brace.
Bracket. See Shade roller bracket.
Brake. See Car baake. Vehicle brake. Wagon brake.
Broom, P. C. Newbaker... 454,757
Broom, L. C. Richardson... 454,792
Broom or brush, steel wire, S. H. Brand... 454,607
Brush, Guffin & Petrie... 454,521
Brush or swab for liquid blacking, G. S. Wolff... 454,694
Brush, rotary tooth, N. B. De Galantha... 454,644
Buckle, E. J. Neuville... 454,756
Burner. See Gas burner. Hydrocarbon burner.
Burnishing machine, C. Keck... 454,480
Cabinet, show, Sherlock & Freeman... 454,755
Calipers, J. H. Dyson... 454,569
Can. See Filling can. Sheet metal can.
Candy for shipment, packing rock, N. Palmer... 454,619
Canning device, steam, C. F. Mudge... 454,523
Car brake, F. C. Brewster... 454,452
Car brake mechanism, street, N. C. Bassett... 454,450
Car coupling, W. Bentley... 454,704
Car coupling, C. M. Carnahan... 454,711
Car coupling, W. & S. L. Christian... 454,534
Car coupling, E. P. Eastwick, Jr... 454,721 to 454,723
Car coupling, J. W. Wagner... 454,550
Car couplings, carrying iron for, T. L. McKeen... 454,754
Car house hanger, C. A. Lieb... 454,487
Car, ore, J. V. Ericson... 454,577
Car, railway life stock, J. E. Hughes... 454,822
Car trolley, electric, W. Duncan... 454,536
Cars, sanding apparatus for street, L. Lakin... 454,683
Cars, trolley for railway, E. Verstraete... 454,532
Cards, machine for cutting the edges of, C. A. Wright... 454,554
Carrier. See Trace carrier.
Cart, road, F. J. Salmon... 454,687
Cartridge loader, G. B. Jacobs... 454,578
Caster, furniture, R. G. Jordan... 454,742
Casters, door knobs, and other articles, fastening for, J. Thinnes (r)... 11,171
Chain bar, ornamental, L. Towne... 454,629
Chair. See Railway chair.
Channeling machine, F. O. Wellington... 454,631
Chart for teaching addition, A. L. Gillis... 454,729
Chimney flue draught, hot air, V. Oster... 454,492
Churn, O. Linebarger... 454,750
Churn, vibrating, L. A. Miller... 454,752
Cigar holder, W. J. Stratton... 444,889
Cigarette machine, Ludington & Pollard... 454,593
Clay grinding machine, Dry, J. Thompson... 454,780
Cloth pressing machine, H. W. Honeyman... 454,798
Clutch, electro-magnetic, Bennett & Parshall... 454,832
Coat, E. Robinson... 454,770
Coat and umbrella rack, combined, C. G. Udell... 454,507
Coin distributer, H. Kirkmeyer... 454,653
Commutators for dynamos or motors, C. A. Lieb. 454,488
Composition of matter, G. W. Melville... 454,489
Corkscrew, H. J. Ennis... 454,725
Corn or cotton stalk cutter, M. B. Banowetz... 454,617
Corset, W. W. Gould... 454,469
Coupling. See Car coupling. Hose coupling. Pipe coupling.
Coupling sleeve, J. G. Hallas... 454,648
Crozing and chamfering machine, J. Pleukharp... 454,765
Cultivator, S. H. Perry... 454,602
Curtain fixture, P. McCarthy... 454,491
Cutter. See Band cutter. Boring cutter. Corn or cotton stalk cutter. Feed cutter. Meat cutter. Veterinary incisor cutter.
Cutting and draining board, H. T. Wheeler... 454,552
Dash board, E. Walter... 454,783
Dehorner, T. A. Crowell... 454,563
Dental engine, C. W. Nutz... 454,659
Die, C. H. Langill... 454,830
Die cutting machine, C. L. Redfield... 454,567
Distilling apparatus, W. P. Swartz... 454,778
Door panels, machine for forming and polishing, Greenlee & Strom... 454,730
Draught equalizer, A. W. Hatfield *et al*... 454,734
Drawers, R. E. Hill... 454,736
Dusting engine, J. D. Pickles... 454,525
Dye, gray, A. Cobenzl... 454,535
Dynamos, belt controller for, W. A. Foote... 454,467
Earth boring machine, E. Walton... 454,605
Electric circuit closer, J. H. R. Ward... 454,816
Electric conductor, A. W. Sperry... 454,546
Electric connection, J. H. Bickford... 454,794
Electric elevator, R. Eickemeyer... 454,462
Electric light hanger, G. W. Smith... 454,815
Electric lights and power, regulating, I. & A. Herzberg... 454,650
Electric lighting, system of, N. Tesla... 454,622
Electric machines, speed regulator for dynamo, E. E. Winkley... 454,541
Electric motor, F. B. Rae... 454,626
Electric motor, A. B. Roney... 454,627
Electric regulator for constant potential, C. Herring... 454,475, 454,476
Electric search light, G. Sautter... 454,604
Electric signal receiving instrument, Foote & Moore... 454,643
Electric system, overhead, C. A. Lieb... 454,486
Electrode, secondary battery, B. Anderson... 454,818
Elevator. See Electric elevator.
Elevator, J. R. Hopper... 454,591
Elevator and conveyer, C. H. Phillips... 454,663
Embossed and printed decorative materials for walls, etc., means for making, E. S. Sears... 454,667
Embroidering machine, H. Hochreutener... 454,737
Engine. See Dental engine. Dusting engine. Rotary engine.
Engine connection, steam, A. E. Parsons... 454,814
Engraving machine, Schraubstadter, Jr., & Schilling... 454,774
Feed cutter and crusher, E. A. Porter... 454,790
Feed water heater, W. J. Thompson... 454,781
Fence, S. H. Braden... 454,677
Fence, E. Manlove... 454,600
Fence post, W. H. Thomson... 454,506
Fence post, metal, J. J. Crane... 454,611
Fencing machine, automatic, W. P. Shattuck... 454,590
Fermenting vat, U. Bachmann... 454,586
File, paper, C. E. Stone... 454,502
Filling can, M. H. Garland... 454,614
Filter, C. G. Purdy... 454,766
Filtering apparatus, J. E. Warren... 454,817
Fire alarm, electrical, B. W. Leonard... 454,746
Firearm, magazine, W. Mason... 454,582
Fish hook, A. G. Mack... 454,580, 454,581
Floor jack, G. Bowler... 454,635
Frame. See Harrow frame. Quilting frame. Sewing machine frame.
Furnace. See Hot air furnace.
Furniture, book supporting attachment for, N. H. Whitten... 454,553
Furniture brace or stay, J. Berkey... 454,705
Gauge. See Micrometer gauge. Wall paper trimming gauge.
Galvanic battery, J. Emmer, Jr... 454,724
Galvanic battery, P. Hathaway... 454,598
Game apparatus, S. R. Clarke... 454,596
Game attachment, E. Barker... 454,700
Garments, suspension frame for, B. F. Lamb... 454,579
Gas, apparatus for the manufacture of, C. Stilwell... 454,531
Gas burner, J. M. Farmer... 454,640
Gas regulator or governor, L. Boore... 454,706
Gas retort, F. Bredel... 454,514
Gate, J. W. Miller... 454,802
Generator. See Steam or hot water generator.
Gold and silver from ores, apparatus for extracting, Howe & Gates... 454,538
Governor, steam engine, F. H. Ball... 454,511
Grate, J. Evans... 454,464
Grate for burning hard coal slack, S. J. Miles... 454,490
Grease trap for sinks, J. & J. F. Prendergast... 454,665
Guard. See Keyhole guard.
Hame, C. E. Johnson... 454,682
Hammer, power, W. Jones... 454,824
Hanger. See Car house hanger. Electric light hanger.
Harness pad cap, E. L. McClain... 454,656
Harrow, C. J. Kirk... 454,825
Harrow frame, Henry & Taylor... 454,474
Hat brims, machine for trimming the curled edges of, J. Fitz *et al*... 454,565
Hat pin, lady's, L. Barnes... 454,702
Hearth, adjustable, J. H. Bennett... 454,703
Heater. See Feed water heater.
Heating and cooking apparatus, portable safety, J. House... 454,537
Heel nailing machine, W. J. Fahnley... 454,726
Holder. See Bedclothes and baby holder. Cigar holder. Rope holder. Shade holder. Shaft holder.
Hook. See Fish hook.
Hose coupling, J. G. Hallas... 454,649
Hose coupling, electric, J. B. Strauss... 454,669
Hose couplings, manufacture of, J. G. Hallas... 454,647
Hot air furnace, M. Koehler... 454,482
House. See Toy fire engine house.
Hub, wheel, G. H. Smith... 454,688
Hydrocarbon burner, A. C. Banning... 454,676
Hydrocarbons, solidifying liquid, J. H. W. Stringfellow... 454,777
Indicator. See Station indicator.
Insect catcher, H. C. Dexter... 454,720
Insulating material, A. W. Sperry... 454,547
Insulator for marine condensers, P. Decker... 454,717
Insulators, packings, etc., compound for the manufacture of, A. W. Sperry... 454,548
Iron. See Sad iron.
Ironing machine, W. Bullock... 454,456
Ironing machine, L. H. Watson... 454,786
Jack. See Floor jack.
Joint connection for metal framework, Westaway & Beard... 454,691
Key fastener, A. W. Bartholomew... 454,449
Keyhole guard, L. Gaddis... 454,789
Knitting fabrics, A. Boehmen... 454,795
Knob for carriages, etc., headed, C. O. & L. F. Upham... 454,549
Knurling tool, H. F. Cook... 454,788
Ladder, extension, W. E. Brown... 454,454
Lamp and burner, oil, C. M. Richmond... 454,686
Lamp, Argand, F. Rhind... 454,528
Lamp cut-out and system, E. Thomson... 454,782
Lamp, electric arc, Lemp & Wightman... 454,485
Lamp, incandescent electric, T. A. Edison... 454,558
Lamp, pocket, W. F. Folmer... 454,642
Letter box, L. Hammel... 454,732
Level for stair builders, plumb, F. Barnes... 454,701
Light. See Electric search light.
Lightning arrester, E. Thomson... 454,671 to 454,673
Limit switch, F. B. Rae... 454,496
Logs, apparatus for thawing, H. M. Crittenton... 454,716
Loom, Draper & Durkin... 454,564
Loom, J. H. Northrop... 454,805, 454,806, 454,808, 454,810
Loom, A. E. Rhoades... 454,791
Loom shuttle, G. O. Draper... 454,796
Loom shuttle, W. F. Draper... 454,797
Loom shuttle, J. H. Northrop... 454,807
Loom shuttle and spindle, J. H. Northrop... 454,809
Loom shuttle spindle, J. H. Northrop... 454,811
Looms, strap for connecting pickers with picker sticks of, C. E. Farr... 454,641
Lubricant, E. W. Cooke... 454,588
Lubricator. See Axle lubricator.
Marble roller, F. E. Phillips... 454,603
Match box, Brown & Bailey... 454,636
Mattresses, pillows, etc., manufacture of, L. Ashby... 454,445
Meat chopping machine, W. H. Ashton... 454,699
Meat cutter, Renner & Hofbauer... 454,527
Mechanical movement, G. C. Moore... 454,539
Mechanical movement, S. E. Nutting... 454,658
Metal, apparatus for shaping and ornamenting hollow articles of, Jackson & Hewitson... 454,592
Micrometer gauge, H. E. Brown... 454,516
Mill. See Boring and turning mill. Rolling mill.
Mining machine, E. A. Sperry... 454,500
Motor. See Electric motor. Wave power motor.
Mowing machine, J. H. Jones... 454,741
Musical instrument, wind, H. J. Light... 454,748
Nail set, F. W. Beach... 454,512
Ore roasting dish, W. F. Oden... 454,759
Packing, piston rod, C. C. Jerome... 454,740
Packing, stuffing box, R. Walsh... 454,551
Paddle wheel, C. E. Keith... 454,652
Pails, suspension device for, Locke & Cobb... 454,655
Pan. See Bed pan.
Paper box, sector shaped, Brown & Bailey... 454,637
Paper, etc., device for color striping, C. Schneider 454,773
Paper pail, Hull & McEwan... 454,799
Paper pulp, magnetic separator for, C. H. Atkins. 454,555
Pencil sharpener and point protector, H. Baumgarten... 454,623
Pepsin, J. L. Webber... 454,575
Perfumes, sampling case for, C. H. Sagar... 454,772
Pessary, electrical, W. N. Sherman... 454,573
Photographers, developing dish for, A. Boyle... 454,518
Piano pedal attachment, G. C. A. Class... 454,713
Pianos, action support for upright, W. M. Bauer.. 454,576
Pick, A. E. Francis... 454,543
Picture, transparent, J. McNevin... 454,580
Piles, etc., coating for, F. E. Lampert... 454,744
Pin. See Hat pin.
Pipe coupling, W. C. Westaway... 454,690
Pipe cover, E. Walwyk... 454,785
Planter, corn, C. O. Parkhurst... 454,601
Planting machine, cane, J. O'Bourke... 454,758
Plow attachment, G. W. Ackerman... 454,606
Plow, vineyard, G. Moore... 454,828
Post. See Fence post.
Press. See Baling press. Printing press.
Press, A. N. Peters... 454,662
Press board, S. K. Hibler... 454,477
Printing press, cylinder, D. M. Somers... 454,776
Protractor, S. A. Brown... 454,710
Pump, G. Brown... 454,609
Pump, vertical steam, C. H. Robinson... 454,498
Pumps for moving gaseous bodies, valve of, W. F. Garrison... 454,646
Punch, check, W. F. Stark... 454,574
Punches from dies, making, R. Gaiger... 454,618
Puzzle, calendar, J. S. McTear... 454,831
Rack. See Barrel rack. Coat and umbrella rack.
Radiometer, C. Deshler... 454,719
Railway chair, T. Davies... 454,834
Rai way signal, W. Raab... 454,767
Rai way spikes, apparatus for making, E. E. Angell... 454,697
Railway ties, wear plate for, M. R. Perkins... 454,594
Railway time signal, M. N. Jones... 454,478
Railway tracks, guard rail clamp for, P. Edelman. 454,639
Railway trains, electric signal for, F. P. Lenahan. 454,625
Railways, power conveyer for traction vehicles in cable, W. M. Morgan... 454,829
Razor strop, A. M. Lawrence... 454,483
Reel and support, R. Hardie... 454,615
Refrigerator, C. H. Leonard... 454,747
Regulator. See Electric regulator. Gas regulator.
Riveting machine, W. Sellers... 454,572
Rocker and whirler, H. W. Hensch... 454,681
Roller. See Marble roller.
Rolling mill, wire rod, W. F. Thompson (r)... 11,172
Rope holder and fastener, R. Osborne... 454,760
Rotary engine, E. F. Holmgreen... 454,738
Sad iron, G. Heidel... 454,820
Sash balance, B. Marshall... 454,616
Sash fastener, E. A. Beisel... 454,513
Sash fastener, G. B. Sloan, Jr... 454,628
Saw setting and filing machine, C. A. Erlandson.. 454,679
Sawing machine, J. B. Ellis... 454,819
Scow, steam warping, J. C. West... 454,632
Screen, W. S. Pollitt... 454,526
Scrubbing machine, J. Ziv... 454,633
Seat. See Spring seat. Water closet seat.
Seed, machine for delinting cotton, J. J. Faulkner... 454,465
Seeding machine, S. C. Cobb... 454,457, 454,458
Sewing machine, J. T. Bowyer... 454,708
Sewing machine, W. A. Neely... 454,540
Sewing machine quilting frame, J. E. Gibbs... 454,520
Sewing machine, shoe, M. C. & T. J. Denne... 454,718
Sewing machines, device for controlling the shuttle thread of, H. Cook... 454,610
Shade holder, E. Allday... 454,675
Shade roller bracket, G. W. Conklin... 454,568
Shaft holder, vehicle, P. P. Sauble... 454,621
Shears, H. C. Heinisch... 454,735
Sheet metal can, W. P. Quentell... 454,561
Shirt, W. Tilden... 454,674
Sieve for sifting flour, M. Lary... 454,599
Signal. See Railway signal. Railway time signal.
Sock or stocking, R. M. Appleton... 454,634
Soda and other aerated fluids, dispensing apparatus for, H. S. Park... 454,493
Spike machine, G. A. Brown... 454,455
Spikes, making, Angell & Porter... 454,696
Spinning machine, ring, J. Imbs... 454,823
Spool turning machine, J. M. Parker... 454,684
Spring. See Vehicle spring.
Spring seat, Bridwell & Morgan... 454,453
Stage setting for theaters, J. Hart... 454,471
Stage setting for theatrical representation of games, J. Hart... 454,472
Stall floor, R. Lee... 454,745
Stamp, self-inking hand, E. C. Ryer... 454,499
Station indicator, J. R. Meadowcroft... 454,559
Stay, dress, M. P. Bray... 454,587
Steam boiler and furnace, C. N. Bacon... 454,446
Steam or hot water generator, D. A. Dickinson... 454,459
Stone channeling machines, lever for, J. Hengen. 454,589
Stone, method of and apparatus for sawing, G. F. Clark... 454,712
Stone planing machine, C. Kennedy... 454,481
Stop motion mechanism, I. W. Huckins... 454,739
Stopper. See Bottle stopper.
Store service apparatus, R. B. Wilson... 454,793
Street sweeping machine, A. R. Weber... 454,533
Sweat pad fastener, E. F. Pflueger... 454,762
Switch. See Limit switch.
Table, C. G. Udell... 454,508
Teeth, restoring defective, C. H. Land... 454,566
Telegraph lines, switch board for, Viles & Young. 454,584
Telegraphy, B. B. Toye... 454,630
Telephone pay stations, signal device for, W. Gray... 454,470
Telephones, signal attachment for, A. D. Sundeen *et al*... 454,503, 454,504
Thermo cauter, C. A. Paquelin... 454,524
Thrashing machine, E. W. Flagg... 454,466
Thrashing machines, grain measuring attachment for, W. P. Farrell... 454,727
Toy ball, loaded, C. E. Goodspeed... 454,544
Toy fire engine house, E. R. Ives... 454,651
Toy pinwheel, W. Murphy... 454,804
Trace carrier, S. J. Barton... 454,562
Track clearer, M. Leary... 454,484
Trap. See Animal trap. Grease trap.
Trolley pole mechanism, Larkin & Tomkins... 454,522
Trousers stretcher, C. N. Rand... 454,666
Truck, W. H. Dye... 454,460
Truck, hand, W. H. Dye... 454,461
Truss, Park & Pickens... 454,761
Trusses or girders, plant for elevating, G. Anderson... 454,444
Tug, hame, S. E. Bricknell... 454,515
Twine holder attachment, C. F. Walters... 454,784
Typewriters, ink pad for, A. S. Osborn... 454,660
Typewriting machine, A. W. Steiger... 454,668
Typewriting machine, F. X. Wagner... 454,692
Undergarment, combination, G. O'Brien... 454,812, 454,813
Valve, R. M. & J. G. Downie... 454,613
Valve, R. Pattee... 454,661
Valve gear, cut-off, F. H. Ball... 454,447
Valve, steam-actuated, I. N. Moore... 454,753
Vat. See Fermenting vat.
Vehicle brake, J. Egge... 454,519
Vehicle spring, G. E. Combs... 454,714
Vehicle spring gear, P. L. Ramsey... 454,768
Veterinary incisor cutter, H. Haussmann... 454,473
Vise, W. A. Bernard... 454,542
Vise, D. F. Tallman... 454,779
Vise, C. Wies... 454,693
Wagon brake, automatic, C. A. Brost... 454,608
Wall paper exhibitor, A. H. Peats... 454,494
Wall paper trimming gauge, J. Marks... 454,751
Washing machine, T. Waldron... 454,509
Watch bow fastener, F. Mink... 454,827
Watch case centers, apparatus for shaping and ornamenting, G. Bourquin... 454,707
Watch case centers or other articles, tool for ornamenting, F. Ecaubert... 454,557
Water closet seat, G. J. Kremelberg... 454,743
Water closet seat, J. Reid... 454,545
Water wheel bucket, W. G. Dodd... 454,638
Wave power motor, H. P. Holland... 454,821
Weighing or similar machine, coin-freed, G. E. Rutter... 454,529
Wells, bull wheel for oil, B. E. Waugaman... 454,787
Wells, means for sinking artesian or tubular, S. S. Bolton... 454,451
Wheel. See Paddle wheel.
Wheel holding appliance, wagon, W. R. Exum... 454,680
Whip socket, A. W. Hall... 454,624
Whips, stalk splitting machine for, T. W. Reed... 454,497
Windmill, J. M. Pollard... 454,664
Wire stretcher, J. C. Thompson... 454,670
Wrench, M. Cummins... 454,678
Wrench, B. Donahue... 454,612
Woodwork, inlaid, A. B. Cameron... 454,517

DESIGNS.

Bretzel or cracker, D. F. Stauffer... 20,860
Brush back, S. Rowan... 20,857
Buckle, E. F. Crider... 20,861
Calendar, S. Rowan... 20,856
Cane handle, A. Krouse... 20,854
Carpet stretcher, C. F. Hackman... 20,850
Ewer, C. E. Haviland... 20,848
Hammer, claw, W. Kendall... 20,852
Horseshoe pad, M. Hallanan... 20,849
Jar, C. E. Haviland... 20,847
Lamp shade, M. Kirchberger... 20,853
Sign letters, H. J. Latham... 20,855
Spoon, G. L. Crowell, Jr... 20,844
Spoon, C. S. Sherwood... 20,858
Spoon, G. W. Shiebler... 20,859
Spoon, etc., W. C. Ball... 20,845
Spoon, etc., E. I. Garfield... 20,846
Type ornaments, font of, C. E. Heyer... 20,851

TRADE MARKS.

Antiseptic solution for internal and external use, Barth & Leathers... 19,739
Beer, ale, and porter, American Brewing Company 19,738
Boots and shoes, J. B. Lewis... 19,756
Coffee extract, prepared, Condensed Coffee Company... 19,755
Cotton fabrics for dress goods, draperies, and decorations, single colored, J. A. Hearn & Son... 19,749
Cotton, linen, hemp, and silk piece goods, woolen cloths, and worsted stuffs, J. Maddocks... 19,763, 19,764
Creamers, centrifugal, P. M. Sharples... 19,757
Fertilizers, Alabama Fertilizer Co... 19,743
Flat and tableware, W. F. Newhall... 19,751
Flour, Eckhart & Swan... 19,748
Hair tonic, Arthur Chemical Co... 19,758
Hams and bacon, smoked, H. E. Bailey... 19,744
Mineral water, Wheeler & Company... 19,765
Oil, miners', American Cotton Oil Company... 19,753
Oils used in compounding beverages and liquors, H. Cohen... 19,747
Ointment, Petrolene Compound Co... 19,741
Paper bags, Arkell & Smiths... 19,754
Remedies for diseases of women, J. B. Colombin & Co... 19,746
Remedy for throat and lung troubles, J. F. Goldaine... 19,759
Remedy, headache, W. H. Galbraith... 19,740
Rubber goods, mechanical, Revere Rubber Company... 19,752
Sheetings and shirtings, cotton, Jackson Company... 19,760 to 19,762
Soap, laundry and toilet, Butler & Hannum Brothers... 19,745
Tonics, F. M. Clements... 19,766
Toothpaste, W. H. Hall... 19,750
Toy games in boxes, J. H. Singer... 19,742

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.

Advertisements.

Inside Page, each insertion - - 75 cents a line
Back Page, each insertion - - - - $1.00 a line

The above are charges per agate line—about eight words per line. This notice shows the width of the line, and is set in agate type. Engravings may head advertisements at the same rate per agate line, by measurement, as the letter press. Advertisements must be received at Publication Office as early as Thursday morning to appear in the following week's issue.

USE ADAMANT WALL PLASTER

It is **Hard, Dense, and Adhesive.** Does not *check or crack.* It is impervious to wind, water, and disease germs. It dries in a few hours. It can be applied in any kind of weather. It is in general use. Licenses granted for the mixing, using, and selling.

Address ADAMANT MFG. CO.
309 E. Genesee St.,
Syracuse, N. Y.

Patent Foot Power Machinery
Complete Outfits.

Wood or Metal workers without steam power, can successfully compete with the large shops, by using our New **LABOR SAVING Machinery,** latest and most improved for practical shop use, also for Industrial Schools, Home Training, etc. Catalogue free.
Seneca Falls Mfg. Co.
695 Water Street, Seneca Falls, N. Y.

ELECTRICAL!

Agents wanted for Fine Electrical Supplies of every description. New plate catalogue and price list on receipt of 25 cents. Discounts to the trade.
NOVELTY ELECTRIC CO., 54 North 4th St., Phila., Pa.

The Sebastian-May Co.
Improved Screw Cutting
Foot & Power **LATHES**

Drill Presses, Chucks, Drills, Dogs, and Machinists' and Amateurs' Outfits. *Lathes on trial.* Catalogues mailed on application.
165 to 167 Highland Ave., SIDNEY, OHIO.

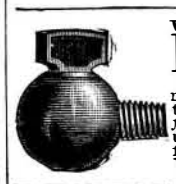
TALCOTT'S COMBINATION PATENT BELT HOOKS,
W. O. TALCOTT, Providence, R. I.

"Improvement the order of the age."
THE SMITH PREMIER TYPEWRITER

Important Improvements.
All the Essential Features greatly perfected.
The Most Durable in Alignment.
Easiest Running and Most Silent.
All type cleaned in 10 seconds without soiling the hands.
The Smith Premier Typewriter Co., Syracuse, N. Y., U. S. A.
Send for Catalogue.

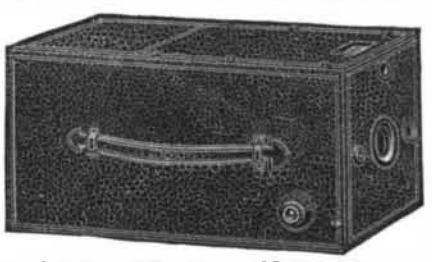
ROSE POLYTECHNIC INSTITUTE
Terre Haute, Indiana.—A School of Engineering
Well endowed, well equipped departments of Civil, Mechanical, and Electrical Engineering, Chemistry, Drawing. Shops and Laboratories. Expenses low. Address H. T. EDDY, President.

VOLNEY W. MASON & CO.,
FRICTION PULLEYS CLUTCHES and ELEVATORS
PROVIDENCE, R. I.



Van Duzen's Pat. Loose Pulley Oiler HAS Highest Indorsements, Enviable Reputation, Scientific Pedigree.
A two years' test by conservative manufacturers of national reputation has shown it to be the *only perfect Lubricator for Loose Pulleys* in use. Prices very reasonable. Send for our "Catalogue Number 55."
VAN DUZEN & TIFT, Cincinnati, O.

THE PREMIER CAMERA



IS THE BEST IN MARKET.
Simple of Manipulation.
Plates or Films are used.
The Shutter is always set.
PRICE $18.00.
Send for Catalogue and copy of Modern Photography.
WE MAKE ALL KINDS OF CAMERAS.
ROCHESTER OPTICAL COMPANY,
14 S. Water St., ROCHESTER, N. Y.

Edco System.
Complete Electric Light and Power Plants. Electric Street Cars, Accumulators, Dynamos. Oldest and most experienced Motor Co. in the world.
THE ELECTRO DYNAMIC COMPANY,
224 Carter St., Phila., Pa. 44 Broadway, New York.

© 1891 SCIENTIFIC AMERICAN, INC.