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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 This is for our information and not for publication.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.

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(6538) C. A. G. writes: I am making a chime of three whistles, the bells to be of 2 inches brass tubing, 1/16 inch thick, the longest tube or bell to be 8 inches. The cap piece will extend into top of bell about ¾ inch, of course shortening air column that amount. The longest bell being the key note, I wish the others to be higher in pitch, and all to range as do, me, sol, or as in key of C major, C, E, and G. I wish to know of what length to make each of the other two bells, and also about what size opening should I give the steam vent under the bells with steam pressure of 150 pounds. A. The making of a chime whistle is a matter of experiment until the relative conditions are found. Make the low tone whistle first, then use a sliding plug in the bell for regulating the tones of the other whistles. The steam slot should be about one-fiftieth of an inch opening.

(6539) J. H. M. writes: I have two nests of boilers, six in a nest, and what is the horse power of each boiler, or what is the horse power of 12 boilers? Each boiler is 47 feet 7 inches in length by 30 inches diameter. Fire box 16 feet in width by 6 feet in back. What is the cause of a set of boilers foaming when the fires are kept all the same heat, bridge wall the same height, and water enough going in boiler continually? A. If your boilers are plain cylinder boilers, without flues, they are 19 horse power each, or 228 horse power for the 12. The foaming is probably caused by driving too hard, or by bad water.

(6540) W. S. M. writes: I purpose to lay some old 2½ inch and 3 inch pipe along both sides of the shop about 7 feet from the floor for heating purposes. Engine exhaust 4 inches. My idea is to connect with two 3 inch pipes and go down each side, which is 78 feet, and return with 2½ inch pipes; this will use all we have got, but will return the second time if you think feasible. Or would it be better to have the exhaust discharge into one 3 inch and 2½ inch to begin with and have no return? Size of shop 78 feet by 38 feet. A. The plan of dividing the exhaust with a 3 inch pipe and returning with a 2½ pipe on each side is correct. The last ends of the return pipe should be open, so as to allow drip and excess of steam to escape freely. This arrangement prevents undue back pressure in the engine. All pipes should be laid to allow water of condensation to run with the steam to drips or to the end of the line.

(6541) J. H. asks for a rule to find strain brought on staybolts. Also how to find horse power of an engine with the indicator. How to find displacement of steamship. A. The strain on a staybolt is the whole area of plate due to any one bolt multiplied by the steam pressure. If the stays are 6 inches apart in each direction, the area is 36 inches. You will need a book on the indicator for the horse power problem. See Pray's book, "Twenty Years with the Indicator," $2.50 by mail. The displacement is also an intricate problem. See Haswell's "Engineer's Pocketbook," $4 by mail.

(6542) W. H. P. says: Inclosed is a twig from a Pirus Japonica bush growing in Philadelphia, which seems to be suffering from a white scale covering most of the stems, some of which are already dead and others dying. What is the remedy for this, if any? A. Answer by the Entomologist, United States Department of Agriculture.—This is the common scurfy bark louse (Chionaspis furfurus) found abundantly on pear, apple, etc. Spray about June 1 with dilute kerosene emulsion (1 part to 10 of water) or during winter with 1½ pounds whale oil soap to 1 gallon of water.

TO INVENTORS.

An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the lawsand 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 21, 1895,

AND EACH BEARING THAT DATE.

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

Air brake signal, railway, E. Humbert et al. 539,430
Ammonia motor, Jowlew & Wrady 539,685
Bag. See Bicycle tool bag.
Bag or pouch bolding apparatus, Crosson & Lippbard 539,419
Baling press, J. J. Mathias 539,588
Baling press, T. H. Thurmond 539,780
Balling machine, S. Brown 539,503
Band cutter and feeder, Cronkhite & Austin 539,750
Barrel lifter, W. H. Lasher, Jr 539,690
Barrel swing support, G. A. Hastings 539,754
Batteries, automatic time switch for storage, W. Biddle 539,500
Bed, air, C. L. Jordan 539,621
Bed, extension, A. Beldin 539,567
Bed, sofa, J. Boyd 539,607
Bedstead, metal, W. W. Sly 539,597
Beer cooler, E. Seitz 539,708
Bell, electric, F. G. Ingersoll 539,431
Bicycle bell clamp, A. A. Bevin 539,764
Bicycle luggage carrier, E. B. Powers 539,486
Bicycle shoulder brace, E. C. De los Olivos 539,702
Bicycle tool bag, J. A. Hunt 539,517
Bicycles, etc., locking device for, P. J. Krayer 539,623
Block. See Cut-out block.
Boiler. See Steam boiler.
Boiler blow-off, steam, H. W. Leslie 539,435
Boilers, electrical low water indicator for, C. D. Tisdale 539,559
Bolts and rivets, machine for making, G. Passoni 539,590
Bottle case, H. Bischoff 539,720
Bottle filling apparatus, P. Simon 539,596
Bottle stopper, C. Huch 539,429
Bottle stopper, J. F. Martin 539,696
Bottle stopping device, B. Price 539,487
Boxes of wood veneer with sheet metal, machine for edging, M. A. Clennam 539,765
Brace. See Shoulder brace.
Bracket. See Pipe bracket. Scaffold bracket.
Brake. See Pressure brake. Rail brake. Sled brake.
Bridge, W. N. Carr 539,506
Bridges, electric safety system for railway draw, E. Deming 539,576
Bucket, self-loading and discharging, E. Barrett. 539,749
Buckle, H. J. Kraus 539,521
Building compound, G. W. Lytle 539,694
Buildings, construction for deafening, A. W. Tucker 539,457
Burner. See Hydrocarbon burner.
Button fastening, J. R. Farrell 539,424
Calendering textile fabrics, machine for, E. Claviez 539,416
Calipers and dividers, Starrett & Fay 539,759
Can. See Oil can. Sheet metal can.
Can cleaning machine, J. Long 539,523
Can ends, means for closing or readily opening, A. J. Ritter 539,545
Cane seating, loom for weaving, E. G. Watkins ... 539,601
Cane stripper, W. H. Leighton 539,434
Cane work, machine for inserting diagonal strips in woven, F. H. Bancroft 539,405
Cane work, machine for inserting diagonal strips in woven, Bancroft & Rich 539,406
Car balancing device, magnetic, W. B. Purvis 539,542
Car brake apparatus, railway or street, Marcutti & Miani 539,695
Car coupling, O. C. Billman 539,606
Car coupling, J. N. Kitchen 539,657
Car coupling, E. K. Ober 539,638
Car coupling attachment, H. S. Bryan 539,609
Car fender, W. C. Ellis 539,676
Car fender, J. J. Feely 539,508
Car fender, W. A. Peck 539,440
Car fender, J. Zeis 539,564
Car for transporting coal, etc., S. Fader 539,678
Car safety guard, S. A. Groff 539,735
Car sanding device, street, W. A. Mitchell 539,730
Car shift, automatic, W. Jackson 539,518
Car step, extension, A. Putnam 539,593
Car transoms, take-up device for, E. F. Goltra 539,476
Car wheel, J. Donovan 539,612
Car wheel, J. Rigby 539,594
Cars, system of controllers for electric motor, C. L. Coombs 539,726
Carbon brush, E. Thomson 539,453, 539,454
Carburetor, R. S. Lawrence 539,773
Carding engine, Lebe & Haley 539,681
Carpet sweeper, S. H. Raymond 539,445
Case. See Bottle case.
Cash indicator and recorder, C. M. Bunker 539,504
Caster, W. C. & C. R. Ransden 539,543
Centering device, M. Kolb 539,688
Chimney cap, W. Cooley 539,471
Chuck, reversible, O. Tyberg 539,748
Churn and butter worker, combined, C. S. Brown. 539,570, 539,571
Clamp. See Bicycle bell clamp. Electrical bond clamp. Jar clamp.
Cock or faucet, self-closing, G. S. Murphy 539,633
Coin-operated dispensing machine, G. F. Gale 539,752
Coin operated machine, J. A. Keyes 539,520
Collar shaper, F. V. Killian 539,686
Comb for fiber feeding machines, J. C. Potter 539,541
Confectionery coating machine, J. C. Ruby 539,548
Conveying apparatus, J. C. Martin 539,526, 539,527
Cooler. See Beer cooler. Milk cooler. Porous cooler.
Cotton compressor, S. J. & R. D. Webb 539,496
Cotton gin and wool burrer, S. L. Johnston 539,743
Coupling. See Car coupling.
Cradle, child's, W. E. Phillips (r) 11,496
Cruet, F. Zehetner 539,468
Cuff holder, G. B. Adams 539,401
Cultivator, C. Gardner 539,732
Curling iron heating attachment, C. H. Johnson .. 539,684
Currycomb, W. L. Frisbie 539,425
Cut-out block, F. A. Chapman 539,725
Cutter. See Band cutter.
Cylinder lock, J. S. Peacock 539,591
Dental engine, C. H. Richardson 539,645
Digger. See Potato digger.
Display apparatus, coin controlled, P. L. Sylvester 539,655
Door buffer, J. N. Beall 539,718
Door closer and hinge, H. Bitner 539,408
Draught equalizer, J. W. Gurnsey 539,582
Draining well, J. Colas 539,417
Dress shields, machine for making, E. Barsuck ... 539,660
Drill. See Ratchet drill.
Drilling machine, J. T. Snyder 539,491
Drop shears, E. Cartwright 539,573
Drying machine, J. K. Proctor 539,443
Dye, blue, Herzberg & Weber 539,738
Dye, blue, M. Moeller 539,699
Dyeing apparatus, F. Blum 539,409
Electric cut-out, J. R. Hersb 539,583
Electric meter, C. P. Steinmetz 539,452
Electric motor rheostat switch, F. B. Rae 539,778
Electrical bond clamp, A. Green 539,616
Electrical distribution system, E. W. Rice, Jr 539,446
Electrical distribution system, C. P. Steinmetz 539,450
Elevator. See Fireman and hose elevator.
Elevator safety appliance, M. C. Fullenlove 539,580
Engine. See Carding engine. Dental engine. Gas engine. Pulp refining engine. Steam engine.
Engraving machine, J. H. Reinhardt 539,544
Excavator and conveyer, L. W. Bates 539,604
Fan attachment for chairs, etc., automatic, E. Griffitt 539,510
Fastening for coverings for feet, metal, D. A. Berry 539,469
Faucet, water, Walther & Barrett 539,714
Feedwater heater, steam boiler, R. Lowe 539,436
Fence, J. W. Wolfe 539,498
Fence post, G. H. Brown 539,411
Fence stay, wire, W. H. Wright 539,782
Fender. See Car fender. Wheel fender.
Fertilizer compound, McCandless & Allison 539,747
Firearm, breakdown, G. D. Potter 539,540
Firearm, magazine, W. Mason 539,528
Firearm sight, A. G. Carlson 539,470
Fire escape, Rice & Biscoe 539,706
Fire escape and tower, G. J. Decker 539,672
Fire extinguisher, T. Lacey 539,482
Fire extinguisher, C. G. Smith 539,553
Fire extinguisher, hand, D. O. Wilson 539,465
Fireman and hose elevator, J. E. Biscoe 539,721
Flue or chimney, tile, H. J. McKnight 539,536
Forge, portable, R. S. Bozon 539,608
Funnel, automatic, J. J. Ebert 539,422
Furnace. See Muffled furnace. Ore burning furnace.
Furnace, gradual combustion, D. E. Healy 539,771
Furnace smoke-consuming apparatus, J. A. Crawford 539,768
Furnaces, apparatus for charging annealing, J. Waldeck 539,658
Furnaces, smoke-consuming attachment for blast, E. Warner 539,458
Gas, coin-freed apparatus for sale of, R. T. & J. G. Glover 539,734
Gas engine, C. Sintz 539,710
Gas, extraction and destruction of sewer, J. E. Webb 539,459
Gas works, apparatus for manipulating lids of purifier boxes in, F. Mayer 539,628
Gold and silver ores, apparatus for reducing, J. C. Garvin 539,769
Gold, etc., from streams, device for recovering, I. Whaler 539,463
Gold separator and amalgamator, dry, H. H. Schuman 539,549
Governing gear for gas engines, Hartley & Kerr .. 539,478
Governor, marine engine, E. R. Winter 539,466
Governor stop motion, R. H. Rice 539,758
Grain meter, C. A. Wever 539,560
Grain scourer, H. C. F. Horstmann, Jr 539,739
Guns, gas check for breech-loading, G. Gerdom ... 539,733
Handle. See Tool handle.
Harness pad, J. T. Sbort 539,709
Harrow scraper mechanism, disk, C. S. Sharp 539,551
Harvester and husker, corn, G. Leblanc 539,774
Harvester, bean, R. Moore 539,589
Harvester, cutter bar, Burrell & Griffith 539,505
Hay sling, W. Louden 539,524
Heater. See Feedwater heater.
Heater, P. J. Crouse 539,420
Heater, D. S. Richardson 539,447
Hide splitting machine, J. E. Fairbanks 539,472
Hinge, spring, P. Chandler 539,724
Hinge, spring, W. L. Ingram 539,741
Hitch for vehicles, safety driving rein, I. A. Stewart 539,654
Hoe or cultivator tooth, horse, S. L. Allen 539,402
Hoisting and transfer apparatus, aerial, W. D. Sherman 539,448
Hoisting bucket, M. & R. Hawkins 539,770
Hook. See Snap book.
Hopple, G. Barton 539,603
Horse and team bolder, F. O. Moore 539,531
Horse power, F. A. Sjogren 539,552
Horseshoe, cushioned, M. J. Cadden 539,665
Horseshoe forming machine, C. L. Haight 539,427
Hydrocarbon burner, E. M. Tydeman 539,781
Incubator thermometers, support for, L. R. Oakes 539,538
Index book, A. C. Bausman 539,407
Indicator. See Cash indicator.
Induction motors, regulating alternating current, A. H. Armstrong 539,404
Iron. See Sad iron.
Ironing table, W. McKissack 539,535
Jack. See Lifting jack.
Jacquard mechanism, griff for, B. H. Gledbill 539,753
Jar clamp, fruit, H. C. Dilworth 539,674
Knitting machine, R. W. Scott 539,649
Knitting machine for making fabric for mattresses, etc., G. F. Sumner 539,558
Knob attachment, A. A. Page 539,639
Lamp, F. T. Williams 539,761
Lamp, G. W. Woodward 539,467
Lamp bulb cleaner, incandescent, W. O. Niles 539,537
Lamp cut-out, arc, P. Kirkegaard 539,622
Lantern, bicycle, J. Lines et al 539,626
Lanterns, safety carrier for, J. Elblein 539,577
Lathe, H. Johnson 539,584
Library stack, D. A. Beckwith 539,662
Lifter. See Barrel lifter.
Lifting jack, J. Lafore 539,624
Lifting jack, A. A. Smith 539,449
Liquids, vessel for holding, A. W. Ballou 539,566
Liquids, vessel for separating, S. Shugerman 539,779
Lister, disk, L. E Waterman 539,496
Lister, riding, Kerns & Sebnert 539,519
Lock. See Cylinder lock.
Locomotive boiler diaphragm, W. Britton 539,410
Loom shedding mechanism, T. Lynn 539,693
Manacle, gyve, or handcuff, J. C. Searle 539,650
Manure loader and excavator, combined, O. P. Olson 539,703
Match loader, F. P. Clark 539,668
Measuring device, F. S. Stone 539,492
Medical purposes, electrical instrument for, B. Y. Boyd 539,501
Merry-go-round, C. L. Barnbart 539,717
Metal fabric, S. S. Casey 539,415
Metal for bearings, lining, R. Clark 539,669
Metal from furnaces, means for transferring, W. D. Young 539,563
Meter. See Electric meter. Grain meter.
Microphone, Mercadier & Anizan 539,437
Milk cooler, M. C. Reinert 539,705
Milk, preparing, G. H. Walker et al 539,760
Mortar, etc., composition of matter for, B. F. Kellogg 539,745
Motor. See Ammonia motor.
Mower, lawn, Hartzell & Rock 539,513
Muffled furnace, F. J. Falding 539,729
Music chart, A. L. & A. L. Palmer 539,589
Music leaf turner, E. R. Davis et al 539,671
Music stand, J. Stein 539,556
Nets, lifting gill, Gagnon & Abearn 539,679
Nut lock, N. E. Lister 539,692
Oil can and pouring faucet therefor, W. W. Webster 539,460
Ore burning furnace, F. J. Falding 539,730
Organ, pneumatic, J. Neef 539,757
Organ reed pipe, J. Schwertner 539,595
Pad. See Harness pad.
Paper box machine, H. Inman 539,480
Paper box making machine, Stone & Thibodeau .. 539,598
Paper cutting machine, S. Brown 539,502
Paper stock, beating engine for, T. C. Cadwgan ... 539,414
Paper stock, machine for washing and preparing, T. C. Cadwgan 539,412
Paper stock, preparing, T. C. Cadwgan 539,413
Paper tubes, making, J. Peters 539,777
Pavement, R. J. Carson 539,572
Penholder, W. A. Gay 539,581
Photographic film roll, S. N. Turner 539,713
Photographic plate holder, M. A. Stubel 539,557
Pianoforte, H. R. Moore 539,630
Pile covering, J. Perret 539,485
Pipe bracket, A. E. Weiant 539,462
Pipe jointer, G. W. Harrington 539,617
Planter, corn, F. J. Becker 539,763
Plumber's trap, C. J. Lennihan 539,775
Porous cooler, J. L. Cutler 539,727
Post. See Fence post.
Potato digger, J. Hills 539,515
Potato digger, C. E. Jackson 539,432
Power. See Horse power.
Press. See Baling press.
Pressure brake, fluid, C. R. James 539,619
Pressure regulator, W. J. Morgan 539,532
Printing figured anilin black, H. Schweitzer 539,550
Pulp refining engine, Pearson & Bertram 539,704
Pulverizer, roller, and stalk cutter, combined, J. F. Bigge 539,615
Pulverizing and mixing apparatus, G. W. Elliott. 539,507
Pump, L. M. Rich 539,644
Pump, air, F. Aronson 539,662
Pump and insulated oil tank, measuring, C. A. Thompson 539,656
Pump driving device, C. F. Lufkin 539,746
Punching and shearing machine, J. J. Sullivan ... 539,493
Rail brake, emergency, E. Prouty 539,444
Railway conduit system, electric, W. H. Cotton .. 539,418
Railway construction, Pfeiffer & Lier 539,592
Railway frog and foot guard therefor, W. F. Ellis 539,677
Railway signal, electric, H. V. & A. C. Miller 539,529
Railway switch, W. S. Coburn 539,575
Railway trolley, electric, J. W. Hoag 539,516
Raisin seeder, J. H. Bullard 539,610, 539,664
Ratchet drill, J. Emig 539,423
Refrigerator, J. C. Murphy 539,756
Rendering, R. S. Merrill 539,438
Revolver, D. B. & J. H. Wesson 539,497
Rheostat face plate with supplemental rheostat, Kraemer & Kruger 539,585
Road roller, reversible, B. Poulson 539,442
Rock drilling machine, G. M. Githens 539,475
Roller. See Road roller.
Roofing fabric, Coolbaugh & Goodlett, Jr 539,767
Sack filling and sewing machine, A. T. Timewell .. 539,455
Sad iron, R. J. Myers 539,700
Saddle cinch plate, A. P. Weeks 539,461
Sample holder, W. D. Smith 539,554
Sash fastener, A. H. Baker 539,545
Sash fastener, E. S. Stevens 539,653
Saw sharpening device, R. Whitaker 539,464
Saw shifter for gang edgers, C. F. Nyberg 539,637
Sawing machines, crosshead for band, E. C. Mersbon 539,629
Scaffold bracket, J. A. Murpby 539,483
Scale, spring balance computing, J. H. Swihart ... 539,559
Scholar's companion, A. T. Greves 539,682
Scourer. See Grain scourer.
Scraper, manure, J. Greb 539,509
Scraping machine for streets, etc., J. E. Porter 539,642
Screw, capstan, J. Lines 539,627
Separator. See Gold separator.
Sewer trap, C. Knispel 539,689
Sewers, pipes etc., closure for, C. T. Bride 539,568
Sewing machine for lasting boots or shoes, J. E. Jackson 539,481
Sewing machine quilting attachment, S. A. Evans 539,614
Sharpening harrows or other implements, C. La Dow 539,755
Shears. See Drop shears.
Shears or snips, E. P. Lyon 539,525
Sheet metal bending machine, W. C. Yates 539,499
Sheet metal can, H. F. & G. Miller 539,776
Shelves, adjustable support for book or other, D. E. Hunter 539,618
Shingle edging and sizing machine, S. S. Ingman. 539,740
Shoe form or tree, N. Bock 539,722
Shoe with removable calks, Dieckmann & Kollenberg 539,611
Sign, advertising, S. P. Ferree 539,579
Signal. See Air brake signal. Railway signal.
Signal box attachment, A. Gruner 539,511
Signal transmitter, multiple, B. J. Noyes 539,701
Signaling apparatus, R. O. Crowley 539,421
Siren, I. Smith et al 539,711
Skate, H. D. Carryl 539,667
Skate, M. J. Parkhurst 539,641
Sled brake, I. E. Miller 539,697
Sleigh, J. J. Cobb 539,766
Sluice box for tailings elevators, vibrating, E. S. Bennett 539,783
Snap book, J. W. Calef 539,666
Snow or ice remover for railways, J. H. Colvin 539,670
Soap holding device, F. H. Milligan 539,698
Soap, making and purifying, S. Rosenblum 539,547
Soldering machine, C. M. Brown 539,569
Spinning and twisting machine separator, G. O. Draper 539,613
Spinning frame, cap, A. Whitaker 539,561
Spinning jenney flier, T. Finigan 539,473
Sprinkler. See Street sprinkler.
Sprinkler, Van Horn & Yount 539,657
Stair stringers, instrument for laying out, G. McKinney 539,534
Stand. See Music stand.
Steam boiler, E. P. McGerr 539,635
Steam engine, compound, A. W. Eldredge 539,728
Stopper. See Bottle stopper.
Stove, T. I. Rankin 539,643
Stove, gas, Robertshaw & Cooper 539,546
Stoves, etc., grate for cook, Kaempen, Jr., & Wewers 539,744
Stovepipe fastener, adjustable, C. Ruemmler 539,647
Street sprinkler, A. Bastam 539,661
Stud or button, G. B Adams 539,400
Stud turning machine, automatic, O. Tyberg 539,600
Sulky, S. Elliott 539,578
Surveying instrument, Batter & Murpby 539,605
Swing, J. Causse 539,723
Switch. See Railway switch.
Syringe J. Has Brouck 539,514
Table. See Ironing table.
Tachometer, J. Donnan 539,675
Tag fastener, E. T. Muir 539,439
Tanning hides, process of and solution for, W. A. Ragland 539,458
Telegraph relay, A. Gruner 539,512
Telephone call, F. J. Troll 539,712
Tenpin balls, means for locking or unlocking closing plugs in, P. J. Foulon 539,751
Theatrical appliance, W. Fessler 539,731
Therapeutical body wear, electro, W. J. Newton et al 539,484
Tile machine, O. B. Schmall 539,489
Tinner's fire pot, G. A. Triggs 539,456
Tire, pneumatic, A. A. Long 539,586
Tire staving or shrinking appliance, J. Smith 539,490
Tire, wheel, S. A. Smith 539,652
Tires, air pump for pneumatic, B. F. & M. F. Sparr 539,555
Tires, manufacturing pneumatic, J. Richardson .. 539,707
Tool and handle, W. L. Frisbie 539,474
Tool handle, W. L. Frisbie 539,426
Tortoise shell, manufacture of articles from, W. S. Bechtold 539,719
Toy, automatic figure, A. T. Wannenwetsch 539,715
Trace carrier, L. E. McCahan 539,533
Transmitter diaphragm, Nellis & Weisser 539,636
Trap. See Plumber's trap. Sewer trap.
Treasure guard, electric, R. A. Habersham 539,737
Trolley pole base, A. Green 539,681
Trunk, folding, N. Armstrong 539,403
Trunk, wardrobe, E. Huetber 539,479
Tug, shaft, D. C. McCoy 539,634
Type composing machine, F. Wicks 539,716
Typewriter ribbon holder, R. G. Hopkins 539,772
Typewriter ribbon mechanism, W. R. Johns 539,683
Typewritting machine, E. S. Shimer 539,651
Umbrella, J. Barnett 539,762
Valve, J. Morrison 539,631
Valve chest, F. W. Jenkins 539,742
Valve, sewer, W. Godfrey 539,680
Vehicle running gear, F. C. Haas 539,736
Vehicle wheel, G. Laube 539,522
Veterinary device, Henley & Luken 539,428
Violin, E. T. Cass 539,574
Wagon discharge attachment, L. Rodenhausen ... 539,646
Wagons, spring circle for stiff-shaft, E. J. Parker. 539,640
Water closet, E. Hammann 539,477
Wheel. See Car wheel. Vehicle wheel.
Wheel fender, vehicle, J. H. Walker 539,494
Windows, chair support for cleaning, A. Muller .. 539,632
Wire stretcher, E. E. Bell 539,663
Wire stretcher, W. W. Mangum, Jr 539,587
Wooden moulding, machine for making, H. Johnson 539,620
Woodworking machine, J. R. Schelosky 539,648
Wrapping or coverng machine, L. H. Adamson .. 539,659
Wrench, A. Delbommer 539,673
Wrench, J. P. Lavigne 539,625
Wrench, J. T. Pedersen 539,441
Yeast, washing, F. Wiedring 539,562
Yoke, neck, J. A. Koelsch 539,433

DESIGNS.

Badge, M. Ernst 24,319
Bedstead, O. E. A. Wiessner 24,326
Bottle, wooden, W. C. Estes 24,324
Carpet, W. L. Jacobs 24,327
Grate bar, D. C. Green 24,322
Hinge, W. H. Barth 24,323
Punch, A. Broch 24,321
Ring holder, A. Sametz 24,320
Table leg, J. C. Miller 24,325

TRADE MARKS.

Candies, Candy Brothers Manufacturing Company 26,577
Cement, J. H. Bloom 26,582
Cheese, Monroe Cheese Company 26,578
Cigars, Taladrid Hno y Ca 26,575, 26,576
Cigars and cigarettes, J. G. Reed & Company 26,574
Cough sirup, I. E. Wilbur 26,571
Lard, hams, shoulders, bacon, and other meat products, Swift, Dwyer & Company 26,580
Medicinal tonic for nervous weakness, W. H. Roger 26,572
Ointment for the cure of skin diseases, C. Coe 26,569
Paper and paper lining, crinkled, Niagara Paper Mills 26,563
Perfumery, A. F. Haddad 26,568
Remedy for nervous diseases, Prunier et Cie 26,570
Salmon, J. M. Chapman & Company 26,581
Shoe nails, corrugated brass, River Company 26,565
Steel wool for cleaning and polishing purposes, A. Rich & Company 26,566
Umbrellas and umbrellas with detachable handles, folding, Gripsack Umbrella Company 26,564
Washing fluid, J. E. Craig 26,567
Welsh rarebit, prepared, J. F. Howard 26,579
Whisky, rye, J. C. Low & Company 26,573

PRINTS.

"Chas. A. Schieren & Co." (for belting), C. A. Schieren & Company 9

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