[OFFICIAL.]

# **Index of Inventions**

FOR WHICH

Letters Patent of the United States WERE GRANTED IN THE WEEK ENDING December 23, 1873,

AND EACH BEARING THAT DATE.	Pegging machine, G. L. Roberts
(Those marked (r) are released patents.]	Pen wiper, H. S. Ball
	Pessary, C. E. Flack
Alarm, burglar, F. W. Blakemere       145,836         Alarm, till, J. F. Baldwin       145,777	Plano truck, F. B. McGregor 145,887
Aların, till, E. O. Wood 145,824	Piano and organ attachment, L. J. Fremaux 145,793 Pickets, machine for shaping, A. J. Sutherland 145,766
Bale tie, F. Cook	Pie marker, T. S. Macomber
Berrels, etc., guard for, A. P. Gardner	Pipe chucks, etc., carrying, Peavey & Colton 145.896 Planter, corn, J. S. Davis
Bedstead, sofa, E. Lord	Plow, J. L. Graham 145,862
Belt tightener, W. Sellers 145,908	Power, transferring, E. B. Clark         145,721           Printer's furniture, H. A. Hemple         145,800
Billiard tyble, H. W. Collender	Printing press feed gage, C. N. Morris 145,890
Boats, etc., securing, F. M. Hewes 145,873	Pump, J. J. Walton
Boats, mechanism for tewing, G. S. ●lin	Pump cylinders, lining for, W. S. Owen 145,895
Boot, gatter, C. Hersome	Pump, quicksilver, M. P. Boss.       145,718         Pump, steam, B. S. Lawson.       145,806
Boot nailing machine, Biake & Libby (r) 5,696 Boot peggmg machine, T. T. Prosser 115,754	Purifier, middlings, I. Scholifeld 145,906
Bracelet fasteming, S. Cottle	Railway crossing, J. Brahn
Bridle for horses, J. Muller	Rake, horse hay, B. J. Downing, (r) 5,704
Burner, refuse, W. Glue	Razor strop, J. B. Lucas
Battons, preparing wood for, R. H. Isbell (r) 5,694 Cage, bird, J. Maxhetiner	Respirator, B. W. James
Can nozzle, G. H. Perkins	Rigging, fair leader for ship's, J. J. Walton 145,919 Rigging stopper, T. G. Bell 145 833
Car axle lubricator, J. E. Bering	Roadways, etc., removing snew, M. C. Rogers, (r) 5,697
Cardoors, operating, J. G. & G. M. Brill 145,833	Roadways, etc., removing snow, C. G. Waterbury 145,822 Rod, connecting, T. T. Prosser
Car unloader, grain, M. W. Beswerth	Rod, connecting, W. L. Switzer 145,917
Car ventilator, M. T. Hitchcock	Safe, fireproof, Sontag & Lotz
Car wheel, A. C. Fletcher	Saw set, R. F. Cook
Cars, drawhead for railroad, H. C. Lowrie 145,881	Screw threads, forming, Neuber & Perry 145,893 Scrubbing machine, W. J. Gard 145,796
C ars, beith lock for sleeping, T. A. Bissell 145,835 Coopet. G. Iskivan	Sewing machine, C. H. Palmer 145,814
Carriage jack, D. R. Wight	Sewing machine, T. A. Weber
Carriage p de the, S. Mason	Sewing stand, Fling & Land
Casas, c.c., making bungs for, R. Pentlarge 15,760	Shearing sheep, device for, A. J. Fullam, (r) 5,701 Shee fastening, S. Babhitt 145,776
Caster, G. W. Waitt	Shutter fastening, H. H. Miner 145,888
Clear boxes from redwood, C. A. Hooper 145,735	Sieve, G. Wright       145,924         Skate, J. Forbes, (r)       5,705
Cisterns, con draction of, L. Howe	Skate, roller, W. P. Gregg, (r) 5,707
Cocoa nut, preparing, N. A. Classon	Skylight, G. Hayes, (r)
Coffee roaster, R. C. Lockwood	Spading machine, J. G. Jones
Coffin sides, bending, J. P. Albin	Spinning ring, W. Jenckes (r)
Cord. machine for making, D. Otis	Square, try, L. Bailey 145,715
Cotton, bleaching damaged, J. B. Rickards 145,816	Stalks, apparatus for binding, S. Kuh
Cotten chepper, J. Costen       145,849         Cultiv ster, A. Ceoper       145,848	Steve, heating, I. G. Macfarlane 145,744
Cultivator, A. Roden	Tack puller, C. W. Blakeslee
Curry comb, S. A. Morton	Tank and liquid measure, J. H. Corliss 145,725
Curtoin fixture, S. & M. Henry 145.968	Tool, Baker, Doney, & Owen
Cartain fixture, Warner & Smith	Toy money bex, J. Hall 145,734
Derrick, A. K. Richmend	Toy pistol or gun, G. S. Hastings
Door and window guard, J.W. White 145,772	Umbrella, G. G. Griswold
Dredging machine, W. A. Collins	Valve, G. R. Crane
Drill, seed, D. N. Minor	Valve, safety, Jordan & Paul
Drill, hydraulic feed for, R. Allison 145.775 Drilling machine, metal, A. Woodworth 145,923	Ventilating carwindows, C. B. Knevals 145,505
Drying frame, S. Short	Ventilator, car, M. T. Hitchcock
Earth closet, I.S. & H. R. Russell	Wagons, unloading corn from, T. Barron 145,779
Engine balanced valve, N. P. Stevens	Washer, ore, S. Wheeler
Feather renovator, J. E. Schooler	Washing machine, S. Short
Fence, iron, T. Rogers	Water meter, diaphragm, D. B. Spooner 145,762 Water wheel, J. Kunkle
Fence, portable, R. Johnson	Weather guard, J. Pease 145,750
Fire escape, L. M. Chipley	I Weather strin () Vorces
Fires, extinguishing, A. Watson	Weather strip, O. Vorcee
Fog signal, W. A. Stewart	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar 145,846
	Whilebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,638 Whip sockets, clamping, E. Chamberlin (r) 5,639
Farnace ( ) c soldering irons, J. Burgess	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,700
Farnace + σ soldering irons, J. Burgess         145,734           Furnace, locomotive, Δ. J. Stevens         145,819           Gage, pressure, G. H. Crosby         145,726	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H.Agar. 145,836 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,700 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692
Farnace 1 or soldering irons, J. Burgess       145,734         Furnace, locomotive, A. J. Stevens       145,819         Gage, pressure, G. H. Crosby       145,726         Game apparatus, J. N. Sawkins       145,737         Game apparatus, F. W. Smith       145,914	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,700 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris. 145,877
Farnace For soldering irons, J. Burgess. 145,734 Furnace, locomotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkina. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,609 Whip sockets, clamping, E. Chamberlin (r) 5,700 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris. 145,877 Windmill regulator, D. C. Stover. 145,765 Window blind slat operator, E. C. Byam 145,842
Farnace 1 or soldering iron., J. Burgess. 145,754 Furn 100, locomotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus. J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, Illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Generator, sectional steam, J. D. Lynde. 145,743	Whalebone splitting machine, D. Warner.         145,770           Whiffletree, H. Agar.         145,845           Whip sockets, clamping, E. Chamberlin (r)         5,698           Whip sockets, clamping, E. Chamberlin (r)         5,699           Whip sockets, clamping, E. Chamberlin (r)         5,609           Windlass, W. H. Harfield         145,866           Windmill, Crossman & Spicer (r)         5,992           Windmill, Keeler & Harris         145,877           Windmill regulator, D. C. Stover         145,825           Windo w guard, J. W. White         145,773
Farnace 1 or soldering irons, J. Burgess. 145,734 Furnace, locomotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,728 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810 Generator, caroonic acid gas, O. Zwietusch. 145,713 Generator, sectional steam, J. D. Lynde. 145,743 Grain for flour, preparing, O. F. Cook. 145,856	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,700 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris 145,877 Windmill regulator, D. C. Stover. 145,765 Window blind slat operator, E. C. Byam 145,842 Window guard, J. W. White. 145,773 Wind wheel, Brand et al. 145,782 Wire, nippers for twisting, J. W. Fry. 145,794
Firmace 1-c soldering iren., J. Burgess. 145,784 Furn (cc), locemotive, A. J. Stevens. 145,889 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,713 Generater, sectional steam, J. D. Lynde. 145,743 Grain fer fleur, preparing, O. F. Ceek. 145,836 Grater, nutneg, T. Marriott. 145,831 Ringe, blind, O. S. Garretson. 145,797	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,826 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,700 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris 145,877 Windmill regulator, D. C. Stover. 145,765 Window blind slat operator, E. C. Byam 145,812 Window guard, J. W. White. 145,773 Wind wheel, Brand et al. 145,782 Wire, nippers for twisting, J. W. Fry. 145,794 Wood to imitate slate, J. O. Froshaug. 145,859
Farnace 1 or soldering iron., J. Burgess. 145,734 Furn 100, locomotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Generator, sectional steam, J. D. Lynde. 145,743 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutning, T. Marriott. 145,881 Higgs, blind, O. S. Garretson. 145,797 Hoisting machine, J. Darling. 145,727	Whalebone splitting machine, D. Warner.   145,770   Whiffletree, H. Agar.   145,876   Whitp sockets, clamping, E. Chamberlin (r)   5,698   Whip sockets, clamping, E. Chamberlin (r)   5,699   Whip sockets, clamping, E. Chamberlin (r)   5,709   Windass, W. H. Harfield   145,866   Windmill, Crossman & Spicer (r)   5,692   Windmill, Keeler & Harris   145,877   Windmill regulator, D. C. Stover   145,765   Window blind slat operator, E. C. Byam   145,873   Window guard, J. W. White   145,773   Wind wheel, Brand et al.   145,782   Wire, nippers for twisting, J. W. Fry   145,794   Wood to imitate slate, J. O. Froshaug   145,859   APPLICATIONS FOR EXTENSIONS.
Furnace 1-c soldering iren., J. Burgess. 145,784 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, flluminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,711 Generator, carronic acid gas, O. Zwietusch. 145,731 Grain for fleur, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Daring. 145,737 Hoop skirt, W. Coc. 145,845 Hose c upiling, J. Edson. 145,731	Whalebone splitting machine, D. Warner.   145,770
Farnace 1-7 soldering iron., J. Burgess. 145,784 Furn 10-7, locomotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby. 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. G. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,717 Generator, carronic acid gas, O. Zwietusch. 145,743 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,381 Hingo, blind, O. S. Garretson. 145,727 Hoosting machine, J. Darling. 145,727 Hoop skirt, W. Coc. 145,733 Hub boring machine, W. S. Owen. 145,834	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. C. & W. Muller. 145,814 Gas, flluminating, J. C. & W. Muller. 145,810 Generator, caroonic acid gas, O. Zwietusch. 145,731 Generator, caroonic acid gas, O. Lynde. 145,732 Grain fer fleur, preparing, O. F. Ceek. 145,826 Grain fer fleur, preparing, O. F. Ceek. 145,826 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoop skirt, W. Cec. 145,832 Hose coupling, J. Edson. 145,731 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,768	Whalebone splitting machine, D. Warner
Farnace 1 or soldering irons, J. Burgess. 145,734 Furnace, locomotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, Illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Grain for flour, preparing, O. F. Cook. 145,834 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,727 Hoostdag machine, J. Darling. 145,727 Hoop skirt, W. Coc. 145,834 Hubl boring machine, W. S. Owen. 145,834 Hubl boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,835	Whalebone splitting machine, D. Warner
Furnace to soldering irens, J. Burgess. 145,734 Furnace, toe motive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby. 145,226 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. C. & W. Muller. 145,810 Gancrator, carbonic acid gas, O. Zwietusch. 145,711 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Lynde. 145,736 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hings, blind, O. S. Garretson. 145,727 Hoop skirt, W. Coc. 145,835 Hose c aupling, J. Edson. 145,737 Hub boring machine, W. S. Owen. 145,834 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,832 Hydrant, Van Kannel & Elzenhoefer. 145,768 Inb iling apparatus, E. Schofield. 145,758 Iron and steel, C. Carpenter, Jr. 145,843	Whalebone splitting machine, D. Warner
Farnace 1-c soldering iron, J. Burgess. 145,734 Furn 1cc, locomotive. A. J. Stevens. 145,839 Gage, pressure. G. H. Crosby. 145,739 Game apparatus, J. N. Sawkins. 145,757 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. G. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,381 Hingo, blind, O. S. Garretson. 145,737 Hoisting machine, J. Darling. 145,737 Hoop skirt, W. Coc. 145,738 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,738 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inh iling apparatus, E. Schofield. 145,738 Iron and steel, C. Carpenter. Jr. 145,838 Key hole guard, W. N. Hall. 15,865 Knife cleaner, C. B. Sheldon. 145,900	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,836 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whid sockets, clamping, E. Chamberlin (r) 5,692 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris 145,773 Windmill regulator, D. C. Stover 145,765 Window blind slat operator, E. C. Byam 145,842 Window guard, J. W. White 145,773 Wind wheel, Brand et al. 145,782 Wire, nippers for twisting, J. W. Fry. 145,794 Wood to imitate slate, J. O. Froshaug. 145,859 APPLICATIONS FOR EXTENSIONS. Applications have been duly filed, and are now pending for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the days hereinsfiter mentioned: 27,603.—Wringing Machine —S. A. Bailey. March 11. 27,623.—Tobacco Screw.—N. Hoag et al. March 11. 27,624.—PLOW.—G. W. Hunt. March 11. 27,624.—PLOW.—G. W. Hunt. March 11. 27,735.—Grinding Mill.—E. Munson. March 18.
Farnace 1 or soldering iron., J. Burgess. 145,734 Furn 100, 100 motive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. G. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Generator, carronic acid gas, O. Zwietusch. 145,743 Grater, nutneg, T. Marriott. 145,881 Hingo, blind, O. S. Garretson. 145,787 Hoisting machine, J. Darling. 145,727 Hoop skirt, W. Cec. 145,838 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,738 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inh iling apparatus, E. Schofield. 145,738 Iron and steel, C. Carpenter. Jr. 145,838 Key hole guard, W. N. Hall. 145,858 Katle eleaner, C. B. Shelden. 145,838	Whalebone splitting machine, D. Warner. 145,770 Whiffletree, H. Agar. 145,836 Whip sockets, clamping, E. Chamberlin (r) 5,698 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whip sockets, clamping, E. Chamberlin (r) 5,699 Whid sockets, clamping, E. Chamberlin (r) 5,699 Windlass, W. H. Harfield 145,866 Windmill, Crossman & Spicer (r) 5,692 Windmill, Keeler & Harris 145,767 Windmill regulator, D. C. Stover 145,765 Window blind slat operator, E. C. Byam 145,842 Window guard, J. W. White 145,773 Wind wheel, Brand et al. 145,782 Wire, nippers for twisting, J. W. Fry. 145,794 Wood to imitate slate, J. O. Froshaug. 145,859 APPLICATIONS FOR EXTENSIONS. Applications have been duly filed, and are now pending for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the days hereinsfiter mentioned: 27,603.—Wringing Machine —S. A. Bailey. March 11. 27,620.—Sewing Machine Stitch.—J. Davis. March 11. 27,621.—Tobacco Screw.—N. Hoag et al. March 11. 27,623.—PLOW.—G. W. Hunt. March 11. 27,624.—PLOW.—G. W. Hunt. March 11. 27,623.—Grinding Mill.—E. Munson. March 18.
Furnace 1-c soldering irens, J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810 G-mentor, carronic acid gas, O. Zwietusch. 145,743 Generater, sectional steam, J. D. Lynde. 145,743 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Darling. 145,737 Hoop skirt, W. Cec. 145,845 Hose c upiling, J. Edson. 145,738 Hub boring machine, W. S. Owen. 145,884 Hull, ship's, E. C. Belequic. 155,832 Hydrant, Van Kannel & Elzenhoefer. 145,788 Iren and steel, C. Carpenter, Jr. 145,838 Key hole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Shelden. 145,790 Ladder and troning board, H. H. Kendricks. 145,738 Ladder, bench, and clothes frame, H. H. Barker. 145,731	Whalebone splitting machine, D. Warner
Farnace 1-c soldering iron, J. Burgess. 145,734 Furn 1cc, locomotive. A. J. Stevens. 145,839 Gage, pressure. G. H. Crosby. 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. G. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,743 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,381 Hingo, blind, O. S. Garretson. 145,727 Hoosting machine, J. Darling. 145,727 Hoop skirt, W. Coc. 145,737 Hoboring machine, W. S. Owen. 145,834 Hulb boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 155,832 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inhiling apparatus, E. Schofield. 145,738 Key hole guard, W. N. Hall. 155,853 Key hole guard, W. N. Hall. 155,855 Kalte cleaner, C. B. Sheldon. 145,900 Ladder, fireinan's extension, G. W. Harris. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,787 Ladder bench, and clothes frame. H. H. Barker. 145,787	Whalebone splitting machine, D. Warner
Furnace 1-c soldering irens, J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,914 Gas, illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,711 Generator, carronic acid gas, O. Zwietusch. 145,737 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Darling. 145,737 Hops skirt, W. Coc. 145,845 Hose c appling, J. Edson. 145,738 Hubl. ship's, E. C. Belequic. 155,834 Hydrant, Van Kannel & Elzenhoefer. 145,738 Ice machine, W. Bray 145,838 Inh iling apparatus, E. Schofield. 145,738 Ice machine, W. Bray 145,838 Krite cleaner, C. B. Sheldon. 145,838 Krite cleaner, C. B. Sheldon. 145,738 Ladder, freman's extension, G. W. Harris. 15,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes frame, H. H. Barker. 145,716 Lead, dryer for, A. D. Armstrong. 145,718 Letter clip and paper binder, G. W. McGill. 145,889	Whalebone splitting machine, D. Warner
Furnace 1-c soldering irens, J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,814 Gas, Illuminating, J. O. & W. Muller. 145,810 Generator, carbonic acid gas, O. Zwietusch. 145,731 Generator, carbonic acid gas, O. Zwietusch. 145,731 Generator, carbonic acid gas, O. Lynde. 145,732 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Higgs, blind, O. S. Garretson. 145,737 Hobisting machine, J. Daring. 145,727 Hobisting machine, W. S. Owen. 145,832 Hose coupling, J. Edson. 145,731 Hull, ship's, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,768 Hohling apparatus, E. Schofield. 145,758 Iron and steel, C. Carpenter, Jr. 145,813 Key hole guard, W. N. Hall. 15,865 Knife cleaner, C. B. Shelden. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes trame, H. H. Barker. 145,748 Lamp extinguisher, F. Hille. 145,760 Lead, dryer for, A. D. Armstrong. 145,713	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,38 Furnace, locemotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,814 Gas, Illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,731 Generator, carronic acid gas, O. Zwietusch. 145,731 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,881 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Daring. 145,737 Hop skirt, W. Coc. 145,845 Hose c uppling, J. Edson. 145,731 Hub boring machine, W. S. Owen. 145,834 Hydrant, Van Kannel & Elzenhoefer. 145,788 Joe machine, W. Bray 145,838 Inh iling apparatus, E. Schofield. 145,788 Ico machine, W. Bray 145,838 Knite cleaner, C. B. Sheldon. 145,808 Knite cleaner, C. B. Sheldon. 145,808 Ladder, fireinan's extension, G. W. Harris. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes frame, H. H. Barker. 145,748 Lead, dryer for, A. D. Armstrong. 145,748 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,817 Loce or catch for trunks, A. V. Romadka. 145,872 Loce or catch for trunks, A. V. Romadka. 145,870	Whalebone splitting machine, D. Warner
Furnace 1-c soldering irens, J. Burgess. 145,784 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. C. & W. Muller. 145,810 Gas, filuminating, J. C. & W. Muller. 145,810 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, sectional steam, J. D. Lynde. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hobiting machine, J. Daring. 145,737 Hobbering machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,768 Inhiling apparatus, E. Schofield. 145,758 Iron and steel, C. Carpenter, Jr. 145,813 Key hole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Shelden. 145,708 Ladder, freman's extension, G. W. Harris. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes frame, H. H. Barker. 145,718 Ladder, bench, and clothes frame, H. H. Barker. 145,718 Ledd, dryer for, A. D. Armstrong. 145,713 Letter clip and paper binder, G. W. McGill. 145,800 Lightning rod, J. Drew. 145,814 Lock or exteh for trunks, A. V. Romadka. 145,817	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,384 Furnace, locemotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,814 Gas, illuminating, J. O. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,731 Generator, carronic acid gas, O. Zwietusch. 145,731 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,881 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Daring. 145,737 Hop skirt, W. Coc. 145,835 Hose coupling, J. Edson. 145,731 Hulb boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inhiling apparatus, E. Schofield. 145,738 Iron and steel, C. Carpenter. Jr. 145,813 Key bole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Shelden. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder bench, and clothes frame, H. H. Barker. 145,718 Lamp extinguisher, F. Hille. 145,738 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,812 Locomotive window, J. H. Dinsmore. 145,813 Locomotive window, J. H. Dinsmore. 145,813 Loom shuttle, E. P. Ball. 145,813 Loom shuttle, E. P. Ball. 145,813	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,78 Furnace, loe motive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. C. & W. Muller. 145,810 Gas, Illuminating, J. C. & W. Muller. 145,810 Ganerator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, sectional steam, J. D. Lynde. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Darhing. 145,727 Hoop skirt, W. Coc. 145,834 Hose coupling, J. Edson. 145,738 Hull, ship'a, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,768 Inhiling apparatus, E. Schofield. 145,758 Iron and steel, C. Carpenter, Jr. 145,813 Key hole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Sheldon. 145,900 Ladder, freman's extension, G. W. Harris. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and ciothes frame, H. H. Barker. 145,718 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,871 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,815 Lock or catch for trunks, A. V. Romadka 145,817 Loom shuttle, E. P. Ball. 145,818	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,734 Furnace, locemotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, F. W. Smith. 145,814 Gas, Illuminating, J. O. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,737 Generator, carronic acid gas, O. Zwietusch. 145,737 Generator, carronic acid gas, O. Lynde. 145,737 Generator, eartonic steam, J. D. Lynde. 145,737 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutmeg, T. Marriott. 145,838 Hinge, blind, O. S. Garretson. 115,737 Hoisting machine, J. Daring. 145,727 Hoop skirt, W. Coc. 145,835 Hose coupling, J. Edson. 145,731 Hub boring machine, W. S. Owen. 145,832 Hydrant, Van Kannel & Elzenhoefer. 145,738 Hull, ship's, E. C. Belequic. 158,832 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inhiling apparatus, E. Schofield. 145,738 Iron and steel, C. Carpenter, Jr. 145,813 Key hole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Shelden. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes frame, H. H. Barker. 145,718 Lamp extinguisher, F. Hille. 145,738 Lead, dryer for, A. D. Armstrong. 145,738 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,814 Locomotive window, J. H. Dinsmore. 145,739 Loom shuttle E. P. Ball. 145,836 Loom shuttle Equird, E. M. Stevens. 145,768 Loom shuttle Equird, E. M. Stevens. 145,768 Loom shuttle Equird, E. M. Stevens. 145,812	Whalebone splitting machine, D. Warner
Furnace of soldering irens, J. Burgess. 145,784 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. C. & W. Muller. 145,810 Gas, Illuminating, J. C. & W. Muller. 145,810 Ganerator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Lynde. 145,781 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Hings, blind, O. S. Garretson. 145,797 Hoisting machine, J. Darhing. 145,727 Hoop skirt, W. Coc. 145,835 Hose coupling, J. Edson. 145,781 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,838 Hydrant, Van Kannel & Elzenhoefer. 145,768 Inh iling apparatus, E. Schofield. 145,768 Iron and steel, C. Carpenter. Jr. 145,813 Key hole guard, W. N. Hall. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder bench, and clothes frame. H. H. Barker. 145,716 Letter clip and paper binder, G. W. McGill. 145,802 Lighting rod, J. Drew. 145,811 Look or catch for trunks, A. V. Romadka. 145,817 Look or catch for trunks, A. V. Romadka. 145,817 Loom shuttle E. P. Ball. 145,818 Loom shuttle Eurd, E. M. Stevens. 145,863 Loom shuttle Eurd, E. M. Stevens. 145,863 Loom shuttle clerief, W. C. Macomber. 115,832 Loom take up. C. Gahrens, (r). 5,706 Lubric ting compound, J. B. Nortis. 145,818 Medical compound, G. Declat. 145,850	Whalebone splitting machine, D. Warner
Furnace of soldering irens, J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. O. & W. Muller. 145,810 Gas, filuminating, J. O. & W. Muller. 145,810 Generator, carbonic acid gas, O. Zwietusch. 145,731 Generator, carbonic acid gas, O. Zwietusch. 145,731 Grain fer fleur, preparing, O. F. Ceek. 145,826 Grain fer fleur, preparing, O. F. Ceek. 145,836 Graiter, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoop skirt, W. Cee. 145,835 Hose coupling, J. Edson. 145,731 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 135,832 Hydrant, Van Kannel & Elzenhoefer. 145,738 Inhiling apparatus, E. Schofield. 145,738 Inhiling apparatus, E. Schofield. 145,738 Key hole guard, W. N. Hall. 15,865 Knife cleaner, C. B. Shelden. 145,803 Ladder fleenan's extension, G. W. Harris. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and paper binder, G. W. McGill. 145,800 Loghtning rod, J. Drew. 145,811 Locomotive window, J. H. Dinsmore. 145,702 Loom shuttle E. P. Ball. 145,802 Loom shuttle E. P. Ball. 145,802 Loom shuttle E. P. Ball. 145,803 Mais for pitchers, etc., rubber, C. A. Price. 145,815 Medical compound, J. B. Nerris. 145,832 Medical compound, Pawlewski & Schulz. 145,738 Medical compound, Pawlewski & Schulz. 145,734	Whalebone splitting machine, D. Warner
Furnace of soldering irens, J. Burgess. 145,734 Furnace, locemotive, A. J. Stevens. 145,819 Gage, pressure, G. H. Crosby 145,726 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. N. Sawkins. 145,737 Game apparatus, J. O. & W. Muller. 145,810 Gas, Illuminating, J. C. & W. Muller. 145,810 Ganerator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Zwietusch. 145,771 Generator, carbonic acid gas, O. Lynde. 145,781 Grain for flour, preparing, O. F. Cook. 145,836 Grain for flour, preparing, O. F. Cook. 145,836 Hings, blind, O. S. Garretson. 145,797 Hoisting machine, J. Darhing. 145,727 Hoop skirt, W. Coc. 145,835 Hose coupling, J. Edson. 145,738 Hub boring machine, W. S. Owen. 145,834 Hull, ship's, E. C. Belequic. 145,838 Hilling apparatus, E. Schofield. 145,768 Inh iling apparatus, E. Schofield. 145,768 Iron and steel, C. Carpenter. Jr. 145,813 Key hole guard, W. N. Hall. 115,867 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder and paper binder, G. W. McGill. 145,807 Lighting rod, J. Drew. 145,811 Letter clip and paper binder, G. W. McGill. 145,807 Look or catch for trunks, A. V. Romadka. 145,817 Loom shuttle Eler, W. C. Macomber. 145,818 Loom shuttle E. P. Ball. 145,818 Loom shuttle Eler, W. C. Macomber. 145,818 Loom shuttle refier, W. C. Macomber. 145,818 Medical compound, J. B. Nortis. 145,818 Medical compound, Pawlewski & Schulz. 145,738 Mill, grinding, D. A. Caldwell. 145,738 Milling, rinding, D. A. Caldwell. 145,738 Mill, grinding, D. A. Caldwell. 145,738	Whalebone splitting machine, D. Warner
Furnace 1-c soldering iren., J. Burgess. 145,384 Furnace, locemotive. A. J. Stevens. 145,819 Gage, pressure. G. H. Crosby 145,226 Game apparatus, J. N. Sawkins. 145,757 Game apparatus, J. N. Sawkins. 145,757 Game apparatus, F. W. Smith. 145,814 Gas, Illuminating, J. C. & W. Muller. 145,810 Generator, carronic acid gas, O. Zwietusch. 145,717 Generator, carronic acid gas, O. Zwietusch. 145,717 Generator, carronic acid gas, O. Zwietusch. 145,718 Grain for flour, preparing, O. F. Cook. 145,836 Grater, nutneg, T. Marriott. 145,831 Hinge, blind, O. S. Garretson. 145,737 Hoisting machine, J. Daring. 145,737 Hop skirt, W. Coc. 145,845 Hose c uppling, J. Edson. 145,738 Hull, ship's, E. C. Belequic. 155,845 Hydrant, Van Kannel & Elzenhoefer. 145,738 Jee machine, W. Bray 145,838 Inh iling apparatus, E. Schofield. 145,738 Iron and steel, C. Carpenter. Jr. 145,813 Key tole guard, W. N. Hall. 15,865 Knite cleaner, C. B. Sheldon. 145,738 Ladder, firenan's extension, G. W. Harris. 145,738 Ladder and troning board, H. H. Kendrick. 145,738 Ladder, bench, and clothes frame. H. H. Barker. 145,736 Lead, dryer for, A. D. Armstrong. 145,738 Letter clip and paper binder, G. W. McGill. 145,890 Lightning rod, J. Drew. 145,812 Loom shuttle, E. P. Ball. 145,812 Loom shuttle, P. Ball. 145,812 Loom shuttle erlief, W. C. Macomber. 145,813 Mats for pitchers, etc., rubber, C. A. Price. 145,815 Medical compound, J. B. Norris. 145,815 Medical compound, G. Declat. 145,838 Medical compound, G. Declat. 145,836 Medical compound, G. Declat. 145,836 Medical compound, G. Declat. 145,738 Mill, grinding, D. A. Caldwell. 145,738 Mill, grinding, D. A. Caldwell. 145,738	Whalebone splitting machine, D. Warner

İ	Nail driving machine, A. Smith	145,818
١	Null separating device, H. B. Chess	
1	Paddle wheel, A.C. Fletcher	
,	Padlock, F. Egge.	145,853
3	Padlock, combination, W. N. Hall	5,695
١	Pan, dust, O. C. Forsyth, Jr	145,792
ļ	Paper weight and sponge holder, D. R. Manning Peg cutter, C. H. Bacon	
Ì	Pegging machine, G. L. Roberts	145,900
•	Pen wiper, H. S. Ball	145,778
	Pessary, C. E. Flack	
7	Plano truck, F. B. McGregor	
<u>,</u>	Piano and organ attachment, L. J. Fremaux Pickets, machine for shaping, A. J. Sutherland	
7	Ple marker, T. S. Macomber	
3	Pipe chucks, etc., carrying, Peavey & Colton	
ı	Planter, corn, J. S. Davis	
7	Power, transferring, E. B. Clark	
3	Printer's furniture, H. A. Hemple	145,800
3 ]	Printing press feed gage, C. N. Morris	
3	Pump, E. C. Wharton	145,921
7	Pump cylinders, lining for, W. S. Owen	
1	Pump, steam, B. S. Lawson	145,806
5 1	Purifier, middlings, I. Scholtield	
8	Railway crossing, J. Brahn	
7	Rake, horse hay, B. J. Downing, (r)	5,704
ί	Razor strop, J. B. Lucas	
į	Respirator, B. W. James	145.874
6 8	Rigging, tair leader for ship's, J. J. Walton	145,919
1	Rigging stopper, T. G. Bell	5,697
6	Roadways, etc., removing snow, C. G. Waterbury	145,822
) ()	Rod, connecting, T. T. Prosser	
1	Safe, fireproof, Sontag & Lotz	
0 : 6	Sash cord guide, W. M. Griscom	145,863
5	Saw set, R. F. Cook	
1	Scrubbing machine, W. J. Gard	145,796
3	Sewing machine, C. H. Palmer	145,814
)	Sewing machine quilter, F. G. Buschmeier	145,841
5 0	Sewing stand, Fling & Land Shearing sheep, device for, A. J. Fullam,(r)	115,858
7	Shoe fastening, S. Babhitt.	
9	Shutter fastening, IL H. Miner	145,888
5	Sieve, G. Wright	145,924 5,705
2	Skate, o. Poloes, (f)	5,707
2	Skylight, G. Hayes, (r)	5,693
ě	Sofa, chair, etc., A. S. Newhouse	
7 2 .	Spinning ring, W. Jenckes (r)	5.702
2 . 7	Spring brace for vehicles, C. V. M. Suydam Square, try, L. Bailey	145,916
8	Stalks, apparatus for binding, S. Kuh	
6 9	Stirrup, A. J. Herring	
8	Steve, heating, I. G. Macfarlane	
1	Tallow, etc., bleaching, J. R. Brown	145,840
1 5	Tank and liquid measure, J. H. Corliss	
8	Tool, Baker, Doney, & Owen	145,745
1	Toy money bex, J. Hall	145,784
9	Toy pistol or gun, G. S. Hastings Trap, fly, G. W. Eichholtz	
3	Umbrella, G. G. Griswold	145,737
3	Umbrella, L. Sawyer	
5	Valve, safety, Jordan & Paul.	
9 <b>5</b>	Vehicle wheel, D. Brown	145,783
3	Ventilating carwindows, C. B. Knevals	
2 6	Ventilator, railroad car, J. D. Simmons	145,760
9	Wagons, unloading corn from, T. Barron	
4	Washing mashing M. I. Hanks	
3	Washing machine, S. Short	145,911
2	Water meter, diaphragm, D. B. Spooner	
3 5	Weather guard, J. Pease	145,750
7	Weather strip, O. Vorcee	
4	Whiffletree, H. Agar	145,826
5	Whip sockets, clamping, E. Chamberlin (r) Whip sockets, clamping, E. Chamberlin (r)	
4	Whip sockets, clamping, E. Chamberlin (r) Whip sockets, clamping, E. Chamberlin (r)	
9	Windlass, W. H. Harfield	145,866
7	Windmill, Crossman & Spicer (r)	5,692 145,877
10	Windmill regulator, D. C. Stover	145,765
1	Window blind slat operator, E. C. Byam	
13 16	Wind wheel, Brand et at	
1	Wire, nippers for twisting, J. W. Fry	145,794
7	Wood to imitate slate, J. O. Froshaug	
17	APPLICATIONS FOR EXTENSION	NB.

# APPLICATIONS FOR EXTENSIONS.

# EXTENSIONS GRANTED.

# DISCLAIMERS.

# DESIGNS PATENTED.

# TRADE MARKS REGISTERED.

Nall delivering machine, S. S. Putnam........... 145,755 1,532 & 1,583.—Explosive Compounds.—Giant Powder Co. et al., San Francisco, Cal.

1.584. - MOTTO PAPERS. -T. Van Skelline, Brooklyn, N.Y. 1,585.—ANILINE DYES.—Wells & Co., Burlington, Vt. 1,586.—SOAP.—J. Eavenson & Sons, Philadelphia, Pa. 1,587 .- LINIMENT.-W. Kidder, Goffstown, N. H.

### SCHEDULE OF PATENT FEES.

On each Caveat	.\$10
On each Trade Mark	\$25
On filing each application for a Patent (17 years).	815
On issuing each original Patent	.820
On appeal to Examiners-in-Chief	\$10
On appeal to Commissioner of Patents	. \$20
On application for Reissue	.830
On application for Extension of Patent	.850
On granting the Extension	.8:50
On fling a Disclaimer	810
On an application for Design (31/2 years)	810
On application for Design (7 years)	815
On application for Design (14 years)	

# VALUE OF PATENT

# And How to Obtain Them.

# Practical Hints to Inventors.



ROBABLY no investment of a small sum of money brings a greater return than the expense incurred in obtaining a patent, even when the invention is but a small one. Large inventions are found to pay correspondingly well. The names of Blanchard, Morse, Bigelow, Colt, Ericsson, Howe, McCormick, Hoc and others, who have amassed immense fortunes from their inventions, are well known And there are thousands of others who have realized large sums from their patents.

More than FIFTY THOUSAND inventors have availed themselves of the services of Munn & Co. during the TWENTY-SIX years they have acted as solicitors and Publishers of the SCIENTIFIC AMERICAN. They stand at the head in this class of business; and their large corps of assistants, mostly selected from the ranks of the Patent Office: men capable of rendering the best service to the inventor, from the experience practically obtained while examiners in the Patent Office: enables MUNN & Co. to do everything appertaining to patents BETTEB and CHEAPER than any other reliable agency.

# HOW TO OBTAIN

This is the closing inquiry in nearly eve-

ry letter, describing some invention which comes to this office. A positive answer can only be had by presenting a complete application for a patent to the Commissioner of Patents. An application consists of a Model, Drawings, Petition, Oath, and full Specification. Various official rules and formalities must also be observed. The efforts of the inventor to do all this business himself are generally without success. After great perplexity and delay, he is usually glad to seek the aid of persons experenced in patent business, and have all the work done

over again. The best plan is to solicit proper advice at the beginning. If the parties consulted are honorable men, the inventor may safely confide his ideas to them: they will advise whether the improvement is probably patentable, and will give him all the directions needful

#### to protect his rights. How Can I Best Secure My Invention?

This is an inquiry which one inventor naturally asks another, who has had some experience in obtaining patents. His answer generally is as follows, and corre

Construct a neat model, not over a foot in any dimension-smaller if possible-and send by express, prepaid, addressed to Munn & Co., 37 Park Row, together with a description of its operation and merits. On receipt thereof, they will examine the invention carefully, and advise you as to its patentability, free of charge. Or, if you have not time, or the means at hand, to construct a model, make as good a pen and ink sketch of the improvement as possible and send by mail. An answer as to the prospect of a patent will be received, usually, by return of mail. It is sometimes best to have a search made at the Patent Office; such a measure often saves

#### the cost of an application for a patent. Preliminary Examination.

In order to have such search, make out a written description of the invention, in your own words, and a pencil, or pen and ink, sketch. Send these, with the fee of \$5, by mail, addressed to MUNN & Co., 37 Park Row, and in due time you will receive an acknowledgment thereof, followed by a written report in regard to the patentability of your improvement. This special search s made with great care, among the models and patents at Washington, to ascertain whether the improvement presented is patentable.

# To Make an Application for a Patent,

The applicant for a patent should furnish a model of his invention if susceptible of one, although sometimes it may be dispensed with; or, if the invention be a chemical production, he must furnish samples of the ingredients of which his composition consists. These should be securely packed, the inventor's name marked on them and sent by express, prepaid. Small models, from a dis by mail way to remit money is by a draft, or postal order, on New York, payable to theorderof Munn & Co. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New York correspondents.

# Foreign Patents.

The population of Great Britain is 31,000,000; of France 37,000,000; Belgium, 5,000,000; Austria, 36,000,000; Prussia, 40,000,000, and Russia, 70,000,000. Patents may be secured by American citizens in all of these countries. Now time, when business is dull at home, to take advantage of these immense foreign fields. Mechanical improvements of all kinds are always in demand in Europe. There will neverbe a better time than the present to take patents We have reliable business connections principal capitals of Europe. A large share of all the patentssecured in foreign countries by Americans are obtained through our Agency. Address Munn & Co., 37 Park Row, New York. Circulars with full information on foreign patents, furnished free.

# Caveats.

Persons desiring to file a caveat can have the papers prepared in the shortest time, by sending a sketch and description of the invention. The Government fee for a caveat is \$10. A pamphlet of advice regarding applica

tions for patents and caveats is furnished gratis, on an plication by mail. Address Munn & Co. 37 Park Rew, New York

### Value of Extended Patents.

Did patentees realize the fact that their inventions are likely to be more productive of profit during the seven years of extension than the first full term for which their patents were granted, we think more would avail themselves of the extension privilege. Patents granted prior to 1861 may be extended for seven years, for the benefit of the inventor, or of his heirs in case of the decease of fomer, by due application to the Patent Office, ninety days before the termination of the patent. The extended time inures to the benefit of the inventor, the assignees under the first term having no rights under the extension except by special agreement. The Government fee for an extension is \$100, and it is necessary that good professional service he obtaine (to conduct the business before the Patent Office. Full information as to extensions may be had by addressing Munn & Co. 37 Park Row, New

#### Trademarks.

Any person or firm domiciled in the United States, or any firm or corporation residing in any foreign country where similar privileges are extended to citizens of the United States, may revision their designs and obtain protection. This is very important to manufacturers in this country, and equally so to foreigners. For full particulars address MUNN & Co., 37 Fark Row, New York.

#### Design Patents.

Foreign designers and manufacturers, who send goods to this country, may seeme patents here upon their new patterns, and thus prevent others from fabricating or

sclling the same goods in this market.

A patent for a design may be granted to any person whether citizen or alien, for any new and original design for a manufacture, bust, statue, also refleve, or has: el any new and original design for the printing of weelen slik.cotton, or other labries, any new and original impression, ornament, pattern, print, or picture, to be printed, painted, cast, or otherwise placed on or worked nto any article of manufacture.

Design patents are equally as important to citizens as to foreigners. For full particulars send for pamphlet to MUNN & Co., 37 Park Row, New York.

#### Copies of Patents.

Persons desiring any patent issued from 1836 to Novem ber 26,1867, can be supplied with official copies at a reasonable cost, the price depending upon the extent of draw ingsand length of specification.

Any patent issued since Nevember 27, 1867, at which time the Patent Office commenced printing the drawings and specifications, may be had by remitting to this of-

A copy of the clams of any patent issued since 1886 will be furnished for \$1.

When ordering copies, please to remit for the same as above, and state name of patentee, title of invention, and date of patent. Address M∈NN & Co., Patent Solicitors

37 Park Kew, New York.

Munn & Co. will be happy to see inventors in person at their office, or to advise them by letter. In all cases they may expect an honest opinion. For such consultations, epinions, and advice, no charge is made. Write plain; do not use pencil or pale ink; be brief.

All business committed to our care, and all consultations, are kent secret and structly contident at.

In all matters pertaining to patents, such as conducting interferences, procuring extensions, drawing assignments, examinations into the validity of patents, etc. special care and attention is given. For information and for pamphlets of instruction and advice,

MUNN & CO.,

PUBLISHERS SCIENTIFIC AMERICAN, 37 Park Row, New York. OFFICE IN WASHINGTON-Corner F and 7th Streets, opposite Patent Office.

# HOW TO OBTAIN IN CANADA.

ATENTS are now granted to inventors in Canada, without distinction as to the nationabity of the applicant. The proceedings to obtain patents in Canada are nearly the same as in the United States. The applicant is required to fur nish a model, with specification and drawings in duplicate. It is also necessary for him to sign and make

affidavit to the originality of the invention. The total expense, in ordinary cases, to apply for a Canadian patent, is \$75, U. S. currency. This includes the government fees for the first five years, and also our (Munn & Co.'s) charges for preparing drawings, specifications and papers, and attending to the entire business. The holder of the patent is entitled to two extensions of the patent, each for five years, making fifteen years in all

If the inventor assigns the patent, the assignee enjoys all the rights of the inventor.

A small working model must be furnished, made to any convenient scale. The dimensions of the model should not exceed twelve inches.

If the invention consists of a composition of matter eamples of the composition, and also of the several in gredients, must be furnished.

Persons who desire to apply for patents in Canada are requested to send to us (Munn & Co.), oy enpress. a model with a description, in their own language, show ing the merits and operation of the invention, reuntting also the fees as above for such term for the patent at they may elect. We will then immediate's prepare the drawings and specification, and send the latter to the applicant for his examination, signature, and affidavit It requires from four to twelve weeks' time, after completion of the papers, to obtain the decision of the Canadian Patent Office. Remit the fees by check, draft, or Postal order. Do not send the money in the box with model. Give us your name in tuli, middle name included Inventions that have already been patented in the United States for not more than one year may also be

patented in Canada. On filing an application for a Canadian patent, the Commissioner causes an examination as to the novelty and utility of the invention. If found lacking in either of these particulars, the application will be rejected, in which case no portion of the fees paid will be returned to the applicant.

Inventors may temporarily seenre their impreve ments in Canada by filing careats: expense thereof, \$35

For further information about Canadian patents, assignments, etc., address

MUNN & CO. 37 Park Row, New York