cloth about two yards long, roll it up into a hard roll, Dip one end into the boiled oil, and add a few drops of shellac varnish, and rub the work previously oiled with that until a fine polish is obtained.

How can I mend a rubber hose having small holes in it? A. With rubber cement, which you can obtain from dealers in rubber goods. Caoutchouc, dissolved in chloroform, will fill very small holes.

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

J. McE.-It is a rich ore of lead-galena, -S. C. C.-A poor iron ore-argillaceous limonite -W. A. M.-The incrustation consists for the most part of lime sulphate and carbonate, together with a little silica, alum ina, iron, and organic matter. The remedies suggested will, in time, soften but not remove it .- C. F. B .-Quartz, of no especial value —J. H. P.—No. 1, Quartzite with specular and titaniferous iron. The green piece contains copper oxide, silicate, sulphide, and carbonate, together with much iron. No. 2. A limestone. No. 3 resembles No. 1. Nos. 4, 12, and 13, conglomerate. No. 5. Hematite with crocidolite. No. 6. Quartz containing siderite. No. 7. Lithographic stone. No. 8. Limestone with pyrites and a trace of copper sulphide. No. 9. Red jasper. No. 10 contains specular iron. No. 11. Limestone. No. 14. Barite-impure barium sulphate. It occurs commonly in beds or veins of metallic

## COMMUNICATIONS RECEIVED.

The Editor of the Scientific American acknowledges with much pleasure the receipt of original papers and contributions on the following subjects: Progress of the Plow. By F. W. J. Preventing Explosions in Mines. By F. P. and A. D Safeguard against Counterfeiting. By E. A. H. Locomotive Strokes. By W. St. L. Our Earth Motionless. By S.

The Polariscopeas a Photometer. By P. H. V. OFFICIAL.

The Locomotive Engine. By F. I.

## INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States Were Granted in the Week Ending March 12, 1878,

## AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list. including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

Advantage apparent A. C. Tamatt	Paper pulp, reducing wood to, N. Bly	201,132
Advertising apparatus, A. S. Lovett 201,257	Patterns, grading, D. F. Hartford	201,111
Alarm register, G. C. Smith	Paving compound, Morel & Fletcher	201,274
Animal trap, J. Shrader 201,293	Photographic camera, A. L. Hudson	
Axle skein tie rod, J. W. Lowell	Planter and fertilizer distributer, J. A. Shine	201 204
Bedstead, sofa, A. Hentshel 201,246	Plow, Bogenrief & Pattison	
Bedstead, wardrobe, H. Ogborn 201,282	Plow, Burns & McElhany	
Beer, preserving, L. Gathmann	Plow, E. J. Camp	
Bit stock, H S. Bartholomew (r) 8,115	Plow, Nourse & Howe	201,281
Boiler, culinary, R. E. Deane	Plow clevis, H. T. Noble	201,120
Boiler, locomotive and fire box, J. L. Winslow 201,214	Plow frame, gang, J. Currie	201,097
Boiler, sectional, J. G. Miner 201,273	Plow, hilling, G. A. De Long	201,099
Boiler, steam, J. T. Fanning	Plow, sulky, T. B. Chamberlin	201,227
Bolt work, safe, M. Adler 201,146	Pocketbook fastening, L. Messer (r)	8,123
Boot and shoe heel, W. Hill	Power, transmitting, J. F. Haskins	
Boot and shoe sole protector, A. F. Schurr 201,128	Press for marking cigars, G. G. Bild	201,088
Box and vase, W. A. Marble 201,116	Pressure regulator, S. A. Hand	
Bracelet joint, F. E. Capron	Pressure regulator, J. E. Watts (r)	
Brake, car, W. H. Ward	Printing press, A. Campbell	
Brake for hoist, S. H. Bevins <i>et al.</i>	Propeller for vessels, atmospheric, T. H. Neal	
Brush bridler, W. H. G. Savage	Pump, W. S. Davis	201.164
Buckle, W. J. Carnes, Jr	Purse, J. C. Rundlett	201,201
Bung turning machine, R. Pentlarge 201,285	Radiator, W. H. Brown	
Button, A. Messler	Rail joint, E. J. Roberts	
Can, metallic, G. H. & J. H. Perkins 201,122	Rake, W. H. Kretsinger	
Car coupling, W. H. Ward	Range, W. H. Barnes	
Car door, D. F. Van Liew	Rivets, applying, E. Morse	
	Rivets, cutting, A. S. McDowell	
Car, sleeping, B. F. Manier	Rolling plate metal, S. T. Wellman	
	Roof, ridge saddle, W. Darby	
Carpet pad, G. W. Chipman (r)	Saddle tree, gig, G. Theobald	
Cart body, F. H. Trenholm		
Chain, ornamental, E. Verpillier	Sash holder, W. J. Way	
Chair, barber's, H. Geise	Saw handle, R. F. Sprague	
Chair, folding rocking, D. N. Selleg	Saw mill head block, A. S. Richards	
Chair leg fastening, J. Scarritt, Jr	Saw sharpening machine, J. A. Miller	
Chair, rocking, J. Beiersdorf	Scoop, measure, and sieve, C. C. Tittle	
Chisel, O. J. Pennell	Screw, drive, D. F. Fetter, (r)	
Churn dasher, S. B. Rathbun 201.287	Scythe fastenings, C. T. Beebe	
Cigar package, P. Cauhape 201,160	Seaming, etc., metal pipes, F. M. Irons	
Clocks, synchronizing, J. A. Lund 201,185	Seeding machine, A. Putnam (r)	
Cloth finishing, H. Hebdon 201,112	Sewer gas trap, F. E. Cudell	
Clutching device, H. Fuchs 201,105	Sewer trap, Starbuck & Small	201.299
Coal breaker, G. B. Markle	Sewing machine take up, J. McCloskey	
Coal breaker, G. B. Markle		201,260
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163	Sewing machine take up, J. McCloskey	201,260 201,305 201,275
Coffee pot, J. C. Weller 201,139	Sewing machine take up, J. McCloskey Sheet metal flanging machine, A. W. Vandorston	201,260 201,305 201,275
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264	Sewing machine take up, J. McCloskey	201,260 201,305 201,275 201,124 201,210
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188	Sewing machine take up, J. McCloskey	201,260 201,305 201,275 201,124 201,210
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264	Sewing machine take up, J. McCloskey Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r)	201,260 201,305 201,275 201,124 201,210 201,121 8,118
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201230	Sewing machine take up, J. McCloskey Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r)	201,260 201,305 201,275 201,124 201,210 201,121 8,118
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,284         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,145	Sewing machine take up, J. McCloskey	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,463         Coffin fastener, J. McCarthy       201,488         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,145         Corset clasp, J. M. Van Orden       201,307	Sewing machine take up, J. McCloskey Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,145         Corset clasp, J. M. Van Orden       201,807         Cotton chopper, F. E. Glover       201,240	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey.	201,260 201,305 201,275 201,124 201,121 201,121 8,118 201,292 201,171 201,134 201,148
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,45         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,280         Tranberry picker, A. C. Nickerson       201,280         Crayons, C. C. Parsons       201283	Sewing machine take up, J. McCloskey Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley Sidewalk, joint, H. B. Dyer Siphon, E. Uhrich	201,260 201,305 201,275 201,124 201,121 201,121 8,118 201,292 201,171 201,134 201,148
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,88         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,435         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,281         Granberry picker, A. C. Nickerson       201,280         Crayons, C. C. Parsons       201,283         Cultivator, D. S. Wagner       201,136	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge.	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171 201,134 201,130 201,302
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,88         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,435         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,281         Granberry picker, A. C. Nickerson       201,280         Crayons, C. C. Parsons       201,283         Cultivator, D. S. Wagner       201,136	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge.	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171 201,134 201,130 201,302
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,45         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,280         Tranberry picker, A. C. Nickerson       201,280         Crayons, C. C. Parsons       201283	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shoek binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood. Shutter, A. G. Haumann (r). Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich. Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter.	201,260 201,305 201,275 201,124 201,121 8,118 201,292 201,171 201,171 201,134 201,130 201,302 201,302
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,63         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,45         Corset clasp, J. M. Van Orden       201,807         Cotton chopper, F. E. Glover       201,20         Coupling link manufacture, J. Mann       201,261         Granherry picker, A. C. Nickerson       201,280         Crayons, C. C. Parsons       201,280         Cultivator, D. S. Wagner       201,304         Cultivator tooth, Van Brunt & Davis       201,304         Curtain tassel, L. B. & N. B. Griffith       201,109	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge.	201,260 201,305 201,275 201,212 201,210 201,121 8,118 201,292 201,171 201,134 201,130 201,302 201,302 201,302 201,138
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,188         Coin holder and counter, J. W. Meaker       201,284         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,145         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,261         Grayons, C. C. Parsons       201,280         Cultivator, D. S. Wagner       201,283         Cultivator tooth, Van Brunt & Davis       201,304	Sewing machine take up, J. McCloskey Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley Sideboard and dining table, J. R. Shirley Sighon, E. Uhrich Sleigh standard, S. R. Bailey Spinning machine, J. C. Stanley Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter Sprinkling pipe, F. Grinnell Stalls for vessels, horse, H. P. Kirkham	201,260 201,305 201,275 201,124 201,121 8,118 201,292 201,171 201,134 201,130 201,130 201,130 201,302 201,302 201,302 201,302
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,168         Coffin fastener, J. McCarthy       201,88         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,307         Cotset, M. Adler       201,507         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,240         Coupling link manufacture, J. Mann       201,280         Crayons, C. C. Parsons       201283         Cultivator, D. S. Wagner       201,136         Cultivator tooth, Van Brunt & Davis       201,303         Curtain tassel, L. B. & N. B. Griffith       201, 109         Drawing and spinning, Twitchell & Richardson       201,303	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell. Shoe fastening, E. Rees. Shoe tree, R. Turneaure. Shoe maker's tool heater, G. A. Osgood. Shutter, A. G. Haumann (r). Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich. Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell.	201,260 201,305 201,275 201,1275 201,121 8,118 201,292 201,171 201,130 201,130 201,302 261,138 201,302 261,158 201,292 201,1718 201,292 201,201,201,201,302 201,201,402
Coffee pot, J. C. Weller       201,139         Coffin fastener, A. B. Davis       201,163         Coffin fastener, J. McCarthy       201,88         Coin holder and counter, J. W. Meaker       201,264         Corn holder, J. De Yongh       201,230         Corset, M. Adler       201,405         Corset clasp, J. M. Van Orden       201,307         Cotton chopper, F. E. Glover       201,240         Coupling link manufacture, J. Mann       201,281         Granberry picker, A. C. Nickerson       201,283         Cultivator, D. S. Wagner       201,136         Cultivator tooth, Van Brunt & Davis       201,304         Curtain tassel, L. B. & N. B. Griffith       201,109         Drawing and spinning, Twitchell & Richardson       201,303         Effervescent liquid apparatus, F. W. Wiesebrock,	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shoek binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling plpe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham. Steam and fume box, E. Delong.	201,260 201,305 201,275 201,124 201,121 8,118 201,292 201,171 201,130 201,302 201,130 201,302 201,130 201,302 201,130 201,302 201,130 201,302 201,130 201,302 201,302
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell. Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood. Shutter, A. G. Haumann (r). Sideboard and dining table, J. R. Shirley. Sideboard and dining table, J. R. Shirley. Sighon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning fing, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham. Steam and fume box, E. Delong. Stove, cooking, J. A. Lawson.	201,260 201,305 201,212 201,1124 201,1121 8,118 201,122 201,171 201,130 201,130 201,130 201,130 201,130 201,252 201,302 201,302 201,302 201,302 201,303 201,305 201,30
Coffee pot, J. C. Weller         201,139           Coffin fastener, A. B. Davis         201,463           Coffin fastener, J. McCarthy         201,488           Coin holder and counter, J. W. Meaker         201,264           Corn holder, J. De Yongh         201,230           Corset, M. Adler         201,145           Corset clasp, J. M. Van Orden         201,307           Cotton chopper, F. E. Glover         201,240           Coupling link manufacture, J. Mann         201,240           Caupling link manufacture, J. Mann         201,280           Crayons, C. C. Parsons         201283           Cultivator, D. S. Wagner         201,336           Cultivator tooth, Van Brunt & Davis         201,364           Curtain tassel, L. B. & N. B. Griffith         201, 109           Drawing and spinning, Twitchell & Richardson         201,303           Effervescent liquid apparatus, F. W. Wiesebrock,         201,141, 201,212           Electric machine, H. J. Smith         201,236	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sieboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling plpe, F. Grinnell Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap M. Wilson Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell	201,260 201,305 201,212 201,1124 201,1121 8,118 201,122 201,171 201,130 201,130 201,130 201,130 201,130 201,252 201,302 201,302 201,302 201,302 201,303 201,305 201,30
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shoek binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell Stove, heating, T. Gemmell.	201,260 201,305 201,124 201,121 201,121 8,118 201,292 201,171 201,134 201,138 201,148 201,148 201,302 201,402 201,252 201,252 201,252 201,252 201,252 201,252 201,252 201,253 201,253 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168 201,168
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Sighon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap M. Wilson. Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell Stove, fire box for, J. A. Lawson	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171 201,130 201,302 221,130 221,302 221,130 201,316 201,255 201,242 201,256 201,162 201,256 201,162
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sieboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap M. Wilson Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell Stove, heating, T. Gemmell Stoves, fire box for, J. A. Lawson Stump puller, J. D. Smith	201,260 201,305 201,275 201,124 201,210 201,210 201,121 8,118 201,292 201,171 201,130 201,130 201,302 261,158 201,253 201,253 201,253 201,168 201,253 201,168 201,255 201,255 201,255 201,255 201,255 201,255
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Sighon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap M. Wilson. Stove, cooking, J. A. Lawson Stove, evaporator, F. E. Cudell Stove, heating, T. Gemmell. Stoves, fire box for, J. A. Lawson Stump puller, J. D. Smith Sugar pressing machine, A. De La Montagnie.	201,260 201,260 201,275 201,124 201,210 201,210 8,118 201,292 201,171 201,130 201,130 201,130 201,130 201,130 201,130 201,130 201,130 201,252 201,252 201,252 201,252 201,252 201,255 201,262 201,262 201,262 201,262 201,262
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shoek binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Sighon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell Stoves, fire box for, J. A. Lawson Sture puller, J. D. Smith Sugar pressing machine, A. De La Montagnle. Surveying instruments, F. E. Brandis.	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171 201,130 201,130 201,130 201,302 271,158 201,253 201,255
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning machine, J. C. Stanley. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell Stove, fire box for, J. A. Lawson Stove, fire box for, J. A. Lawson Stump puller, J. D. Smith Sugar pressing machine, A. De La Montagnie. Surveying instruments, F. E. Brandis Switch head chair, G. S. Winslow	201,260 201,260 201,275 201,124 201,210 201,211 8,118 201,292 201,171 201,134 201,130 201,302 261,158 201,302 261,158 201,302 261,158 201,302 261,158 201,253
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sleeboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning machine, J. C. Stanley. Spinning fring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling plpe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham. Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove, cooking, J. A. Lawson Stove, heating, T. Gemmell. Stoves, fire box for, J. A. Lawson Stump puller, J. D. Smith Sugar pressing machine, A. De La Montagnie. Surveying instruments, F. E. Brandis. Switch head chair, G. S. Winslow Tap and faucet, M. A. Farrell	201,260 201,260 201,275 201,124 201,210 201,210 8,118 201,129 201,171 201,130 201,130 201,130 201,130 201,130 201,130 201,130 201,130 201,253 201,253 201,255
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston shock binder, B. D. Morrell. Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood. Shutter, A. G. Haumann (r). Sideboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich. Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning ring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling pipe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham. Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove evaporator, F. E. Cudell. Stove, fire box for, J. A. Lawson Stune puller, J. D. Smith Sugar pressing machine, A. DeLa Montagnle. Surveying instruments, F. E. Brandis. Switch head chair, G. S. Winslow Tap and faucet, M. A. Farrell	201,260 201,305 201,275 201,124 201,210 201,121 8,118 201,292 201,171 201,130 201,130 201,302 267,158 201,302 267,158 201,256
Coffee pot, J. C. Weller	Sewing machine take up, J. McCloskey. Sheet metal flanging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sleeboard and dining table, J. R. Shirley. Sidewalk, joint, H. B. Dyer. Siphon, E. Uhrich Sleigh standard, S. R. Bailey. Spinning machine, J. C. Stanley. Spinning machine, J. C. Stanley. Spinning fring, C. E. Trowbridge. Spring for mattresses, A. Carter. Sprinkling plpe, F. Grinnell. Stalls for vessels, horse, H. P. Kirkham. Steam and fume box, E. Delong. Stench trap, M. Wilson. Stove, cooking, J. A. Lawson Stove, cooking, J. A. Lawson Stove, heating, T. Gemmell. Stoves, fire box for, J. A. Lawson Stump puller, J. D. Smith Sugar pressing machine, A. De La Montagnie. Surveying instruments, F. E. Brandis. Switch head chair, G. S. Winslow Tap and faucet, M. A. Farrell	201,260 201,205 201,275 201,124 201,210 201,211 8,118 201,292 201,171 201,113 201,148 201,302 261,158 201,302 261,158 201,302 261,158 201,302 261,158 201,255

Fire arm, J. Aston	
Fire extinguisher, Lester & Fox	201,183
Flatiron heater, J. A. J. Askew	. 201,215
Flour chest, sifter, etc., C. H. & R. H. Ober  Flying machine, C. F. Ritchel  Fountain, F. W. Wiesebrock	201,130
Frog. J. Brahn Fruitdrier, O. F. Tiffany. Furnace, C. W. Siemens	201,154
Furnace, C. W. Siemens	201,191
Gang edger, S. P. Randolph	201,198
Garment supporter, C. A. Griswold	201,175
Gas machine, T. B. Fogarty	201,270
Gate, A. Rekart	201,319
Gate, draw bridge, P. B. Wight	201,149
Grain binder, E. Dederick	201,251
Grain cleaning and scouring machine, J. H. Teahl. Grain separator, C. Stucke	201,206
Grater, Watkins & Carey	8,119
Harvester reel, C. E. Fahrney	201,137
Hinge, T. T. Bishop	201,219 201,108
Hog catcher, F. M. Smith	201,205 201,125
Horse power, S. Thomas	201,207 201,094
Hydrant, W. McNamara Hydraulic jack, R. H. & G. T. Lewis	
Illuminating flames, G. P. Ganster Inkstand, W. A. Hull	201,249
Jewelry, pin tongues for, W. H. Hathaway	201,244
Keyhole guard, W. H. Avery Knob alarm, G. W. McGovern	201,085 201,117
Labels, machine for cutting, Frary & Hellman  Lamp burner, T. M. Brintnall	201,104
Lamp stand, R. S. Merrill  Last block fastener, Ellms & Mills	201,266
Level and plumb, J. Morss	201,276 201,173
Lock, seal, H. Ahrend	201,147
Lubricator, J. Richards. Lubricator, axle, E. W. Moyer	201,289
Mail bag, A. Call	201,156 201,194
Middlings separator, L. Gathmann	201,235
Mucilage holder, S. S. Newton	201,279
Musicrack, H. Warner	201,314
Needle sharpener, C. E. Lombard	201,115
Oiler, E. Weston Oiling wagon wheels, C. Maus	201,140
Organ reed, W. L. Merrin	201,267
Padlock, W. F. H. Amwake	201,084
	201,084 201,269 201,278
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy201,277, Paper pulp manufacture, S. M. Allen	201,084 201,269 201,278 201,083
Padlock, W. F. H. Amwake	201,084 201,269 201,278 201,083 201,152 201,111 201,274
Padlock, W. F. H. Amwake. Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer, J. A. Shine	201,084 201,269 201,278 201,083 201,152 201,111 201,274 201,248 201 204
Padlock, W. F. H. Amwake. Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen	201,084 201,269 201,278 201,083 201,152 201,111 201,274 201,248 201 204 201,153 201,222
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe	201,084 . 201,269   201,278   201,083   201,152   201,111   201,274   201,248   201 ,201   201,222   201,225   201,281
Padlock, W. F. H. Amwake. Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen	201,084 . 201,269   201,278   201,083   201,152   201,111   201,274   201,248   201,153   201,222   201,231   201,231   201,231   201,097
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Nohle Plow frame, gang, J. Currie. Plow, sulky, T. B. Chamberlin	201,084 201,269 201,278 201,152 201,152 201,111 201,274 201,248 201,248 201,248 201,225 201,225 201,225 201,225 201,099 201,227
Padlock, W. F. H. Amwake. Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Bogenrief & Pattison Plow, E. J. Camp Plow, Nourse & Howe Plow (levis, H. T. Nohle Plow frame, gang, J. Currie Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r) Power, transmitting, J. F. Haskins	201,084 201,269 201,278 201,083 201,152 201,111 201,274 201,214 201,224 201,225 201,227 8,123 201,278
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Bogenrief & Pattison Plow, E. J. Camp. Plow, Nourse & Howe Plow (Plow Company) Plow, Nourse & Howe Plow clarked, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r).	201,084 201,269 201,278 201,178 201,152 201,152 201,152 201,274 201,248 201,153 201,153 201,225 201,225 201,225 201,225 201,225 201,225 201,123 201,123 201,123 201,123 201,123 201,123 201,123 201,123 201,123 201,123 201,23 201,23 201,23 201,23 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,24 201,25 201,25 201,25 201,25 201,25 201,25 201,25 201,25 201,25 201,25 201,25 201,27 201,27 8,123 201,24 201,24 201,24 201,24 201,24 201,25 201,
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly. Paterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Nohle. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, tilling, G. A. De Long. Prossure regulator, J. F. Haskins Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Prippler for vessels, atmospheric, T. H. Neal	201,084 201,278 201,278 201,083 201,152 201,152 201,152 201,152 201,274 201,248 201,262 201,252 201,252 201,252 201,252 201,252 201,252 201,252 201,252 8,123 201,254 8,124 8,124 8,124 201,169
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen	201,084 201,278 201,278 201,278 201,083 201,152 201,152 201,152 201,211 201,248 201,248 201,225 201,225 201,225 201,225 201,225 201,227 8,123 201,224 201,088 201,243 8,124 201,243 201,243 201,243 201,244 201,261 201,199
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly. Paterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, E. J. Camp. Plow Keyer, T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, hilling, G. A. De Long. Plow, thisty, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, J. E. Watts (r) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Runellett. Radiator, W. H. Brown Rail joint, E. J. Roberts.	201,084 201,269 201,278 201,083 201,152 201,152 201,152 201,152 201,152 201,274 201,248 201,201 201,225 201,225 201,225 201,225 201,225 201,225 201,226 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,178 201,219 201,219 201,219 201,219 201,219
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen	201,084 201,269 201,278 201,083 201,152 201,152 201,171 201,248 201 204 201,153 201,225 201,225 201,225 201,281 201,120 201,097 201,287 8,123 201,128 8,124 201,198 201,164 201,199 201,196 201,199 201,290 201,290 201,290
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse.	201,084 201,269 201,278 201,083 201,152 201,1152 201,1152 201,1153 201,222 201,225 201,225 201,225 201,225 201,225 201,225 201,225 201,226 201,120 201,099 201,227 8,123 201,178 201,088 201,243 8,124 201,262 201,119 201,091 201,091 201,091 201,254 201,254 201,1686 201,1686 201,1686 201,1686 201,1686 201,1686 201,1686 201,1686 201,1686 201,1686
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly. Paterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, E. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Nohle. Plow frame, gang, J. Currie Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Rasiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, riage saddle, W. Darby.	201,084 201,269 201,278 201,083 201,152 201,111 201,274 201,248 201,103 201,252 201,225 201,225 201,225 201,225 201,225 201,225 201,225 201,120 201,097
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp. Plow, Color of the Morel of the Morel Plow clevis, H. T. Noble. Plow frame, gang, J. Currie Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Pressure regulator, S. A. Hand Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Runelett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse Rivets, applying, E. Morse Rivets, aucturing, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby Saddle tree, gig, G. Theobald Sash holder, W. J. Way.	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,252 201,251 201,225 201,251 201,252 201,251 201,252 201,251 201,252 201,253 201,252 201,253 201,253 201,254 201,254 201,254 201,255 201,251 201,097 201,097 201,097 201,097 201,097 201,098 201,226 201,119 201,098 201,262 201,261 201,098 201,192 201,262 201,211 201,098
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Prump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw handle, R. F. Sprague.	201,084 201,269 201,278 201,083 201,152 201,171 201,248 201,212 201,221 201,221 201,222 201,225 201,225 201,226 201,227 8,123 201,128 201,088 201,243 8,124 201,226 201,199 201,226 201,199 201,226 201,199 201,226 201,199 201,262 201,199 201,262 201,199
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Paterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, B. J. Camp Plow, E. J. Camp Plow (evis, H. T. Noble Plow frame, gang, J. Currie Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r) Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bils Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r). Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman Roof, ridge saddle, W. Darby. Saadhe tree, gig, G. Theobals Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle	201,084 201,269 201,278 201,083 201,152 201,171 201,248 201,103 201,225 201,225 201,225 201,225 201,225 201,226 201,120 201,097 201,098 201,227 8,123 201,120 201,098 201,243 8,124 201,119 201,091 201,091 201,290 201,201 201,201
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw mill head block, A. S. Richards. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle.	201,084 201,269 201,278 201,083 201,152 201,171 201,248 201,212 201,221 201,221 201,222 201,225 201,225 201,226 201,227 8,123 201,178 8,123 201,126 201,262 201,263
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly. Paterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp. Plow, E. J. Camp. Plow, will, T. Nohle. Plow frame, gang, J. Currie Plow, hilling, G. A. De Long. Plow, bulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r.). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r.) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw mill head block, A. S. Richards. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Screw, drive, D. F. Fetter, (r) Soythe fastenings, C. T. Beebe. Seaming, etc., metal pipes, F. M. Irons.	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,274 201,248 201,201 201,222 201,225 201,225 201,226 201,227 8,123 201,178 8,124 201,099 201,227 8,123 201,119 201,091
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,213 201,225 201,251 201,225 201,251 201,261 201,261 201,097 201,287 201,288 201,243 201,243 201,262 201,119 201,091 201,091 201,290 201,191 201,091 201,290 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,091 201,291 201,192 201,291 201,192 201,291 201,192 201,291 201,192 201,291 201,192 201,291 201,298 201,291
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting. J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts. Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Scoop, measure, and sieve, C. C. Seeding machine, A. Putnam (r). Sewer gas trap, F. E. Cudell. Sewer trap, Starbuck & Small.	201,084 201,269 201,278 201,083 201,152 201,178 201,274 201,248 201,153 201,225 201,225 201,225 201,226 201,120 201,099 201,227 8,123 201,088 201,243 8,124 201,262 201,119 201,091 201,091 201,091 201,091 201,091 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101 201,091 201,101
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Paterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp Plow, E. J. Camp Plow (levis, H. T. Noble Plow frame, gang, J. Currie Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r) Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bils Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman Roof, ridge saadle, W. Darby. Saadle tree, gig, G. Theobals Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw mill head block, A. S. Richards Saw sharpening machine, J. A. Miller Scove, drive, D. F. Fetter, (r) Scythe fastenings, C. T. Beebe Seewer trap, Starbuck & Small. Sewer trap, F. E. Cudell Sewer trap, Starbuck & Small. Sewer trap, F. E. Cudell Shoe fastening, E. Res	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,120 201,121 201,225 201,225 201,225 201,227 8,123 201,227 8,123 201,120 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,091 201,290 201,119 201,091 201,290 201,291 201,098 201,192 201,291 201,291 201,098 201,192 201,290 201,291 201,290 201,291 201,290 201,291 201,290 201,200 201,301 8,121 201,290 201,200 201,301 8,121 201,290 201,200 201,301 8,121 201,290 201,200 201,305 201,124
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp. Plow, Burns & McElhany Plow, Clevis, H. T. Noble. Plow frame, gang, J. Currie Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Runelett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse Rivets, applying, E. Mors	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,153 201,225 201,225 201,221 201,120 201,097 201,287 201,288 201,281 201,126 201,192 201,098 201,291 201,098 201,291 201,098 201,291 201,098 201,291 201,098 201,291 201,292 201,291 201,292 201,291 201,292 201,293
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp. Plow, C. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw mill head block, A. S. Richards. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Screw, drive, D. F. Fetter, (r) Scythe fastenings, C. T. Beebe Seaming, etc., metal pipes, F. M. Irons. Seeding machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer gras trap, F. E. Cudell Sewer gras trap, F. E. Cudell Sewer gas trap, F. E. Cudell Sewer gas trap, F. E. Cudell Sewer fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley.	201,084 201,269 201,278 201,083 201,152 201,178 201,274 201,248 201,153 201,222 201,225 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,228 201,161 201,201
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp Plow (Low Frame) Plow (Low Frame) Plow (Low Frame) Plow, Willing, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r) Power, transmitting, J. F. Haskins Pressure regulator, J. E. Watts (r) Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal Pump, W. S. Davis Purse, J. C. Runellett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,112 201,213 201,225 201,225 201,225 201,226 201,120 201,097 201,098 201,227 8,123 201,098 201,243 201,260 201,1091 201,091 201,091 201,290 201,291 201,091 201,291 201,292 201,211 201,098 201,212
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp. Plow, Burns & McElhany Plow, C. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, nilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, J. E. Watts (r) Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts. Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, eutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, riage saddle, W. Darby. Saw handle, R. F. Sprague Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Scorew, drive, D. F. Fetter, (r) Scythe fastenings, C. T. Beebe Seaming, etc., metal pipes, F. M. Irons Seeding machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small Sewing machine, A. Putnam (r) Shoe fastening, E. Rees. Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley. Spinning machine, J. C. Stanley.	201,084 201,269 201,278 201,083 201,152 201,178 201,274 201,248 201,271 201,248 201,252 201,251 201,120 201,252 201,251 201,260 201,272 8,123 201,262 201,261 201,098 201,262 201,191 201,098 201,262 201,191 201,098 201,262 201,191 201,262 201,191 201,262 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263 201,263
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, E. J. Camp Plow, B. J. Camp Plow, W. E. J. Camp Plow, Nourse & Howe Plow frame, gang, J. Currie Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r.). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild Pressure regulator, S. A. Hand Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way Saw handle, R. F. Sprague Saw mill head block, A. S. Richards Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle Screw, drive, D. F. Fetter, (r). Scythe fastenings, C. T. Beebe Seewing machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small Sewer gas trap, F. E. Cudell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sideboard and dining table, J. R. Shirley Spinning machine, J. C. Stanley Spinning machine, J. C. Stanley Spinning machine, J. C. Stanley Spinning ring, C. E. Trowbridge Spinning ring, C. E. Trowbridge Spinning for mattresses, A. Carter	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,112 201,213 201,225 201,225 201,225 201,225 201,226 201,120 201,097 201,097 201,097 201,097 201,097 201,097 201,097 201,097 201,097 201,098 201,119 201,106 201,109 201,201 201,091 201,091 201,201 201,091 201,201 201,119
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp Plow, Burns & McElhany Plow, Clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin. Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r). Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, quiting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Screw drive, D. F. Fetter, (r) Scythe fastenings, C. T. Beebe Sewering anchine, A. Putnam (r) Sewering machine, A. Putnam (r) Sewering machine, A. Putnam (r) Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r) Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r) Sewer trap, Starbuck & Small. Sewing machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastenings, C. E. Trowbridge. Sprinkling ping, C. E. Trowbridge. Sprinkling p	201,084 201,269 201,278 201,083 201,152 201,171 201,248 201,173 201,2248 201,173 201,225 201,120 201,097 201,291 201,120 201,097 201,281 201,120 201,098 201,226 201,110 201,091 201,091 201,091 201,091 201,091 201,091 201,192 201,193
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine. Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, E. J. Camp. Plow, Nourse & Howe Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting. J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, S. A. Hand. Pressure regulator, S. A. Hand. Pressure regulator, S. A. Hand. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett. Radiator, W. H. Brown Rall joint, E. J. Roberts. Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle. Scorew, drive, D. F. Fetter, (r). Scythe fastenings, C. T. Beebe. Seaming, etc., metal pipes, F. M. Irons. Seeding machine, A. Putnam (r). Sewer gas trap, F. E. Cudell. Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r). Sewer gas trap, F. E. Cudell. Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r). Sewer gas trap, F. E. Cudell. Sewer fastening, C. E. Trowbridge. Spinning machine, J. C. Stanley. Spinning machine, J. C	201,084 201,269 201,278 201,083 201,152 201,178 201,214 201,224 201,125 201,225 201,225 201,226 201,120 201,120 201,227 8,122 201,128 201,226 201,120 201,226 201,120 201,227 8,122 201,226 201,120 201,227 8,122 201,226 201,121 201,226 201,121 201,226 201,121 201,226 201,121 201,226 201,121 201,226 201,121 201,226 201,221 201,226 201,221 201,226 201,221 201,226 201,221 201,226 201,221 201,226 201,220 201,221 201,220 201,221 201,220 201,221 201,220 201,221 201,220 201,211 201,301 8,121 201,220 201,218 201,132 201,135 201,136 201,136 201,136 201,136 201,136 201,236
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp Plow, Wourse & Howe Plow frame, gang, J. Currie Plow, willing, G. A. De Long Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r) Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild Pressure regulator, S. A. Hand Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r) Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal Pump, W. S. Davis Purse, J. C. Runellett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse Rivets, applying, E. Morse Rivets, applying, E. Morse Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way Saw hangening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle Screw, drive, D. F. Fetter, (r) Scythe fastenings, C. T. Beebe Seaming, etc., metal pipes, F. M. Irons Seeding machine, A. Putnam (r) Seewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small Sewer gas trap, F. E. Cudell Shoe fastening, E. Rees Shoe tree, R. Turneaure Shoe maker's tool heater, G. A. Osgood Shutter, A. G. Haumann (r) Sieboard and dining table, J. R. Shirley Sie	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,112 201,213 201,225 201,225 201,225 201,227 8,123 201,227 8,123 201,108 8,124 201,091
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp, reducing wood to, N. Bly Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer, J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, Burns & McElhany Plow, Burns & McElhany Plow, Clevis, H. T. Noble. Plow frame, gang, J. Currie. Plow, hilling, G. A. De Long. Plow, sulky, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild. Pressure regulator, J. E. Watts (r). Printing press, A. Campbell. Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rail joint, E. J. Roberts Rake, W. H. Kretsinger Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, applying, E. Morse. Rivets, qutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle Scower gas trap, F. E. Cudell Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r) Sewering anchine, A. Putnam (r) Sewering machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small. Sewing machine, A. Putnam (r) Sieboard and dining table, J. R. Shirley Siidewalk, joint, H. B. Dyer Siphon, E. Uhrich Sleigh standard, S. R. Bailey Spinning machine, J. C. Stanley Spinning from tresses, A. Carler Spinning from tresses, A. Carler Spinning ring, C. E. Tro	201,084 201,269 201,278 201,083 201,152 201,152 201,111 201,248 201,153 201,225 201,120 201,097 201,281 201,120 201,097 201,281 201,120 201,097 201,281 201,120 201,097 201,281 201,120 201,281 201,120 201,281 201,120 201,281 201,120 201,281 201,120 201,281 201,128 201,131 201,098 201,211 201,098 201,121 201,098 201,121 201,198 201,120 201,201 201,201 201,201 201,201 201,201 201,201 201,201 201,201 201,201 201,131 201,132 201,135 201,135 201,135 201,135 201,131 201,1301 8,121 201,1301 8,131 201,142 201,250 201,168 201,168 201,168 201,168 201,168 201,168 201,168
Padlock, W. F. H. Amwake Palmetto leaves, etc., treating, Miller & Benedict Paper bag machine, R. W. & M. Murphy 201,277, Paper pulp manufacture, S. M. Allen Paper pulp, reducing wood to, N. Bly. Patterns, grading, D. F. Hartford. Paving compound, Morel & Fletcher Photographic camera, A. L. Hudson. Planter and fertilizer distributer. J. A. Shine Plow, Bogenrief & Pattison Plow, Burns & McElhany Plow, Burns & McElhany Plow, B. J. Camp. Plow, Nourse & Howe Plow clevis, H. T. Noble. Plow, wilkly, T. B. Chamberlin Pocketbook fastening, L. Messer (r). Power, transmitting, J. F. Haskins Press for marking cigars, G. G. Bild Pressure regulator, S. A. Hand Pressure regulator, J. E. Watts (r). Printing press, A. Campbell Propeller for vessels, atmospheric, T. H. Neal. Pump, W. S. Davis Purse, J. C. Rundlett Radiator, W. H. Brown Rall joint, E. J. Roberts Rake, W. H. Kretsinger. Range, W. H. Barnes Rivets, applying, E. Morse. Rivets, cutting, A. S. McDowell Rolling plate metal, S. T. Wellman. Roof, ridge saddle, W. Darby. Saddle tree, gig, G. Theobald. Sash holder, W. J. Way. Saw handle, R. F. Sprague Saw mill head block, A. S. Richards. Saw sharpening machine, J. A. Miller Scoop, measure, and sieve, C. C. Tittle Scoop, measure, and sieve, C. C. Tittle Scoop, measure, and sieve, C. C. Tittle Scoop, measure, and sieve, C. C. Sythe fastenings, C. T. Beebe Seaming, etc., metal pipes, F. M. Irons Seeding machine, A. Putnam (r) Sewer gas trap, F. E. Cudell Sewer trap, Starbuck & Small Sewing machine take up, J. McCloskey. Sheet metal fianging machine, A. W. Vandorston Shock binder, B. D. Morrell Shoe fastening, C. E. Trowbridge. Spinning machine, J. C. Stanley. Spi	201,084 201,269 201,278 201,278 201,178 201,214 201,224 201,125 201,225 201,225 201,225 201,226 201,226 201,226 201,226 201,227 8,123 201,088 201,243 201,226 201,119 201,091 201,091 201,091 201,091 201,262 201,119 201,108 201,108 201,108 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091 201,201 201,1091

Tobacco, device for handling, V. Black. 2 Tobacco, package, E. R. Hearn. 2 Tobacco spraying apparatus, C. S. Philips. 2 Toy, bell, P. H. Hillard. 2	201,245
Tobacco spraying apparatus, C. S. Philips	
Toy, bell, P. H. Hillard 2	01.194
Toy, pistol, J. McConnell 2	
Trace trimming machine, T. H. Thompson 2	201,208
Truck, car, Banger & Hurd 2	
Truck, car, G. Vincent	
Truck, car, Vincent & Wheaton 2	
Tubing upon spindles, placing elastic, W. Cowles. 2	
Valve, balanced slide, R. G. Bishop 2	201,151
Vault, ash and garbage, M. Samelson 2	
Vehicle running gear, H. V. Caton 2	
Velocipede, E. N. Higby 2	01,179
Velocipede, ice, V. A. Menuez 2	01,265
Ventilator or smoke cowl, R. S. Godfrey 2	201,241
Wash boiler, W. A. Miller 2	01,190
Washing machine, J. W. Calef 2	01,224
Washing machine, C. A. Dodge 2	01.169
Washing machine, E. O. Rood 2	01,126
Water meter, A. Bergstrom (r)	
Water pipe, trap, O. Gillig 2	
Water trap, L. Brandeis 2	
Water wheel, turbine, T. Tripp 2	
Well tools, joint for oil, J. L. Alexander 2	
Wells, elevator and clamp for oil, J. A. Morrison 2	01.191
Windmill, G. B. Dean 2	01.166
Windmill, O. H. Quie 2	01.286
Wood, ornamenting, W. King 2	201.252
Yarn, dressing or sizing, B. Saunders (r)	8.117

## February 23 to March 14, inclusive.

Celluloid manufacture.—Cell. Manuf. Co., N. Y. city. Chain manufacture.—J. H. Helm, Allegheny, Pa. Electric machine.—H. C. Spalding, Bloomfield, N. J. Filter.—A. Van Haagen, Philadelphia, Pa. Furnace, S. T. Corp., philadelphia, Pa. Filter.—A. Van Haagen, rnilagennia, ra. Furnace.—S. T. Owens et al., Allegheny, Pa. Hose.—S. W. Baker, Providence, R. I. Life boat, J. F. Schultheis, N. Y. city. Middlings, dressing, etc.—T. D. Jones, Syracuse, N. Y. Mouldingmachine.—W. Munzer et al., N. Y. city. Rail soint.—E. Payne. Chicago, Ill.

Rail joint.—E. Payne, Chicago, Ill. Railway switch.—J. S. Williams, Riverton, N. J Ribbon roll.—H. G. Hubert et al., N. Y. city. Rock drill.—W. W. Dunn, San Francisco, Cal. Screw machine.—C. D. Rogers, Providence, R. I. Sewing machine.—J. E. Folk, Brooklyn, N. Y.

Sewing machine.—J. E. Folk, Brooklyn, N. Y. Shot concentrator.—R. Morris, U.S.A., et al. Sickle grinding machine.—W. S. Ingraham, Waukegan, Ill. Spinning machine.—F. Rabbeth, Pawtucket, R. I. Stopper.—W. H. Hicks, Brooklyn, N. Y. Syringe.—M. Mattson, N. Y. city. Transmitting power.—W. H. Clark et al., Chicago, Ill. Vehicle for self-propulsion.—G. W. Bishop, Brooklyn, N. Y. Wheel for vehicles.—T. H. King, San Francisco, Cal. Window cleaning chair.—Mrs. A. Dormitzer, N. Y. city.

## CAVEA'IS, COPYRIGHTS, TRADE MARKS, ETC.

Messrs. Munn & Co., in connection with the publication of the Scientific American, continue to examine Improvements, and to act as Solicitors of Patents for

In this line of business they have had over thirty YEARS' EXPERIENCE, and now have unequaled facilities for the preparation of Patent Drawings, Specifications, and the Prosecution of Applications for Patents in the United States, Canada, and Foreign Countries. Messrs. Munn & Co. also attend to the preparation of Caveats, Trade Mark Regulations, Copyrights for Books, Labels, Reissues, Assignments, and Reports on Infringements of Patents. All business intrusted to them is done with special care and promptness, on very moderate

We send free of charge, on application, a pamphlet containing further information about Patents and how to procure them; directions concerning Trade Marks, Copyrights, Designs, Patents, Appeals, Reissues, Infringements, Assignments, Rejected Cases, Hints on the Sale of Patents, etc.

Foreign Patents.—We also send, free of charge, a Synopsis of Foreign Patent Laws, showing the cost and method of securing patents in all the principal countries of the world. American inventors should bear in mind that, as a general rule, any invention that is valuable to the patentee in this country is worth equally as much in England and some other foreign countries Five patents-embracing Canadian, English, German, French, and Belgian-will secure to an inventor the exclusive monopoly to his discovery among about one HUNDRED AND FIFTY MILLIONS of the most intelligent people in the world. The facilities of business and steam communication are such that patents can be obtained abroad by our citizens almost as easily as at The expense to apply for an English patent is \$75; German, \$100; French, \$100; Belgian, \$100; Cana-

Copies of Patents .- Persons desiring any patent issued from 1836 to November 26, 1867, can be supplied with official copies at reasonable cost, the price depending upon the extent of drawings and length of specifications.

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

A copy of the claims of any patent issued since 1836 will be furnished for \$1.

as above, and state name of patentee, title of invention, and date of patent.

A pamphlet, containing full directions for obtaining United States patents sent free. A handsomely bound Reference Book, gilt edges, contains 140 pages and many engravings and tables important to every patentee and mechanic, and is a useful hand book of reference for everybody. Price 25 cents, mailed free.

Address MUNN & CO.,

Publishers SCIENTIFIC AMERICAN, 37 Park Row, N. Y. BRANCH OFFICE—Corner of F and 7th Streets, Washington, D. C.

## Advertisemenis.

Inside Page, each insertion --- 75 cents a line. Back Page, each insertion --- \$1.00 a line. (About eight words to a line.)

(About eight words to a line.)
Engravings may head advertisements at the same rate
per une, by measurement, as the letter press. Adverissements must be received at publication office as early
as Thursday morning to appear in next issue.

This Work is Very Reliable, and is Strongly Recommended by this Paper.

# ALLEN'S ARTIFICER'S ASSISTANT.

8½ x 6 inches. Contains more than 700 Pages, Hundreds or Luberrations and Diagrams, Thousands of Valuable Formu-las, Ketches, Processes, Trade Secrets, Tankes, etc., embrachy the most relial lecellaction over published, very man yof which have been obtained with difficulty and at a great expense.

LAS. RECEPTS, PROCESSES, TRADE SECRETS, TABLES, ETC., entire by the most broke local bodien over published, very many of which have been obtained were published, very many of which have been obtained were builted ward.

THE SCIENTIFIC AMERICAN BAYS of this work:

"ITHE SCIENTIFIC AMERICAN BAYS OF THE WARD BAYS OF THE WA

THE FLOW OF METALS. BY DAVID THE FLOW OF METALS. BY DAVID TOWNSEND. Valuable experiments, with ten engravings, on Punching through thick plates. Evidences of a Flow of Metal. Effect of Flow on Dimensions, Density, etc., of Plate. Lines of Least Resistance, etc. Punching with and across the grain. Practical Applications. Contained in SCIENTIFIC AMERICAN SUPPLEMENT NO. 119. Price 10 cents. To be had at this office and of all newsqualers.

LIQUID FUELS. BY H. AYDON. LIQUID FUELS. DI H. ATDON. A paper read before the institution of Civil Engineers, London. The five methods of burning liquid fuel, C.J. Richardson's, Simm and Barff's, Aydon's, and Dorsett's. Practical Working of each method, and comparative economy. Contained in SCIENTIFIC AMERICAN SUPPLEMENT NO. 119. Price 10 cents. To be had at this office and of all newsdealers.

## The Co-Operative Newspapers.

It has been asserted that one-half of all money paid by New York advertisers for advertising outside of that city goes to the CO-OPERATIVE NEWSPAPERS.

If this statement is true there is no occasion for surprise that prominent papers which are still charging war prices for advertising feel called upon to abuse a rival with which they find themselves unable to maintain a competition.

Full particulars about the Co-operative Newspapers, together with catalogues and advertising rates, mailed free on application to BKALS & FOSTER, General Ag'ts AMERICAN NEWSPAPER UNION, 41 Park Row, New York.

MANUFACTURERS OF MACHINES OR MANUFACTUREDS OF MACHINES OF INACTIONES OF Instruments suitable for England, India, or the Colonies, are requested to communicate with the advertisers, who have an extensive and well established connection in those markets and make a specialty of the goods referred to. Ample references will be given. Address J. J. WAINWRIGHT & CO., Cambridge Street Buildings, Birmingham, England.

A GENTLEMAN, THOROUGH BUSINESS man, connected with a large firm, is desirous of taking the representation or sole agency of responsible parties for Germany in good, salable articles. Liberal advances made; best of references given. Mechanical branch and machinery preferred. Please address H. HOEFER, 71 Nassau St., New York.



Say where you saw this.

Champion Combination and Youth's Companion Foot Lathes, A mateur Steam Engineer & Boders, Cylinder Saws and Stave Machines. Send stump for price. Strange's Cylinder aw & Mach. Co. Taunton Mass.

WANTED Parties to represent us everywhere for our new Combined Plan for Operating Calls." Liberal pay. No interference with other b siness. All kinds of bonds wanted. Circulars and private terms free. Lawrence & Co., Bankers, 21 Broad St., N. Y.

FLETCHER'S GAS FURNACE A copy of the claims of any patent issued since 1936 will melt half a pound of Gold, Silver, Iron Brass, etc., in a few minutes. LLUSTRATED PRICE LISTS OF LABOR-WHO ordering copies, please to remit for the same thou. BUFFALO DENTAL MANUFACTURING CO., and state name of patentee, title of invensable values above, and state name of patentee, title of invensable values.

> ON THE PRESERVATION OF WOOD. ON THE PRESERVATION OF WOOD.
>
> By J. CLARK JEFFERSON, A.R.S.M. How to store timber. How to measure timber and judge of its quality. Causes and Frevention of Dry and Damp Rot. Durability and Preservation: I. Coating timber methods of Artificial Preservation: I. Coating timber with Tar. etc. 2. Removing Sap by water or by steam. 3. Impregnating the wood by a solution of common salt, Sulphide of Barium, Sulphide of Zinc and Copper, etc. A valuable practical paper. Contained in Scientific American Suprace. To be had at this office and of all newsdealers.

RATS can be easily caught in any good trap, by using "Ratena" for bait.

MIC ELyman & Co. Erevort Station, KingeCo.M.Y.