Business and Personal,

The Charge for Insertion under this head is One Dollar a Line for each insertion. If the Notice exceeds Four Lines, One Dollar and a Half per Line will be charged.

Agricultural Implements and Industrial Machinery for Export and Domestic Use. R.H. Allen & Co., N.Y For Bolt Forging Machines and Power Hammers, address S. C. Forsaith & Co., Manchester, N. H.

25 per cent extra power or saving in fuel, guar-nteed to steam engines, by applying the R. S. Condenser. T. Sault, Consulting Eng'r, Gen. Agt., New Haven, Ct.

I.awn Mowers for Hand, Pony, or Horse—Prices reduced. Largest stock in the city. A. B. Cohu, 197 Water St., New York.

Wanted-25,000 lbs. 2nd hand light Trail. E. B. Seeley, Bowling Green, Ky.

For Sale—Valuable Patent, in whole or part, for Anti-Freezing Fire Hydrant. Apply Robt. Smeaton, Milwaukee, Wis.

Wood Working Machinery and Steam Pumps cheap for cash. HenryR. Sillman, Mott Haven, New York. Wanted-Descriptive Price List of Sewer Pipe

Machines (for hand or power). Address Charles Pratt, London Pottery, London, Ontario.

Two Valuable Patents—States Rights for Sale For particulars, address R. Jennings, 426 East Monument St., Baltimore, Md.

Draughtsman—Wanted a Situation by a constructive Draughtsman having experience in Gun and Sewing Machine Tools and general work. Best of reference. Address P. O. Box 560, Ilion, N. Y.

For Sale-Complete outfit of machinery for the manufacture of cotton waste, cost \$2,200. Price \$700. Forsaith & Co., Manchester, N. H.

E. P. Bullard, Dealer in Newand Second-Hand Machinery, 48 Beekman Street, New York.

By reference to the advertisement of J. C. Toddit will be seen that he remains at the old stand, No. 10 Barclay St., and that the Todd & Rafferty Machine Company has removed to 88 Liberty Street.

For Sale—15 in.x8 ft. Lathe, \$100; 22½ in.x12 ft. do., \$250; 35 in.x16½ ft. do., \$400; 9 ft. Planer, \$400; 6 ft. Planer, \$325; 12 in. Slotter, \$390; Profiling Machine (2 spindles), \$250. Shearman, 45 Cortlandt St., New York.

The Photo-Engraving Co. have been obliged to remove from 62 Cortlandt St. to a larger building at 67 Park Place. Their Relief Plates for Newspaper, Book, and Catalogue Illustrations are rapidly taking the place of Wood Cuts and are unsurpassed. See advertisement in another column of this paper.

For the best Patent Self-Opening Gates for Carriages, in any Style of Wood or Iron, address Cottom &

For Sale—State Rights on Wehrle's Patent Centennial Illuminator. Sells on sight. Send for circular without delay to Jos. Wehrle, Belvedere House, N. Y. city.

400 Machines, new and 2d hand, at low prices, fully described in our printed list No. 6. Send stamp, stating just what you want. Forsaith & Co., Manches

Split-Pulleys and Split-Collars of same price, strength, and appearance as Whole-Pulleys and Whole-Collars. Yocom & Son, Drinker St., below 147 North Second St., Philadelphia, P.

The Bastet Magnetic Engine for running Sewing Machines, Lathes, Pumps, Organs, or any light Machinery, 1-32 to 1/2 horse power. Agents wanted. Address with stamp, 1,113 Chestnut st., Philadelphia, Pa.

The French Files of Limet & Co. have the endorsement of many of the leading machine makers of America. Notice samples in Machinery Hall, French Department, Centennial Exposition. Homer Foot & Co., Sole Agents, 22 Platt St., New York.

Centennial Exhibitors, buy your Belting in Philadelphia, from C. W. Arny, 148 North 3rd st., and save freight and trouble. Satisfaction guaranteed.

The Original Skinner Portable Engine (Improved), 2 to 8 H.P. L. G. Skinner, Erie, Pa.

Hamilton Rubber Works, Trenton, N. J., Manufacturers of Apavement Hose, and any size, also Belting, Packing, Car Springs, and Rubber for Mechanical use. Send for price list.

First class Amoskeag Steam Fire Engine for Sale, 2d hand, \$1,200. Forsaith & Co., Manchester, N.H. Hotchkiss Air Spring Forge Hammer, best in the narket. Prices low. D. Frisbie & Co., New Haven, Ct. Patent Scroll and Band Saws, best and cheapest

use. Cordesman, Egan & Co., Cincinnati, Ohio.
Trade Marks in England.—By a recent amendment of the English laws respecting Trade Marks, citizens of the United States may obtain protection in Great Britain as readily as in this country, and at about the same cost. All the necessary papers prepared at this Office. For further information address Munn & Co., 37 Park Row, New York city.

Gas and Water Pipe, Wrought Iron. Send for prices to Bailey, Farrell & Co., Pittsburgh, Pa.

Shingles and Heading Sawing Machine. See advertisement of Trevor & Co., Lockport, N. Y.

For Sale—Sturtevant No. 7 Hot Blast Apparatus, \$400. Forsaith & Co., Manchester, N. H.

Solid Emery Vulcanite Wheels—The Solid Orig-nal Emery Wheel—other kinds imitations and inferior. Caution .- Our name is stamped in full on all our best Standard Belting, Packing, and Hose. The best is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, New York.

Steel Castings, from one lb. to five thousand lbs. Invaluable for strength and durability. Circulars free. Pittsburgh Steel Casting Co., Pittsburgh, Pa.

For best Presses, Dies, and Fruit Can Tools, Bliss & Williams, cor. of Plymouth and Jay, Brooklyn, N. Y. For Solid Wrought-iron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, &c.

Hotchkiss & Ball, Meriden, Conn., Foundrymen and workers of sheet metal. Fine Gray Iron Castings order. Job work solicited.

For Solid Emery Wheels and Machinery, send to the UnionStone Co., Boston, Mass., for circular.

For Sale-2 Hunneman Hand Fire Engines with Hose Carriage, second hand, 5 1/2 in. cylinder, 15 in. stroke Price, each, \$425. Forsaith & Co., Manchester, N. H.

Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing Metals. E. Lyon, 470 Grand Street, New York.

Spinning Rings of a Superior Quality.—Whitins ville Spinning Ring Co., Whitinsville, Mass.

For best Bolt Cutter, at greatly reduced prices address H. B. Brown & Co., New Haven, Conn.

Diamond Tools-J. Dickinson, 64 Nassau St., N. Y

Temples and Oilcans. Draper, Hopedale, Mass



W. H. R. asks once more the question as to the cannon fired from the rear end of the car. If he will refer to p. 273, vol. 32, he will find a solution of the difficulty. This answers a great many other correspondents.-F. M. J. will find an answer to his question as to the dimensions of a boat and engine to carry 20 persons on p. 299, vol. 34.-L. V. R. will find directions for reducing the temperature of water on p. 82, vol. 33.-F. H. H. will find an account of the manufacture of saltpeter on p. 52, vol. 34.—M. G.'s queries are too metaphysical for our columns.—H. V. will find a recipe for aquarium cement on p. 80, vol. 31.—C. A. B. will find directions for recutting old files with acid on pp. 363, 379, vol. 28.-M. B. should read our article of flying machines, on p. 112, vol. 32.—F. Z. A. will find a prescription for moles on p. 331, vol. 31.-0. H. P. should fasten his engravings in a book with rice glue. See p. 155, vol. 32.—R. P. will find anaccount of the fastest passage across the Atlantic on p. 97, vol. 34. It is absurd to maintain that a sailing vessel can beat this time.-A. P. H. can clean kerosene stains from marble by the process detailed on p. 347, vol. 34.—G. W. W. & S. will find a recipe for black paint for iron on p. 255, vol. 34. -C. L. M. will find directions for gilding on china on p. 43, vol. 29.-J. F. B.'s query as to a spring can only be answered by a manufacturer.-W. S. C. should read our article on p. 386, vol. 26, as to Paris green.—E. O. K. will find an excellent representation of a cistern filter on p. 282, vol. 34.—O. H. will find directions for making illuminating gas on a small scale on p. 131, vol. 33.—I. M. I. should forward a copy of his pamphlet to Professor Proctor.
—S. D. L. will find directions for ridding a house of rats on p. 67, vol. 29.-A. F. S. and a great many other querists are referred to p. 273, vol. 33, for a description of an incubator.—R. H. will find a recipe for white hard soap on p. 331, vol. 31.—J. P.L. W. L. F. J. M., B. T. B., C. F. S. D., V. C. S., N. P. A., L. C. D., B. B., and others who ask us to recommend books on industrial and scientific subjects, should address the booksellers who advertise in our columns, all of whom are trustworthy firms, for catalogues.

- (1) D. B. says: My locomotive boiler ought to be felted: but the grease strikes on some parts of the boiler, and I do not know how to work felt on account of the grease. What shall I do? A. With the exercise of a little ingenuity, coupled with a less liberal expenditure of lubricant, you could get the boiler into proper condition for felt-
- (2) G. P. M. C. says: I wish to make a small steam boiler, 14 inches in diameter and 30 inches long. How many lbs. pressure to the square inch would it stand with safety if made of sheet copper $\frac{1}{16}$ inch thick, steel of the same thickness, or iron of the same thickness? A. Copper 25 lbs., steel 45 lbs., and iron 35 lbs. to the square inch.
- (3) L. M. F. asks: 1. What should be the thickness of the heads, shell, and tubes of a return tubular boiler 13 by 5 feet, with 4 inch tubes, worked at 80 lbs. pressure per square inch? A. Thickness of shell and heads, 0.6875 inches, tubes 0·134 inches. 2. By putting in 4 inch tubes, would I not obtain a stronger draft than with 3 inch ones? A. Not appreciably.
- (4) P. L. says: I have an oxygen gas cylinder made of ¼ inch boiler plate iron, well riveted and made. How will I test it, to know whether it will stand the pressure of gas from a given amount of chemicals? A. Fill it with water, and heat it gradually, attaching a safety valve which will open when the desired pressure is reached.
- (5) P. S. N. asks: Can you inform me as to the merits of gravel or concrete houses? A. Houses answering every essential requirement can be erected with concrete walls; and where the materials are found or can be procured on or near the premises, a balance can be struck in their favor on the score of economy. In regard to the method of building them, the usual course has been to carry up the walls solidly in sections, so affording a considerable saving of labor in the handling of the materials; although quite a number in this vicinity have been erected by the system of building blocks, notably a large church near Newark, N. J. Confidence in the latter method, however, has been much impaired by the fall of a tower so constructed in Westchester county.
- (6) P. S. N.asks: 1. How are concrete struc-A. Concrete walls properly constructed become as mud settle before the water goes into the boiler? hard as stone, and have been abundantly and favorably tested in respect to the action of the elements upon them. 2. Will you please give me the proportion of ingredients, as well as the modus operandi in full? A. The theory as to the proportion of the ingredients is that, when the broken stone, gravel, and and are combined, there should be sufficient cement and water added to coat every grain of sand, etc., and fill all the interstices between them, thus binding them into a solid mass. A proportion of 5 parts stone and gravel, 3 parts sand, and 1 part cement, is supposed to effect this. Good cement and sharp sand free from loam should be used, with plenty of water. Mix in a mortar box, carry to the wall in a hand barrow, and deposit it on the wall between two stout planks held in place by proper frames; remove the plank when the cement sets, and float the face of the wall smooth. 3. Can I mold the blocks one day and lay them in the mold the next? A. In that system a much longer interval is desirable. 4. Can the chimney flues and tops be of the same material? A. Yes, if the chimneys are built large enough to give sufficient thickness of wall around the fives, and a larger proportion of cement is All Fruit Can Tools, Ferracute W'ks, Bridgeton, N.J used. 5. Supposing a well 25 feet deep is closed 20 ing a continual supply of fresh air; but when the

feet below the surface, leaving a reservoir of 5 radiators are placed in the rooms, there is only a feet into which a pipe leads to pump the water through, what is the effect on the water? A. A pipe for ventilation would be required. 6. Of what thickness should the walls be made, for a cellar 8 feet high, and for 2 stories 9 feet each? A. Cellar 18 inches, first story 15 inches, and second story 12 inches. 8. What are quick and hydraulic lime? A. Quicklime is freshly burnt unslaked lime; hydraulic cement is a cement that hardens under water, and is not deteriorated by the action of water upon it.

- (7) J. L. asks: 1. Will an engine work as well at a distance of 60 feet from the boilers as it will near them? A. With a well covered and trapped pipe, the difference will be very slight. 2. How much more power and steam does it require to run a circular saw at a distance of 60 feet from the engines than it would take if the saw were 12 feet distant from the engine? A. From 10 to 15 per cent more, with a good connection. 3. The steam pipe will be exposed to open air for 40 feet between the two buildings. Will it be liable to get out of order? A. Not necessarily. 4. Would you rather have the engines at a distance from than near the boilers? A. It is best to locate the engines as near the work as convenient.
- A coat of hydraulic cement in well washed sharp sand, for 2 feet up from the ground, might stand. It might be started upon a footing of slate driven into a joint of the brickwork at the surface of the ground.
- (9) R. D. says: Will a 3 inch pipe 75 feet ong, supplied with water from the main through a 1/2 inch stop, deliver as much water as if it were nnected with a 34 stop? A. No.
- (10) A. W. says: We are building a church 40 by 60 feet, with side walls 16 feet high and a roof at an angle of 50°, 24 feet high in center. We are making the ceiling flat overhead. Our carpenter argues in behalf of the old style of main rafters (7 by 10 inches) king post and cross beams, the latter to be 12 feet apart; now I contend that a plan, making each pair of rafters out of joists 2 x 8 inches, with cross joists, 2 x 6, well braced above the joists, each pair to be self-supporting, and placed 16 inches from centers, will be the strongest. Which is right? A. In all cases where the tie beam is placed above the foot of the rafters. there is danger of the weight of the roof spreading the walls apart, and thus causing a general settlement in the roof itself, often eventuating in its fall. Your carpenter's plan is the correct one, providing the walls are properly built to accord with it. The trusses being placed 12 feet apart, the windows should be located accordingly-one window between each two trusses in each side wall-and a stout buttress built with the wall at the bearings of each truss. These buttresses will resist the thrust of the roof, and maintain the integrity of the walls.
- (11) C. S. says: I am using charcoal for blacksmith's purposes, and I cannot get heat enough to do ordinary welding, such as a plowshare or a wagon tire. The charcoal is made of cotton wood, and has a great deal of sand in it on account of having been burnt in sandy soil. How can I manage it any better? A. From your account, it seems that you must get better fuel to obtain a satisfactory fire.
- (12) G. W. H. says. 1. A spring is 1,530 feet from a fountain, with 30 feet fall. How large must the reservoir be, and what size of pipe is necessary to secure flow enough to give a jet 10 or 15 feet high, or to supply a camp of 500 persons with water? A. The reservoir might be made 50 by 50 feet, with an average depth of 61/4 feet. This would allow about 25 gallons to each person. The friction of the water in the pipes would so reduce the head as to make the jet for a fountain of little account. 2. Would it pay to take the pipes up in the interval to prevent rust, camp meeting lasting only 10 days in a year? A. It would, provided you could thereby save the expense of sinking them into the ground.
- (13) G. C. T. says: I propose to make a vessel on the plan of a Papin's digester. I use copper castings 1/4 inch in thickness, outside and inside being turned off and properly stayed; what pressure to the inch would such a vessel bear? A. It will depend on the diameter.
- (14) C. C. says: I am running an engine with locomotive boiler, taking muddy water from a pond. The deposit burns out the fire box, and I tures as regards durability, heat, and frost, etc.? have to patch it. Is there no way to make the A. Your best course would be to use a good
 - (15) J. O. says: I have a canoe which is rather cranky. She is 20 feet long by 4 feet beam. Would two keels, one on each side of the center keel, make her less cranky, and improve her sailing qualities? A. A single keel made quite heavy would be more effective. How are fret saws made? A. They are stamped

What is the redsubstance used by sailors for tattooing? A. Red ink or carmine.

(16) A. P. McC. says: Our schoolhouse bere is warmed by steam, but it is not well ventilated There are about 20 rooms in our house, not including corridors. Please give me a good plan for ventilating. A. You do not state whether the heater operates by direct or indirect radiation. In the latter case the radiators are in the basement. and in the former in the several apartments. When the radiators are in the basement, they are enclosed in boxes at the bottom of the warm air fiues, and the cold air is introduced into these boxes from the exterior atmosphere, thus insur-

partial change of air, limited by the tightness or looseness of the doors and windows. When fresh air is introduced by a shaft in the basement, the fireplace fiues should be kept more or less open for its egress; but in the case of direct radiation the radiators should be placed near the windows and some means adopted to supply fresh air to each radiator, still keeping the fire flues open to insure a movement and gradual change of the air. Damper valves should graduate this movement, so as to adapt it to the state of the temperature for the time being.

(17) F. K. asks: Why are the sun's rays warmer in the valley than they are on the top of a high mountain? A. On account of the rarity of the atmosphere at the greater hight.

Would highly superheated steam, when mixed in small quantities with hot air, be better than hot air only for aiding the combustion of coal gases and coal smoke from soft coal, if admitted to the fires of stoves or furnaces? A. No.

- (18) F. C. L. says: A steam pony pump, of the crank and plunger pattern, has diameter of cylinder 41/2 inches, diameter of pump 31/2 inches, stroke of both 6 inches, steam pipe to engine 34 (8) T. S. L. says: The outside p'astering of my house, near the ground, comes off for about 2 feet up. I have tried plastering in different seasons, so that it might dry thoroughly, but without success. What will make the plaster adhere? A. A coat of hydraulic cement in well weeked also. was necessary to remove the feed pipe from the tank below and place it into the lower end of a barrel standing about 1 foot from the pump. When the barrel was full, there was 21/2 feet head of water over the pump, when the engine seemed powerless to move the pump and would not work at all unless we pulled her over the centers, even at a boiler pressure of 65 lbs. to the square inch. We then drove a plug into the end of the feed pipe, partielly filling it up (say 3%), when she pumped but very poorly. The pipe was then removed from the barrel and put down into the tank below, when she pumped like a charm. My opinion is this: that, when pumping from the tank below, the inertia of the water caused the pump to only partly fill, and therefore the engine had less work to do to force the water of the partly filled pump than when there was a head of water over the pump. Is this so? A. The feed pipe is apparently large enough, if it is direct; and from your description weimagine there is some defect in the pump, such as excessive friction or bad arrangement of pipes, valves, or ports, so that the steam cannot act to the best advantage. Your explanation, to the effect that the pump cannot deliver a full barrel of water against boiler pressure, is probably correct; and this points to some defect in the steam cylinder or its connections.
 - (19) R. R. says: 1. I am running an oldfashioned engine 7 by 18 inches, with cut-off at half stroke. The engine is set below water line of the boiler, and 6 feet from the boiler. When I let it stand for 10 or 20 minutes, I cannot start it without opening the stopcocks to let the water off. Would it do any good to raise the steam pipes 3 or 4 feet higher? A. Very little if any, we imagine, if the pipe is properly connected at present. 2. Would it make any difference to change the exhausts from 2½ inches by 12 feet long to 2 inches by 24 feet long? A. It will probably increase the back pressure slightly.
 - (20) W. C. W. asks: Why is it that one of two circular wheels, having the same diameter and being on the same axle, runs faster than the other in turning a curve? A. The "why" is evident: because one wheel has to go farther than the other in the same time. The "how" is almost equally evident: one of the wheels must slip
 - (21) G. N. L. says: Please tell me which would require the greater amount of force in raising ice into an ice house, a steep incline or a gentle incline. A. Using the same motor in each case, a heavier load could be raised on the gentle incline, but not as fast as the lighter load could be raised on the steep incline:
 - (22)W.H. asks: If a rifle barrel be accurately bored for ten or more copper cartridges, what rould be the result, in the matter of deflection of the shots, if all were fired simultaneously? Would the rapid rotation of the balls in the air, in close proximity to each other, materially scatter the balls? A. No, we think not.
 - (23) C. F. S. asks: Would it be possible for me to obtain water enough, through a brick wall placed in a fiume for the purpose of filtering, to supply a 3 inch pipe, for washing purposes? The wall is 7 feet long by 61/2 feet high. A. The difficulty is that such a filter soon becomes foul and fails to perform its function. A reservoir in two compartments, where the water may lie still for a certain length of time for the impurities to settle out of it, and another to receive the pure water and distribute it, has been found to answer better in cases like this.
 - (24) S. C. J. says: Is it necessary to cut the rifling of a breech-loading gun deeper at the muzzle than elsewhere? A. We think not.
 - (25) A. S. says: I am about erecting a wheel on my plantation for the purpose of drainage. Such wheels are generally set on bricks, but I am compelled to set my wheel on wood. What is the best preserver for wood exposed, partly to water, partly to the atmosphere? I intended to use for this purpose two coats of heated coal tar, but I am informed that crude coal oil as it comes out of the mine is preferable. Is this so? A. We think the coal tar will answer very well, if you takecare to keep the exposed surfaces covered, renewing the application as often as necessary.
 - (26) G. J. E. asks: Would cold air, forced into the bottom of a dry house filled with cut staves, dry the timber in a reasonable time, chimneys taking the damp air from the bottom? A. A. constant current of air driven through a building

will absorb moisture or deposit it, according to the condition of the air itself as regards saturation. If the building be kept closed when the atmosphere is in an evidently humid condition, and a strong current maintained when the air is dry, a reasonable degree of success may be looked for.

(27) O. A. & B. say: We have a boiler 38: 13 inches in diameter. Will such a boiler provide steam enough for an engine 10×29 inches, so as to work it to its full capacity? A. You can answer this yourself by allowing 15 square feet of heating surface to each horse power.

pint, put into a dry iron saucepan and boil until it will readily ignite on applying lighted paper; let it burn 10 minutes, put the lid on, and it will cease by mail, if the writer's address is given. to burn; add 1/2 oz. litharge, and stir well; when cool, use it by grinding with fine lampblack, forming a thick paste; grind very fine with a muller. Boil the oil out of door.s.

(29) L. E. K. asks: 1 Do gunners in naval warfare have to make allowance for the motion of their ship when shooting at another? A. Yes. 2. Do their shots have the same effect when fired from the stern of a fast moving vessel that they would if shot from the vessel's bow and directly in front? A. See our article on "Motion in a Moving Body," p. 273, vol. 32.

(30) E. H. says: It is stated that chemists have produced a degree of cold estimated at -257° Fah. How was this temperature obtained? A. Probably by means of liquefied nitrous oxide and bisulphide of carbon in a vacuum.

(31) J. R. asks: 1. What is the cheapest source from which to obtain hydrogen? A. One of the most economical methods of obtaining hydrogen is from the action of dilute oil of vitriol on scrap iron. In many cases coal gas may take the place of pure hydrogen, and the cost of production of the carburet is very much cheaper. 2. Can you give the chemical reaction of sulphuric acid and water on iron? A. Fe+H₂ SO₄=Fe SO₄

(32) O. W. asks: How can the oxyhydrogen light be rendered absolutely free from danger? I frequently make the gases and run them, each into its own bag, and subject them to about equal pressures. As an additional precaution, I employ a trap, and also a safety bottle for each gas. Neither gas can possibly return to its source of supply; where then can the danger lie, for I am told an explosion is possible? A. Where bags are comployed, all that is necessary is that both the gases should be under the same conditions of pressure, which must remain constant. If these precautions are properly attended to, and the safety bottles be placed near the jet, no danger need be apprehended. It is not advisable to wire or tie any of the connections; this is a common practice and source of trouble.

(33) J. C. asks: What is the best method of testing a new shaft to find if it has any cracks in it? A. If a shaft shows any signs of a crack, heat it at that spot to a low red heat, and drop a few drops of water upon the doubtful spot; and if it is cracked, it will show plainly a black line along

(34) W. S. asks: How much power does it take to run a small planer, to dress strips of wood 2 inches wide? A. About half a horse power.

(35) J. S. asks: 1. How is ozone powder made? A. We know of no such substance. 2. How can I test for ozone? A. The usual test for the presence of ozone is its action upon paper moistened with a solution of iodide of potassium and starch.

(36) C. H. M. says: I have a colored chromo which has become defaced by a spot of ink. How can I remove the ink without taking out the color of the chromo? A. Try a little oxalic acid applied with a camel's hair brush, and absorb with good bibulous paper.

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

T. S. L. G.—No. 1 is iron pyrites in quartz. No. 2 is talc.—F. M. S. S.—The specimens did not come to hand. If the silver is present as chloride, the chloride of silver may be reduced to metal by zinc and dilute sulphuric acid.—U. D. M.—The white is kaolin, and is valuable. The other is clay, and is less so .- J. T.-Not gutta percha. It consists principally of a gum, much resembl ng in character Canada balsam. The coloring matter may be nearly all removed by boiling water to which has been added a little alcohol. It may then be further purified by dissolving in ether or naphtha, filtering the solution, and evaporating the ether to dryness.-G. A. F.-It is carbonate of lime, and contains no barium salts.-F. P. M.-It is galena or sulphide of lead.—A. W. S.—No. 1 is quartz containing small amount of iron. No. 2 is clay rock containing decomposed sulphide of iron.—H. W.—It is chromic iron.—T. P. S.—It is a crudepipe or porcelain clay, of some value if found in large quantities .- W. O.-It is the larva of the limnophilus subpunctulatus. Consult Packer's "Guide to the Study of Insects," pp. 616—620.

COMMUNICATIONS RECEIVED.

The Editor of the Scientific American acknowledges, with much pleasure, the receipt of original papers and contributions upon the following subjects:

On Experimental Geometry. By A. B. On the Electric Telegraph. By L. M. B. On Intermittent Springs. By J. F. R., and by G.

H. H.
On Moistening Tobacco. By W. B.

On Grasshoppers' Eggs. By J. F. D. On Preserving Fish Bait. By C. F.

On Snake Bites. By J. M. M. On Cotton Factories in Louisiana. By E. H.

On Bees Making Honey. By H. L. E.

Also inquiries and answers from the following: $\begin{array}{l} {\rm A.~O.~S.-W.~F.~B.-E.~U.~S.-C.~W.~B.-C.~L.-J.~R.} \\ {\rm -A.~H.~R.-A.~N.~B.-H.~D.~E.-L.~M.~B.-E.~H.~D_{\it f}-C.-L.~E.~B.-H.~M.~W.-H.~C.-C.~J.~T.-S.~M.} \end{array}$

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear inches in diameter and 20 feet long; it has a flue should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them. The address of the writer should always be given.

Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here. All such questions, when initials (28) C. H. B. asks: How can I make good published here. All such questions, when initials copper plate printing ink? A. Takelinseed oil 1 only are given, are thrown into the waste basket, as it would fill half of our paper to print them all;

> Hundreds of inquiries analogous to the following are sent: "Who sells wood-carving machinery? Who sells mariners' compasses? Whose is the best metal-testing machine? Who makes the best insulating compound for telegraph wires? Why do not makers of electric telegraph apparatus advertise in the Scientific American?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose, subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained.

> > [OFFICIAL]

INDEX OF INVENTIONS
FOR WHICH
Letters Patent of the United States were
Granted in the Week Ending.

May 2, 1876, 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.

and remit to Munn &Co., 37 Park Row, New Yor.	k city.
Abdominal supporter, C. Smith	176,895
Acid, recovering, R. E. Rogers	
Adding machine, D. Carroll	
Alarm, burglar, W. D. Wright	
Andiron, C. I. Saunders	
Animal nose bag, C. II. Williams	
Annunciator, electric, E. A. Hill	
Ax handles, etc., attaching, J. W. Potter	176,807
Bag, traveling, W. Simon	
Barrels, crozing and chamfering, J. Greenwood (r) Basin cock, J. F. Cory	
Basin, stopper for wash, E. Webb	
Basket, J. R. Hare	
Bed-bottom spring, J. Eckart Bed-bottom spring, R. M. Hall	
Bee hive, C. Ellis	
Bell-pull attachment, A. Whitcomb	
Bevel, square, and level, S. W. Lloyd Beverage compound, H. Reibestein	
Billiard ball holder, W. B. Southworth	
Blasting cartridge, P. A. Oliver	176,989
Blasting cartridge, F. W. Smith	
Blouse or jumper, S. Laskey Boat knees, socket for, D. True	
Boat, portable folding, C. A. Ferner	
Boats, propelling, H. Fox	176,947
Boot-edge finishing tool, C. Reinel Boot heel, J. Samuels	
Boot trees, clamp for, C. A. Ensign	
Box cover, W. L. Hubbell	176,863
Breakwater and pler, A. M. Elliot	
Bridge, C. S. Palmer	
Bridge, draw, J. W. Post	176,805
Broiler, E. O. Thomas, Sr	176,819
Buggy, side spring, J. C. Oliver	
Burner, lamp, B. F. Flint	176,850
Bustle, A. Carter	176,771
Butter package, W. J. Allason	
Buttons, making collar, J. W. Presbrey	
Calf weaner, D. H. Johnston	
Cane and stool, combined, J. Smith	
Car axle box, W. W. Whitaker	
Car brake, Ducournau & Strata	176,937
Car coupling, H. Howson	176,861
Car coupling, Misso & Warner	
Car coupling, F. S. Pennybacker	176,888
Car coupling, J. A. Richard	
Car coupling, S. D. Ucker	176.864
Car heater and ventilator, C. F. Whorf (r)	7,088
Car propeller, A. Maynard	176,798
Car starter, W. Hilbebrand	
Carpet beater, H. Freeman	176,853
Carriage, jump seat, J. R. Patten	176,804
Carriage, light, J. C. Heater	
Carriages, shifting rail for, A. M. Whipple	
Cart, hay, E. B. Bigelow	
Cement, hydraulic, C. F. Dunderdale	
Chair or lounge, sofa, J. B. Wood	
Chandelier, oil, J. Callopy	176,831
Churn, McManus & Merryman	
Cigars, lighting, J. Radford	176,752
Clock, electromagnetic, W. M. Davis,	176,740
Clothes dryer, J. R. Rusby	176,814
Clothes pin, Hunter & Entwistle	176,928
Clothes wringer, H. Nash (r)	7,030
Clothes wringer, N. B. White (r)	7,098
Clutch box, H. Martin	
Cooler or warmer, milk, Hubbard et al	176,862
Core stricker, Smith & Wade	176,760
Corks, removing wires from, J. Franz Corn stalk chopper, etc., B. S. Hyers	176,852
COLL SOME ONOPPOS, COC., D. O. HyClb	

Cracker box, show, E. & C. Maginn	176,974
Cranberries, etc., gathering, A. K. Gile	176,950
Cuff fastening, S. Houghton Cultivator, A. Rigby	
Cultivator, A. Rigby	
Cultivator, rotary, J. C. Stone	176,897
Cupboard, J. Ansley	
Currycomb, C. W. Saladee177,012, 177,013, Currycomb, G. B. Turrell	
Cuspadorc, I. G. Booth	
Deflector and evaporator, S. Fairman	
Dcsk, H. H. Elberg	
Digger, potato, F. Rimpler Door fastening, barn, P. A. Peer	
Door spring, J. G. Edgell.	
Drilling and well boring, P. Helm	176,859
Drill chuck, W. Frost	
Eaves trough hanger, J. S. Miller Effervescent liquid apparatus, C. Greiner	
Electrotype heater, J. E. Parker	
Ejevator, A. B. Darling	176,841
Elevator, T. O'Hagan	
Elevator, straw and cob, J. Q. Adams Engine, hydraulic, E. West	
Engine, motive power, P. W. Williams	
Engine, portable and road, B. Yoch	177,052
Engine, rotary, J. Moore.	176,878
Engine, expansion gear, C. J. Cario	176,832
Fan, exhaust and blower, F. Murphy	176.755
Fence, portable, J. M. ()verpeck	176 990
rence post, E. Sims	177 021
Fermentation, preventing, J. J. Suckert	176,898
Filter, etc., cistern, W. B. Wilson	177 046
Fire escape, W. McAllister	176 799
Flour packer, H. A. Barnard (1)	7.086
Fork, horse potato, G. C. Clark. Fruit dryer, G. W. Bowman	176,838
Fruit dryer, O. F. Tiffany	177 099
rult jar, J. H. Anchors	176.766
Fruit, preserving, Mefford & Peebles	176,754
Furnace door, C. F. Degelman. Furnace grate, G. W. Todd	176 761
Furnace, hot air, G. H. Johnson	176.964
Furnace, puddling, McNair & Graff	176,977
Furnace, reverberatory, R. Pearce	176,994
Gang plank, G. Malone	176,872
Gas apparatus, carbureting, J. G. Haymaker	176,955
Gas, increasing pressure of, C. A. Murray	176,982
Glass tile for decorations, T. G. Aickin Governor, H. Howe	
Grain binder, Friedlaender et al	
Grain binder, D. McPherson	176,800
Grain drill, E. Kuhns	
Grain drill seed cup, Kuhns et al176,965, Grapple, stone, C. Campbell	
Grate, J. A. Lawson	
Gratc, J. Lewis	
	9,092
Grinding, tool holder for, C. M. Fisher	176,946
Gun machine, J. P. Taylor	177,030
Gutters, making wood, E. H. Rollins	
Hame fastener, D. C. Meeker	176,753
Hame fastener, D. C. Meeker	176,753 176,867
Hame fastener, D. C. Meeker	176,753 176,867 176,860
Hame fastener, D. C. Meeker Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill Harrow, L. J. Manor Harvester, J. O. Brown	176,753 176,867 176,860 176,975 176,829
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell.	176,753 176,867 176,860 176,975 176,829 176,882
Hame fastener, D. C. Meeker Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill Harrow, L. J. Manor Harvester, J. O. Brown Harvester, J. Nell Hat brims, stiffening, G. H. Dimond	176,753 176,867 176,860 176,975 176,829 176,882 176,936
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard.	176,753 176,860 176,829 176,829 176,832 176,936 176,970 176,968
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry.	176,753 176,860 176,975 176,829 176,836 176,936 176,970 176,968 176,738
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee.	176,753 176,860 176,975 176,829 176,882 176,936 176,968 176,968 176,738 176,768
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry.	176,753 176,867 176,860 176,975 176,829 176,882 176,936 176,968 176,738 176,768 177,011
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson.	176,753 176,867 176,860 176,975 176,829 176,832 176,936 176,970 176,968 176,738 176,768 177,011 176,803 176,959
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr.	176,753 176,867 176,860 176,975 176,829 176,882 176,936 176,970 176,968 176,738 176,738 176,765 177,011 176,803 176,959 176,834
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping. W. S. Cherry. Hoof cleaner, C. Blakeslec. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nail blanks.tinishing, Whysall & Merrick	176,753 176,867 176,860 176,975 176,829 176,882 176,936 176,968 176,738 176,738 176,768 177,011 176,803 176,959 176,834 176,911
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nail blanks.inishing, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick.	176,753 176,867 176,860 176,975 176,829 176,882 176,988 176,768 176,768 176,768 177,011 176,803 176,959 176,951 176,912 176,912
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, Kearing, Whysall & Merrick. Hose coupling, C. Callahan.	176,753 176,867 176,860 176,95 176,892 176,892 176,968 176,738 176,738 176,738 176,963 176,959 176,814 176,911 176,911 176,834 176,911 176,830 176,834 176,911 176,830
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill. Harrow, L. J. Manor Harvester, J. O. Brown Harvester, J. Neil Hat brims, stiffening, G. H. Dimond Heating drum, Lathrop & Goddard Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslec Horse collar, A. Rutherford Horse detacher, G. T. Owens Horse power seat, J. B. Hutchinson Horseshoe nails lanks, inishing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, Shearing, Whysall & Merrick Horse coupling, C. Callahan Inkstand, S. Darling.	176,753 176,867 176,860 176,829 176,829 176,836 176,936 176,968 176,738 176,768 176,683 176,959 176,834 176,911 176,912 177,047 177,047
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, Kearing, Whysall & Merrick. Hose coupling, C. Callahan.	176,753 176,867 176,860 176,875 176,882 176,936 176,936 176,938 176,768 176,768 177,011 176,803 176,959 176,912 177,047 176,830 176,830 176,830 176,768
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown Harvester, J. Neil Hat brims, stiffening, G. H. Dimond Heating drum, Lathrop & Goddard Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee Horse collar, A. Rutherford Horse detacher, G. T. Owens Horse power seat, J. B. Hutchinson Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, Stating, Whysall & Merrick Horse coupling, C. Callahan Inkstand, S. Darling Iron ore, reducing, W. A. Stephens Jack, lifting, J. Y. Thurston Japan composition, A. Gigrich	176,753 176,867 176,867 176,876 176,876 176,882 176,936 176,936 176,738 176,738 176,738 176,833 176,831 176,811 176,812 177,047 176,830 176,776 177,047 176,830 176,776
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nail blanks.tinishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling, C. Callahan. Inkstand, S. Darling Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh.	176,753 176,867 176,860 176,875 176,829 176,936 176,936 176,936 176,738 176,738 176,761 176,803 176,959 176,912 177,047 176,813 176,766 177,029 176,766 177,025 176,900 176,875
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown Harvester, J. Neil Hat brims, stiffening, G. H. Dimond Heating drum, Lathrop & Goddard Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee Horse collar, A. Rutherford Horse detacher, G. T. Owens Horse power seat, J. B. Hutchinson Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, Stating, Whysall & Merrick Horse coupling, C. Callahan Inkstand, S. Darling Iron ore, reducing, W. A. Stephens Jack, lifting, J. Y. Thurston Japan composition, A. Gigrich	176,753 176,867 176,860 176,875 176,829 176,968 176,968 176,768 176,768 176,768 176,768 176,763 176,831 176,831 176,911 176,830 176,764 177,042 176,830 176,766 177,055 176,830 176,761
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, C. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nail blanks.tinishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling. C. Callahan. Inkstand, S. Darling Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Milspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton.	176,753 176,870 176,872 176,820 176,822 176,822 176,822 176,822 176,936 176,970 176,936 176,970 176,936 176,738 176,738 176,738 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nail blanks.inishing, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, S. Darling, Whysall & Merrick. Horse coupling, C. Callahan. Inkstand, S. Darling, Whysall & Merrick. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knifte, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, J. S. Newton. Lamp fountain, R. H. Webb.	176,753 176,876 176,876 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,768 176,768 177,011 176,829 176,829 176,829 176,820 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768
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Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, C. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nail blanks, inishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe, C. J. Carr. Horseshoe nails, Staring, Whysall & Merrick. Horseshoe nails, Staring, Whysall & Merrick. Horseshoe, C. Thurston, Jack, lifting, J. Y. Thurston, Jack, lifting, J. Y. Thurston, Japan composition, A. Gigrich. Knift, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fouutain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney.	176,753 176,867 176,872 176,826 176,822 176,828 176,828 176,936 176,970 176,938 176,768 176,768 176,768 176,769 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,932 176,936 176,936 176,936 176,936 176,936 176,936 176,936 176,936 176,937 176,938
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nall blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, S. Darling. Horn ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer.	176,753 176,867 176,875 176,829 176,829 176,829 176,828 176,828 176,828 176,828 176,828 176,828 176,828 176,828 176,828 176,828 177,011 176,829 176,834 176,912 177,027 176,829 176,768 176,768 176,768 176,768 176,768 176,768 176,768 177,027 176,839 176,768 176,768 176,768 177,027 177,028 177,7031
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslec. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nails blanks.inishing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick. Hose coupling. C. Callahan. Inkstand, S. Darling. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore.	176,753 176,867 176,872 176,829 176,829 176,829 176,829 176,829 176,930 176,930 176,930 176,930 176,930 176,930 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,931 176,933
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nail blanks.inishing, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, Whysall & Merrick. Horseshoe nalls, Selaning, Whysall & Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horsechoe and Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horsechoe and Shearing, Whysall & Merrick. Horsechoe nails,	176,753 176,876 176,876 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,768 177,011 176,959 176,830 176,768 176,970 176,830 176,768 176,970 176,830 176,768 176,970 176,830 176,768 177,031 177,031 177,031 177,031 177,031 176,763
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Nell. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nail blanks.inishing, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling, C. Callahan. Inkstand, S. Darling. Iron orc, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, K. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya.	176,753 176,876 176,876 176,876 176,829 176,829 176,828 176,876 176,970 176,968 176,770 176,968 177,011 176,830 176,788 177,011 176,830 176,831 176,912 176,830 176,768 177,047 176,830 176,768 177,047 176,830 176,768 176,768 177,047 177,031 177,043 177,043 177,043 177,044 177,051 177,047 177,051 177,047 176,768
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nail blanks.tinishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling, C. Callahan. Inkstand, S. Darling. 4. Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knifte, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lather chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather-rolling machine bed, J. C. Wells. Leather-straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock, combination, D. K. Miller.	176,753 176,870 176,820 176,820 176,820 176,820 176,820 176,820 176,930 176,930 176,930 176,930 176,930 176,930 176,930 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 176,831 177,047 176,830 176,831 177,047 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nalls blanks.inishing, Whysall & Merrick. Horseshoe nalls, sorging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horse coupling, C. Callahan. Inkstand, S. Darling. Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock, combination, D. K. Miller. Lock for sliding doors, J. Collins.	176,753 176,870 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,910 176,959 176,831 177,047 176,832 176,766 177,029 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,833 177,047 176,839 176,839 176,839 176,839 176,839 176,839 176,839 176,839 176,839
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nail blanks.tinishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling, C. Callahan. Inkstand, S. Darling Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Milspaugh. Knitting thread catcher, K. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather-skiving machine, Andrews & Moore. Leather-straps, cutting edges on, S. B. Randall. Lightning rod coupling, S. Bradley. Lock, combination, D. K. Miller. Lock time attachment, M. A. Dalton.	176,753 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,828 176,768 176,768 176,768 176,768 176,768 176,831 176,811 176,912 176,920 176,930 176,831 176,912 176,920 176,830 176,831 176,912 176,830 176,831 176,912 176,830 177,047 176,830 177,047 176,830 177,047 176,830 177,047 176,830 177,048 177,048 177,048 177,048 177,048 177,048 177,048 177,059 176,830 176,831
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nalls blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, sorging, Whysall & Merrick. Horse coupling, C. Callahan. Inkstand, S. Darling. Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross.	176,753 176,870 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,910 176,959 176,831 177,047 176,832 177,047 176,832 177,047 176,833
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nall blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, swearing, Whysall & Merrick. Horseshoe nalls, whearing, Whysall & Merrick. Horseshoe nalls, Shearing, Hutchinson Horseshoe nalls, Shearing, Hutchinson Horseshoe nalls, Shearing, Shearing, J. Cooke. Lamp, J. S. Goldsmith. Lamp, J. S. Goldsmith. Lamp, J. S. Goldsmith. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lathe chuck, D. H. Tierney. Lathe chuck, D. H. Tierney. Lathe chuck, D. H. Wassmer. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Light	176,753 176,870 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,768 177,011 176,900 176,768 176,768 176,769 1776,769 1777,769
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nalls blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, sorging, Whysall & Merrick. Horse coupling, C. Callahan. Inkstand, S. Darling. Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross.	176,753 176,867 176,872 176,829 176,829 176,829 176,829 176,829 176,821 176,821 176,768 177,708 177,708 177,084 177,708
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nall blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, S. Darling. Horn ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock for silding doors, J. Collins. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastening, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Metal, traeting molten, E. P. Hudson.	176,753 176,870 176,870 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,768 177,011 176,950 176,768 176,970 176,829 176,768 176,768 177,021 177,024 176,820 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 177,734 176,820 176,768 177,734 176,820 176,768 177,734 176,820 176,768 177,734 176,821 177,734 176,821 177,734 176,821 177,734 176,821 177,734 176,821 177,738
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslec. Horse collar, A. Rutherford. Horse dcacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nails inaks, inishing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling. C. Callahan. Inkstand, S. Darling. Jron orc, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock, combination, D. K. Miller. Lock for sliding doors, J. Collins. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastenings, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Metal, treating molten, E. P. Hudson. Meter, fluid, Talcott & Guthrie. Mine-ventilating apparatus, F. Murphy 176,756,	176,753 176,867 176,829 176,829 176,829 176,829 176,829 176,829 176,930 176,930 176,930 176,930 176,931 177,031
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nails blanks.inishing, Whysall & Merrick. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, S. Darling. Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knifte, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock time attachment, M. A. Dalton. Lock time attachment, M. A. Dalton. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastening, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Meter, fluid, Talcott & Guthrie. Mine-ventilating apparatus, F. Murphy 176,756, Mowing machine, A. Adams.	176,753 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,910 176,959 176,831 177,047 176,832 177,047 176,833 177,047 176,831 177,054 176,831 176,832 176,833 177,054 176,831 176,831
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nall blanks.inishing, Whysall & Merrick. Horseshoe nalls, forging, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, shearing, Whysall & Merrick. Horseshoe nalls, whearing, Whysall & Merrick. Horseshoe nalls, whearing, Whysall & Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horseshoe nalls, Shearing, Whysall & Merrick. Horseshoe nalls, Rorging, Whysall & Merrick. Horseshoe nalls, Shearing, S. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, J. Whysall & Merrick. Lamp, J. S. Goldsmith. Lamp, J. Whysall & Merrick. Lamp, J. Whysall & Merrick. Lamp, J. Whysall & Merrick. Lamp, J. S. Goldsmith. Lamp, J. Whysall & Merrick. Lamp, J. Cooke. Lamp, J. Whysall & Merrick. Lamp, J. Cooke. Lamp	176,753 176,870 176,875 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,834 176,910 176,959 176,834 176,911 177,021 176,920 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 176,768 177,776 176,877 176,872
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Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling. C. Callahan. Inkstand, S. Darling. Fron orc, reducing, W. A. Stephens. Jack, Hifting, J. Y. Thurston. Japan composition, A. Gigrich. Knift, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. Newton. Lamp fouttain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod coupling, S. Bradley. Lock for sliding doors, J. Collins. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastening, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Metal, treating molten, E. P. Hudson. Meter, fluid, Talcott & Guthrie. Mine-ventilating apparatus, F. Murphy. 176,756, Mowing machine, A. Adams. Music leaf turner, L. Oldshue. Nose ring, J. Roley. Nut lock, J. E. Fred. Nut lock, A. Paul. Oils, burning, R. S. Merrill (r). 7,095, Oleaghous seeds, heating, W. M. Force. Ordnance, brecch-loading, J. R. N. Owen. Overalls, G. R. Eager. Oyster dredge, Sloan et al. Paper barrel, G. W. Laraway. Paper barrel, G. W. Laraway.	176,753 176,867 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,821 176,831
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping, W. S. Cherry, Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe nails blanks.inishing, Whysall & Merrick. Horseshoe nails, snogfing, Whysall & Merrick. Horseshoe nails, Solaring. Inkstand, S. Darling. Inkstand, S. Darling. Invo ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knife, corn, W. Millspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp, S. S. Newton. Lather, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock for sliding doors, J. Collins. Lock time attachment, M. A. Dalton. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastening, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Meter, fluid, Talcott & Guthrie. Mine-ventilating apparatus, F. Murphy 176,756, Mowing machine, A. Adams. Music leaf turner, L. Oldshue. Nose ring, J. Roley. Nut lock, A. Paul. Oils, burning, R. S. Merrill (r) 7,095, Oleaginous seeds, heating, W. M. Force. Oyster dredge, Sloan et al. Paper and twine holder, B. F. Eaton (r). Paper barrel, G. W. Laraway. Paper clip, J. S. Vanhorn. Pea-shelling machine, T. Arkell.	176,753 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,910 176,926 176,831 177,014 177,029 176,832 177,034 176,839 177,034 177,034 177,034 176,839 177,034 176,839
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill. Harrow, L. J. Manor Harvester, J. O. Brown Harvester, J. Neil Hat brims, stiffening, G. H. Dimond Heating drum, Lathrop & Goddard Holsting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslec Horse collar, A. Rutherford Horse detacher, G. T. Owens Horse power seat, J. B. Hutchinson Horseshoe nails, forging, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Lok Lift thing, J. Y. Thurston Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Wether Leather straps, cutting edges on, S. B. Randall Lightning rod, L. D. Vermilya Lock for sliding mac	176,753 176,867 176,829 176,829 176,829 176,829 176,829 176,839 176,978 176,831 176,978 176,831 176,978 176,831 176,978 176,831
Hamer fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin. Hammer, steam, T. Hill. Harrow, L. J. Manor. Harvester, J. O. Brown. Harvester, J. Neil. Hat brims, stiffening, G. H. Dimond. Heater, fire place, J. A. Lawson. Heating drum, Lathrop & Goddard. Hoisting and dumping. W. S. Cherry. Hoof cleaner, C. Blakeslee. Horse collar, A. Rutherford. Horse detacher, G. T. Owens. Horse power seat, J. B. Hutchinson. Horseshoe, C. J. Carr. Horseshoe nails, forging, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Horseshoe nails, shearing, Whysall & Merrick. Hose coupling. C. Callahan. Inkstand, S. Darling Iron ore, reducing, W. A. Stephens. Jack, lifting, J. Y. Thurston. Japan composition, A. Gigrich. Knift, corn, W. Milspaugh. Knitting thread catcher, R. & F. J. Cooke. Lamp, J. S. Goldsmith. Lamp, S. S. Newton. Lamp fountain, R. H. Webb. Lantern, J. A. Cowles (r). Lathe chuck, D. H. Tierney. Lathe, spinning, U. Wassmer. Leather rolling machine bed, J. C. Wells. Leather-skiving machine, Andrews & Moore. Leather-straps, cutting edges on, S. B. Randall. Lightning rod, L. D. Vermilya. Lightning rod coupling, S. Bradley. Lock for sliding doors, J. Collins. Lock time attachment, M. A. Dalton. Lock for sliding doors, J. Collins. Lock time attachment, H. Gross. Lubricator, J. T. Cody. Mail bag fastening, E. W. Trout. Metal bars, making hollow, G. J. Le Vake. Metal, treating molten, E. P. Hudson. Meter, fluid, Talcott & Guthrie Mine-ventilating apparatus, F. Murphy. 176,756, Mowing machine, A. Adams. Music leaf turner, L. Oldshue. Nose ring, J. Roley. Nutlock, A. Paul. Olls, burning, R. S. Merrill (r),7,095, Oleaginous seeds, heating, W. M. Force. Ordnance, breech-loading, J. R. N. Owen. Overalls, G. R. Eager. Oyster dredge, Sloan et al. Paper barrel, G. W. Laraway. Paper barrel, J. S. Vanhorn. Pea-shelling machine, T. Arkell. Pen rack, Kusel & Bechert. Pipe, smoking, J. Marshall.	176,753 176,870 176,820 176,920 176,822 176,822 176,823 176,833 176,853 176,768 176,834 176,635 176,631 176,834 176,631 176,834 176,834 176,834 176,834 176,834 176,834 176,836 177,047 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 176,830 177,034 177,034 177,034 177,034 177,034 177,034 177,034 177,034 177,034 177,034 176,830 176,830 176,830 176,830 176,830 176,831 177,034 177,034 176,831 176,832 176,833 177,036 176,833 177,036 176,831 177,034 177,034 176,831 176,832 176,833 177,036 176,831
Hame fastener, D. C. Meeker. Hammer, blacksmith's forging. J. Koplin Hammer, steam, T. Hill. Harrow, L. J. Manor Harvester, J. O. Brown Harvester, J. Neil Hat brims, stiffening, G. H. Dimond Heating drum, Lathrop & Goddard Holsting and dumping, W. S. Cherry. Hoof cleaner, C. Blakeslec Horse collar, A. Rutherford Horse detacher, G. T. Owens Horse power seat, J. B. Hutchinson Horseshoe nails, forging, Whysall & Merrick Horseshoe nails, shearing, Whysall & Merrick Lok Lift thing, J. Y. Thurston Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Goldsmith Lamp, J. S. Wether Leather straps, cutting edges on, S. B. Randall Lightning rod, L. D. Vermilya Lock for sliding mac	176,753 176,870 176,870 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,829 176,831 176,811 177,014 177,024 176,829 176,831 177,014 177,034 176,812 177,034 176,829 176,839 177,034 177,034 177,034 177,034 177,034 177,034 176,839 177,034 176,839 177,034 176,839 177,034 176,839

ow, sulky, W. L. Casaday 176,83

Pump, E. Reynolds	
Pump, steam and vacuum, G. R. Gleason	
Punch, etc., conductor's, Nyc & Fessel	176,98
Radiator, L. D. C. Wood	
Railway rail joint, R. O'Keeffe	176,866
Railway switch, T. J. Reynolds	
Railway switch, I. W. Willard	
Rectifying apparatus, J. C. Smith	
Regulator, water pressure, H. T. King	
Rein button, Richards & Herkimer	
Rowlock, T. Thomson	176,818
Saccharine juices, etc., extr'g, L.F.G.Bouscaren	176,924
Sanding machine, Sawyer & Knowlton	
Sashholder for use in carriages, etc., N. Platt	
Sash pulley, A. R. Watterscn	
Sash, window, A. J. Kraussmann	176,792
Saw table, J. Holt	
Sawing machine, scroll, C. H. Oley	
Scarf, neck, T. J. Flagg	
Screw threads, tap for cutting, C. G. Curtis	176,840
Separator, middlings, G. Motley	176,879
Separator, middlings, M. Palmer	
Sewing machine, E. Murphy	
Sewing machines, A. H. Wagner, 177,037, 038, 039,	040, 041
Sewing machine caster, W. Altick	
Sewing machine, wax thread, L. Chevallicr	
Sewing machine, straw, R. Lamont	176,794
Shade standard, H.F. Walton	
Shafting, bearing for, M. E. Boyden	
Shirt, J. Hayden	
Shoe fastening, J. M. Cayce	176,927
Shovel, ash sifting, E. B. Neal	
Shutter, Hampe and Schallert	
Skate, E. H. Barney	
Slate, C. Verdier	
Sole and horseshoe, elastic, T. B. Bishop Spark arrester, W. H. Jordan	
Spoke socket, H. H. Olds	176,883
Stamp, hand, D. H. Chamberlain	
Stand or table, E. Phillips	
Stilt, J. S. Ebert	
Ct T-b P 35 th	
Stove, Johnson & Moulton	
Stove, coal, D. C. Proctor	176,999
	176,999 176,982
Stove, coal, D. C. Proctor Stove, cooking, G. N. Palmer Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor	176,999 176,982 176,825 176,997
Stove, coal, D. C. Proctor Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury.	176,999 176,982 176,825 176,997 177,027
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor.	176,999 176,982 176,825 176,997 177,027 176,744 176,998
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring.	176,999 176,982 176,825 176,997 177,027 176,744 176,998 176,871
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales	176,999 176,982 176,997 177,027 176,744 176,998 176,871 176,944
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball	176,999 176,982 176,825 176,997 177,027 176,744 176,998 176,871 176,944 176,826
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table silde, extension, C. F. Snyder.	176,999 176,982 176,825 176,997 177,027 176,744 176,998 176,871 176,944 176,826 176,953
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer.	176,999 176,982 176,925 176,997 177,027 176,744 176,998 176,871 176,944 176,826 176,953 176,816
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel.	176,999 176,982 176,925 176,997 177,027 176,744 176,998 176,871 176,944 176,826 176,953 176,816 176,985
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller.	176,999 176,982 176,925 176,997 177,027 176,744 176,998 176,871 176,854 176,953 176,816 176,985 177,036 176,844 176,980
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table silde, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury.	176,999 176,982 176,925 176,997 177,027 176,744 176,998 176,871 176,846 176,853 176,816 176,985 176,886 176,880 176,880 176,735
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, touristis, F. G. Odenheimer. Tag, T. Van Kannel Tag, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F.S. Mead	176,999 176,982 176,997 177,027 176,744 176,998 176,871 176,844 176,853 176,816 176,985 177,036 176,844 176,844 176,978
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table silde, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury.	176,999 176,982 176,997 177,027 176,744 176,998 176,871 176,944 176,983 176,816 176,985 177,036 176,980 176,980 176,788
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, pearrior cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange.	176,999 176,982 176,972 177,027 177,027 176,744 176,998 176,871 176,816 176,953 176,816 176,980 176,735 176,735 176,778 176,778
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, pleasing, D. C. Proctor. Stove pipe supporter, J. L. Loring Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, touristis, F. G. Odenheimer. Tag, T. Van Kannel. Tag, T. Van Kannel. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ivos.	176,999 176,825 176,825 176,925 177,027 177,027 176,744 176,998 176,853 176,853 176,853 176,854 176,854 176,978 176,773 176,773 176,773 176,773 176,773
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, pearrior cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange.	176,999 176,982 176,982 176,997 177,027 176,744 176,998 176,944 176,953 176,816 176,985 176,985 176,735 176,735 176,773 176,773 176,773 176,773 176,773
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, enemer of the stansbury. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ivcs. Toy roulette, J. Mautte. Trace, rope, T. Newman (r).	176,999 176,982 176,982 176,997 177,027 176,793 176,891 176,844 176,853 176,816 176,853 176,816 176,980 176,783 176,773 176,773 176,773 176,773 176,773 176,773 176,773 176,973
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tag, Deer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson.	176,999 176,922 176,922 176,922 176,922 176,931 176,722 176,935 176,836 176,836 176,836 176,836 176,836 176,836 176,837 176,737 176,737 176,737 176,738 176,733 176,733 176,733 176,733 176,733 176,733 176,836
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller Teaching the metric system, W. F. Bradbury Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote.	176,999 176,982 176,992 176,972 176,972 176,744 176,998 176,971 176,944 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,978 176,978 176,737 176,737 176,737 176,737 176,737 176,738
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris Table slide, extension, C. F. Snyder. Tablet, touristis, F. G. Odenheimer Tag, T. Van Kannel Tag, T. Van Kannel Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ivcs. Toy roulette, J. Mautte Troy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbec. Vchiele hub, A. Van Geel.	176,999 176,982 176,982 176,982 176,982 176,982 176,981 176,981 176,816 176,817 176,817 176,818
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringe, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbec. Vehtlele hub, A. Van Geel Ventlele hub, A. Van Geel Ventlelender.	176,999 176,982 176,982 176,972 177,072 176,744 176,948 176,871 176,944 176,953 176,953 176,954 176,955 177,036 176,735 176,737 176,737 176,737 176,737 176,737 176,738 176,737 176,738 176,731 176,738 176,731 176,733 176,731 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy whirligig, C. A. Lines. Tracc, rope, T. Newman (r). Traps section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram.	176,999 176,982 176,982 176,982 176,972 177,027 176,744 176,938 176,874 176,953 176,816 176,878 176,787 176,787 176,783 176,783 176,918
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringe, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy automatic, E. R. Ives. Toy roulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee Vehicle hub, A. Van Geel. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder Wagon axle, Garth & Elder.	176,999 176,982 176,992 176,972 176,972 176,774 176,974 176,978 176,974 176,973 176,973 176,973 176,973 176,778 176,77
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringc, G. J. Parris Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller Teaching the metric system, W. F. Bradbury Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange Toy, automatic, E. R. Ives. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote Tweer, T. F. Witherbec. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder Wagon body and frame, I. G. Sallec.	176,999 176,982 176,982 176,982 176,971 177,027 176,944 176,938 176,814 176,938 176,916 176,953 176,916 176,953 176,916 176,953 176,916 176,783 176,916 176,783 176,916 176,783 176,916 176,783 176,916 176,783 176,916 176,783 176,916 176,783 176,916 176,783 176,931 176,931 176,931 176,933 176,933 176,933 176,933 176,933 176,933 176,933 176,933 176,933 176,933 176,933 176,733 176,733 176,733 176,733 176,733 176,733 176,733 176,733
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy automatic, E. R. Ives. Toy roulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee Vehicle hub, A. Van Geel. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell.	176,999 176,982 176,992 176,972 176,972 176,974 176,974 176,974 176,974 176,974 176,973
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy voulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axie, Garth & Elder. Washboard, Gridley & Pratt. Washboard, Gridley & Pratt Washing machine, C. Campbell Washing machine, J. M. Gano.	176,999 176,982 176,992 176,972 177,072 176,744 176,998 176,871 176,944 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,958 176,738 176,978 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738 176,738
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor. Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris Tablet, sturnistis, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ivcs. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Tracc, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilation for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washbaard, Gridley & Pratt. Washband, Gridley & Pratt. Washband, Gridley & Pratt. Washling machine, C. Campbell Washling machine, J. M. Gano. Watch, H. Harris.	176,999 176,982 176,982 176,982 176,971 177,072 176,944 176,935 176,764 176,935 176,764 176,935 176,768 176,935 176,768 176,778 176,783 176,983 176,961 176,781 176,783 176,781 176,783 176,782 176,783
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, creservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Tracc, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axie, Garth & Elder Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, C. Campbell Washing machine, J. M. Gano. Watch, H. Harris.	176,999 176,982 176,992 176,972 176,972 176,744 176,998 176,771 176,978 176,978 176,978 176,978 176,978 176,978 176,735 176,978 176,735 176,736 176,737 176,738 176,737 176,738 176,737 176,738
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Tablet, stourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, J. M. Gano. Watch, H. Harris. Water gate and gage, T. Guerin. Weeder and seed drill, Weston et al.	176,999 176,982 176,982 176,982 176,971 177,027 176,824 176,973 176,874 176,985 177,086 176,874 176,978 176,773 176,783 176,961 176,773 176,783 176,961 176,773 176,783 176,961 176,773 176,783 176,978 176,783 176,783 176,783 176,961 176,773 176,783
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, peating, W. S. Garrison. Stove, peating, W. S. Garrison. Stove, peating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ivcs. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Traps section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallec. Washbaard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, J. M. Gano. Washing machine, J. M. Gano. Watch, H. Harris. Water gate and gage, T. Guerin. Weeder and seed drill, Weston et al. Weeder, garden, M. Johnson.	176,999 176,982 176,982 176,982 176,982 176,981 176,981 176,814 176,985 176,816 176,817 176,985 176,985 176,985 176,985 176,985 176,783 176,985 176,783 176,985 176,783 176,985 176,783 176,985 176,783 176,981 176,783 176,981 176,783 176,981 176,783 176,983 176,981 176,783 176,981 176,783 176,981 176,783 176,981 176,783 176,981 176,783 176,981 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,783 176,785 176,786
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Tablet, stourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, J. M. Gano. Watch, H. Harris. Water gate and gage, T. Guerin. Weeder and seed drill, Weston et al.	176,999 176,982 176,982 176,972 177,072 176,744 176,998 176,871 176,944 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,953 176,973
Stove, cooking, G. N. Paimer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Tablet, stourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond Washing machine, C. Campbell Washing machine, J. M. Gano. Watch, H. Harris Water gate and gage, T. Guerin Weeder, garden, M. Johnson. Wells, tubing for oil, W. M. Martin. Wheels, etc., moulding, R. B. Swift.	176,999 176,982 176,982 176,972 177,027 176,744 176,938 176,871 176,978 176,878 176,878 176,781 176,783 176,978 176,783 176,978 176,783 176,978 176,783 176,978 176,783
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telcgraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing macline, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, C. Campbell Washing machine, J. M. Gano. Watch, H. Harris. Watercloset valve, W. Smith. Water gate and gage, T. Guerin. Weeder, garden, M. Johnson. Wells, model flowing oil, W. Robinson. Wells, tubing for oil, W. M. Martin Wheels, etc., moulding, R. B. Swift.	176,989 176,982 176,982 176,972 177,072 176,744 176,988 176,871 176,874 176,874 176,985 177,036 176,735 176,737 176,981 176,737 176,981 176,737 176,981 176,738
Stove, coal, D. C. Proctor. Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, D. C. Proctor Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales. Stove, drum attachment, R. L. Ball Syringc, G. J. Parris. Table silde, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy voulette, J. Mautte Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbec. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin. Ventilator for windows, S. D. Ingram. Wagon body and frame, I. G. Sallec. Washboard, Gridley & Pratt. Washstand, portable, N. O. Bond. Washing machine, C. Campbell Washing machine, G. Campbell Washing machine, J. M. Gano. Watch, H. Harris. Water gate and gage, T. Guerin. Weeder and seed drill, Weston et al. Weeder and seed drill, Weston et al. Weeder, garden, M. Johnson. Wells, tubing for oil, W. M. Martin Wheels, etc., moulding, R. B. Swift. Window bead fastener, Reichle et al.	176,989 176,982 176,972 176,972 177,072 176,744 176,998 176,871 176,974 176,978
Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, G. H. Stansbury. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring Stove, heating, D. C. Proctor Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Table slide, extension, C. F. Snyder Tablet, tourist's, F. G. Odenheimer Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulanting, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin Ventilator for windows, S. D. Ingram Wagon axie, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt Washstand, portable, N. O. Bond Washing machine, C. Campbell Washing machine, C. Campbell Washing machine, J. M. Gano Watch, H. Harris. Water gate and gage, T. Guerin Weeder and seed drill, Weston et al Weeder, garden, M. Johnson. Wells, tubing for oil, W. Mobinson Wells, tubing for oil, W. Mobinson Wells, tubing for oil, W. Mostin Wheels, etc., moulding, R. B. Swift. Wilp, D. C. Hull Window bead fastener, Reichle et al. Window shade fixture, C. De Quillefeldt Wire stand, Sherwood et al.	176,989 176,982 176,982 176,982 176,971 176,974 176,974 176,978 176,876 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,787 176,788
Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove cover lifter, D. K. Adams Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, W. S. Garrison. Stove, heating, D. C. Proctor Stove pipe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringc, G. J. Parris. Table slide, extension, C. F. Snyder. Tablet, tourist's, F. G. Odenheimer. Tag, T. Van Kannel. Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulating, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy voulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson. Trunk, S. Foote. Tweer, T. F. Witherbec. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin Ventilator for windows, S. D. Ingram. Wagon axle, Garth & Elder. Washboard, Gridley & Pratt. Washbatand, portable, N. O. Bond. Washing machine, J. M. Gano. Watch, H. Harris. Washerd, G. C. Sampbell Washing machine, J. M. Gano. Watch, H. Harris. Watercloset valve, W. Smith. Weeder, garden, M. Johnson. Wells, tubing for oil, W. M. Martin Wheels, etc., moulding, R. B. Swift Whilp, D. C. Hull Window bead fastener, Reichle et al. Window shade fixture, C. De Quillefeldt Wire stand, Sherwood et al.	176,989 176,982 176,982 176,982 176,971 176,974 176,974 176,978 176,876 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,978 176,787 176,788
Stove, cooking, G. N. Palmer. Stove cover lifter, D. K. Adams Stove grate, G. H. Stansbury. Stove grate, G. H. Stansbury. Stove, heating, W. S. Garrison Stove, heating, D. C. Proctor. Stove plpe supporter, J. L. Loring Stove, heating, D. C. Proctor Stove plpe supporter, J. L. Loring. Stove, reservoir cooking, A. B. Fales Stove, drum attachment, R. L. Ball. Syringe, G. J. Parris Table slide, extension, C. F. Snyder Tablet, tourist's, F. G. Odenheimer Tag, T. Van Kannel Tap, beer, G. C. Drinen. Tea and coffee, making, J. Miller. Teaching the metric system, W. F. Bradbury. Telegraph wire, machine for insulanting, F. S. Mead Thermometer for steam apparatus, S. Diplock. Thill coupling, G. W. Cogswell. Thrashing machine, W. J. La Grange. Toy, automatic, E. R. Ives. Toy roulette, J. Mautte. Toy whirligig, C. A. Lines. Trace, rope, T. Newman (r). Trap section die, J. M. Carson Trunk, S. Foote. Tweer, T. F. Witherbee. Vehicle hub, A. Van Geel. Ventilation of buildings, E. J. Martin Ventilator for windows, S. D. Ingram Wagon axie, Garth & Elder. Wagon body and frame, I. G. Sallee. Washboard, Gridley & Pratt Washstand, portable, N. O. Bond Washing machine, C. Campbell Washing machine, C. Campbell Washing machine, J. M. Gano Watch, H. Harris. Water gate and gage, T. Guerin Weeder and seed drill, Weston et al Weeder, garden, M. Johnson. Wells, tubing for oil, W. Mobinson Wells, tubing for oil, W. Mobinson Wells, tubing for oil, W. Mostin Wheels, etc., moulding, R. B. Swift. Wilp, D. C. Hull Window bead fastener, Reichle et al. Window shade fixture, C. De Quillefeldt Wire stand, Sherwood et al.	176,999 176,982 176,972 176,972 177,072 176,744 176,938 176,874 176,978 176,978 176,978 176,978 176,978 176,735 176,736 176,737 176,738

,255 .- STOVE .- Harris et al., Cincinnati, O. 9,256.—CHARM.—M. Savage, Detroit, Mich. 9,257.-Buckles, etc.-I. Scheuer et al , New York city.

9,258.—Flower Holder.—A. Wayne, New York 9,259.—Flower Holder.-J. C. Wilson, New York city. 9,260.—Draw Pull.—P. J. Clarke et al., West Meriden, Conn.

9,261.—TABLE NAPKIN.—E. G. Torbert, Philadelphia,Pa. 9,262.—FLAG.—W. Brown, New York city. 9.263.-Tables.-H. R. Brown, New York city

264.—Bas-Relief.—J. M. M. Conrad, Baltimore, Md. 9,265.-EMBROIDERY.-E. Crisand, New Haven, Conn. 9,266.—Carpet Borders.—E. Daniel, Paris, France. 9.267.—Carpets.—J. Hamer, Dutchess county, N. Y. 9.268. - Tobacco. - W. Jones, Danville, Va.

,269.—Carpers.—D. McNair, Boston, Mass. 9,270.—HANDLE TIPS.—W. M. Smith, West Meriden, Conn.

9,271.—Revolving Cylinders.—H. C. Webb, Norwich, Conn.

SCHEDULE OF PATENT FEES.