Business and Lersonal.

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.

Spy Glasses and Telescopes of all kinds and prices Lenses for making the same, with full directions for mounting. Illustrated priced circular free. Manufacturing Optician, 49 Nassau St., New York.

Reliable Oak Leather and Rubber Belting. A specialty of Belting for high speed and hard work. Charles W. Arny, Manufacturer, Phila., Pa. Send for price lists.

How to make Violins-Write J. Ranger, Syracuse, N.Y.

Shaw's Noise-Quicting Nozzles, for Escape Pipes of Locomotives, Steamboats, etc. Quiets all the noise of high pressure escaping steam without any detriment whatever. T. Shaw, 915 Ridge Ave., Philadelphia, Pa.

Reliable information given on all subjects relating to Mechanics, Hydraulics, Pneumatics, Steam Engines, and Boilers, by A. F. Nagle, M.E., Providence. R. I.

For 13, 15, 16, and 18 in. Swing Screw-Cutting Engine Lathes, address Star Tool Company, Providence, R. I.

For Sale.-Second-hand 4 Sided-Moulder, with about 300 knives; good as new; price \$500. T. R. Bailey, Agt.

Will A. T. S., who advertised June 9 for a Manufac turing business, address Box 1021, Providence, R. I.

Wanted-A partner with about \$7,500 in a Manufacturing concern; no competition; will pay 25 to 30 per cent. on investment. Address E. Y. M., Pittsburgh, Pa.

Combined Miller and Gear-Cutter; capacity large; almost new; a bargain. C. A. Conde & Co., Phila., Pa.

For Boult's Paneling, Moulding, and Dovetailing Machine, and other wood working machinery, address B.C. Machinery Co., Battle Creek, Mich.

John T. Noye & Son, Buffalo, N. Y., are Manufacturers of Burr Mill Stones and Flour Mill Machinery of all kinds, and dealers in Dufont & Co.'s Batting Cloth. Send for large illustrated catalogue

Steel and Iron Set Screws, manufactured by L. F. Standish & Son, New Haven, Conn.

Electric Gas Lighting Apparatus, applied to public and private buildings. The latest improvements. A. L. Bogart's patent. Address 702 Broadway, N. Y.

Patent Taper Sleeve Fastening and Wooden Pulley Works are now in full operation. Orders solicited. Satisfaction guaranteed. A. H. Gray, Erie, Pa.

Painters, etc., get circular, prices, etc., of New Metallic "Wiping out" Graining Tools; 75,000 now in use. J. J. Callow, Cleveland, O.

Removal.—Fitch & Meserole, Manufacturers of Ele trical Apparatus, and Bradley's Patent Naked Wire Helices, have removed to 40 Cortlandt St., N. Y. Experi-

Power & Foot Presses, Ferracute Co., Bridgeton, N. J. For Best Presses, Dies, and Fruit Can Tools Bliss & Williams, cor. of Plymouth and Jay Sts., Brooklyn, N.Y Lead Pipe, Sheet Lead, Bar Lead, and Gas Pipe. Send

Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing metals E. Lyon & Co., 470 Grand St., N. Y.

for prices. Bailey, Farrell & Co., Pittsburgh, Pa

Solid Emery Vulcanite Wheels-The Solid Original Emery Wheel - other kinds imitations and inferior. -Our name is stamped in full on all our best Standard Belting, Packing, and Hose. Buy that only. Thebest is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, N. Y.

Steel Castings from one 1b. to five thousand 1bs. Invaluable for strength and durability. Circulars free. Pittsburgh Steel Casting Co., Pittsburgh, Pa.

For Solid Wroughtiron Beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

Split-Pulleys and Split-Collars of same price, strength and appearance as Whole-Pulleys and Whole-Collars. Yocum & Son, Drinker st., below 147 North Second st. Philadelphia, Pa.

Small Fine Gray Iron Castings a specialty. Warranted soft and true to patterns. A. Winterburn, 16 and 18 De Witt St., Albany, N. Y.

Articles in Light Metal Work, Fine Castings in Brass, Malleable Iron, &c., Japanning, Tinning, Galvanizing-Welles' Specialty Works, Chicago, Ill.

Book Binders' Case Binding Machine. Send for illustrated circular. Frank Thomas & Co., Cincinnati, Ohio. Skinner Portable Engine Improved, 2 1-2 to 10 H. P. Skinner & Wood, Erie, Pa.

Yacht and Stationary Engines, 2 to 20 H. P. The best for the price. N. W. Twiss, New Haven, Conn

All nervous, exhausting, and painful diseases speedily with full particulars, mailed free. Address Pulvermacher Galvanic Co , 292 Vine St., Cincinnati, Ohio.

Cleaner, tempered and strong Chalmers Sn Territory, on a Useful Household Article, given away free. Address Ezra F. Landis, Lancaster, Pa.

More than twelve thousand crank shafts made by Chester Steel Castings Co. nowrunning; 8 years' constant use prove them stronger and more durable than wrought iron. See advertisement, page 398.

Diamond Planers. J. Dickinson, 64 Nassau St., N. Y. Emery Grinders, Emery Wheels, Best and Cheapest,

Hardened surfaces planed or turned to order. Awarded Medal and Diploma by Centennial Commission. Address American Twist Drill Co., Woonsocket, R. I.



C. N. will find a table of the prices of mettals on p. 169, vol. 33. As to powerful explosives, see p. 2, vol. 34. As to the most deadly poison, see p. 155, vol. 31.—A. K. will find something on the properties of selenium on p. 241, vol. 30.—C. C. C. is informed that the off the steam at about ¾ stroke. Textile Manufacturer is published in Manchester, England .- G. H. W.'s query was answered under the in-

horse power of his engine by the formula given on p. 33, vol. 33.-F E. M. will find something on removing moles or freckles from the face on p. 374, vol. 32.-J. A. McN. will find an explanation of the apparent variation in the size of the moon's disk on p. 305, vol. 34.—B. L. D. should use crude or pure rubber in the preparation of marine glue.-C. W. I. will find directions for removing mildew from cloth on p. 250, vol. 34.—R. should consult his family physician. -- D. S. R. will find on p. 20, vol. 30, directions for deodorizing cod liver oil. -W. C. R.'s query as to gas cylinders for calcium light is answered on p. 380, vol. 36.—S. A. M. will find that the claims of the Keely motor people are fully exposed on p. 400, vol. 32.-P. W.'s query as to weight near the surface of and in the depths of the ocean is answered on p. 363, vol. 36. -J. C. B. will find good tables of logarithms in Culley's "Handbook of Telegraphy."-J. L. C. will find directions for building an aquarium on p. 90, vol. 30,-G. C. will find directions for tempering small drills on p. 85, vol. 33,-T. J. S. S. will find a formula forthe width of belts on p. 58, vot. 27,-J. G. K. will find the address of the inventor of the calculating machine in the article describing it.—E. L. L. F. will find an article on watermelon sugar on p. 191, voi. 25. -C. P. will find full particulars as to the Great Eastern steamship on p. 346, vol. 31.—S. A. E. will find something on utilizing mica on p. 241, vol. 34.

respondent that you knew of no better way of pouring a Babbitt metal box, where the box is solid instead of of egg or blood albumen should be intimately mixed by being in halves, than by wrapping paper around the shaft to allow for shrinkage of the Babbitt metal. This slovenly plan has two objections. The paper is too thick to make the proper fit, and the metal shrinks on the paper and makes the box difficult to remove after pouring. Neat workmen warm the shaft and coat it with soap. But I have seen workmen make use of a plan so simple, so perfect, and so novel that 1 think it worthy the name of a wrinkle. It is simply to place the box horizontally, pour it half full, and let it cool. Then pour the other half. The result is a solid box in halves. The metal will be found to fill the casting solidly and not to have shrunk on the shaft,

(2) J. O. C. says: I have a wood lathe, bed made of 41/2x14 inches oak timber, head and tail stock of wood, with a cast steel head spindle with 11/4 inches bearing, 4 inches long. In turning wagon hubs, the lathe runs smoothly and without jar. Please let me know if I can turn iron on the lathe by using a hand slide rest? A. Yes.

(3) G. H. asks: What particular bones of the whale supplies us with the article of commerce known as whalebone? A. Whalebone is not, as its name might seem to signify, obtained from the bones of the whale, but from a substance which forms a substitute for teeth in the Greenland and other whales. This substance consists of flat plates or blades, hanging from the sides of the upper jaw (occupying the position of teeth in other animals). They are usually about 300 in number on each side, and are arranged parallel with each other, at right angles to the jaw. They are usually, at the middle of the jaw, about 9 feet in length. A full sized Greenland whale yields about 1 ton of these.

(4) W. E. G. asks: At what part of the crank stroke of an engine should the slide valve open the ports? A. The port should be about % inch open when the crank is on the dead center.

an mvention that requires the use of a small cord, not to exceed 116 inches in circumference. I would prefer that it should be 11/8 inches in circumference and desire it to sustain strains of at least 400 lbs. I do not think wire can be made to answer, and wish to know what is the best material in a rope or cord of the two dimensions? What are the breaking and safe strains of such cords? A, Good hemp rope, of either size mencord can be made much smaller. You should apply to manufacturers for prices.

(6) H. B. says: I am engaged in file cutting and have considerable trouble from the files cracking in tempering. In 170 gallons of water used for tempering, I use the following ingredients: 1/2 pint oil of vitriol, 1/2 b. alum, 1/4 lb. borax, 1/4 lb. prussiate of potash, and have the water salted so that a potato will float on it. What additional ingredients must be used, or what can be done to prevent the files cracking? A. Your files are probably heated too high. Try heating lower, and dip vertically.

(7) F. S. says: We have a four horse power caloric engine, which we would like to run with oil. We now run it with anthracite coal, which costs us \$10 per tric Belts and Bands. They are safe and effective. Book, much gritin the cylinder as to cut out the packing ring and the cylinder in a short time. Which would be the cheapest, coal oroil? And if the latter, which would be To Clean Boller Tubes-Use National Steel Tube the best kind of oil? A. We advise you to confer with

We have a cistern built in clay ground; after having finished it, we found that water had made its way in. Thinking that it was not cemented enough, we put on 6 or 7 coats; but water still comes through. What can be done with it? A. We could not tell without knowing more particulars. If there is a spring in the neighbor hood, it may be necessary to give it another outlet,

We have an iron roof on our factory which sweats in frosty weather, the sweat dripping down on the machinery. What can we put on to prevent it? A. You should either ventilate and heat the building moreeffectually, or cover the iron with some non-conducting

(8) C. H. M. says: I have a 12x14 inches engine. The steam follows the valve 10 inches I am about putting in new valves, and am thinking of using more lap so as to make the valve cut-off earlier. Of course the exhaust will open the same, but will close earlier, unless I make it open very early. I want to know whether there will be any gain in so doing? A. You will gain by giving your valve sufficient lap to cut

chloride of lime (hypochlorite of calcium), or carbolic

(10) E. M. L. asks: How can I utilize small scraps of tortoiseshell? A. Small pieces of good tortoiseshell may be joined so as to form one large apparently seamless piece in the following manner: Slope off the margins of the shells for a distance of about a quarter of an inch from the edge. Then place them so that the margins overlap one another; and thus arranged put them in an iron press and immerse in boiling water for some time. The pieces by this means become so perfectly united that the joint cannot be seen. The filings and very small scraps may be softened in hot water and consolidated by hydraulic pressure in metal moulds. Protracted heating of tortoiseshell darkens it, and greatly lessens its beauty.

(11) J. H. B., of Leeds, England, says: I require a peculiar kind of cement. I have used plaster of Paris and white lead, which, when moulded and hot pressed, forms into a very hard substance: but it rubs off on to fabrics when being pressed on to them in a chamber contaming steam. Can you suggest anything that will keep the white from rubbing off? A. You might try a wash of strong alum solution. Perhaps a better cement for the purpose would be that made with lime and albumen. Slake freshly burnt lime with boil-(1) J. says: You recently informed a cor | ing water; this occasions it to fall to a very fine dry of egg or blood albumen should be intimately mixed by beating with an equal quantity of water; and enough of the lime powder should be added to form a thin pa which should be used speedily, as it soon sets. This is a valuable cement, possessed of great strength, and capable of withstanding steam or boiling water

> (12) M. A. says: We have a lot of plated spoons that are discolored with a bluish purple cast resembling that on tempered steel. We fear to injure the polish. Can you tell us how to clean or remove the color without injuring the polish? A. The discoloration is very probably due to the formation of a film of sulphide of silver. This may be removed by dipping for a moment in strong nitric acid, and then washing immediately in running water. If the silver is permitted to remain in contact with the acid for more than a moment or two, the polished surface will be injured, so that it is preferable to rub off the film with a little finest tripoli powder and a piece of chamois skin or a soft

> (13) C. W. G. asks: How do you account for the fact that some of the genuine fifty and twentyfive cent pieces have not the ring of true metal? I sometimes see coins that, when thrown upon a counter sound like lead; and yet they stand all the other tests, and are to all appearances genuine silver coin. A. It may be attributed to some flaw, crack, or strain due to distortion. Most of the non-sonorous coins in circulation are not genuine.

> (14) P. M. B. asks: How can I remove an oil stain from granite, caused by having left some fresh oiled putty on the same? A. Moisten the spot with bisulphide of carbon, and immediately cover it withdry pipeclay or kaolin.

(15) E. P. H. says: I have a bronze mirror. and it has become dull and a little defaced by handling. I cannot find anything that will restore the polish. Can ou tell me what to do with it? A. Rub it over with a (5) G. W. S. says: I am about completing cloth moistened with dilute sulphuric acid; wash with water, dry, and polish, first with finest tripoli, and then with putty powder on a piece of chamois skin.

(16) A. C. A. asks: How can flowers be wrapped up so that they can be sent by mail without wilting? What is the best way to send roots and plants by mail? A. Dip them for a moment in dilute glycerin and pack loosely in cotton (moist) in small pasteboard tioned, can be made of the requisite strength. Silk boxes. Roots or bulbs should be wrapped as tightly as possible in a strip of cloth moistened with a mixture of about 1 part glycerin to 3 parts water, and packed in small pasteboard boxes

> (17) C. H. says: Can you give full particulars of the preparation of powder paper? Would it explode under pressure, without ignition? A. It is very probable that it would. We have not tried the experi-

> (18) T. H. L. asks: Do all animals above fishes perspire through the entire surface of their bodics? A. To a greater or less extent, this is, we believe the case with all of the higher animals.

(19) R. S. H. asks: What will take the stain of apple juice out of white cambric muslin? A. yield to the curative influences of Pulvermacher's Election, and the air passing through the fire deposits so Rub the spots well with strong alcohol, and then moisten with a little very dilute sulphuric acid (1 part acid to 20 parts water), and cover with moist bleaching powder (chloride of lime) until the spots disappear. Finally, wash well with soap and water.

> diplomathat has hung against a brick wall till it has become wrinkled from gathering moisture. How can I make it smooth again? A. Cover it on both sides with bibulous thin blotting paper, and pass a warm iron over the reverse side until it is properly smoothed.

> (21) M. B. H. says: I am sprinkling the streets with a 300 barrel tank, from which I fill my wagon, which holds 19 barrels water. Can you tell me how much chloride of calcium would be necessary to keep the dust down, going over the ground two or three times a day? Would it be better to put the chloride mto the large tank or the small one? A. We think the smallest quantity to be used is about 1 lb. to the barrel (=1/2 oz, to 1 gallon). If you can make sure of its complete solution, you had better add it in the small

(22) C. T. L. says: In making fly paper, I wish to put a preparation of sticky materials on calendered writing paper. On one side, I put an extra sizing of glue; but I cannot spread it evenly, and it stains through the paper. A. Use a sizing of a thin solution (9) T. R. W. asks: What is the best disin- of shellac in borax, or dip the paper for a moment into itials G. H. M., p. 268, vol. 36.—A. A. can calculate the fectant for kitchen drains, cesspools, etc.? A. Use a solution of beeswax in methylicalcohol, and then pass caustic soda, made by boiling about 2 lbs. of common

it between hot rollers. The sheets may then be gluesized by laying each sheet, face downward, on the surface of the bath.

(23) H. M. H. asks. What are the chemical changes produced on the photographic plate from the time the collodion is flowed on to the time the fixing solution is washed off? And what are the lights and shades composed of before and after the plate is fixed? A. Upon putting the collodionized plate into the silver bath, the iodides or bromides contained in the collodion cause a precipitation of insoluble iodide or bromide of silver on the collodion. On exposing this to light, a partial reduction of these salts ensues wherever the light strikes it-the stronger the light the greater the reduction-and this reduction is in so far completed by the action of the developer that the parts exposed to light become insoluble in the fixing solution (hyposulphite of soda or cyanide of potassium). Before fixing, the shades are composed of basic salts and oxide of silver, the lights of unreduced salts. In the fixing bath all of the unreduced salts are dissolved out, while the rest remains unchanged. The lights in the finished negative are therefore the transparent portions.

(24) F. P. asks: How can an aqueous solution of Liebig's extract of beef be prepared? A. Dissolve 1 part extract in about 30 parts warm water.

(25) H. L. C. says: I wish to make some permanent U magnets of cast steel, of 3/8 x 1 inch bar. They are to be 7 inches long, and capable of supporting 8 or 10 lbs. Can I charge them by using an 18 by 1 inch round iron formed into a U shape, and wound with 75 feet of No. 14 cotton-covered wire, with battery power consisting of two Hill cells? A. Yes, but one Grove or carbon cellwould answer better.

(26) B. says: I have a cistern which is madeinclay ground; and it lets in water through the cement, and makes the rain water hard. It has 6 or 7 coats of cement, and still the water comes through. What is the reason, and how can I prevent it? A. No kind of cement that is mixed with water can be depended upon absolutely to make a lining impervious to water. You require an asphaltic cement put on in several coats, and fortified and loaded down with a brick or concrete bottom and sides, to keep it in place, so as to resist the pressure of the exterior water when the cistern is not filled.

(27) F. D. H. asks: In connecting the coils of an electromagnet, which are the proper ends of the wire to join, those nearest the cores orthe outside ones? A. It is usual to join those nearest the core.

(28) J. C. W. asks: How can I build a hothouse of lumber, for flowers in the winter? A. Locate it so as to harmonize with surrounding buildings, but place it so as to front either south, southeast, or east. Let the front wall be 2 feet above the ground, and the rear wall sufficiently high to give the glass roof a slant of 45°—the height depending upon the width of the building. If the soil is dry, the floor may be sunk 2 feet below the surface of the ground by excavating to that depth. If you have stone, build foundation walls 18 inches thick up to 6 inches above surface of ground, lay sills around and set your posts about 4 feet apart, their size being 4 by 4 inches. Cover the front and rear, both on the exterior and interior, with tongued and grooved boards, and pack the 4 inch space between the boarding with dry sawdust or wood shavings rammed close. If you have no stone, use locust or chestnut posts, driven well into the ground and sawed off level for the sill. Make your rafters of sufficient size to suit the width of the building, and placed so as to properly receive your glass frames, and provide in the 2 feet wall at bottom, and in the upper row of sashes, a ventilating shutter to every other opening between the rafters. Put the door in the warmest end, and construct the ends of glass. To provide against severe weather, procure a hot water greenhouse stove and pipes, and set the same according to the directions given.

(29) J. W. S. says: A house that cost \$15,000 caught fire from a chimney; the gas had eaten the mortar away from the bricks. Is there anything that can be put in mortar that will counteract the effects of the gas? A. Make your mortar of lime and clean sharp sand (no clay or loam); make the walls of the flues fully 4 inches thick, and fill the joints of the brickwork with the mortar properly, and there will be no danger of the gas eating through the mortar to set the house on fire.

(30) J. J. says: A large reservoir 20 feet deep, 2 miles from town and 200 feet above town, has two pipes equal in size and length. One is inserted at bottom of lake or reservoir, the other near the top; and both are led to the same point in town. Which would supplywaterfirstor run the most? What would be the difference if the top pipe were connected to a small box three feet square which is kept supplied with water at the same height as the reservoir? A. The head of wasaure at the hottom (20) W. H. J. says: I have a parchment is the same in both cases, the only difference being in the length of time that the supply would continue—the pipe which connects near the top of the tank ceasing to flow when the water subsides to that point, but the other continuing until the tank is fully discharged.

> (31) B. & C. F. say: 1. We propose building a storehouse. We desire to know which is best, brick or stone, stone being white sandstone of good quality and the brick medium? A. The brick wall could be laid up in less time than stone and would answer of less thickness-it would therefore most likely be more economical: it would also stand fire better. 2. Which is best for roofs, tin or sheet iron? Should it be painted? A. A roof of bright I C plate charcoal tin is the best; and it should be painted 2 coats of best yellow ocher paint.

> (32) A. G. says: I got some small articles for silver plating, and tried your recipe given on p. 299, vol. 31, but without success. The articles are of a composition of tin, zinc, and lead or antimony, 1 to 2 inches long and 1/2 inch wide. How can I succeed? A. Probably you were not careful enough in cleaning the objects. Try boiling and rubbing them in a solution of

soda crystals with milk of lime, produced by slacking ing much oxide of iron. No. 2 is a piece of red jasper. 16 lb. of quicklime with hot water well stirred: then rinse them in a fresh caustic soda or potash solution and transfer immediately to the silver bath.

(33) V. & G. say: 1. We cut off steam at 8 inches on one end and 10 inches on the other end of our 14x28 inches cylinder. Is this right? We find that if we make it cut off alike on both ends that the valve opens wider on one part than the other. A. It is impossible in a common slide valve to make the points of admission cut off and release equal for each stroke; and it is preferred to keep the points of admission equal. 2. There is about 34 of an inch space between the cylinder head and the fellower. Would we save any steam to make our cylinder head thicker and reduce this space? And if so, how much space should there be? A. Yes. About 1/2 inch. 3. Is a variable cut-off valve, working on the back of the main valve, better than to vary the cut-off of the main valve by raising or lowering oncend ties. of the eccentric rod on an arm? A. It is considered so.

is an ohm, and why is it so called? A. The ohm is the unit of resistance in electrical measurements. It is equal to the resistance of a prism of pure mercury, one square millimeter in section, and 1.0486 meters long, at 0° C. Thename ohm was given the unit in honor of Dr. Ohm, a celebrated physicist. 2. In chemistry, which of the two metals, zinc and lead, has the greater affinity for silver? A. Zinc.

(35) A. H. R. says: I wish to make a pair of waterproof pants, in which to work in water from 6 to 10 hours at a time, without getting wet through. Willtwilled cotton, thoroughly coated with raw oil, answer the purpose? Or is there any better coating? Λ . No. Trya mixture of about 10 parts boiled oil and 1 preserve the trees from their ravages. Of course the inpart becswax, thinned down so as to readily penetrate vention must also have the merit of cheapness, so as to part beeswax, thinned down so as to readily penetrate the cloth. A better way is to use a thin varnish made by dissolving india rubber in bisulphide of carbon containing about five or six per cent of absolute alcohol. A very thin coat of the varnish will answer, and is

(36) J. K. T. asks: Is there any way to shrink boots, which have been stretched while wet, into shape again? A. We do not know of any.

How can I polish a gun stock? A. Put on several good coats of shellac, rubbing each one down when dry with pumicestone, and finish with a fine linen wad kept constantly moistened with thin alcoholic shellac and occasionally a drop of oil.

(37) B. L. H. asks: Will you please inform me of the process of marbleizing iron? A. See article on enameling iron ware, p. 21, vol. 36. The variegated colors may be produced by the addition of oxide of antimony, manganese, and iron to the glazing, before the final fusion. This also answers W. M.

(38) A. R. S. asks: How can I get the impression of an article in plaster of Paris without the article becoming set in the plaster? A. If there are any inward curves or angles in the model you cannot make a correct cast of it at once. For intricate work the model must be in several parts, from each of which a separate cast is taken; and then all of them properly joined to form one mould. This subject has been dealt with in detail by Mr. Joshua Rose in late numbers of the Sci-ENTIFIC AMERICAN. Where the undercut curves or angles are not very sharp, it is sometimes possible to get a cast in glue, which, being more elastic than plaster, admits of a certain amount of compression and stretching in removing the pattern. The water in which the glueis dissolved is mixed with enough glycerin to retain the glue as a stiff jelly on cooling. The patterns are carefully oiled before being brought into contact with the glue. From the first cast a second one, in glue, may be taken, and from this, in turn, a plaster cast, thus copying the first.

(39) T. W. asks: What is the best non-conducting material (for heat) whether of animal, vegetable, or mineral nature? A. Among substances of animal or the head of that column. Almost any desired in igin, feathers, wool, hair. silk, etc., are the best. Among vegetable substances, charcoal, sawdust, shavings, cotton, and dry fibers in general. All these, when dry, are excellent non-conductors. Of mineral substances, asbestos, mineral wool, porous tiles, and clay bricks, also slabs or bricks of porous infusorial earth, etc.

polish horn? A. It is usually first scraped, and then rubbed down with emery powder and water, and fin-core should first be removed by soaking in cold water for several weeks, which treatment loosens the core, so that it may be pulled out. Boiling water temporarily softens horn; and while soft it may be slit, and spread out by pressure between hot iron plates.

tassium on the eggs of the potato bug. Would the apaiand remit to Munn & Co., 37 Park Row, New York city. plication of this chemical to the field be likely to poison the potatoes, so as to make their use dangerous? A. No; but it may impart an unpleasant smell to some of the tubers, if used excessively

(42) Z. H. asks. 1. Can grain nickel be melted in an ordinary furnace used for melting brass? A. If the furnace is provided with a very good draught, you may succeed in fusing small quantities of it at a time. It requires a very high temperature, and a long exposure in the furnace to get it liquid enough to run. 2. Will it run without an alloy? A. Yes.

(43) A. L. S., Queensland -Remit, 16 shillings sterling for Scientific American one year, which includes postage.

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

J. M. B.-A. is properly an agate, of little value. B. arc pebbles of milky quartz and flint.-W. J.-It is a clay containing a considerable amount of infusorial silica. It is an excellent article for polishing purposes, and, if properly washed, might prove marketable.-J. H. C.-No. 1 is an indurated clay, contain-

No. 3 is a felspathic rock, containing small specks of iron pyrites and chalcopyrite (sulphide of copper). No. 4 is nodular pyrites (marcasite). See p. 7, vol. 36. None of the specimens are valuable.-H. W. S.-It is mostly magnetic pyrites (pyrrhotine).-M. S.-No. 1. The coating contains manganese and very Drobably Zinc. No. 2 is an earthy oxide of cobalt-a variety of No. 1. No. 3 is gnelss rock with sulphide of iron. No. 4 is magnetite. -F. H. P.—A is a piece of hornblende. B is gnelss rock, with a few iron garnets. The crystal is calcitecarbonate of lime. -M. W. R.-It is mica schist (a silicate of potash, alumina, magnesia, and iron) with chlorite (a hydrous silicate of magnesia, iron, and alumina). -K. H. R.-They are pebbles of flint, common agate, chalcedony, and quartz. We do not consider them valuable. Such pebbles can be found on most sea shores It is impossible for us to say where the pebbles came from, or where similar ones could be found in quanti-We have seen magnificent agates from the Pacific coast and we understand that they abound near San (34) L. H. R. asks: 1. In electricity, what Diego, Cal. - E. E. -It is not coal, but cay contain ing a large amount of carbon.—C: A. M.-It is a wax, called by dealers Carnauba wax.

> M. B. & R., of Melbourne, Australia, say: The greatest enemy that the fruit gardener has to contend with in this colony is the sparrow, and it seems a matter of great wonder that no means have yet been introduced to stop its ravages. Those who have not had ocular demonstration would scarcely eredit that these little creatur s could commit such havoc. Settling in flocks upon the choicest fruit trees, they will quickly completely denude them of every particle of ripe fruit. Here is an opportunity for the ingenious American to distinguish himself by inventing some contrivance to bring it within the reach of all classes.

COMMUNICATIONS RECEIVED.

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

On Painting Axes. By W. E. W. On the Dunkirk Microscopical Society. By C. P. A., and by J. E. S.

On the American Cicada. By H. H. On a Discovery in Geometry. By L. S. B,

On Torpedoes. By J. P. W. On Converting Motion. By F. S. On a Decimal System of Computing Time. By C. E. D.

On Capital and Labor. By On Boiler-Covering Composition. By P. C.

On Liquors. By C. F. F. On Water Evaporated through Engines. By W. A. M. also inquiries and answers from the following: C. M. K.—S. B. E.—A.—J. B. B.—A. S.—J. M. W.— A. S. T.—J. E. B.—B. K. A.—W. O. W.—J. C. II.

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear should epeat 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.

Inquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here. All such questions, when initials only are given, are thrown into the waste basket, as it would fill half of our paper to print them all; but we generally take pleasure in answering briefly by mail, if the writer's address

Hundreds of inquiries analogous to the following are sent: "Who makes machines for breaking down rice straw for paper-making? Who sells steam heaters in which the heat may be readily varied to suit the wants of the household? Who sells electric candles, as described on p. 3:39, vol. 36? Who sells decorative tiles? Who sells hydraulic lime?" 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 formation can in this way be expeditiously obtained.

OFFICIAL.

INDEX OF INVENTIONS

abs or bricks of porous infusorial earth, etc.

FOR WHICH

(40) N. M. W. asks: How can I clarify and clish horn? A. It is usually first scraped, and then Granted in the Week Ending May 15, 1877,

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 (41) A. L. B. says: In one of your papers I furnished from this office for one dollar. In ordering, see a statement of the effect of sulpho-carbonate of po- please state the number and date of the patent desired,

	Awl haft, N. B. Dit Lepine	190,74
	Bag fastener, A. B. Cate	
	Bag machine, Arnold & Quigley	190,66
	Baling press, J. E. Hanger	
l		190,77
i	Barrel trussing machine, W. Bayley	190,73
	Basin, J. H. Keyser	
	Bed bottom, G. Eade	190,74
	Bee hive, G. Kraetzer	190,87
		190,94
	Bessemer converter bottom, E. J. Mildren	190,89
	Binder, hand, J. O. Brown	190,70
	Binder, hand, J. O. Brown	190,70
	Bird cage support, F. W. Long	190,88
	Blackboard eraser, H. J., Andrews	190,66
	Blackwashing device, N. K. Wade	190,69
	Blind slat adjuster, H. Gaylord	190,84
	Blowing machine, Cochrane & Hendy	190,82
	Blowing machine, J. W. Wilbraham	190,94
	Bone black revivifier, J. Gandolfo	190,67
l	Books, binding, W. Gillilard	190,67
	Boot and shoe, T. J. Greenwood	190,75
	Boots, crimping, L. O. Makepeace (r)	7,68
	Boot uppers, crimping, I. H. & J. D. Spake,	
	Bootjack blanks, forming, H. A. Brown	190,73
	Bottle, composition seal, C. M. Jacob	190,86
	Breech loading firearm, H. W. Chapman	190,82
١	Bridge truss, J. H. Snyder	190,92

Bridle bit, F. B. Kuehnhold		Motion converting, J. Smith	
Broom, A. Stephen Brush, R. W. Champion	. 190,821	Neck tie retainer, L. Hussey	190,863
Brush handles, making, J. L. Whiting		Nut lock, Brown & Huey	190,73 0 190,88 3
Bung and bush, combined, E. Rodier	190,905	Ore washer, D. Beaumont	190,800
Butter worker, Cornish & Curtis Butter worker, G Ridler			190,693 19 0 ,843
Cane and pipe, Hirsch & Ettinger		Organs, etc., coupler for, R. E. Letton	190,687 190,761
Car coupling, P. Hien	190,858	Pantograph, E. Ware	190,797
Car coupling, E. B. Middleton. Car coupling, G. M. Thompson		Paper box, C. M. Arthur Paper box, H. L. R. & O. Wolf	
Car pusher, J. E. Gearhart	190,848	Pen, fountain, II. N. Hamilton	190,755
Car starter, C. A. Harvey	190,909	Pillow ventilating, J. T. Hatfield	190,690 190,854
Carstarter, G. M. Thompson		Pite cutting machine. N. Watson	
Casting, composition for, A. Kiescle	190,769	Pitman, H. L. Hopkins Pitman connection, J. W. Blood	190,733
Chair, F. If Foster		Plow, G. B. Clarke Plow, H. Opp.	
Chair, folding, H. Closterman, Jr	190,827	Plow, S. G. Reynolds	190,904
Chair, nursery, J. C. Wheeler		Plow, W. M. Towers. Plow jointer, J. Densmore	
Change box, O. White		Plow, reversible, J. Gogel Plows, stubble guard for, B. F. Phillips	190,678
Churn, reciprocating, E. Brough	201.531	Plows, sulky attachment for, W. K. Bushnell	
Churn, reciprocating, J. Clinedinst		P6eket books, safety attachment for, T. Ferguson Pocket, safety, F. Wendt	
Cigar, M. Gelston	190.819	Pump, H. M. Jones	190,870
Claw bar, C. A. Miller		Pumps, R. M. Lafferty (r)	
Clewing up topsails, W. H. Dare		Pump cut or valve, J. Mansir	
Cock, automatic. G. F. Hammer	190,680	Pump, anti-freezing force, H. M. Wyeth Pump valve, R. M. Lafferty (r)	7,676
Coin wrapper, G. Rettig		Punch for leather, etc., C & A. B. Jenkins Punching metal, etc., A. Lee	
Corn planter, J. Rand	190,900	Quilting frame and clothes bar, Λ . E. Furness	190,844
Corn planter, etc., L. E. Williams Corn planter attachment, W. R. Cunningham		Railway rails, slitting, J. Reese (r)	
Corn sheller, E. S. McEwen	190,721	Railway tie, A. H. Campbell Refrigerator, S. Gasper	190,739
Cradle, J. L. Butler	190,817	Refrigerators, ice floor for, D. J. Stuart	190,928
Cultivator, J. R. Tilley	190,796	Rock drill, R. Allison	
Darning last, M. B. Crowninshield	190,745	Roofing, fireproof, A. C. de la Martelliere	190,834
Dental chair, J. B. Morrison (r)		Rope or cordage, etc., reeling, B. Bevelander Rowlock, W. Spelman	
Desks, folding seat for school, O. Davis	190,832	Sash fastener, C. E. Hicks	193,759
Dish, culinary, S. W. Mathewson		Saw, hand, Shave & Reams. Saw mill, muley, T. E. Chandler	190,822
Doffer combs, operating, E. R. Coverdill	190.714	Sawing machine, F. Simonson	190,787
Door stopscrew, O. Mongeau		Scales, spring, G. H. Chinnock	
Ear slipper, I. B. Kleinert		Serew driver handle, E. A. Johnson	,
Electric light, carbon, 1. Jablochkoff	190,864	Seed sower and cultivator, E. Emmert	190,839
Engraving machine table, A. E. Ellinwood		Sewing machine, E Bouscay, Jr. (r)	7,684 190,799
Fare register, P Seyl	190,912	Sewing machine motor, A. D. Black	190,664
Feed cooking, steam, C. & W. Kramer		Sewing machine shuttle, R. H. St. John	
Firearms, rear sight for, C. F. Robbins	190,782	Shearing boiler plates, J. W. & R. Johnston Sheet metal can, H. Miller (r)	190.763
Fire escape, M. Durand Fireman's belt, F. Costantino		Shoe nail, Cushman & Brigham	7,682 190,670
Flying machine, F. Barnett		Shot bag and charger, T. J. Jolly	
Fruit drier, J. R. Dodge, Jr	190,748	Skylight, J. Henry	190,856
Fruit drier, Kelly & Cole		Sled, bob, J. Littfln	
Furnace blower, etc., L. C. Cook	190,706	Sludge oil, etc., treating, W. P. Jenney	190,762
Fuse, percussion, B. B. Hotchkiss		Smoke, consuming, J. C. Baum (r) Soap boiler, J. M. Jackman	
Gage, carpenter's, G. W. Vaughan	190,934	Soldering machine, H. Miller	190,888
Galvanie battery, C. R. Jennison	190,684	Spinning top roll support, Hardenbergh & Holmes	190,756
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder	190,684 190,840	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie.	190,756 190,924
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp.	190,684 190,840 190,868 190,673	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757
Galvanie battery, C. R. Jennison	190,684 190,840 190,868 190,673 190,714	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith	190,684 190,840 190,868 190,673 190,714 190,915 190,918	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie Steam boiler, eirculating, H. S. Coleman Steam cylinder, relief, J. M. Hartman Steam engine, L. H. Hall Steam engine, Warrick & Brush Steam engine, rotary, Scudder & Wager	190,756 190,924 190,743 190,757 190,851 190,938 190,785
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens.	190,684 190,840 190,868 190,673 190,714 190,915 190,918	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie. Steam boiler, circulating, H. S. Coleman. Steam cylinder, relief, J. M. Hartman. Steam engine, L. H. Hall. Steam engine, Warrick & Brush	190,756 190,924 190,743 190,757 190,851 190,938 190,785 190,857
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith. Gas retort lids, fastening for, N. Jamin. Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar.	190,684 190,868 190,673 190,714 190,915 190,918 190,867 190,715 190,674	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie Steam boiler, eirculating, H. S. Coleman Steam cylinder, relief, J. M. Hartman Steam engine, L. H. Hall Steam engine, Warrick & Brush Steam engine, rotary, Seudder & Wager Steam generator, water tube, J. B. Herreshoff. Steam trap, T. Kieley Stove extinguisher, car, Pegram & Hotchkiss	190,756 190,924 190,743 190,757 190,851 190,938 190,785 190,857 190,719 190,790
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr.	190,684 190,868 190,673 190,714 190,915 190,867 190,715 190,674 190,916 190,679	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851 190,938 19^,785 190,857 190,719 190,790 190,814 190,716
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker.	190,684 190,840 190,868 190,673 190,714 190,915 190,918 190,867 190,715 190,674 190,916 190,679 190,936	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851 190,938 190,785 190,719 190,790 190,814 190,716 190,901
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach	190,684 190,840 190,868 190,673 190,714 190,915 190,918 190,867 190,674 190,674 190,016 190,679 190,638 190,938 190,938 190,938	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851 190,938 190,785 190,057 190,790 190,790 190,790 190,760 190,760 190,929
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. 190,809,	190,684 190,840 190,868 190,673 190,714 190,918 190,967 190,674 190,674 190,966 190,679 190,360 190,810	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851 190,938 190,785 190,785 190,790 190,790 190,790 190,760 190,760 190,929 190,758
Galvanie battery, C. R. Jennison. Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith. Gas retort lids, fastening for, N. Jamin. Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach	190,684 190,840 190,868 190,673 190,713 190,915 190,918 190,867 190,867 190,679 190,679 190,936 190,810 190,746 190,803 190,803 190,893	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,924 190,743 190,757 190,851 190,938 19°,785 190,857 190,790 190,814 190,760 190,901 190,760 190,929 190,758 190,738 190,738
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach Grain separator, L. V. Davis. Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick Harrow, F. M. Davison. Harrow, D. McHrevey	190,684 190,868 190,673 190,668 190,673 190,714 190,915 190,987 190,715 190,679 190,967 190,967 190,967 190,805 190,805 190,803 190,80	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie Steam boiler, circulating, H. S. Coleman Steam cylinder, relief, J. M. Hartman Steam engine, L. H. Hall. Steam engine, Varrick & Brush Steam engine, rotary, Scudder & Wager Steam generator, water tube, J. B. Herreshoff. Steam trap, T. Kieley. Stove extinguisher, car, Pegram & Hotchkiss. Stove heating, Bowman, Franklin & Colby 189,813, Stove leg, P. Hauersperger. Stove mat, Reiniers & Branch Stove pipe shelf, J. W. Jackson. Stoves, casing for car, H. Tanner Straw cutter E. M. Hesselbom Suspender stay, G. Butterfield. Table leaf support, N. A. Hull. Tallor'smeasure, G. H. Lasar. Tea and coffee pot handle, A. Bayley.	190,756 190,924 190,743 190,757 190,851 190,857 190,857 190,719 190,790 190,760 190,901 190,760 190,929 190,758 190,738 190,738 190,738 190,738 190,807
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren Gas furnace, C. W. Siemens Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach Grain separator. L. V. Davis Grate bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers	190,684 190,840 190,867 190,667 190,714 190,915 190,915 190,971 190,715 190,674 190,674 190,674 190,679 190,936 190,810 190,746 190,893 190,893 190,893 190,893 190,891	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie. Steam boiler, circulating, H. S. Coleman. Steam cylinder, relief, J. M. Hartman. Steam engine, L. H. Hall. Steam engine, Varrick & Brush Steam engine, rotary, Scudder & Wager. Steam generator, water tube, J. B. Herreshoff. Steam trap, T. Kieley. Stove extinguisher, car, Pegram & Hotchkiss. Stove heating, Bowman, Franklin & Colby 189,813, Stove leg, P. Hauersperger. Stove mat, Reimers & Branch Stove mat, Reimers & Branch Stoves, casing for car, H. Tanner. Straw cutter E. M. Hesselbom. Suspender stay, G. Butterfield. Table leaf support, N. A. Hull. Tallor's measure, G. H. Lasar. Tea and coffee Pot handle, A. Bayley. Teething nipple, C. E. Rogers	190,756 190,924 190,743 190,757 190,851 190,938 19°,785 190,857 190,790 190,716 190,790 190,790 190,790 190,793 190,758 190,758 190,758 190,758 190,758 190,807 190,807
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hey loader, J. W. & E. Small.	190,684 190,846 190,673 190,673 190,714 190,915 190,915 190,967 190,715 190,679 190,679 190,805 190,805 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,743 190,743 190,757 190,851 190,988 190,785 190,719 190,719 190,790 190,780 190,760 190,929 190,758 190,758 190,758 190,758 190,807 190,807 190,808
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren Gas furnaee, C. W. Siemens Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker Grain, curing, H. H. Beach Grain, curing, H. H. Beach Grain, spring air, O'Connor & Dinnan Harrows F. M. Davison Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hay loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman	190,684 190,868 190,673 190,673 190,714 190,918 190,967 190,916 190,916 190,916 190,916 190,810 190,810 190,833 190,833 190,833 190,833 190,746 190,833 190,833 190,735	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,724 190,757 190,851 190,938 19°,785 190,857 190,719 190,790 190,790 190,760 190,901 190,766 190,758 190,775 190,877 190,887 190,908 190,908 190,908 190,908
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hey loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester.	190,684 190,868 190,673 190,714 190,918 190,918 190,967 190,715 190,674 190,916 190,679 190,679 190,805 190,805 190,803 190,803 190,803 190,803 190,774 190,778 190,738 190,738 190,738 190,738 190,738 190,738 190,738 190,738	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,024 190,025 190,031 190,031 190,031 190,035 190,031 190,030 190,031
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grate bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harnews saddle loop, Monteith & Mesick. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hosting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains.	190,684 190,886 190,673 190,714 190,918 190,918 190,867 190,715 190,916 190,679 190,936 190,810 190,746 190,805 190,805 190,803 190,803 190,778	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie. Steam boiler, circulating, H. S. Coleman. Steam cylinder, relief, J. M. Hartman. Steam engine, L. H. Hall. Steam engine, Varrick & Brush Steam engine, Varrick & Brush Steam engine, rotary, Scudder & Wager. Steam generator, water tube, J. B. Herreshoff. Steam trap, T. Kieley. Stove extinguisher, car, Pegram & Hotchkiss. Stove heating, Bowman, Franklin & Colby 189,813, Stove leg, P. Hauersperger. Stove mat, Reimers & Branch Stove pipe shelf, J. W. Jackson. Stoves, casing for car, H. Tanner. Straw cutter E. M. Hesselbom. Suspender stay, G. Butterfield. Table leaf support, N. A. Hull. Tallor's measure, G. H. Lasar Tea and coffee Pot handle, A. Bayley. Teething nipple, C. E. Rogers Telegraph, quadruplex, G. B. Prescott. Thill support, Teal & Nelson Thrashing blast regulator, W. Boren. Toy money box, W. Bruce. Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser.	190,756 190,024 190,024 190,737 190,551 190,938 190,785 190,857 190,790 190,901 190,901 190,901 190,700 190,008
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hey loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger	190,684 190,868 190,673 190,714 190,918 190,918 190,967 190,715 190,674 190,916 190,679 190,805 190,805 190,805 190,805 190,803 190,805 190,803 190,725 190,725 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,873 190,735 190,735 190,735 190,735 190,873 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735 190,735	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,224 190,737 190,751 190,751 190,851 190,785 190,785 190,785 190,789 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,806 190,807 190,807 190,808 190,727 190,808 190,727 190,808 190,727 190,808 190,727 190,808 190,727 190,808 190,727 190,808
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren Gas furnace, C. W. Siemens Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar Gearing machine, Singleton & Wingfield Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker Grain, curing, H. H. Beach Grain separator. L. V. Davis Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harnews saddle loop, Monteith & Mesick Harrow F. M. Davison Harrow D. McIlrevey Harvester rake, J. H. Meyers Hay loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hominy mill, G. B. Gains Hoof parer, J. Hilger Hop extract, composition, J. R. Whiting	190,684 190,868 190,673 190,714 190,918 190,918 190,867 190,916 190,679 190,916 190,746 190,810 190,746 190,805 190,805 190,803 190,805 190,805 190,738	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie. Steam boilor, circulating, H. S. Coleman. Steam cylinder, relief, J. M. Hartman. Steam engine, L. H. Hall. Steam engine, Varrick & Brush Steam engine, Votary, Scudder & Wager. Steam generator, water tube, J. B. Herreshoff. Steam trap, T. Kieley. Stove extinguisher, car, Pegram & Hotchkiss. Stove heating, Bowman, Franklin & Colby 189,813, Stove leg, P. Hauersperger. Stove mat, Reimers & Branch Stove pipe shelf, J. W. Jackson. Stoves, casting for car, H. Tanner. Straw cutter. E. M. Hesselbom. Suspender stay, G. Butterfield. Table leaf support, N. A. Hull. Tallor's measure, G. H. Lasar. Tea and coffee pot handle, A. Bayley. Teething nipple, C. E. Rogers. Telegraph, quadruplex, G. B. Prescott. Thill support, Teal & Nelson. Thrashing blast regulator, W. Boren. Toy money box, W. Bruce. Toy money box, W. Bruce. Toy magon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, safety, N. Du Brul. Valve, safety, Maurel & Truel	190,756 190,024 190,024 190,613 190,757 190,851 190,038 190,785 190,785 190,785 190,785 190,790 190,790 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,990 190,90
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Ilarness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r) Hey loader, J. W. & E. Small. Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hositing and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton.	190,684 190,868 190,673 190,714 190,918 190,918 190,967 190,674 190,916 190,674 190,916 190,803 190,803 190,803 190,803 190,803 190,746 190,746 190,746 190,803 190,803 190,803 190,803 190,803 190,746 190,774 190,778 190,774 190,778	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie Steam boilor, circulating, H. S. Coleman Steam cylinder, relief, J. M. Hartman Steam engine, L. H. Hall. Steam engine, Varrick & Brush Steam engine, rotary, Scudder & Wager Steam generator, water tube, J. B. Herreshoff Steam trap, T. Kieley Stove extinguisher, car, Pegram & Hotchkiss Stove heating, Bowman, Franklin & Colby 189,813, Stove leg, P. Hauersperger Stove mat, Reiniers & Branch Stove pipe shelf, J. W. Jackson Stove pipe shelf, J. W. Jackson Straw cutter E. M. Hesselbom Suspender stay, G. Butterfield Table leaf support, N. A. Hull Tailor's measure, G. H. Lasar Tea and coffee pot handle, A. Bayley Teething nipple, C. E. Rogers Telegraph, quadruplex, G. B. Prescott Thill support, Teal & Nelson Thrashing blast regulator, W. Boren Toy money box, W. Bruee Toy money box, W. Bruee Toy money box, I. Thomass Urlnal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul	190,756 190,024 190,731 190,757 190,851 190,785 190,785 190,779 190,719 190,719 190,719 190,720 190,720 190,720 190,720 190,720 190,720 190,825 190,827 190,827 190,827 190,728 190,727 190,828 190,727 190,728 190,728 190,727 190,728 190,728 190,727 190,728 190,728 190,727 190,728
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grate bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harrows F. M. Davison. Harrow F. M. Davison. Harrow F. M. Davison. Harrow F. M. Davison. Harrow D. McIlrevey Havester rake, J. H. Meyers Hay loader, J. W. & E. Small Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoo, J. S. Lester. Hosting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Horse hay rake, J. Badger. Horse hay rake, D. W. Travis.	190,684 190,868 190,673 190,771 190,771 190,918 190,867 190,875 190,876 190,810 190,679 190,810 190,736 190,810 190,736 190,810 190,805 190,805 190,805 190,805 190,805 190,805 190,738 190,73	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,024 190,613 190,757 190,851 190,785 190,785 190,785 190,785 190,760 190,790 190,901 190,790 190,901 190,802 190,703 190,804 190,704 190,908 190,705 190,908 190,705 190,908 190,705 190,908 190,705 190,70
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, D. W. C. Velie. Horseshay rake, D. C. Celie.	190,684 190,808 190,673 190,714 190,918 190,918 190,967 190,916 190,967 190,916 190,803 190,803 190,803 190,803 190,803 190,714 190,725 190,681 190,735	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,824 190,737 190,851 190,785 190,858 190,785 190,857 190,858 190,785 190,790 190,814 190,790 190,901 190,790 190,901 190,760 190,901 190,760 190,901 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,908 190,760 190,808 190,80
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach	190,684 190,846 190,673 190,771 190,971 190,971 190,971 190,976 190,976 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,778 190,789 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,798 190,898	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,024 190,757 190,851 190,785 190,785 190,785 190,785 190,785 190,790 190,901 190,901 190,901 190,901 190,902 190,908
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, D. W. Travis. Horse hay rake, D. W. Travis. Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McParland.	190,684 190,886 190,673 190,714 190,918 190,971 190,918 190,877 190,916 190,679 190,936 190,803 190,803 190,803 190,803 190,734 190,735	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,737 190,751 190,751 190,851 190,785 190,785 190,785 190,785 190,786 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,791 190,791 190,791 190,792 190,791 190,792 190,791 190,791 190,791 190,791 190,791 190,791 190,810 190,791 190,791 190,810 190,791 190,791 190,791 190,791 190,791 190,791 190,791 190,791
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grate bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harrows F. M. Davison. Harrow F. M. Davison. Harrow F. M. Davison. Harrow F. M. Davison. Harrow D. McHrevey Havester rake, J. H. Meyers Hay loader, J. W. & E. Small Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoo, J. S. Lester. Hosting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Horse hay rake, J. Badger. Horse hay rake, B. & E. P. Morse. Horseshoe, J. R. Canclo. Horseshoe, J. R. Canclo. Horseshoe bar, A. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer.	190,684 190,846 190,673 190,673 190,714 190,918 190,867 190,715 190,916 190,679 190,810 190,810 190,805 190,805 190,805 190,805 190,805 190,805 190,805 190,805 190,736 190,738	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,757 190,051 190,758 190,059 190,059 190,759 190,059 190,75
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton Hop extract, composition, J. R. Whiting Horse hay rake, B. & E. P. Morse Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Hose to couplings, securing, S. Adlam, Jr. Hot alr furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson	190,684 190,886 190,673 190,714 190,918 190,971 190,918 190,867 190,674 190,916 190,679 190,936 190,803 190,803 190,803 190,803 190,746 190,746 190,746 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,748 190,773 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,678 190,794 190,678 190,794 190,678 190,794 190,808 190,794 190,808 190,773 190,770 190,808	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,731 190,757 190,851 190,785 190,785 190,785 190,785 190,786 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach	190,684 190,846 190,673 190,673 190,771 190,978 190,867 190,876 190,876 190,876 190,876 190,878 190,878 190,878 190,878 190,878 190,878 190,788	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,731 190,751 190,851 190,752 190,851 190,752 190,759 190,75
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoo, J. S. Lester. Hositing and conveying, F. A. Clarkson. Hoof parer, J. Hilger Hopd dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, D	190,684 190,846 190,673 190,771 190,918 190,918 190,967 190,916 190,674 190,916 190,679 190,936 190,805 190,805 190,805 190,803 190,805 190,803 190,774 190,778 190,779 190,892 190,991 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892 190,791 190,892	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,731 190,757 190,851 190,785 190,785 190,785 190,785 190,786 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grate bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison Harrow, D. McIlrevey Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r) Hey loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger Horse hay rake, J. Badger. Horse hay rake, J. B. & E. P. Morse Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Horse to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulie motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber Knitting machine, J. M. Slack Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead.	190,684 190,840 190,673 190,673 190,771 190,971 190,976 190,677 190,976 190,870 190,770 190,870 190,770 190,870 190,770 190,870 190,770 190,870 190,770 190,870 190,770 190,870 190,770 190,870 190,940 190,940 190,694 190,694	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,274 190,751 190,751 190,851 190,785 190,785 190,785 190,785 190,787 190,781 190,780 190,780 190,780 190,781 190,780 190,780 190,780 190,780 190,890 190,781 190,895 190,787 190,895 190,787 190,895 190,787 190,895 190,787 190,788 190,78
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach Grain separator, L. V. Davis. Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) H59 loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains Hoof parer, J. Hilger Hop extract, composition, J. R. Whiting Horse hay rake, J. Badger. Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Horse hay rake, D. W. C. Velie Horseshoe, J. R. Canelo Horseshoe bar, A. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John Jar eover, closing, T. A. Weber Knitting machine, J. M. Slack.	190,684 190,846 190,673 190,771 190,673 190,714 190,918 190,867 190,674 190,916 190,679 190,936 190,805 190,805 190,805 190,803 190,805 190,805 190,735 190,773 190,773 190,773 190,773 190,773 190,773 190,773 190,773 190,773 190,773 190,770 190,805 190,773 190,770 190,805 190,770 190,805 190,770 190,805 190,770 190,805 190,770 190,805 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,770 190,806 190,707 190,806 190,708 190,708 190,708 190,708 190,708 190,708 190,708 190,708 190,708 190,708 190,708 190,80	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,754 190,731 190,757 190,851 190,783 190,785 190,785 190,785 190,785 190,787 190,814 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Stemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence Lamp chimney, J. McMurtry. Lamn chimney, J. McMurtry, Lamn chim, McMurtry, Lamn chimches, McMarcha	190,684 190,846 190,673 190,673 190,714 190,918 190,967 190,916 190,674 190,916 190,674 190,916 190,673 190,746 190,936 190,830 190,831 190,831 190,831 190,731 190,738 190,774 190,681 190,738 190,774 190,838 190,774 190,838 190,774 190,838 190,774 190,838 190,773 190,794 190,795 190,794 190,796 190,796 190,796 190,796 190,797 190,898 190,777 190,898	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,734 190,757 190,851 190,785 190,785 190,785 190,785 190,787 190,851 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. C. Velie. Horseshoe bar, A. Barton. Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer. Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber. Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence Lamp chimney, J. McMurtry. Lamp, safety collar, J. H. Lewars Latch, closet, W. E. Sparks.	190,684 190,886 190,673 190,714 190,918 190,971 190,918 190,867 190,679 190,679 190,936 190,810 190,746 190,803 190,803 190,831 190,833 190,774 190,768 190,768 190,768 190,768 190,768 190,768 190,773 190,770 190,892 190,794 190,893 190,773 190,770 190,893 190,773 190,770 190,893 190,770 190,893 190,770 190,893 190,773 190,770 190,893 190,770 190,893 190,770 190,893 190,773 190,770 190,893 190,773 190,770 190,893 190,773 190,770 190,893 190,773 190,893 190,994 190,893 190,994 190,893 190,994 190,893 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,995 190,994 190,893 190,893 190,893	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,734 190,757 190,851 190,785 190,785 190,785 190,785 190,787 190,851 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Guisman Hoc, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, D. W. H. Kreamer. Horse toever, closing, T. A. Weber. Knob, metal, A. B. Hendryx. Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence. Lamp chimney, Shade, etc., G. W. Martin. Lamp, safety collar, J. H. Lewars.	190,684 190,840 190,673 190,771 190,673 190,771 190,918 190,967 190,967 190,967 190,967 190,810 190,774 190,810 190,801 190,773 190,783 190,883	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,274 190,751 190,751 190,851 190,785 190,785 190,785 190,785 190,787 190,861 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hey leader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton Hop extract, composition, J. R. Whiting Horse hay rake, B. & E. P. Morse Horse hay rake, B. W. Travis Horse hay rake, D. W. Travis Horse hay rake, D. W. Travis Horse hay rake, D. W. A. Brish Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John Jar eover, closing, T. A. Weber Knitting machine, J. M. Slack Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead Lamp burner, E. C. Lawrence Lamp chimney, J. McMurtry Lamp chimney, J. McMurtry Lamp chimney, Shade, etc., G. W. Martin Lamp, safety collar, J. H. Lewars Latch, closet, W. F. Sparks Leather, stretching, J. Sharp Lifting jack, I. D. Johnson Liquid diffuser, G. M. Smyth.	190,684 190,886 190,673 190,714 190,918 190,971 190,918 190,867 190,679 190,936 190,810 190,746 190,936 190,833 190,731 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,746 190,833 190,774 190,833 190,774 190,672 190,672 190,672 190,794 190,801 190,794 190,801 190,793 190,773 190,770 190,802 190,794 190,803 190,773 190,770 190,803 190,770 190,803 190,773 190,770 190,838 190,773 190,770 190,838 190,773 190,838 190,936 190,940 190,838 190,956 190,838 190,878 190,878 190,878 190,878 190,878 190,878 190,878 190,878 190,878 190,878	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,734 190,757 190,851 190,785 190,785 190,785 190,785 190,785 190,785 190,786 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, serew, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain, separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horseshoe, J. R. Cancio. Horseshoe, J. R. Cancio. Horseshoe bar, A. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber. Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence Lamp chimney, J. McMurtry. Lamp chimney, Shade, etc., G. W. Martin Luquid, conveyance of, G. W. R	190,684 190,846 190,868 190,673 190,714 190,918 190,918 190,967 190,916 190,967 190,916 190,936 190,810 190,803 190,803 190,803 190,803 190,803 190,746 190,681 190,768 190,768 190,774 190,683 190,774 190,868 190,774 190,869 190,773 190,789 190,770 190,892 190,794 190,794 190,797 190,898 190,773 190,794 190,790 190,790 190,790 190,898 190,773 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,770 190,898 190,779 190,898 190,779 190,898 190,779 190,898 190,779 190,898 190,779 190,898 190,779 190,898 190,779 190,898 190,779 190,898	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,752 190,814 190,793 190,815 190,793 190,816 190,793 190,816 190,790 190,816 190,790 190,817 190,911 190,790 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,718 190,818 190,719 190,818 190,719 190,818 190,719 190,818 190,71
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe out-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain, curing, H. H. Beach. Grain, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers. Hay clevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, D. W. Hersen. Horseshoe bar, A. Barton. Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland. Hydraulic motor, J. M. Bois. Incrustation, removing, H. H. Kreamer. Insect destroyer, C. H. Emerson. Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber. Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence. Lamp chimney, shade, etc., G. W. Martin. Lamp, aftey collar, J. H. Lewars Latch, closet, W. E. Sparks. Leather, stretching, J. Sharp. Lifting jack, I. D. Johnson. Liquid diffuser, G. M. Smyth. Liquids, conveyance of, G. W. Reemen. Lock for satchels, etc., W. Roemer. Lock for satchels, etc., W. Roemer. Look for satchels, etc., W. Roemer.	190,684 190,846 190,673 190,771 190,673 190,771 190,918 190,867 190,674 190,916 190,679 190,679 190,936 190,803 190,803 190,803 190,803 190,731 190,735 190,735 190,736 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,803 190,735 190,736 190,736 190,736 190,736 190,737 190,806 190,806 190,806 190,807 190,707 190,807 190,707 190,808 190,773 190,707 190,808 190,773 190,700 190,808 190,707 190,808 190,707 190,808 190,707 190,808 190,707 190,808 190,707 190,808 190,80	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,737 190,851 190,785 190,190 190,19
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren Gas furnace, C. W. Siemens Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach Grain separator, L. V. Davis. Grato bar, A. E. Barthel Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers Hay elevator, G. Van Sickle (r) Hcz loader, J. W. & E. Small Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop extract, composition, J. R. Whiting Horse hay rake, J. Badger Horse hay rake, J. Badger Horse hay rake, B. & E. P. Morse Horse hay rake, B. & E. P. Morse Horse hay rake, B. C. Velle Horseshoe, J. R. Caneio Loung patient	190,684 190,840 190,673 190,673 190,771 190,673 190,771 190,918 190,967 190,679 190,679 190,810 190,746 190,968 190,893 190,893 190,893 190,893 190,893 190,774 190,778 190,778 190,778 190,675 190,675 190,675 190,793	Spinning for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,731 190,851 190,785 190,878 190,878 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,789 190,898 190,788
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator. L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton. Hinges, making, L. B. Gusman. Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger. Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, D. W. Travis. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horseshoe, J. R. Canelo. Horseshoe bar, A. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer. Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber. Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead Lamp burner, E. C. Lawrence Lamp, L. H. Olmstead Lamp burner, E. C. Lawrence Lamp, Safety collar, J. H. Lewars Latch, closet, W. F. Sparks Leather, stretching, J. Sharp Lifting jack, I. D. Johnson Liquid difuser, G. M. Smyth Liquids, conveyance of, G. W. Remsen Lock for satchels, etc., W. Roemer Loom temple, C. H. Schlaf.	190,684 190,846 190,686 190,673 190,714 190,918 190,967 190,719 190,674 190,916 190,679 190,679 190,679 190,803 190,803 190,803 190,803 190,803 190,714 190,735 190,735 190,735 190,736 190,836 190,836 190,837 190,737 190,673 190,738 190,738 190,738 190,738 190,738 190,738 190,738 190,738 190,738 190,739 190,838 190,738	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,731 190,757 190,851 190,785 190,191 190,785 190,191 190,790 190,79
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Illarness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r) Hoz loader, J. W. & E. Small. Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop atract, composition, J. R. Whiting Horse hay rake, J. Badger. Horse hay rake, B. & E. P. Morse Horseshoe bar, A. Barton Hose to couplings, securing, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber Knitting machine, J. M. Slack Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead Lamp burner, E. C. Lawrence Lamp chimney, J. McMurtry Lamp chimney, Shade, etc., G. W. Martin Lamp, asfety collar, J. H. Lewars Latch, closet, W. E. Sparks. Leather, stretching, J. Sharp Lifting jack, I. D. Johnson Liquid diffuser, G. M. Smyth Liquid diffuser, G. M. Romener Loom temple, C. H. Hall Loungender of telam engines, W. Moses Lubricator for steam engines, W. Moses	190,684 190,840 190,683 190,673 190,771 190,671 190,918 190,967 190,916 190,679 190,916 190,791 190,931 190,810 190,810 190,810 190,731	Spinting for roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,743 190,757 190,851 190,785 190,785 190,785 190,785 190,785 190,785 190,780 190,780 190,780 190,780 190,780 190,780 190,780 190,780 190,780 190,780 190,780 190,812 190,781 190,867 190,868 190,788 190,788 190,788 190,788 190,788 190,788 190,88
Galvanie battery, C. R. Jennison Gang edger, Evans & Snyder. Gas and water pipe cut-off, F. Jarecki Gas burners, liquid, H. W. Dopp Gas carbureter, C. A. Enggren. Gas furnace, C. W. Siemens. Gas holder, W. & R. H. Smith Gas retort lids, fastening for, N. Jamin Gate, automatic, J. E. Goldsworthy. Gate, farm, H. N. Dunbar. Gearing machine, Singleton & Wingfield. Gearing, screw, H. Hackman, Jr. Grain binder, G. A. Walker. Grain, curing, H. H. Beach. Grain separator, L. V. Davis. Grato bar, A. E. Barthel. Gun, spring air, O'Connor & Dinnan Harness saddle loop, Monteith & Mesick. Harrow, F. M. Davison. Harrow, D. McIlrevey. Harvester rake, J. H. Meyers. Hay elevator, G. Van Sickle (r). Hey loader, J. W. & E. Small. Heddle frame, G. Crompton Hinges, making, L. B. Gusman Hoe, J. S. Lester. Hoisting and conveying, F. A. Clarkson. Hominy mill, G. B. Gains. Hoof parer, J. Hilger Hop dryer, S. R., J. C. & J. H. Templeton. Hop extract, composition, J. R. Whiting. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. & E. P. Morse. Horse hay rake, B. C. Velie. Horseshoe, J. R. Canelo. Horseshoe bar, A. Barton Hose to couplings, accuring, S. Adlam, Jr. Hot air furnace, W. McFarland Hydraulic motor, J. M. Bois Incrustation, removing, H. H. Kreamer. Insect destroyer, C. H. Emerson Iron, manufacture of, W. H. St. John. Jar eover, closing, T. A. Weber. Knitting machine, J. M. Slack. Knob, metal, A. B. Hendryx Lamp, L. H. Olmstead. Lamp burner, E. C. Lawrence Lamp chimney, J. McMurty. Lamp chimney, Shade, etc., G. W. Martin. Laup chimney, J. McMurty. Lamp chimney, Shade, etc., G. W. Mersen. Look for satchels, etc., W. Roemer. Look got mchale, C. H. Emerson. Lougenemator of the Hall. Lubricat	190,684 190,886 190,673 190,714 190,918 190,918 190,967 190,916 190,916 190,916 190,916 190,916 190,916 190,810 190,746 190,936 190,831 190,731 190,774 190,778 190,789 190,791 190,892 190,794 190,893 190,794 190,893 190,794 190,893 190,794 190,896 190,798 190,998 190,799 190,898 190,798 190,998	Spinning top roll support, Hardenbergh & Holmes Spittoon, P. C. St. Marie	190,756 190,024 190,737 190,851 190,785 190,858 190,785 190,857 190,858 190,785 190,785 190,785 190,786 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,790 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,870 190,771 190,77

	Neck tie retainer, L. Hussey	. 190,8 . 190,8
	Neck tie retainer, L. Hussey Nut lock, Brown & Huey	
	Nut lock, J. A. McCray Ore washer, D. Beaumont	190,8 190,8
	Organ action, reed, G. Woods	
		190,8
	Paint, W. P. Jenney	190,68
	Pantograph, E. Ware	190,79
	Paper box, C. M. Arthur	190,80
	Paper box, H. L. R. & O. Wolf Pen, fountain, H. N. Hamilton	
	Picture hanger, I. Piles	190,69
	Pillow ventilating, J. T. Hatfield	190,8
	Pipe cutting machine. N. Watson	190,7
	Pitman, H. L. Hopkins Pitman connection, J. W Blood	
	Plow, G. B. Clarke	190,8
	Plow. H. Opp	190,7
	Plow, S. G. Reynolds	190,90
	Plow jointer, J. Densmore	190.67
1	Plow, reversible, J. Gogel Plows, stubble guard for, B. F. Phillips	190,67
ì		
į	Plows, sulky attachment for, W. K. Bushnell Pocket books, safety attachment for, T. Ferguson	190,73
1	Pocket, safety, F. Wendt	100,79
1	Pump, H. M. Jones	190,87
į	Pumps, R. M. Lafferty (r)	7,67 190.88
ł	Pump cut or valve, J. Mansir	190,77
ı	Pump, anti-freezing force, H. M. Wyeth	
	Pump valve, R. M. Lafferty (r)	7,67 190 68
i	Punching metal, etc., A. Lee	190,77
	Quilting frame and clothes bar, A. E. Furness	190,84
	Railway rail joint, Ilibotson & Talbot	190,96 7,68
;	Railway tie, A. H. Campbell	190,73
1	Refrigerator, S. Gasper	190,84
	Refrigerators, ice floor for, D. J. Stuart	
١	Rock-drilling machine, Keeley & Fleming	190,87
١	Roofing, fireproof, A. C. de la Martelliere	190,83
	Rope or cordage, etc., reeling, B. Bevelander Rowlock, W. Spelman	190,81
	Sash fastener, C. E. Hicks	
	Saw, hand, Shave & Reams	190,91
	Saw mill, muley, T. E. Chandler	190,82
	Sawing machine, F. Simonson	
	Scales, spring, G. H. Chinnock	190,82
	Screw driver handle, E. A. Johnson	
	Sealing wax, etc., form of, C. F. Hermann Seed sower and cultivator, E. Emmert	190,68
	Sewing machine, E Bouscay, Jr. (r)	
	Sewing machine, boot, C. Dancel	
	Sewing machine motor, A. D. Black	
ļ	Sewing thimble, N. T. & T. Porter	
	Shearing boiler plates, J. W. & R. Johnston	190.76
	Sheet metal can, H. Miller (r)	7,68
	Shoe nail, Cushman & Brigham	190,76
	Sign letter, metallic, C. Temme	190,69
	Skylight, J. Henry	
	Sled, bob, J. Littfin	
	Sludge oil, etc., treating, W. P. Jenney	190,76
	Smoke, consuming, J. C. Baum (r)	7.68
	Soap boiler, J. M. Jackman	
	Spinning frame ring, W. F. Draper	
	Spinning top roll support, Hardenbergh & Holmes	190,75
	Spittoon, P. C. St. Marie	190,92
	Steam boiler, eirculating, H. S. Coleman	190,75
	Steam engine, L. H. Hall	190.85
	Steam engine, Warrick & Brush	190,93
	Steam engine, rotary, Scudder & Wager	
	Steam trap, T. Kieley	190,71
	Stove extinguisher, car, Pegram & Hotchkiss	
	Stove heating, Bowman, Franklin & Colby. 189,813, Stove leg, P. Hauersperger	
	Stove mat, Reimers & Branch	190,90
	Stove pipe shelf, J. W. Jackson	190,76
	Straw cutter E. M. Hesselbom	
	Suspender stay, G. Butterfield	190,73
	Table leaf support, N A. Hull. Tailor's measure, G. H. Lasar	190,71
	Tea and coffee Pot handle, A. Bayley	
	Teething nipple, C. E. Rogers	190,90
	Telegraph, quadruplex, G. B. Prescott	190,89
	Thrashing blast regulator, W. Boren	190,81
	Toy money box, W. Bruce	190,70
		190,82
	Toy pistol, R. W. Churchill	100.70
		190,79
	Toy pistol, R. W. Churchill Toy wagon, II. Thomass Urinal or closet basin, J. H. Keyser Valve, relief, N. Du Brul	190,79. 190,76
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass Urinal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul	190,79 190,76 190,71 190,71
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, N. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka.	190,79 190,76 190,71 190,71 190,88 190,87
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass Urinal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vehicle spring, W. Foote.	190,79. 190,76. 190,71; 190,71. 190,88. 190,87.
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vchicle spring, W. Foote. Vent apparatus, Schott & Heberling	190,79, 190,76, 190,71, 190,71, 190,88, 190,87, 190,84, 190,91
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens.	190,79 190,76 190,71; 190,71 190,88 190,87 190,84 190,91 190,73 190,79
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, N. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine. Baldwin & Parkhurst.	190,79 190,76 190,71; 190,71 190,88 190,87 190,84 190,91 190,73 190,79
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, N. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst. Washing machine, W. Johnson.	190,79 190,76 190,71 190,71 190,81 190,87 190,84 190,91 190,73 190,79 190,80 190,76
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson Wasteway plug, Keyser & Turton	190,79, 190,76, 190,71, 190,87, 190,87, 190,84, 190,73, 190,79, 190,80, 190,76, 190,76, 190,76, 190,76
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, M. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson. Wasteway plug, Keyser & Turton Water closet, effluvia ejector, W. Smith.	190,79, 190,76, 190,71, 190,87, 190,87, 190,84, 190,79, 190,80, 190,76, 190,76, 190,76, 190,76, 190,91
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass Urlnal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson Wasteway plug, Keyser & Turton Water closet, effluvia ejector, W. Smith. Water elevator, Gamble & Wagner.	190,79, 190,76, 190,71, 190,87, 190,87, 190,84, 190,79, 190,80, 190,76, 190,76, 190,76, 190,76, 190,91, 190,84, 190,84, 190,84, 190,84, 190,84, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,76, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91, 190,84, 190,91
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, M. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Vashing machine, Baldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson Wasteway plug, Keyser & Turton Water elevator, Gamble & Wagner. Water meter or engine, W. Smith. Water meter or engine, W. Smith. Water meter or engine, W. Smith.	190,79, 190,76, 190,71, 190,81, 190,81, 190,73, 190,79, 190,76, 190,76, 190,76, 190,76, 190,76, 190,91, 190,84, 190,92, 190,91, 190,91
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, M. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Vashing machine, Baldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson Wasteway plug, Keyser & Turton Water elevator, Gamble & Wagner. Water meter or engine, W. Smith. Water meter or engine, W. Smith. Water meter or engine, W. Smith.	190,79, 190,76, 190,71, 190,81, 190,81, 190,73, 190,79, 190,76, 190,76, 190,76, 190,76, 190,76, 190,91, 190,84, 190,92, 190,91, 190,91
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, N. Du Brul. Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling. Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst. Washing machine, W. Johnson. Washing machine, M. W. Robinson. Wasteway plug, Keyser & Turton Water closet, effluvia ejector, W. Smith. Water elevator, Gamble & Wagner. Water meter or engine, W. Smith Water rezulator, L. A. Seowden. Water urn, E. A. Parker. Water wheel, turbine, N. H. Gould	190,79, 190,76, 190,71, 190,81, 190,84, 190,73, 190,79, 190,76, 190,76, 190,76, 190,91, 190,91, 190,91, 190,91, 190,89, 190,91, 190,89, 190,75
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, N. Du Brul. Valve, safety, Mauel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson Wasteway plug, Keyser & Turton Water closet, effluvia ejector, W. Smith. Water meter or engine, W. Smith Water regulator, L. A. Seowden. Water wheel, turbine, N. H. Gould Whiffletree hook, N. Y. Shaw Windmill, Warwick & Marshall.	190,79 190,76 190,71 190,76 190,71 190,81 190,81 190,91 190,73 190,79 190,80 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,91 190,84 190,92 190,91 190,91 190,95 190,91 190,85
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass Urlnal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson Washeway plug, Keyser & Turton Water closet, effluvia ejcetor, W. Smith. Water elevator, Gamble & Wagner Water meter or engine, V. Smith Water rezulator, L. A. Seowden. Water wheel, turbine, N. H. Gould Whiffletree hook, N. Y. Shaw Windmill, Warwick & Marsball Windmill, Warwick & Marsball Windmill, W. A. Williams	190,79 190,76 190,71 190,76 190,71 190,81 190,81 190,91 190,73 190,79 190,80 190,76 190,91 190,76 190,91 190,76 190,91 190,76 190,91 190,92 190,91 190,83 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass. Urinal or closet basin, J. H. Keyser. Valve, relief, N. Du Brul. Valve, safety, M. Du Brul. Valve, safety, M. Du Brul. Velve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka. Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens. Washing machine, Baldwin & Parkhurst Washing machine, Buldwin & Parkhurst Washing machine, W. Johnson. Washing machine, W. W. Robinson Wasteway plug, Keyser & Turton Water closet, effluvia ejector, W. Smith. Water elevator, Gamble & Wagner. Water meter or engine, W. Smith. Water regulator, L. A. Seowden. Water urn, E. A. Parker. Water wheel, turbine, N. H. Gould Whiffletree hook, N. Y. Shaw Windmill, Warwick & Marshall. Windmill, W. A. Williams Wire rope, splieink, H. Channon.	190,79 190,76 190,71 190,71 190,71 190,84 190,84 190,91 190,73 190,73 190,73 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,90 190,70 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90
	Toy pistol, R. W. Churchill Toy wagon, H. Thomass Urlnal or closet basin, J. H. Keyser Valve, relief, N. Du Brul Valve, safety, N. Du Brul Valve, safety, Maurel & Truel Vegetable slicer, J. Kuchinka Vehicle spring, W. Foote. Vent apparatus, Schott & Heberling Vermin trap, J. M. Berger Wagon end board, T. Stevens Washing machine, Baldwin & Parkhurst Washing machine, W. Johnson Washeway plug, Keyser & Turton Water closet, effluvia ejcetor, W. Smith. Water elevator, Gamble & Wagner Water meter or engine, V. Smith Water rezulator, L. A. Seowden. Water wheel, turbine, N. H. Gould Whiffletree hook, N. Y. Shaw Windmill, Warwick & Marsball Windmill, Warwick & Marsball Windmill, W. A. Williams	190,79 190,76 190,71 190,71 190,71 190,84 190,84 190,91 190,73 190,73 190,73 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,70 190,90 190,70 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90 190,90

21 Moulding and casting pipe, J. K. Dimmick...... 190,835 York city.]