the old Babbitting and whatever grease there may be. If practicable heat the lower boxes quite warm. After removing them and while warm, put them in place, and adjust the shaft in the way it is to run. If there is any danger of the metal running out at the ends of the boxes, cut thick straw board and fit to the ends of the boxes and up to the shaft so as to retain the metal until it hardens. Heat the metal hot, and pour carefully so as to fill the box and come to the diametrical center of the shaft, remove the shaft and trim off the superfluous metal. Put the shaft again in place. Put on the upper box and pour through the oil hole. Remove toe box, trim off, and drill out the hole for reception of oil.

pering edge tools, etc.? A. See Scientific American tive. Supplement No. 71, p. 1123.

(40) A subscriber asks: What is the simplest way of keeping the temperature of my greenhouse above 45° winter nights? It is ten feet square. and is well warmed by the sun during the day. A. Put in a few lengths of cast iron pipe, fill them with salt water brine, and connect them with a stove so as to bring a portion of the pipe in contact with the fire. Let the pipe be 4 inches in diameter and set at a grade, leaving the stove at a high point and returning to it at a lower one. This will insure a circulation, and by keep ing a slow fire a permanently low temperature may be maintained. This apparatus can be constructed by your plumber, or a similar one may be ordered of any dealer in this city. The salt will prevent the water from freezing should the fire be suffered to expire.

(41) A. G. M. asks for information about the fruit called Aku? A. Guinea is the native country explosive in any way. of this fruit. It was brought to Jamaica by Captain Bligh in 1791, where it grows well. The fruit is about the size of a goose's egg and has a sub-acid flavor. It is considered wholesome and nutritive.

(42) B. H. asks what or-moulu is? A. It is can be removed and takes the hair with it, a name given to a particular alloy of zinc and copper, generally about 52 parts zinc and 48 of copper. It is so finished as to have the appearance of gold. The malculæ to appear in the vinegar, and do they always term is often applied in a general sense to works of art, come when it is made of grain or fruit? A. Nearly all The metal is sometimes finished by dipping in an acid, which helps produce the gold-like surface. Lacquer is often applied to prevent tarnish.

(43) E. G. M. asks how marguetry is made? A. It is different pieces of colored wood glued to a few hours, and strain off into clean barrels. 3. About ground of some firm wood. It is now chiefly confined in its use to floors, in which the various pieces of wood are usually disposed in regular geometrical figures.

(44) H. C. D. asks how to weld tortoise it may be drawn off into clean tight barrels for storage shell?' A. Provide a pair of pincers or tongs. File the tortoise shell clean and make so as to form a lap joint. See that there is no grease about it. Wet the joint with water, apply the pincers hot, following them with water, and the shell will be joined as if it were one piece. Be careful that the heat be not so great as to burn the shell. You can test it by trying it on a piece of white paper.

cinnamon? A. Dissolve 2 drachms of oil of cinnamon fect on the iron of the boiler if the boiler were heated $i\pi 1$ pint of good alcohol; add gradually 1 pint of water, and then stir in by degrees 4 ozs. powdered Ceylon cin-flammable, and when mixed with air, very explosive namon; agitate for some time and filter through paper.

(46) T. H. asks for a good indelible ink to use with stamps? A. Mix equal parts black oxide of manganese and hydrate of potash, heat to redness, and rub with an equal quantity of smooth white clay into a paste, water being added for that purpose, or, sulphate of manganese, 2 drachms; lampblack, 1 drachm; powdered loaf sugar, 4 drachms; rubbed into a paste with water. After stamping, dry the linen and wash well in water.

(47) N. P. asks how to test castor oil? A. If the oil be adulterated with rape oil, it may be deweight of alcohol, specific gravity 0.820.

by which an inexperienced person can tell which are good? A. No.

(49) S. H. J. says: I wish to fasten photographs to glass for coloring. What perfectly transparent fastener can I use which will not crack? A. See answer to E. F. (25) No. 12, p. 187, current volume.

use of any hair-producing elixir on the face? A. No. (52) G. F. S. asks: 1. What is the best method of mending articles of celluloid, such as jewelry, etc.? A. Dissolve good glue in a small quantity of strongest vinegar or acetic acid by aid of heat. 2. Is there no way to restore the bright coral red which celluloid loses after long exposure? A. No.

(53) J. B. asks: 1. Will the airo-hydrogen blowning produce as strong a heat as the oxyhydrogen blowpipe? A. No. 2. Is the first safer than the latter? A. In inexperienced hands, yes. 3. Is there an alloy of platinum known (to solder platinum) which would resist a greater heat than fine gold? A. No. With skill ful manipulation and a good blowpipe (oxyhydrogen) platinum may be welded perfectly. 4. If so, will you please state whether such could be brought to melt by the illuminating gas and common blowpipe? A. No; the heat of an oxyhydrogen flame is requisite.

(54) G. A. says: Volatile oils cannot be used in public buildings at frontier posts, and candles purposes that will produce a brilliant light, like the lime ing graphite,-J. C. and M. S.-Specimens not received.

light, etc.? A. We do not know of such a device. Simple machines for making illuminating gas automatically from the vapor of light hydrocarbon oils are in the incrustation consists of caroonate and sulphate of lime, market. The electric lamp, using a small magnetoelectric machine driven by some small motive power, affords a brilliant light; the first cost of the apparatus, however, is considerable.

convex) 416 inches in diameter and 26 inches focus. Will it answer for an objective for a telescope? A. Not very well. 2. What size and focus will the eyepiece need to be? A. The eyepiece may be an inch in diameter (leaving an aperture in mounting of about 3/8 inch), (39) J. F. P. asks for the process of tem- 1 inch focus, and placed at 27 inches from the object

> (56) G. G. says: I wish to etch letters on glass. Have tried asphaltum varnish, shellac, etc. which all fail to keep the fluoric acid from spreading even after being dry a long time. What I wish is something which I could use to cover the whole glass, except the letters, and which will withstand the action of the acid? A. Beeswax or paraffin is used for this purpose; melt and apply it to the glass previously warmed; when cooled, cut out the letters and expose to the acid.

> (57) J. D. asks: What are the fire-extinguishing chemicals composed of, also whether they are explosive by contact with steam? A. The materials used in the Babcock and similar fire extinguishers are carbonate or bicarbonate of soda dissolved in water and a small quantity of oil of vitriol contained in a leaden cup, the inversion of which brings the acid in contact with the soda solution. The chemicals are not

(58) A. M. G. asks for a recipe for remov ing superfluous hair? A. Sulphuret of barium 3 ozs., water 12 ozs. A little powdered starch is wetted with this solution and immediately applied. When dry it are thrown into the waste basket, as it would fill half of

(59) R. M. H. asks: 1. What causes anivinegars prepared by slow fermentation contain microscopic organisms, derived from the germs present in the ferment, and from the air. 2. What must I do to re move them from the vinegar? A. Add a little of solution of sulphite of soda, agitate, allow to stand for a how long a time should elapse after making until it must be corked tight, or is it better to leave the bung out of the cask? A. As soon as the fermentation is complete,

(60) G. T. L. asks: 1. If the vapor of bisulphide of carbon will have any deleterious effects upon a steam engine as ordinarily constructed the vanor being used instead of steam to drive the engine? A. It would have no bad effect other than that of dissolving all oil or grease with which it might have contact. 2. Would there be any danger of explosion on decomposi tion of the liquid bisulphide on being evaporated in an ordinary steam boiler? Would the liquid have any efby steam? A. Bisulphide of carbon vapor is very in when ignited. It would suffer no decomposition by being heated to boiling, and, if pure, would have little effect upon the iron. 3, If water and bisulphide of carbon be mixed together, the water predominating, and the mixture be evaporated in a boiler, would there be an explosion or any chemical action of any kind, altering the character of the two mixed vapors? A. No, but the liquids would not mix, and the bisulphide would be come entirely vaporized before the temperature of the water attained the boiling point. 4. Is the liquid bisulphide compressible to any appreciable extent, and what is its cost in large quantities? A. No. The price, we believe, is about 75 cents a gallon. 5. Would it be safe tected by its not dissolving in strong alcohol, and also to let the exhaust escape through a blast pipe into the by its density. Pure castor oil is soluble in an equal stack? A. No.

(61) W. N. H. asks for a recipe for good (48) J. H. asks: The bluing on some of our writing ink? A. Take Aleppogalls, well bruised, 4 ozs., try-squares and bevels has come off; how can I re-blue clean soft water 1 quart. Macerate in a clean corked by heat, immersing the blades in a pan of powdered add 1½ oz. gum arabic dissolved in about 2 oz. ...

charcoal while being heated. Remove from the fire ter, lump sugar ½ oz. Mix well and add 1½ oz. of sulphate of iron crushed small. Agitate occasionally for phate of iron crushed small. Agitate occasionally for the days when it may be decanted for use. In purchasing a glazier's diamond, is there any way When time is any object boiling water may be used instead of cold, and the ingredients put at once into the bottle and agitated until the ink is made.

(62) C. A. J. asks how sound is transmitted by the telephone? A. The voice causes the diaphragm of the instrument upon which it is thrown to vibrate. Electric undulations are induced in the coil (50) J. M. asks how the power of a tele-that surrounds the magnet, which are precisely analoscope is estimated? A. Divide the focal length of the gous to the undulations of the air produced by that objective in inches by that of the eye piece in inches. voice. This coil and magnet is connected to a similar This will give the magnifying power of the instrument. one at the other end of the insulated line of wire, and these undulations travel through the wire and are re-(51) T. G. A. asks: Would you advise the ceived and resolved into air undulations upon a similar diaphragm of the instrument at the end of the line where they are received.

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

J. M. B .- The white specimen is agate--correspond ing to the Leucachates of Pliny. The other specimen is a sanded agate pebble or an inferior opal.-J. Y .-No. 1 (powder) contains, besides gold and silver, silica, alumina, lime, and traces of magnesia. It would be called a gold-bearing quartzite rock, with, however, a large percentage of iron. No. 2 is cassiterite or tin stone.-J. B. J.-It is rich in manganese-an impure braunite,-G. M. C.-It is a calcareous deposit filled with the fossil remains of numerous species of trilo-bites, and some vegetable matter.—Minerals of J. C. and L. S. W. are missing .- E. R. A .- It is a variety of fluorspar-fluoride of calcium.-C. B. K.-Specimens not yet received .- F. P. L .- It is an argillaceous carbonate of iron; its value will depend upon the percentdo not give sufficient light for the post schoolroom. age of iron it contains. -A. H.-No. 1 is serpentine and Can you suggest any simple contrivance for illuminating trap rock. No. 2 is gneiss. No. 3 is quartzite contain-

metallic base is small. It is not valuable.—J. F.—The magnesia, alumina, silica, sesquioxide and carbonate of iron. and a little organic matter.-A. R. P.-No. 1 is a limestone containing mica schist, hornblende, and malachite-carbonate of copper. No. 2 is lime carbo-(55) H. M. says: 1. I have a lens (double nate, No. 3 is a shale rich in malachite. No. 4 is a shale containing much mica, also hornblende.

COMMUNICATIONS RECEIVED.

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

On Using Explosives for Deep Tillage. By J. R. C. On the Keely Motor. By J. A. F. Ona Remedy for the GluttedLabor Market. By R.S.

On the Navy Yard Fire Test, By -On Weak Eyes. By -On Throwing a Ball in a Curve, By ——. On Why are we Right Handed? By F. H. P.

Also inquiries and answers from the following: M. H.—P. L. W.—J. G.—B. C.—W. L. B.—J. T. J.— H. McI.—R. J. K.—H. E. B.—H. H. A.—C. H. R.— J. C. E.-W. B. N.--C.F.-S. H. R.

HINTS TO CORRESPONDENTS.

We renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number of the question.

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them. The address of the writer should always be given.

Inquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published 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 tile and brick making machines? Who makes models of boats?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose, subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained

OFFICIAL.

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were Granted in the Week Ending

October 2, 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 furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co.. 37 Park Row, New York city.

Aerial machine, J. B. Ward	195,860
Anchor, C. E. M-rshall	195,760
Animal trap, G. Comada	195,704
	195,774
Apple cutter, T. B. East	195,750
Axle boxes, D. Dalzell	
Bag holder and truck, H. L. Tobien	
Bale tie, J. M. Van Durzee	
Bath, G. H. Ellis.	
Battery, galvanic, C. A. Hussey	195,762
Bee hive. A. T. Wright	
Billiard cue tip, R. H. Sanborn	
Boiler plates, templet for, J. Morgan	
Boot and shoe holding device, W. B. Murphy	
Boot cleaner, Condry & Quinn	
Boot jack, C. Hull	195,712
Boot and shoe heel counters. E. Solomon	195.845
Bottle stopper, etc., F. J. Seybold	195,849
Box covers, etc., W. I. Winne	195,866
	195,874
Box, wooden, F. Zuenkeler	195,871
Bridges, timber splice for, Hubbard & Eddy	195,820
Brush blocks, boring, O. D. & E.C. Woodbury	
Bull wheel, W.H.H.Morris	
Bull wheel, C.H.& D. C.Brawley	
	195,822
Burners or carbureters, reservoir for, V.P. Harris	195,872
Buttons to cards, attaching, C. H. Kellogg	195,715
Can, shipping, Dennis & Betts.	195,859 195,706
Car heating apparatus. J. F. Callaway	195,792
Cars, draw bars for railway, J. T., Wilson	195,736
Cars, track clearer for street, L. Wood	195,738
	195,768
	195,843
	195,749
Chair, rocking, H. Closterman, Jr	195,799
Chairs, attaching legs to, E. B. Witherell	195,867
	195,827
	195,761
	195,707
Cock, lock, G. H. Noyes	
Cork-fastening machine, A. Werner	
Corset, S. B. Ferris.	195,755
Curtain roller and bracket, A. B. Shaw	
Curtain tassel clamp, A. H. Knapp	
Dish-washing apparatus, Watson & Scott	
Distilling column. E. G. Starck	
	195,735
	195,692
	195,837
	195,695
Enameling iron ware, Quimby & Whiting (r)	7,900
Excavating ditches, apparatus for, W.H. Minter	
Fare box, A. C. Godell, Jr	195.814
Feather duster, J. W. Little	195,873
Fence, F. Fulkerson	195.757
Fence post, A. J. Nellis	
Fence post, A. B. Sprout	195,851
Fence, zigzag, N. H. Hamlet	19 5 ,759

Э	Fire escape, E. W. Averell	. 195,78
,	Fire escape, J. Davenport Fire extinguisher. T. Flagler	
f	Fulling mill, R. Eickc neyer	
l	Gas or lamp fixture, B. T. Steinhardt	. 195,85
•	Gate, R. A. Horning	
ì	Gem setting, H. G. Mackinney	. 195,76
	Halter, C. Stone	. 195,77 . 1 9 5.8 4
	Harrow coupling, Ough, Loyd & Johnson	. 195,88
,	Harrows, seeding attachment, E. H. Chamberlain	
	Hat-pouncing machine, Wheeler & Manley (r) Hay rake and loader, C. A. O'Dell	. 195,83
	Hay rake, horse, W. Adriance	. 195,78
	Head rest, I. B. Peckham	
	Hobby horse, J. A. Peabody	195,72
	Horse detacher, G. W. Atkins	
	Hot blast pipes, valve for, T. Whitwell	
	Keg for white lead, paints, etc., R. B. Turnbull.	195.73
	Lamp, L. H. Olmsted	. 195.72 . 195.71
	Lampblack, machine for making, J. K. Hallock	195,70
	Lantern, G. A. Beidler	
	Lathes, tool posts for, R. Neasham	195,76
	Leather-crimping machine, J. D. Bacon	
,	Lock, combination, H. GoodrichLock for desks, etc., W. Park	195,72
	Lock for desks, etc., etc., W. Park	195,72
	Loom stopping mechanism, J. Megson	
l	Mattress, S. A. Shepherd	195,85
,	Meal bin, J. C. Durbin	195,80
•	Meats, curing, G. S. Gray	195,75
	Millstone dresser, J. G. Holderman	195,81
l	Molding apparatus, Aikin & Drummond	
	Motor, spring, P. Cavalier	195,79
	Nailing machine, C. T. Brandon	195,69 195,83
	Oar, J. W. Wall	195,77
	Package, sampling, W. P. Groom	195,810
	Packing piston, J. H. F. Otto	
	Paper for feeding, etc., G. L. Jaeger195,823,	195,824
ı	Paper machine, P. W. Hudson	
,	Pen, Might & Taylor	195,719
	Planter, seed, W. S. Barton	195,74
	Plows, attachment for, T. M. Harbert	195,760
	Potato bug catcher, L. S. Munroe	195,835
	Pruning shears, C. Lloyd	
	Pump, J. B. Moutier	195,834
	Pump and well, J. Q. Adams Pump piston, G. W. Low	
	Pump wall, White, Wallace, & Moritz	
	Pumps for oil well, E. A. L. Roberts	
,	Railroadrails carrying, A. J. Gustin, (r)	190,049
	ittili ottalia cali, jing, A. D. Gascin, (1)	7,858
	Road engine, J. C. Carr	195,702
	Road engine, J. C. Carr	195,702 195,693
	Road engine, J. C. Carr Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins	195,702 195,693 195,856
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge	195,702 195,693 195,856 195,825 195,791
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins	195,705 195,693 195,856 195,825 195,791 195,717
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger	195,705 195,693 195,856 195,825 195,791 195,740 195,695
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson	195,703 195,693 195,856 195,826 195,791 195,740 195,693 195,713
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard	195,703 195,856 195,856 195,826 195,791 195,740 195,693 195,713 195,826
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis	195,705 195,696 195,826 195,797 195,740 195,740 195,715 195,742 195,742 195,742
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois	195,702 195,692 195,826 195,791 195,717 195,740 195,742 195,822 195,742 195,852 195,852
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron	195,702 195,692 195,826 195,791 195,717 195,740 195,742 195,826 195,742 195,858 195,858 195,700
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger	195,702 195,692 195,826 195,791 195,740 195,742 195,826 195,742 195,858 195,742 195,858 195,700 195,817
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds	195,703 195,856 195,856 195,852 195,741 195,741 195,742 195,853 195,742 195,853 195,770 195,853 195,770 195,813 195,813 195,813
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook L. M. Doddridge.	195,702 195,856 195,856 195,822 195,713 195,742 195,742 195,852 195,742 195,852 195,702 195,813 195,813 195,813 195,813
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush	195,703 195,693 195,892 195,791 195,741 195,742 195,742 195,863 195,742 195,863 195,702 195,813 195,702 195,813 195,730 195,813
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire. Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson. Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman.	195,703 195,693 195,892 195,731 195,740 195,742 195,742 195,742 195,822 195,742 195,803 195,700 195,817 195,803 7,901 195,472 195,473 195,473 195,776
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman. Steam engines, A. Cunningham	195,702 195,852 195,852 195,852 195,797 195,717 195,717 195,822 195,712 195,822 195,712 195,823 195,712 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunnipham	195,702 195,822 195,824 195,826 195,822 195,712 195,712 195,744 195,82
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer.	195,702 195,822 195,822 195,822 195,791 195,742 195,742 195,822 195,822 195,823 195,82
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stone drilling machine, S. Palmer. Stove, T. Gemmell. Stove, cooking, C. T. Lynd.	195,702 195,822 195,822 195,822 195,822 195,712 195,714 195,712 195,822 195,712 195,823 195,702 195,802 195,802 195,80
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stove, T. Gemmell Stove, T. Gemmell Stove, Cooking, C. T. Lynd Styringe, vaginal, R. H. Woodward	195,702 195,822 195,822 195,797 195,717 195,714 195,717 195,716 195,718 195,718 195,718 195,828 195,777 195,707 195,828 195,737 195,70
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone drilling machine, S. Palmer Stove, T. Gemmell Stove, cooking, C. T. Lynd Stringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford	195,702 195,822 195,822 195,797 195,714 195,714 195,714 195,714 195,714 195,714 195,822 195,774 195,707
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stenne cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer. Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison. 195,751,	195,702 195,822 195,822 195,822 195,822 195,712 195,712 195,712 195,712 195,822 195,702 195,802 195,702 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,702 195,802 195,802 195,702 195,802 195,802 195,802 195,702 195,80
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer. Stove, T. Gemmell Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison 195,751, Tile-laying machine, J. H. Sparkes. Tobacco cutters, M. B. Morris.	195,702 195,692 195,892 195,792 195,712 195,714 195,714 195,715 195,716 195,716 195,816 195,816 195,717 195,717 195,717 195,717 195,717 195,717 195,717 195,811
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire. Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois. Sickle grinder, A. Cameron Skate holder, E. C. Henderson. Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r). Spark arrester, Blair & Bush. Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman. Steam engines, A. Cunningham. Stone cutting and dressing machine, G. Campbell Stove, T. Gemmell. Stove, Cooking, C. T. Lynd. Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor. utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison 195,751, Tile-laying machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Tool handle, J. H. Anthony. Toy, buzz, S. A. Standiford	195,702 195,822 195,822 195,822 195,712 195,714 195,622 195,744 195,712 195,822 195,744 195,822 195,82
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer. Stove, T. Gemmell Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison 195,751, Tille-laying machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Tool handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl	195,702 195,692 195,892 195,791 195,712 195,714 195,714 195,712 195,712 195,712 195,712 195,812 195,712 195,812 195,714 195,812 195,714 195,812 195,814 195,81
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stenne cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison 195,751, Tile-laying machine, J. H. Sparkes Tobacco cutters, M. B. Morris Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Truck J. DeQuindre	195,702 195,822 195,822 195,822 195,822 195,712 195,714 195,715 195,716 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,707 195,826 195,826 195,707 195,827 195,826 195,826 195,707 195,82
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer Stove, T. Gemmell Stove, T. Gemmell Stove, T. Gemmell Stove, T. Gemmell Telegraph, automatic, T. A. Edison Tobacco cutters, M. B. Morris Tool handle, J. H. Sharkes Tobacco carrier for harness, J. L. Scholl Truck iron for railway cars, J. T. Wilson Trunk, J. DeQuindre. Tubes, die for drawing, S. P. M. Tasker	195,702 195,822 195,822 195,791 195,712 195,714 195,712 195,712 195,712 195,712 195,812 195,812 195,712 195,812 195,712 195,81
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stenne cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison 195,751, Tile-laying machine, J. H. Sparkes Tobacco cutters, M. B. Morris Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Truck J. DeQuindre	195,702 195,822 195,822 195,822 195,822 195,712 195,712 195,712 195,822 195,712 195,822 195,712 195,822 195,712 195,823 195,712 195,823 195,712 195,823 195,712 195,823 195,72
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stove, T. Gemmell Stove, T. Gemmell Stove, T. Gemmell Stove, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Tille-laying machine, J. H. Sparkes Tobacco cutters, M. B. Morris Tool handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trynck iron for railway cars, J. T. Wilson Trynk, J. DeQuindre Turbine water wheel, J. M. Case Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne	195,702 195,822 195,822 195,793 195,714 195,714 195,714 195,822 195,744 195,822 195,744 195,824 195,744 195,81
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer. Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Triels, J. Dequindre. Tool handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Tripck iron for railway cars, J. T. Wilson Tribnk, J. DeQuindre. Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse	195,702 195,822 195,822 195,822 195,822 195,724 195,712 195,712 195,712 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,826 195,702 195,70
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook, L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stove, T. Gemmell Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Tille-laying machine, J. H. Sparkes Tobacco cutters, M. B. Morris Tool handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trynck iron for railway cars, J. T. Wilson Trynk, J. DeQuindre Turbine water wheel, J. M. Case Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse	195,702 195,822 195,822 195,793 195,714 195,714 195,714 195,822 195,714 195,822 195,717 195,812 195,717 195,812 195,717 195,812 195,717 195,812 195,812 195,812 195,717 195,812 195,812 195,812 195,812 195,812 195,813 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,814 195,714 195,716 195,717 195,71
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stone drilling machine, S. Palmer Stove, T. Gemmell Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Telegraph, automatic, T. A. Edison Tobacco cutters, M. B. Morris Toolo handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trinck iron for railway cars, J. T. Wilson Trbnk, J. DeQuindre Tubes, die for drawing, S. P. M. Tasker Turbine water wheel, E. R. Stillwell Type case, A. A. De Colonne Valve adjuster, slide, H. B. Doolittle Vehicle dush rail, B. C. Converse Vehicle hub, J. M. Whiting. Vehicle hubs. Sand band for, E. P. 6-own	195,702 195,828 195,828 195,828 195,828 195,828 195,717 195,718 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,738 195,738
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire. Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson. Sled runners, forming, S. Gilzinger Smoking hams, N. G. Sjmonds Snap hook, L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush. Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman. Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer. Stove, cooking, C. T. Lynd. Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Trelegraph, automatic, T. A. Edison. 195,751, Tile-laying machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Tryck iron for railway cars, J. T. Wilson. Trynk, J. DeQuindre. Turbine water wheel, J. M. Case Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse Vehicle hubs, Sand band for, E. P. B. own Ventilating steam street cars, E. Longstreth.	195,702 195,822 195,822 195,822 195,822 195,724 195,712 195,714 195,712 195,71
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stone drilling machine, S. Palmer Stove, T. Gemmell Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Telegraph, automatic, T. A. Edison Tobacco cutters, M. B. Morris Tobacco cutters, M. B. Morris Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trinck iron for railway cars, J. T. Wilson Trbnk, J. DeQuindre Tubes, die for drawing, S. P. M. Tasker Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse Vehicle hubs, Sand band for, E. P. 6. own Vehicle wheel, W. J. Drew Ventilating steam street cars, E. Longstreth Ventilator, P. Mihan	195,702 195,822 195,822 195,824 195,824 195,712 195,712 195,712 195,712 195,822 195,712 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,717 195,823 195,724 195,725 195,727 195,823 195,727 195,823 195,727 195,823 195,727 195,823 195,727 195,823 195,727 195,823 195,727
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pins, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire. Saw hand, cross cut, E. C. Atkins. Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois. Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook L. M. Doddridge. Soldering machine, Dillon & Cleary (r). Spark arrester, Blair & Bush. Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman. Steam engines, A. Cunningham. Steone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer. Stove, T. Gemmell. Stove, Cooking, C. T. Lynd. Stuffing box, J. Lockhart. Syringe, yaginal, R. H. Woodward Tan liquor utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison. 195,751, Tile-laying machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Toblacco cutters, M. B. Morris Toblacco cutters, M. B. Morris Toblandle, J. H. Anthony. Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trpuck iron for rallway cars, J. T. Wilson. Trunk, J. DeQuindre. Tubes, die for drawing, S. P. M. Tasker. Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse Vehicle hubs, J. M. Whiting, Vehicle wheel, W. J. Drew Ventilating steam street cars, E. Longstreth, Ventilator, P. Mihan	195,702 195,832 195,832 195,822 195,822 195,721 195,712 195,712 195,822 195,712 195,823 195,702 195,802 195,802 195,80
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stone drilling machine, S. Palmer Stove, T. Gemmell Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Telegraph, automatic, T. A. Edison Tolaco cutters, M. B. Morris Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trinck iron for railway cars, J. T. Wilson Trink, J. DeQuindre Tubes, die for drawing, S. P. M. Tasker Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle dash rail, B. C. Converse Vehicle hub, J. M. Whiting Vehicle hubs, Sand band for, E. P. 6-own Vehicle wheel, W. J. Drew Ventilator, P. Mihan Vessels, center board for, S. R. Babbidge Washing machine, W. I. Clous	195,702 195,828 195,828 195,828 195,828 195,712 195,712 195,713 195,713 195,828 195,717 195,828 195,717 195,828 195,717 195,828 195,717 195,828 195,717 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,718 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,728 195,828 195,72
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pins, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Steone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer. Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor. utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison. Tylek jung machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Tryck iron for rallway cars, J. T. Wilson. Tynk, J. DeQuindre. Turbine water wheel, J. M. Case Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle hub, J. M. Whiting. Vehicle hubs. Sand band for, E. P. 6-own. Vehicle hubs. Sand band for, E. P. 6-own. Vehicle hubs. Sand band for, S. R. Babbidge Washing machine, W. I. Clous Watches, dust band for, O. Hoyt. Water closet, J. Demarest. Water closet, J. Demarest. Water closet, J. Demarest.	195,702 195,892 195,892 195,892 195,712 195,712 195,712 195,712 195,712 195,712 195,712 195,712 195,892 195,702 195,712 195,892 195,702 195,893 195,702 195,893 195,702 195,893 195,702 195,893 195,702 195,893 195,702 195,893 195,793 195,893 195,893 195,793 195,89
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Stone drilling machine, S. Palmer Stove, T. Gemmell Stove, T. Gemmell Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison Telegraph, automatic, T. A. Edison Tobacco cutters, M. B. Morris Toolo handle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Trinck iron for railway cars, J. T. Wilson Trbnk, J. DeQuindre Tubes, die for drawing, S. P. M. Tasker Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle hubs, Sand band for, E. P. 6. own Vehicle hubs, Sand band for, E. P. 6. own Vehicle hubs, J. M. Whiting Vehicle wheel, W. J. Drew Ventilating steam street cars, E. Longstreth Ventilator, P. Mihan Vessels, center board for, S. R. Babbidge Washing machine, W. I. Clous Water closet, J. Demarest Water elevator, compressed air, D. C. Cregier Weather strip, M. W. Williams	195,702 195,832 195,832 195,832 195,832 195,712 195,712 195,713 195,713 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,832 195,714 195,71
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pins, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe faştener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Steone cutting and dressing machine, G. Campbell Shone drilling machine, S. Palmer. Stove, T. Gemmell Stove, cooking, C. T. Lynd Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor. utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison. Tylek jung machine, J. H. Sparkes. Tobacco cutters, M. B. Morris. Tool bandle, J. H. Anthony Toy, buzz, S. A. Standiford Trace carrier for harness, J. L. Scholl Tryck iron for rallway cars, J. T. Wilson. Tynk, J. DeQuindre. Turbine water wheel, J. M. Case Turbine water wheel, E. R. Stillwell Type case, A. A. De Calonne Valve adjuster, slide, H. B. Doolittle Vehicle hub, J. M. Whiting. Vehicle hubs. Sand band for, E. P. 6-own. Vehicle hubs. Sand band for, E. P. 6-own. Vehicle hubs. Sand band for, S. R. Babbidge Washing machine, W. I. Clous Watches, dust band for, O. Hoyt. Water closet, J. Demarest. Water closet, J. Demarest. Water closet, J. Demarest.	195,702 195,822 195,822 195,822 195,822 195,721 195,712 195,712 195,822 195,722 195,822 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,82
	Road engine, J. C. Carr. Rulers, attachment to parallel, H. K. Averill, Jr. Saddle tree, gig, W. H. Taylor Safety pin, J. Jenkins Safety pins, sharpening, Butler & Wellge Sand dryer, J. Maguire. Saw hand, cross cut, E. C. Atkins Saw teeth, insertible, W. Burger. Screw-cutting die, M. C. Johnson Seal skins, treatment of, J. Kokesch. Seeder and planter, Baldwin & Shumard Seeding machine, Van Brunt & Davis. Sewer gas, discharging, W. D. Stewart Shoe fastener, V. Nivois Sickle grinder, A. Cameron Skate holder, E. C. Henderson Sled runners, forming, S. Gilzinger Smoking hams, N. G. Simonds Snap hook. L. M. Doddridge. Soldering machine, Dillon & Cleary (r) Spark arrester, Blair & Bush Stand for smoothing fabrics, J. F. Frese Starch, drying and purifying, F. Melkersman Steam engines, A. Cunningham Stone cutting and dressing machine, G. Campbell Scone drilling machine, S. Palmer. Stove, Cooking, C. T. Lynd Stuffing box, J. Lockhart. Syringe, vaginal, R. H. Woodward Tan liquor, utilizing, H. J. Botchford Telegraph, automatic, T. A. Edison	195,702 195,822 195,822 195,822 195,822 195,721 195,712 195,712 195,822 195,722 195,822 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,823 195,723 195,82

DESIGNS PATENTED,

10,263.—CARPETS.—Frank E. Allen, Yonkers, N. Y. 19,264.—LACE FABRIC.—Abraham G. Jennings, Brooklyn,

10,265.-BRACELET.-H. Lang, Kennett's Square, Pa. 10,2 .- POCKET BOOK CLASPS .- L. Messer. New York,

10,267.-PRINTED AND WOVEN FABRICS.-W. Morris, London. Eng. 10.268.—DISH HANDLES.—S. Stevens, Jersey City, N. J. 10,269.—Show CARDS.—W. C. Wilson, & T. S. Harrison, Philadelphia, Pa.

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