ENGINEERING INVENTIONS.

patented by Mr. William H. Rodgers, of Whitestone, N. Y. It has an alarm mechanism normally held set by a fusible plug, two signal disks being arranged in connection therewith, so mounted that when the pump or injector is working, the safety disk will be exposed and the danger disk covered, and vice versa.

A fire extinguisher for railroad cars has been patented by Mr. George W. Oborn, of Columbus, Ohio. The invention consists in connecting the stoves and lamps with a tank of fire extinguishing liquid, and the tank with the air brake drum or

A car heating and ventilating ap-Jacksonville, Fla. In combination with an air blower | terial of which the garment is made. and closed water tank with spray pipes, the invention covers various other novelfeatures of an apparatus for supplying railroad trains with pure air, either heated or cooled, and suitably moistened, while also removing the vitiated atmosphere.

A draw gear for railway cars has been patented by Mr. Chas. H. Starr, ot Logansport, Ind. It consists essentially of a pair of flanged channel irons, in the flanges and sides of which are transverse gains or slots to receive the bolts by which the draw | Ill. It has a roller wheel with ball bearing, on which spring cage and the bolster bearing are bolted to position, the channel irons being arranged for connection with the draught sill.

A rail joint has been patented by Mr. John V. Koss, of North Yakima, Washington Ter. It around. consists of a chair having a fixed rail and sliding rail sections, with intervening spring joints, and other novel features, to provide for the expansion and contraction of the rails, and has especial reference to keep ing switch rails in order, and preventing them from becoming jammed and out of order.

A railway signal has been patented by Mr. Charles D. Tisdale, of Boston, Mass. It is a sema phore, to be operated by a weight under control of an electro-magnet, a hollow post being adapted to contain the operating mechanism of the semaphore, a lamp being supported by the post to throw light through windows of the semaphore arm, while there is a remov able handle for turning the shaft and winding the weight cord.

MISCELLANEOUS INVENTIONS.

A cough mixture has been patented by Mr. George Wood, of Crawford, Col. It consists of extract of blood root, essence of anise, essence of sassafras, essence of lobelia, and other ingredients, compounded and administered in a special manner set forth.

A clasp has been patented by Mr. William Bloomberg, of New York City. The invention consists in a peculiar form of blank employed in constructing the main jaw of the clasp, for holding suspender ends without stitching, and uniting them to the suspender buckle.

A ship's log has been patented by Mr. Oscar Kustel, of San Francisco, Cal. This invention covers a novel construction and combination of parts in a device wherein the distance sailed or steamed by a vessel in a given time will be recorded in knots, and the record will be open to inspection at all times.

A handkerchief holder has been patented by Mr. Stephen M. Griswold, of Brooklyn, N. Y. 12. Illustrations giving a perspective view and floor This invention provides an article in the form of a brooch, with a pin, to hold a handkerchief as in a clasp, while the device may be made in gold or silver or other material to make an attractive ornament,

A collar and cuff drier and dampener has been patented by Mr. John G. Dixon, of New York City. This invention provides means whereby collars, 15. A dwelling for two thousand five hundred dollars. and cuffs may be carried in quantities through a suitable heated chamber, and subject to exposure equally on both sides, and afterward be automatically sprinkled equally on both sides, ready for ironing.

A thill coupling has been patented by 17. Plans and perspective elevation for a two thousand Mr. Joel S. Pardee, of New Troy, Mich. It is a simple and inexpensive coupling which may be quickly engaged with or disengaged from a stud on a vehicle thill or pole, to allow either, thills or a pole to be used for harnessing one or more horses, while also arranged to be an effective anti-rattler.

liquids has been patented by Mr. Paul Witteck, of Butler, N. J. It has a reversible measure, with means for automatically supplying the matter to be weighed to the measure and automatically emptying the measure when filled, the invention covering various novel features of construction and the combination of parts.

A cork holder for bottles has been pa tented by Mr. William Beardsley, of Beacon, Iowa. It consists of a cap piece with an enlarged central portion to form a cap or hood over the cork, and with opposite side arms or extensions adapted to engage a compensating neck band, which may be arranged around bottle necks of different sizes.

A method of manufacture of felt hats, caps, etc., has been patented by Mr. Frederick W. Cheetham, of Hyde, Chester County, England, It. consists in first forming the complete body or form according to whether it is to be soft or stiff, then working or felting a covering of fine short staple wool upon the coarser body, finally finishing it.

A sweat pad has been patented by Mr. Charles J. Gustaveson, of Salt Lake City, Utah Ter. It has one or more openings or slots extending through it, combined with a hook having both ends made alike, and adapted to have either end seated in the slot, to constitute a reversible pad for protecting the neck and shoulders of a draught animal.

A sewing machine has been patented by Mr. Charles P. Bostian, of Milton, Pa. Two needles

are carried by the needle bar at an angle to the width of An indicator for boiler feeds has been and both entering the same race, with mechanism for bringing the points of the needles into position within the race for the single shuttle to take both loops, thus making simultaneously a double row of stitches

> A wall covering composition has been patented by Mr. Carl Straub, of Syracuse, N. Y. It is made of wood fiber, cement, and a hardening acid, compounded in proportions and manner described to make a composition only about half as heavy as mortar, but more elastic, and of uniform density or

A button machine has been patented cylinder by a valved pipe, so that in case of accident | by Mr. Albert Wittig, of New York City. It consists compressed air will force the extinguishing liquid upon of a press with revolving bed carrying dies and having burned boilers. For illustrated price list, Reliance Gauge a cutting block for supporting cloth for covering buttons, being designed for the use of tailors, etc., to paratus has been patented by Mr. Jacob T. Earnest, of enable them to provide buttons covered with the ma-

> A suspender attachment has been patented by Mr. Charles H. Scales, of Toronto, Ontario, Canada. It is an improvement in buckles for connecting the continuous doubled straps forming the ends of self-adjusting suspenders to the webs, while allowing the straps to run freely, securing the ends from displacement when not attached to a garment,

> A gate roller and hinge has been patented by Mr. James G. Swarthout, of Stone's Prairie, the roller may turn and swing in opening and closing a gate supported on the roller, forming a gate roller and hinge supported in and connected with two hinge posts, so that the gate may be moved endwise or swung

SCIENTIFIC AMERICAN

BUILDING EDITION.

MAY NUMBER.-(No. 31.)

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- 4. Perspective elevation and floor plans of a house costing six thousand dollars.
- Design for a house to stand on a knoll or high ground. Perspective and floor plans.
- Perspective view and ground plan for the Orange Heights Hotel, now erecting on Orange Mountains-Arthur D. Pickering, architect.
- Half page engraving of the new United States Post Office at Springfield, Mass., and new United States Post Office and Court House at Los Angeles, Cal.
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- six thousand five hundred dollars. Perspective and floor plans for a country house of

moderate cost.

- 11. Elevations and floor plans for a frame dwelling.
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- plans of a cottage for fifteen hundred dollars 13. Repairing the foundations of a large grain mill and elevator at Providence, R. I.-Half page engrav
- ing. Floor plans and perspective view of a substantial dwelling. Cost eight thousand dollars.
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- 18. Illustration showing the beautiful dwelling and grounds of Timothy Merrick, Esq., Elmwood, Holyoke, Mass.
- Elegant residence of Dr. J. S. Hurlbut, Esq , School Street, Springfield, Mass.

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Lockwood's Dictionary of Terms used in the practice of Mechanical Engineering, embracing those current in the drawing office, pattern shop, foundry, fitting, turning, smith's and boiler shop, etc., comprising over 6,000 definitions. Edited by a foreman patternmaker. 1888. Price, \$3.00. For sale by Munn & Co., 361 Broadway, New

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NEW BOOKS AND PUBLICATIONS.

LA GALVANOPLASTIE, LE NICKELAGE, LA DORURE, L'ARGENTURE, ET L'ELECTRO-METALLURGIE. Par Emile Bouant, Professeur au Lycee Char-lemagne. Small 8vo, pp. 303. With 34 figures inserted in the text. Paris: Librairie J. B. Bailliere et Fils. 1887.

In this little volume, Professor Bouant, after a brief expose of the history and present state of the electrolytic arts, proceeds to a description of the various promixture will render it waterproof. Take 2 parts boiled cesses employed in electrotypy, electro-chemistry, and oil, 1 part gold size, put into a bottle, shake well and electro-metallurgy. The directions and formulas for it is ready for use. Apply with a flannel, expose to the each process are given in minute detail and with re- air and dry.

markable clearness, and any one who follows them to the letter will undoubtedly obtain successful results, and that too with the simplest of appointments. The electrolytic arts, in fact, are peculiar in that they need no very extensive establishments for their development, but may be practiced in the humblest of shops or in the laboratory of the amateur. In view of the fact that the applications of electrotypy and the other branches of electrolysis are daily becoming more numerous, this little work will prove a valuable and welcome addition to the library of the practical metallurgist, as well as to that of the amateur.

Old South Leaflets. This is the title of a series of pamphlets on various subjects of importance. Their titles sufficiently identify their purpose and aim. No.1. Constitution of the United States. 2. Articles of Confederation. 3. Declaration of Independence. 4. Washington's Farewell Address. 5. Magna Charta. 6. Vane's "Healing Question," 7. Charter of Massachusetts Bay, 1629. 8. Fundamental Orders of Connecticut, 1638. 9. Franklin's Plan of Union, 1754. 10. Washington's Inaugurals. 11. Lincoln's Inaugurals and Emancipation Proclamation. 12. The Federalist, Nos. 1 and 2. 13. The Ordinance of 1787.-etc. Price, five cents per copy, one hundred copies, three dollars. Published by D. C. Heath & Co.

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HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters, or no attention will be paid thereto. This is for our information, and not for publication.

References to former articles or answers should give date of paper and page or number of question.

Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all, either by letter or in this department, each must take his turn.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(1) J. E. W. asks how to splice a belt in order to make it run as near like an endless belt as possible—not the old, rough way of splicing. A. Use the toughest yellow glue prepared in the ordinary way, while hot, stirring in thoroughly about 20 per cent of its weight of tannic acid, or extract of tan bark. Apply to the splice and quickly clamp together. The splice should be made of scarfed edges extending 3 to

face to be perfectly clean and free from oil. (2) E. V. H. desires a recipe of some preparation that will make leather waterproof. A. There is no way of making leather absolutely waterproof. Good tanning and currying, with the grain or hair side out, and the frequent use of stuffing makes leather nearly waterproof.

6 inches back. according to thickness of belt. The sur-

(3) M. M.—The word lye is used to indicate the solution of a caustic or carbonated alkali, such as caustic soda, soda ash, or carbonate of potash,

(4) H. J. M.-For Babbitting small boxes, use a spindle of iron turned smooth, for the journal. Set the box and spindle in proper position in moulding sand as dry as will stick together. Ram the sand gently to close the opening between box and spin dle, and pour the metal. If the box is solid the spindle may be very slightly taper, and by gently rapping it sidewise, it will easily drive out.

(5) J. W. T.-The following combined

toning and fixing bath is recommended: Sulpho cyanide of ammonium...... 25 " Hyposulphite of soda.....240 "

Dissolve the gold first in a small quantity of water, then add as above. See our book catalogue. The book by Ellerslie Wallace is recommended.

(6) J. L. V. asks a receipt for making compressed yeast. A. This yeast is obtained by straining the common yeast in breweries and distilleries, until moist mass is obtained, which is then placed in hair bags, and the rest of the water pressed out until the mass is nearly dry. It is then sewed up in strong linen bags for transportation.

(7) W. W. McV. desires a receipt for making good dark mahogauy stain for elm wood. A. Boil ½ pound of madder and 2 ounces logwood chips in a gallon of water, and brush well over while hot. When dry, go over them with a pearlash solution having the strength of 2 drachms to a gallon.

(8) D. F. W. asks how vaseline is purifled for barbers' use. A. The residuum from which vase. ; line is made is placed in settling tanks heated by steam, in order to keep their contents in a liquid state. After the complete separation of the fine coke it is withdrawn from these tanks and passed through the bone black cylinders, during which process the color is nearly all removed, as well as its empyreumatic odor. See Crew's "Practical Treatise on Petroleum," which we can send you, post paid, for \$4.50. See also Scien-TIFIC AMERICAN SUPPLEMENT, No. 153.

(9) A. E. S. asks the best preparation for waxing silk thread for binding gut snells on tovery small fish hooks. A. Yellow beeswax is ordinarily used. Shoemaker's wax is very good also. The following

- (10) A. A. asks (1) the proper proportion for compounding sulphur and molasses, to be used a blood purifier, and how it is to be taken? A. Take teaspoonfuls of sulphur, and 1 of cream tartar, and n with sufficient molasses, so that it will not be too st It is taken in doses of a teaspoonful once or twice a da 2. Which is the best known manner of purifying blood? A. This depends upon so many conditions t it is best for you to consult a physician.
- (11) J. B. desires a receipt for making good ink used for shading, with three different size shading pens. A. See the receipts given in the arti "Inks," in Scientific American Supplemen No. 157.
- (12) O. R. asks for a book from which he can learn how to stuff birds. See Brown's Practi Taxidermy, which we mail for \$2.50, or Batty's Pr tical Taxidermy and Home Decoration, \$1.50.
- (13) C. H. D. asks how to make an ar cle called razor paste. A. Emery reduced to an palpable powder 2 parts, spermaceti ointment 1 pa mix together and rub it over the strop. See Spo "Workshop Receipts," first series, which we mail \$2, for several similar recipes.
- (14) C. L. L. desires a receipt for ma ing the black cement or paste that is used for filli letters after they are cutout in brass. A. Mix asph tum, brown japan, and lampblack into a putty li mass, fill in the spaces, and finally clean the edges w turpentine.
- (15) T. M.—The paste mostly used mounting photographs is nothing more than pu laundry starch mixed with cold water to moisten it, a thinned down to proper consistency with boiling wat If there are lumps, it should be strained through a fi cloth. Some add a little camphor to preserve it.
- (16) C. A. R. asks if a thermo-electr pile can generate enough current to run a motor, and so, how large one should be. A. A thermo-electric b tery can be so used, but with very low efficiency. size would depend on the energy absorbed by the n tor.
- (17) S. L. S. asks: 1. About how los can a man live, without serious inconvenience, if place inside a tight iron casing containing 100 cubic feet air? A. A very few minutes would practically exha the air, for though it would take some time to breat all of it, it would rapidly become so contaminated as exercise a toxic and weakening effect. 2. Is there a simple means by which the air in such a casing can kept pure enough, so that a man can live in it a lon time? A. Caustic soda or potash would absorb c bonic acid gas, and a well exposed solution of perm ganate of potash or of bleaching powder would move the organic impurities. Then a man could end the confinement much longer. 3. What pressure I square inch is necessary to compress air to half bulk? A. Double the atmospheric pressure, or fifte pounds per square inch, by a pressure gauge set to ze in the atmosphere. 4. What pressure per square in can a man endure and work in without injury? Three atmospheres, or thirty pounds to the square in plus the natural pressure, is pretty severe. It depen on the constitution.

TO INVENTORS.

An experience of forty years, and the preparation more than one hundred thousand applications for p tents at home and abroad, enable us to understand t laws and practice on both continents, and to possess t equaled facilities for procuring patents everywhere. synopsis of the patent laws of the United States and foreign countries may be had on application, and perso contemplating the securing of patents, either at home abroad, are invited to write to this office for pric which are low, in accordance with the times and our tensive facilities for conducting the business. Addrewn MUNN & CO., office Scientific American, 361 Bros way, New York.

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May 15, 1888,

AND EACH BEARING THAT DATE

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ts.)	Draught regulator, C. E. Gray	382,099	L
.749	Drill. See Rock drill. Drill stock, A. Allgoever	383,021	L
,760	Dyeing apparatus, A. Harmel	382,977	L
,971	Dyeing apparatus, U. Weldon	382,768	
,827 1,015	Electric indicator, J. Tregoning Electric machines, commutator for dynamo, N.		L
,710 ,725	Tesla Electric motor switch, R. H. Mather	382,845 382,714	I.
3,066 2,902	Electric motors, switching device for, R. H. Mather		L
2,814	Electric wires, underground conduit for, W. F.		L
,884	Electrical agricultural system, E. M. Bentley	382,778 382,941	I

Car heaters, safety casing for, A. Bell		Gas burner, A. J. English	
Car heating and ventilating apparatus, J. T. Earnest	382,956	Gate. See Farm gate. Gate, R. H. Sayre	
Car mover, G. S. Currier	382,757	Gate roller and hinge, J. J. Swarthout	
Car, stock, H. Arms	382,934	Glove fastening, W. S. Richardson,	
Car, stock, L. R. Stiles		382,904, 382,905, 383,069 to 30 Glove fastening, Richardson & Chase	
Cars, draw gear for railway, C. H. Starr	382,840	Governor for steam engines, flywheel, L. D. Copeland	
Cars, folding step for, A. J. Barber	382,019	Governor, steam engine, J. B. Allfree 3	8 2, 982
rying, C H. Little		Grain binder, W. R. Baker	
Carburetor, L. Marks	382,819	Grain binder, J. F. Steward 3	
Carriage curtain cord holder, J. G. English Carrier. See Trace carrier.	382,951	Grain binders, knot tying mechanism for, J. R. Severance	82,773
Cart, road, C. W. & G. H. Jewett		Grain heater, J. Warrington	
Case. See Filing case. Folding case.	302,030	Gunpowder mill, P. A. Oliver 3	82.825
Cash and parcel carrying apparatus, H. L. Love-	382 889	Halter, J. C. Covert. 33 Hame link, M. E. Lasher. 33	
Cash indicator and register, J. H. Patterson	383,006	Handkerchiefholder, S. M. Griswold	82,805
Cash register and indicator, J. H. Patterson Casting metal mould for, S. D. Locke		Handling material, apparatus for, A. E. Brown 3 Hanger. See Door hanger.	82,946
Cement pipes, machine for making, L. G. Haase	382,974	Harness rosette attachment, R. W. Jones 3	
Centrifugal machine, A. Freitag	382,986	Harrow, disk, L. A. Richards	
Chairs, table attachment for, A. A. Burlin Check and pad protector, G. A. Meyer		Harvester and binder, J. Bachman	
Check slips, etc., receptacle for, H. W. Royce	382,733	Harvesters, bundle carrier for, D. H. Prewitt 3	
Churn, T. J. Smith		Hats, caps, etc., manufacture of felt, F. W. Cheetham	82.798
Churns, washing machines, etc., device for operat-		Hay press, F. McKinney 3	82,822
ing, J. Restein		Head rest, J. W. Campbell	82,949
Clamp, H. E. Hathaway	382,808	Heel mould, E. J. LeGay 3	
Clasp, W. Bloomberg	302,193	Heel plate, C. Doney	
Clipper, hair, Phipps & Burman (r)	10,981	Hinge, C. H. Beer	
Coal hod, E. Barrath		Holder. See Carriage curtain cord holder. Cuff	001000
Cock, J. A. Prout		holder. Handkerchief holder. Hopple, O. B. Fales	92.869
Coffins, manufacture of artificial stone, J. Mundt.		Horses, device for hitching, C. Kaufer 3	82,989
Coins. etc., apparatus for automatically closing receptacles for, P. Everitt	382,696	Horseshoe nails, cutting, H. A. Wills	82,92(
Collar and cuff drier and dampener, J. G. Dixon Coloring matter, production of yellow, C. Ru-	382,800	Wills	82,928
dolphdolph	382,832	Allen	
Colter, rolling, W. E. Sefton		Hydrant, C. G. Ette	
Concentrator and amalgamator, combined, W. M.	[Incubators, temperature regulator for, G. E. Tal-	
HartmanConfectioner's mould, S. E. Ball		bot 3 Indicator. See Boiler feed indicator. Cash indi-	82,779
Conveyers, shifting gate for, D. W. Marmon	382,890	cator. Directory indicator. Electric indi-	
Copal, manufacture of artificial, E. Schaal Corn husking implement, P. Kaufman		cator. Induction coil, repeating, J. A. Barrett 33	82.856
Cotton batting, making, Walker & Williams Cough mixture, G. Wood		Inkstand, M. H. Garland	
Coupling. See Car coupling. Shaft coupling.	000,000	Insulated wire, J. D. Thomas 36	
Coupling. See Car coupling. Shaft coupling. Thill coupling.		Insulated wire, J. D. Thomas	
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham	382,896 383,003	Insulated wire, J. D. Thomas	82,781
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker	382,896 383,003 382,754	Insulated wire, J. D. Thomas	62,781 62,893
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham Cuffholder, J. H. Carder Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts	382,896 383,003 382,754 382,945	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham Cuff holder, J. H. Carder Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett	382,896 383,003 382,754 382,945 383,076	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant.	382,896 383,003 382,754 382,945 383,076	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham Cuff holder. J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant Cushion. See Billard cushion. Cutter. See Band cutter.	382,896 383,003 382,754 382,945 383,076 382,802 382,797	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion.	382,896 383,003 382,754 382,945 383,076 382,802 382,797	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham Cuffholder, J. H. Carder Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant Cushion. See Billard cushion. Cutter bar, W. F. Kendrick Die. See Screw cutting die. Directory indicator for buildings, etc., T. J.	382,896 383,003 382,754 382,945 383,076 382,802 382,797 383,067	Insulated wire, J. D. Thomas. 36 Jack. See Hoisting jack. Lifting jack. Wagon jack. Joint. See Rail joint. Journal box, J. C. Miller. 38 Key fastener, Barrett & Baker. 38 Keys, manufacture of door, H. B. Sargent. 38 Ladder, extension, J. C. Gardner. 38 Lamp, Babbitt & Beach. 38 Lamp attachment, incandescent, H. M. Doubleday. 38 Lamps, coach, O. W. Swift. 38 Lamps, manufacture of incandescent electric, E. P. Thompson. 38 Lantern, F. Rhind 38	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080 82,846 82,831
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham Cuffholder, J. H. Carder Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant Cushion. See Billard cushion. Cutter See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell	382,896 383,003 382,754 382,754 382,945 383,076 382,902 382,797 382,797	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080 82,846 82,831 82,874
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams.	382,996 383,003 382,754 382,945 389,076 382,902 382,797 383,067 382,977 382,770 383,085	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080 82,846 82,831 82,874 82,903 82,724
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier.	382,996 383,003 382,754 382,945 389,076 382,902 382,797 383,067 382,977 382,770 383,085	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080 82,846 82,831 82,874 82,903 82,724 82,774
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker	382,896 383,003 382,754 382,945 383,076 382,802 382,797 383,067 382,997 382,770 383,085 382,699	Insulated wire, J. D. Thomas.	62,781 62,893 82,680 82,671 82,936 83,046 83,040 82,846 82,837 82,847 82,903 82,724 82,774
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuff holder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel.	382,896 383,003 382,754 382,945 383,076 382,902 382,797 383,067 382,997 383,085 382,999 383,031 382,977	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 83,080 82,846 82,831 82,874 82,903 82,734 82,935
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Driel. See Rock drill. Drill See Rock drill. Drill stock, A. Allgoever.	382,896 383,003 382,754 382,945 383,076 382,902 382,797 383,067 382,997 383,085 382,099 383,031 382,977 382,918	Insulated wire, J. D. Thomas	62,781 62,893 82,690 83,012 82,871 82,936 63,046 83,080 82,846 82,831 82,874 82,774 82,774 82,935 82,964 82,764 82,774
Coupling. See Car coupling. Shaft coupling. Thill coupling. Trail coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Downling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning.	382,896 383,003 382,754 382,945 383,076 382,902 382,797 383,067 382,770 383,085 382,699 383,031 382,977 382,978	Insulated wire, J. D. Thomas	62,781 62,893 82,690 83,012 82,871 82,936 63,046 83,080 82,846 82,831 82,874 82,774 82,774 82,935 82,964 82,764 82,774
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric inchines, commutator for dynamo, N. Tesla.	382,896 383,003 382,754 382,945 383,076 382,902 382,797 383,067 382,977 383,085 382,977 383,081 382,973 382,918 382,918 382,914 382,845	Insulated wire, J. D. Thomas	62,781 62,893 82,693 82,693 83,012 82,871 82,936 83,046 83,046 83,846 82,831 82,847 82,935 82,774 82,935 82,774 82,935 82,775 82,775
Coupling. See Car coupling. Shaft coupling. Thill coupling. Trill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Downling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motor switch, R. H. Mather.	382,896 383,003 382,754 382,945 383,076 382,902 382,797 383,067 382,977 383,085 382,977 383,081 382,973 382,918 382,918 382,914 382,845	Insulated wire, J. D. Thomas	62,781 62,893 82,693 82,963 83,012 82,871 82,936 83,046 83,046 83,080 82,846 82,831 82,874 82,935 82,734 82,935 82,734 82,935 82,735 82,935 82,735 82,935 82,735 82,935 82,935 82,935 82,935 82,935 83,079
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric machines, commutator for dynamo, N. Tesia. Electric motors switch, R. H. Mather. Electric motors, switching device for, R. H. Mather.	382,896 383,003 382,754 382,975 382,977 382,902 382,797 383,067 382,907 382,770 383,085 382,709 383,031 382,977 382,918 382,914 382,914 382,845 382,714	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,080 82,846 82,831 82,903 82,724 82,734 82,935 82,734 83,077 82,936 83,077 82,936
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Aligoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, T. Tregoning. Electric indicator, J. Tregoning. Electric motors, switching device for, R. H. Electric motors, switching device for, R. H.	382,996 383,003 382,754 382,915 383,076 382,802 382,797 383,067 382,997 383,085 382,789 383,083 382,977 382,918 382,977 382,918 382,914 382,715	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,871 82,936 83,046 82,831 82,846 82,831 82,874 82,935 82,724 82,734 82,935 82,748 82,936 82,748 82,936 83,079 83,077 83,077 83,077 83,077 83,077 83,078
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motors, switching device for, R. H. Mather. Electric indoors, switching device for, R. H. Mather. Electric wires, underground conduit for, W. F. Smith. Electrical agricultural system, E. M. Bentley.	382,896 383,003 382,754 382,975 382,976 382,902 382,797 383,067 382,977 383,085 382,770 383,085 382,773 382,914 382,914 382,914 382,845 382,715 382,778 382,715	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 63,081 52,874 52,974 52,975 52,774 52,935 52,775 52,775 52,775 52,775 52,975 53,077
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cufholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, C. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric machines, commutator for dynamo, N. Tesla. Electric motors switch, R. H. Mather Electric wires, underground conduit for, W. F. Smith. Electrical agricultural system, E. M. Bentley. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ.	382,896 383,003 382,754 382,915 383,076 382,902 382,797 383,067 382,997 383,085 382,709 383,031 382,977 382,918 382,918 382,714 382,715 382,715 382,715 382,713	Insulated wire, J. D. Thomas	62,781 52,893 52,680 33,012 52,871 52,936 53,040 82,846 82,874 82,903 82,774 82,935 82,774 82,935 82,775 82,775 82,775 82,952 82,775 82,952 82,775 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 82,952 83,077 83,077 82,952 83,077 82,952 83,077 82,952 83,077 83,077 82,952 83,077 82,952 83,077 83,077 83,077 83,077 83,077 83,077 83,077 83,077 83,077 83,075
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Electric cables, manufacturing, W. R. Patterson. Electric machines, commutator for dynamo, N. Tesla. Electric metors, switching device for, R. H. Mather. Electrici motors, switching device for, R. H. Mather. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Electroca, E. J. Stellwagen	382,896 383,003 382,754 382,975 382,976 382,902 382,797 383,067 382,977 382,770 383,085 382,770 382,914 382,914 382,914 382,715 382,715 382,778 382,778 382,778 382,778 382,778 382,778 382,778 382,841	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 63,080 52,874 52,975 52,874 52,935 52,774 52,935 52,774 52,935 52,774 52,935 52,774 52,935 52,978 52,978 52,978 52,978 52,978 52,978 52,978 52,978
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuff holder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, C. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric motors, switching device for, R. H. Mather Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman.	382,896 383,003 382,754 382,915 383,076 382,902 382,797 383,067 382,997 383,085 382,709 383,031 382,977 382,918 382,715 382,715 382,715 382,715 382,717 382,911 382,715 382,717 382,911 382,713 382,913 382,715	Insulated wire, J. D. Thomas	62,781 62,893 82,680 83,012 82,831 82,936 83,046 83,080 82,846 82,831 82,903 82,724 82,774 82,903 82,778 82,95 82,75 82,75 82,95 82,75 82,95 82,75 82,95 82,75 82,95 82,75 82,95 82,75 82,95 82,75 82,78 82,95
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett. Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric indicator, J. Tregoning. Electric indicator, J. Tregoning. Electric motors switch, R. H. Mather. Electric motors, switching device for, R. H. Mather. Electric wires, underground conduit for, W. F. Smith. Electrical agricultural system, E. M. Bentley. Electricial apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley.	382,896 383,003 382,754 382,915 383,076 382,902 382,797 383,067 382,997 383,085 382,709 383,031 382,977 382,918 382,715 382,715 382,715 382,715 382,717 382,911 382,715 382,717 382,911 382,713 382,913 382,715	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 63,080 52,831 52,874 52,936 52,734 52,936 53,077 52,935 53,079 52,734 52,935 53,079 52,734 52,935 52,734 52,935 52,736 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,079 52,738 53,078 53,016 52,786 52,786
Coupling. See Car coupling. Shaft coupling. Thill coupling. Trail coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electrice motors switch, R. H. Mather. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Elector. E. J. Stellwagen. Elevator See Water elevator. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Erraser, slate, G. Wilkening.	382,896 383,003 382,754 382,915 383,076 382,892 382,797 383,067 382,997 383,085 382,709 383,031 382,977 382,918 382,784 382,715 382,714 382,715 382,717 382,718 382,713 382,713 382,713 382,713 382,713 382,901 382,801 382,801 382,801	Insulated wire, J. D. Thomas	62,781 52,693 52,693 52,684 63,012 52,871 52,936 53,046 53,046 53,046 53,046 52,816 52,817 52,817 52,917
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, U. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motors, switching device for, R. H. Mather. Electric indoors, switching device for, R. F. Smith. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Electrical paparatus, coin operated, N. W. Russ. Elevator. See Water elevator. Elevator. See Water elevator. Elevator. See Water elevator. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Ersaer, slate, G. Wilkening. Eyeglasses, A. Kahn Eyeglasses, nose guard for, W. S. Wells.	382,896 383,003 382,754 382,975 382,977 382,902 382,797 383,067 382,997 382,770 383,085 382,770 382,977 382,914 382,914 382,914 382,714 382,714 382,715 382,718 382,718 382,718 382,718 382,718 382,718 382,911 382,718 382,911 382,718 382,911 382,718 382,911 382,718 382,911 382,911 382,911 382,911 382,911 382,911 382,911	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 53,080 52,831 52,846 52,831 52,874 52,903 52,774 52,935 52,774 52,935 52,774 52,935 52,774 52,935 52,775 52,935 52,778 52,935 52,778 52,935 52,778 52,935 52,778 52,935 52,785 52,811
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Aligoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric motors switching device for, R. H. Mather. Electrica motors, switching device for, R. H. Mather. Electrical agricultural system, E. M. Bentley. Electrical apparatus, coin operated, N. W. Russ. Elevator boot, M. F. Seeley. Elevator boot, M. F. Seeley. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Eraser, slate, G. Wilkening. Eyeglasses, A. Kahn.	382,896 383,003 382,754 382,915 383,076 382,802 382,797 383,067 382,997 383,085 382,799 383,081 382,991 382,914 382,914 382,714 382,714 382,714 382,713 382,911	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 53,080 52,831 52,846 52,831 52,874 52,903 52,774 52,935 52,774 52,935 52,774 52,935 52,774 52,935 52,775 52,935 52,778 52,935 52,778 52,935 52,778 52,935 52,778 52,935 52,785 52,811
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, J. Tregoning. Electric cables, manufacturing, W. R. Patterson. Electric machines, commutator for dynamo, N. Tesla. Electric metors, switching device for, R. H. Mather. Electrical agricultural system, E. M. Bentley. Electrical apparatus, coin operated, N. W. Russ. Elevator. See Water elevator. Elevator Dock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Ersaer, slate, G. Wilkening. Ersaer, slate, G. Wilkening. Ersaer, since, J. M. V. Le Beau Fan for cara, J. M. V. Le Beau Fan for cara, J. M. V. Le Beau	382,896 383,003 382,754 382,975 383,067 382,997 383,067 382,997 383,085 382,770 383,985 382,918 382,918 382,918 382,914 382,714 382,714 382,715 382,713 382,713 382,911 382,713 382,911 382,713 382,911	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 63,080 52,873 52,874 52,903 52,774 52,935 52,774 52,935 52,775 52,945 52,775 52,945 52,978 5
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cufholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motors, switching device for, R. H. Mather. Electrical agricultural system, E. M. Bentley. Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator lock, E. J. Herman. Embossing machine, M. T. Durkin. Engine, See Motor engine. Traction engine. Ersaer, slate, G. Wilkening. Eyeglasses, A. Kahn Eyeglasses, nose guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner. Fan for cars, J. M. V. Le Beau. Far boxes, automatic locking attachment for, J. H. Claspy	382,896 383,003 382,754 382,975 383,067 382,997 383,067 382,997 382,770 383,085 382,709 383,031 382,973 382,918 382,918 382,914 382,714 382,714 382,715 382,714 382,715 382,910 382,910 382,910 382,910 382,911 382,910 382,911	Insulated wire, J. D. Thomas	62,781 52,893 52,680 33,012 52,871 52,936 53,046 63,081 52,871 52,974 52,935 52,774 52,935 53,077 52,935 52,774 52,935 53,079 52,785 52,978 53,030 52,777 53,030
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, A. Harmel. Dyeing apparatus, A. Harmel. Dyeing apparatus, J. Tregoning. Electric cables, manufacturing, W. R. Patterson. Electric machines, commutator for dynamo, N. Tesla. Electric motors, switching device for, R. H. Mather. Electrical agricultural system, E. M. Bentley. Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Elevator. See Water elevator. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Eraser, slate, G. Wilkening. Eryeglasses, A. Kahn. Eyeglasses, A. Kahn. Eyeglasses, A. Kahn. Eyeglasses, automatic locking attachment for, J. H. Claspy. Fare boxe, automatic locking attachment for, J. H. Claspy.	382,896 383,003 382,754 382,975 382,977 382,902 382,797 383,067 382,997 382,770 383,085 382,770 382,977 382,914 382,914 382,914 382,715 382,714 382,715 382,713 382,713 382,845 382,714 382,715 382,845 382,845 382,841 382,773 382,841 382,845 382,841 382,841 382,845 382,841	Insulated wire, J. D. Thomas	62,781 52,893 52,680 53,012 52,871 52,936 53,046 63,080 52,831 52,874 52,935 52,874 52,935 52,774 52,935 52,774 52,935 52,978 53,069 52,973 52,978 53,069
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever. Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motors switch, R. H. Mather Electric wires, underground conduit for, W. F. Smith. Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine, M. T. Durkin. Engine. See Motor engine. Traction engine. Eraser, slate, G. Wilkening. Eyeglasses, A. Kahn Byeglasses, nose guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner. Fan for cars, J. M. V. Le Beau. Fare box, W. A. Crowdus. Fare poxes, automatic locking attachment for, J. H. Claspy Fare box, W. A. Crowdus. Fare register, W. Pigott. Farm gate, Johnson & Oppfelt.	382,896 383,003 382,754 382,915 383,076 382,997 383,067 382,997 383,085 382,709 383,085 382,709 383,031 382,977 382,918 382,714 382,715 382,714 382,715 382,717 382,911 382,717 382,911 382,717 382,911 382,717 382,911 382,717 382,911 382,811 382,811 382,811 382,925 382,811 382,925 382,818 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,988 382,988 382,818 382,867 382,756 382,756 382,756 382,708	Insulated wire, J. D. Thomas	62,781 52,693 52,693 53,012 52,871 52,936 53,046 53,046 53,046 53,046 52,814 52,814 52,814 52,814 52,814 52,814 52,814 52,814 52,814 52,815 52,918 52,714 52,918 53,019 52,718 53,019 52,718 53,019
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator, C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Dyeing apparatus, A. Harmel. Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla. Electric motors, switching device for, R. H. Mather Electrical apparatus, coin operated, N. W. Russ. Elevator. See Water elevator. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Emgine. See Motor engine. Traction engine. Eraser, slate, G. Wilkening. Eyeglasses, A. Kahn. Eyeglasses, A. Kahn. Eyeglasses, nose guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner. Fare boxes, automatic locking attachment for, J. H. Claspy: Fare box, W. A. Crowdus. Fare register, W. Pigott.	382,896 383,003 382,754 382,915 383,076 382,997 383,067 382,997 383,085 382,709 383,085 382,709 383,031 382,977 382,918 382,714 382,715 382,714 382,715 382,717 382,911 382,717 382,911 382,717 382,911 382,717 382,911 382,717 382,911 382,811 382,811 382,811 382,925 382,811 382,925 382,818 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,987 382,988 382,988 382,818 382,867 382,756 382,756 382,756 382,708	Insulated wire, J. D. Thomas	62,781 52,893 52,680 33,012 52,871 52,936 53,046 63,080 82,846 62,831 82,936 82,774 82,935 82,774 82,935 82,874 82,915 82,874 82,915 82,876 82,878
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuff holder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson Electric indicator, J. Tregoning. Electric motors, switching device for, R. H. Mather Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Ersaer, slate, G. Wilkening. Eyeglasses, nose guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner. Fan forcara, J. M. V. Le Beau. Fare box, W. A. Crowdus. Fare box, W. A. Crowdus. Fare pagester, W. Pigott. Farm gate, Johnson & Oppfelt. Farm gate, Johnson & Oppfelt. Farm gate, L. Shepard. Faucets, registering device for measuring, J. A. Blondel.	382,896 383,003 382,754 382,915 383,076 382,907 382,997 383,085 382,709 383,085 382,709 383,031 382,977 382,918 382,918 382,715 382,715 382,715 382,717 382,911 382,715 382,811 382,713 382,913 382,811 382,813 382,814 382,815 382	Insulated wire, J. D. Thomas	62,781 52,693 52,693 52,694 53,012 52,871 52,936 53,046 53,080 52,816 52,871 52,871 52,871 52,871 52,774 52,775 52,775 52,775 52,775 52,775 52,775 53,077 52,775 53,077 52,752 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078
Coupling. See Car coupling. Shaft coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuffholder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe Door hanger, W. L. Powell. Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson. Electric indicator, J. Tregoning. Electric machines, commutator for dynamo, N. Tesla Electric motors switch, R. H. Mather. Electric wires, underground conduit for, W. F. Smith. Mather Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Emgine. See Motor engine. Traction engine. Eraser, slate, G. Wilkening. Eyeglasses, A. Kahn. Ergelasses, A. Kahn. Ergelasses, A. Kahn. Ergelasses, Inse guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner Fare for cars, J. M. V. Le Beau. Fare boxes, automatic locking attachment for, J. H. Claspy Fare register, W. Pigott. Farm gate, L. Shepard. Faucets, registering device for measuring, J. A.	382,896 383,003 382,754 382,915 383,076 382,907 382,997 383,085 382,709 383,085 382,709 383,031 382,977 382,918 382,918 382,715 382,715 382,715 382,715 382,717 382,911 382,715 382,818	Insulated wire, J. D. Thomas	62,781 52,693 52,693 52,694 53,012 52,871 52,936 53,046 53,080 52,816 52,871 52,871 52,871 52,871 52,774 52,775 52,775 52,775 52,775 52,775 52,775 53,077 52,775 53,077 52,752 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078
Coupling. See Car coupling. Shaft coupling. Thill coupling. Thill coupling. Crank pin, lubricating, G. R. Parker Crossing, acute curve, A. J. Moxham. Cuff holder, J. H. Carder. Cultivator, Blue & Halter Cultivator, grain drill, and harrow, W. B. Roberts Curbing of artificial stone, constructing street, C. C. J. Everett Curtain fixture, Z. F. Bryant. Cushion. See Billard cushion. Cutter. See Band cutter. Cutter bar, W. F. Kendrick. Die. See Screw cutting die. Directory indicator for buildings, etc., T. J. McTighe. Door hanger, W. L. Powell Doweling machine, H. D. Williams. Draught regulator. C. E. Gray. Drier. See Collar and cuff drier. Drill. See Rock drill. Drill stock, A. Allgoever Dyeing apparatus, J. Weldon. Electric cables, manufacturing, W. R. Patterson Electric indicator, J. Tregoning. Electric motors, switching device for, R. H. Mather Electrical apparatus, coin operated, N. W. Russ. Electrical apparatus, coin operated, N. W. Russ. Elevator, E. J. Stellwagen. Elevator boot, M. F. Seeley. Elevator boot, M. F. Seeley. Elevator lock, E. J. Herman. Embossing machine. M. T. Durkin. Engine. See Motor engine. Traction engine. Ersaer, slate, G. Wilkening. Eyeglasses, nose guard for, W. S. Wells. Fabrics, implement for turning tubular, L. Eschner. Fan forcara, J. M. V. Le Beau. Fare box, W. A. Crowdus. Fare box, W. A. Crowdus. Fare pagester, W. Pigott. Farm gate, Johnson & Oppfelt. Farm gate, Johnson & Oppfelt. Farm gate, L. Shepard. Faucets, registering device for measuring, J. A. Blondel.	382,896 383,003 382,754 382,915 383,076 382,907 382,997 383,085 382,709 383,085 382,709 383,031 382,977 382,918 382,918 382,715 382,715 382,715 382,715 382,717 382,911 382,715 382,818	Insulated wire, J. D. Thomas	62,781 52,693 52,693 52,694 53,012 52,871 52,936 53,046 53,080 52,816 52,871 52,871 52,871 52,871 52,774 52,775 52,775 52,775 52,775 52,775 52,775 53,077 52,775 53,077 52,752 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078 53,079 53,077 52,752 53,078

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Fence post, L. W. Lindley	
Fences, making combined wire and picket, W. X	
Stevens	
File, bill, E. L. Matthews	382,716
Filter, automatic stationary water, W. Witthoef	
Jr	
Finger ring, initial, W. R. Dutemple	
Fire alarm, automatic, J. Young Fire extinguisher for railway cars, G. W. Oborn.	
Fire extinguisher for stoves and heaters, auto	-
matic, Hotchkin & Raby	. 382,812
Fire escape, ladder, F. L. Blom Fireproof building, R. Guastavino	
Flat iron heater, Modery & Leukhardt	
Flour bolt, W. M. Lucas	
Folding case, H. C. Fay	
Forging machine, D. H. Downes	
Fruit picker, H. Hammond	. 382,764
Fur animals, machine for pulling hair from skin	
of, E. Schroeder	. 382,736
Furnace blocks, apparatus for detecting leakage	e
in, J. Bird	. 382,792
Gauge. See Slip and shrinkage gauge. Galvanic battery, G. H. Sloane	352 738
Gas burner, A. J. English	
Gate. See Farm gate.	
Gate, R. H. Sayre	382,906
Generator. See Steam generator.	. 002,099
Glove fastening, W. S. Richardson,	
382,904, 382,905, 383,069 to Glove fastening, Richardson & Chase	
Governor for steam engines, flywheel, L. D. Cope	
land	. 383,044
Governor, steam engine, J. B. Allfree	382,982
Grain binder, W. R. Baker	
Grain binder, J. F. Steward	. 382,842
Grain binders, knot tying mechanism for, J. R	
Severance	
Grate, A. C. Morton	382,720
Gunpowder mill, P. A. Oliver	
Halter, J. C. Covert. Hame link, M. E. Lasher.	
Handkerchiefholder, S. M. Griswold	. 382,805
Handling material, apparatus for, A. E. Brown	382,946
Hanger. See Door hanger. Harness rosette attachment, R. W. Jones	382.880
Harrow, disk, L. A. Richards	. 382,731
Harvester, J. Shickle	
Harvester and binder, J. Bachman	
Harvesters, bundle carrier for, D. H. Prewitt	. 383,009
Hats, caps, etc., manufacture of felt, F. W. Cheet	
ham	
Head rest, J. W. Campbell	. 382,949
Heater. See Grain heater. Flatiron heater. Heel mould, E. J. LeGay	209 000
Heel plate, C. Doney	
Heeling machine, C. W. Glidden	382,762
Hinge, C. H. Beer	
Holder. See Carriage curtain cord holder. Cut	
holder. Handkerchief holder.	
Hopple, O. B. Fales	
Horseshoe nails, cutting, H. A. Wills	
Horseshoe nails, machine for making, H. A	
Wills	
Allen	
Hydrant, C. G. Ette	382,960
Hydrant, fire, D. W. Carroll	
Incubators, temperature regulator for, G. E. Tal	. 382,779
Indicator. See Boiler feed indicator. Cash indi	•
cator. Directory indicator. Electric indi- cator.	•
Induction coil, repeating, J. A. Barrett	
Inkstand, M. H. Garland	382,698
Inkstand, J. F. K. O'Connor	
Jack. See Hoisting jack. Lifting jack. Wagon	
jack.	
Joint. See Rail joint. Journal box, J. C. Miller	882,893
Key fastener, Barrett & Baker	382,680
Keys, manufacture of door, H. B. Sargent	383,012
Ladder, extension, J. C. Gardner Lamp, Babbitt & Beach	
Lamp attachment, incandescent, H. M. Double	•
dayLamp, coach, O. W. Swift	
Lamps, manufacture of incandescent electric, E	
P. Thompson	382,846
Lantern, F. Rhind	
Lathe, polishing, H. H. Scoville	382,909
Lathetool, A. Paterson Lemon squeezer, A. Shea	382,724
Lemon squeezer, A. Snea	900 ***
Life-preserving chair. J. A. Ashworth	382,774 382,935
Life-preserving chair, J. A. Ashworth	382,935
Life-preserving chair, J. A. Ashworth Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley	382,935
Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley	382,935 382,964 383,029
Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley	382,935 382,964 383,029 382,775
Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley Lifting jack, J. Weathers Lifting apparatus, J. W. Shell Lock. See Alarm lock. Elevator lock. Nut lock	382,935 382,964 383,029 382,775
Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley	382,935 382,964 383,029 382,775
Life-preserving chair, J. A. Ashworth Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley Lifting jack, J. Weathers Lint collecting and compacting apparatus, J. W. Shell Lock. See Alarm lock. Elevator lock. Nut lock Safe lock. Lock for bags or satchels, A. Peterson Loom, needle, A. L. Skinner	382,935 382,964 383,029 382,775 382,778 383,079
Life-preserving chair, J. A. Ashworth. Lifter. See Wagon and carriage lifter. Lifting jack, R. M. Fraley Lifting jack, J. Weathers Lint collecting and compacting apparatus, J. W. Shell Lock. See Alarm lock. Elevator lock. Nutlock Safe lock. Lock for bags or satchels, A. Peterson	382,935 382,964 383,029 382,775 382,728 383,079 383,077

Harris	I		
ns	82,992 X	fucilage can, J. E. Wootten	382,879
se and drawer, H. J. Hoffman	83,022 M	fusic chart, G. S. Rice	382,991
ng, initial, W. R. Dutemple	82,575 N	Vails, tacks, etc., heading, G. W. Copeland Vapkin supporter, F. W. Cook	383,043
nguisher fo'r railway cars, G. W. Oborn \$8 nguisher for stoves and heaters, auto- , Hotchkin & Raby	83,089 N 82,758	lose rings, machine for making barbs for hog, Derrington & Parker	382,693
, Hotchkin & Raby	83,004 N	Jut lock, L. J. Benton Jut lock, W. B. Miller Jut lock, G. Westinghouse, Jr	382,999
heater, Modery & Leukhardt 38	82,812 O	pen ring, J. Daniels	382,953
lt. W. M. Lucas 39	8 3, 050 O 82,718 P	Organ stop action, reed, L. G. Billings Pad. See Railway rail pad. Sweat pad.	382,943
ase, H. C. Fay	82,804	Paper bags, apparatus for and method of making, L. D. Benner	
nachine, D. H. Downes	83.047 P	Paper fastener, gummed, J. M. Jones Paper receptacle, O. H. Hicks (r) Pavement, W. Bignell	10,929
als, machine for pulling hair from skins Schroeder	P	Peashelling machine, R. Karges Photographic and other lenses, diaphragm and	382,988
See Reheating furnace. blocks, apparatus for detecting leakage		Shutter for, E. Bausch	382,735
Bird	P	Picture and mirror backs, board for, J. Apoll Pin. See Crank pin. Pipe. See Boiler feed pipe.	0021006
er, A. J. English 38 se Farm gate.	82,695 P	Pipe wrench, R. Copland	382,886
H. Sayre	82,844 P	Plers, W. C. Marr	382,940
stening, W. S. Richardson, 382,904, 382,905, 383,069 to 38	P	Plow, sulky, E. C. Westervelt	382,983
stening, Richardson & Chase	82,903 P	Post. See Fence post. Post holes, device for making, J. W. Bailey	382,853
r, steam engine, J. B. Allfree	82,982 P	Powder and shot cabinet, A. La Point Power transmitter, water current, M. V. B. Eth-	
der, W. R. Baker	82,898 P	ridge Press. See Baling press. Hay press. Printing film, P. G. Caspian	
nders, knot tying mechanism for, J. R. ance 38	82,773 P	Printing machine, T. S. Bowman	382,684
ater, J. Warrington	82,720 P	Hawkins	
C. Covert	82,692 P	Protector. See Check and pad protector. Pulp or paper mills, screen scraper for, M. V. Streeter	38 3, 0°.26
chiefholder, S. M. Griswold	82,805 P	Pump, hydraulic air, E. H. Weatherhead Pumps, apparatus for operating oil well, C. C.	
See Door hanger. rosette attachment, R. W. Jones 38		Stover	
disk, L. A. Richards 38 er, J. Shickle 38 er and binder, J. Bachman 38	82,910	Punching machines, blank holder for, R. J. Ship- ley	
er, berry, G. Wilkin	82,745 R 83,009 R	Rail, grooved girder, A. J. Moxham	883,001 382,815
os, etc., manufacture of felt, F. W. Cheet- 	82,798 R	tailway, electric, R. M. Hunter382,876, tailway grip, cable, S. Gibson	882,970
t, J. W. Campbell	82,949 R	tailway rail pad, Fackenthall & Wallacetailway signal, C. D. Tisdaletailway tie, metallic, F. Barhydt	382,741
ıld, E. J. LeGay	82,888 R 82,694 R	tatchet movement, W. S. Huson	383,054
nachine, C. W. Glidden	82,860 R	tefrigerator, Hotchkiss & Smithtegister. See Cash register. Fare register.	382,962
jack, W. N. Bell	R	tegulator. See Draught regulator. teheating furnace, T. C. Jones tein fastener, safety, E. E. Brown	
O. B. Fales	82,869 R 82,989 R	ting. See Finger ring. Open ring.	
ee nails, cutting, H. A. Wills		coad, apparatus for recording the direction and gradients of a, A. E. D. F. De Villepigue	
ol for applying couplings to, Sibley &	R	tock drill. W. O'Keefetock drilling machine, T. J. Murphytock drilling machine tripod, T. J. Murphy	383,063
C. G. Ette	82,951	todents, implement for exterminating, E. P. Koontz	382,708
rs, temperature regulator for, G. E. Tal	82,779	tods and tubes, machine for drawing, C. M. Piel- sticker	
Directory indicator. Electric indi-	R	toller. See Gate roller. tolling mills, feeding appliance for, J. Morgan,	000,004
coil, repeating, J. A. Barrett	82,698 R	Jrtolls, appliance for, W. R. Jones	382,704
wire, J. D. Thomas 36	82,781 R	tovings, machine for making heavy, J. Scholes	
ee Rail joint.		Fink	
ener, Barrett & Baker 38	82,680 S	ail grommet, W. W. Wilcox	
xtension, J. C. Gardner 38	82,871 8	awing machine, wood, F. W. Olds	382,723
tachment, incandescent, H. M. Double-	83,046	cale for liquids, automatic weighing, P. Whit- teck	382.849
ach, O. W. Swift	8	cissors, buttonhole, L. C. McNeal	3 83,068
	82,831 8	eparator. See Rice separator.	-
ompson	82,909 S 82,724 S	ewing machine, buttonhole, T. F. Hagerty ewing tool, C. K. Bradford	382,76 3 382,750
	82,935	hade, window, A. Huffer	3 83,0 5 3
F. Rhind 38 col, C. H. Helms 38 plishing, H. H. Scoville 38 pl, A. Paterson 38 queezer, A. Shea 38 erving chair, J. A. Ashworth 38	82,964 S	heet metal, die for shaping, O. W. Swifthip's log, O. Kustal	383,081
F. Rhind 38 ool, C. H. Helms 38 olishing, H. H. Scoville 38 ol, A. Paterson 38 queezer, A. Shea 38 erving chair, J. A. Ashworth 38 ee Wagon and carriage lifter 38 ack, R. M. Fraley 38			382.816
F. Rhind 38 col, C. H. Helms 38 colishing, H. H. Scoville 38 cl, A. Paterson 38 cerving chair, J. A. Ashworth 38 eee Wagon and carriage lifter 38 cck, R. M. Fraley 38 cck, J. Weathers 38 cetting and compacting apparatus, J. W. 38 38 38 38 38 38 38 38 38 39 30 38 39 30 30 30 30 30 31 32 33 34 35 36 37 38 39 30 31 32 33 34 35 36 37 38 38	82,775 8	hoe, H. Witzelhutter, adjustable, C. J. Keating	383,090
F. Rhind	82,775 Si Si	hutter, adjustable, C. J. Keatingignal. See Railway signal. leigh, bob, M. D. Williams	383,090 382,707 382,926
F. Rhind 38 col, C. H. Helms 38 col, G. H. Helms 38 cl, A. Paterson 38 cerving chair, J. A. Ashworth 38 cerving chair, J. A. Ashworth 38 cew Wagon and carriage lifter 38 cck, R. M. Fraley 38 ccting and compacting apparatus, J. W. 38 ce Alarm lock Elevator lock Nut lock cock bags or satchels, A. Peterson 38 cedle, A. L. Skinner 38	82,775 S: S: 82,728 S: 83,079 S:	hutter, adjustable, C. J. Keatingignal. See Railway signal. leigh, bob, M. D. Williams	383,090 382,707 382,926 382,854 382,743
F. Rhind 38 col, C. H. Helms 38 pol, A. Paterson 38 pl, A. Paterson 38 puezer, A. Shea 38 erving chair, J. A. Ashworth 38 lee Wagon and carriage lifter 38 leck, R. M. Fraley 38 leck, R. M. Fraley 38 lecting and compacting apparatus, J. W. 38 lee Alarm lock Elevator lock Nut lock lock bags or satchels, A. Peterson 38 leedle, A. L. Skinner 38 uttle motion, L. E. Ross 38 uttle relief mechanism, Z. T. McKinney 38 or, G. W. Brown 38	82,775 Si Si 82,728 Si 83,079 Si 83,077 Si 82,995 Si 82,752 Si	hutter, adjustable, C. J. Keating	383,090 382,707 382,926 382,854 382,743 382,790 382,948 383,048
F. Rhind	82,775 Si Si 82,728 Si 83,079 Si 83,077 Si 82,995 Si 82,752 Si 82,978 Si 82,915 Si	hutter, adjustable, C. J. Keating	382,797 382,926 382,854 382,743 382,743 382,790 382,948 383,048 383,091 382,847
F. Rhind	82,775 83 82,728 83 83,079 84 83,077 85 82,995 83 82,752 83 82,978 85 82,915 8	hutter, adjustable, C. J. Keating	383,090 382,707 382,926 382,743 382,790 382,948 383,048 383,091 382,847 363,086
F. Rhind	82,775 81 81 82 83,079 84 83,079 84 82,995 82,995 82,995 82,915 82,915 82,915 82,915 82,915 82,916 82,810 82,810	hutter, adjustable, C. J. Keating	383,090 382,707 382,936 382,634 382,743 382,790 382,948 383,048 383,091 382,847 363,086 382,961 383,037
F. Rhind	82,775 81 81 82,728 81 833,079 83 83,077 862,995 81 82,752 882,978 81 82,915 82 82,916 82,870 882,870 882,870 882,870 882,870 882,870 882,870 883,030 883,870	hutter, adjustable, C. J. Keating	383,090 382,707 382,926 382,654 382,743 382,790 382,948 383,048 383,091 382,847 363,086 382,961 383,037 383,036 382,963
M. H. Garland	82,698 R82,894 R82,874 R82,874 R82,873 S3,012 S2,871 S3,046 S3,080 S42,831 S42,874 S82,974 S82,974 S82,974 S82,974 S82,935 S82,936 S83,936 S83	tolls, appliance for, W. R. Jones	

 Stool, H. C. Sittig
 382,777

 Storage battery, C. D. P. Gibson
 382,968

 Stove, heating, E. A. Wiman
 382,930

 Stove or range, E. W. Anthony
 382,851

 Supporter.
 See Napkin supporter.

 Suspender attachment, C. H. Scales
 382,834

Sweat pad, C. J. Gustaveson...... 383.051

 Sweat pad, O. P. Howe.
 382,702

 Switch. See Electric motor switch.

 Switch board, C. E. Scribner.
 383,014

Table leaf support, H. J. Chapman...... \$82.962

Table. See Folding table.