RECENTLY PATENTED INVENTIONS.

Machines and Mechanical Devices. HYDRAULIC AIR-COMPRESSOR .- W. G.

Cox, New York, N. Y. One purpose of the invention is to provide an economic form of hydraulic air-compressor so constructed that water may be admitted at either side through what may be termed a "double chamber," one section of which chamber acts as a cushion to the incoming water, thus preventing hammering of the inlet-valve, which latter is especially formed

CARRIAGE FOR OVERHEAD CABLES.—T. ALEXANDER, Brookhaven, Miss. In this patent the invention relates particularly to improve ments in the construction of the track or carriage, whereby improved advantages are obtained in respect to the strength, durability and operation; also, in relation to means for dogging or locking the carriage to a haulingrope, which runs alongside the track-rope; also, in means for supporting the load from the carriage; also, in improvements in guides and supports for the hauling-rope on the frame work, to which the track-rope is secured and by which it is supported.

ELEVATOR.—P. F. FOLEY, New York, N. Y. The invention relates to an improvement in the elevator disclosed in a prior patent granted to Mr. Foley. In the apparatus shown in this patent a form of differential sheave and cable gearing is employed, involving a counterweight and tension-weight mounted in two separate shafts or vertical guideways. This arrangement is disadvantageous in that considerable room is occupied in providing the two independent shafts. An object of the present invention is to provide a construction which allows the sheave-weight and counterweight to move in the same shaft, thus economizing space in the building.

MOLD FOR CONCRETE WALLS.—C. E. SHUMWAY, Albion, Mich. In this instance the in ention relates to improvements in molds for concrete walls; and the object in view is to provide an improved machine by which a double wall, with an air-space between the adjacent or parallel courses, may be rapidly and economically constructed by unskilled labor.

MACHINE FOR PACKING FLOUR INTO BARRELS OR SACKS.—L. VAN NETTE, Bradford, Pa. Mr. Van Nette's invention relates to a machine especially designed for use in flouring-mills to be used for packing flour into barrels or sacks for market by the simple compression of the flour into these receptacles, thereby avoiding the employment of the auger almost universally used in the present methods of packing.

F staining to Vehicles.

THILL OR DRAFT-POLE COUPLING.-H. TURNER, Koolunga, South Australia, Australia. The object in this case is to provide details of construction for a thill or coupling which in duplicate affords means for detachably connecting a pair of shafts or draft-pole to the front axle of a vehicle, which will hold the thills or pole free to rock in a vertical plane, prevent rattling of the hinged parts, and permit a quick detachment and interchange of the thills or the pole connecting with the front axle without use of tools.

RUNNING-GEAR FOR WAGONS .- J. GREAR, Paducah, Ky. This invention is an improvement in the axles and connected parts of the frame of running-gear for wagons and carriages, the objects being increased lightness, durability, strength and economy of manufacture. In the manufacture the several parts, save the blocks that constitute the bearings and the journals proper, are struck up from sheet or plate metal by means of suitable dies and are thus very cheaply produced.

SUPPORT FOR VEHICLE-TOPS.—B. K. HENDRICKS, Cain Point, Ill. The objects of Mr. Hendricks' invention are to prevent the bending and breaking of the bows when the top is laid down, reduce the bouncing up and down of the top when in use, thus making the top last much longer, improve the appearance of the vehicle, and permit it to be taken under low sheds and doors.

Prime Movers.

PROPELLING MECHANISM FOR BOATS.-York. N of this invention is to provide an effective pronelling mechanism for boats, particularly of that character which is driven by foot or pedal power, and, further, to provide means whereby the speed of the mechanism may be increased or diminished as desired, and in an expeditious and convenient manner under the full control of the operator.

Of General Interest.

CLAMP FOR HOOPS, BANDS, ETC.-W. P. RICE, Lowell, Ohio. The principal object of Mr. Rice's improvement is to provide a device which may be quickly and readily applied to a tub, cask, or the like, and may be adjusted to fit casks of varying circumference, so that the necessity of employing rivets or similar fastening means is obviated.

MIRROR.—L. B. PRAHAR, New York, N. Y. In this case the purpose is to provide a construction of mirror, especially hand-mirror, whereby the glass may be held in a contractile frame or a divided frame with means for placing it under tension without danger of the

being checked or broken while securing it in position or when the mirror is subjected to any edge strain during transportation or accident in handling.

CONSTRUCTION OF FLOORS, PARTI-TIONS, OR THE LIKE.-V. MOESLEIN, Weehawken, N. J. In this patent the object is to provide improvements in the construction of floors, etc., whereby an exceedingly strong and durable support is produced for holding the plaster and for supporting filling material that may be employed, the floor, etc., being com-pletely fireproof and arranged to permit the use of unskilled labor to place the parts in position.

BEAD-LOOM .- H. B. MEES, Nadeau, Kan. In carrying out this invention Mr. Mees has particularly in view the provision of a small loom which will hold the warp-threads apart in such manner that they may be stretched taut and equal distances apart, thereby obviating the possibility of the threads loosening and spoiling the work.

MAIL-BOX.-A. M. Hoes, St. Paul, Neb. In this patent the invention has reference to improvements in mail-boxes for rural service, the object being to provide a box of this description that will be of simple construction, inexpensive, having no parts liable to get out of order, and so arranged that it may be easily opened and closed. The box may be made of any suitable metal.

GAS-LIGHT NEGATIVE-PRINTING TACHMENT .- G. W. HARSE, New York, N. Y. One object the inventor has in view is the provision of a light and cheap device which may be easily fitted to an ordinary gas-burner to expose a negative and the sensitized paper held in an ordinary printing-frame to the rays of light. The gas-burners may be with or without incandescent mantles.

INKSTAND .- G. A. GRIGGS, Billings, Mont. The purpose in this case is to provide an inkstand in which the feed-funnel is employed to supply ink to the pen-nib, the funnel being depressed at each dipping, and to construct such an inkstand so that it will be reliable in all temperatures and so that the chamber is fully open at the bottom and practically closed at the top, being reversed when filled, which filling can be quickly and cleanly done, and also to so construct it that in use the ink will not

CHECK-PUNCH .- T. K. DAVISON, Jamesown, N. Y. In this patent the invention has reference to improvements in devices for puncturing the value-marks for banking checks, an object of the inventor being to provide a device for this purpose that will be simple in its construction, having no parts liable to get out of order or break, and that may be conveniently carried in a person's pocket.

BRICK FOR THE CONSTRUCTION OF ARCHES.—S. H. CLARKE, Cuzco, Minehead, Somerset, England. The improvement is designed more particularly for use in situations where the structure of the arch is liable to disintegration and collapse, the improved brick tending to avert the risk of collapse, and, furthermore, enabling an arch to be built and repaired readily and quickly without speciallyskilled labor, an advantage of utmost importance in the case, for example, of the furnacearches of marine boilers using liquid fuel.

REFRIGERATOR-CAR. — J. S. BASHAW, Gainesville, Fla. In this patent the invention refers to an improvement in refrigerating-cars which enables Mr. Bashaw to adapt a car of ordinary construction to use as a refrigerator, this end being attained, generally speaking, by providing one or more ice-tanks of peculiar construction which are capable of being placed in the car through the usual door thereof. Means are involved for circulating air through

GLOVE .- W. LEFI, Gloversville, N. Y. The object in this case is to provide improvements in gloves having outside seams, and more particularly at the joint of the thumb and body portions, whereby a very strong, durable, and well fitting glove is produced and the strain incident to putting on the glove or when carrying packages or umbrellas, holding reins, etc., is more on the leather instead of on one por tion of the seam joining the thumb to the body

LEDGER-BINDER.—L. E. SCHOCH, Chicago, The invention has particular application to devices of the class commonly known as "loose-leaf" or "perpetual" ledger binders. Primarily the inventor has in view as an object the construction of a binder of the class described which may readily receive a large number of loose leaves, and which may be locked securely in such maner that the leaves will be firmly clamped between the covers of the

FOLDABLE BEDSTEAD.—C. P. Brown, Springlake, Mich. In this instance the invention refers to improvements in foldable hedsteads by which the inventor seeks to produce a construction enabling him to utilize a standard metallic head-section, a similar footsection, and a standard bed-frame in a way to fold the parts compactly when it is not desired to use the bed and at the same time allow the several parts to be easily and quickly unfolded

BOX-LID HOLDER .-- C. S. CHRISTIANSON, Reynolds, N. D. This invention relates particularly to improvements in devices for holding lids of cigar-boxes open at any desired angle for displaying goods, the object being to prosimple in construction, readily applied, and that when in position will occupy very little space.

CORE-DRYING OVEN .-- W. J. BREEN, Mahwah, N. J. The primary object the inventor has in view is the provision of a construction by which a large number of small or medium-sized "green" cores may be handled without injury or breakage during the operation of placing them in the oven, drying the cores, and removing them from the oven.

Note.-Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry. MUNN & CO.

Marine Iron Works. Chicago. Catalogue free. Inquiry No. 5545.—For manufacturers of stationary gas engines.

AUTOS.-Duryea Power Co., Reading, Pa. Inquiry No. 5546.—For makers of paint-grinding

For mining engines. J. S. Mundy, Newark, N. J.

Inquiry No. 5547.—For makers of electrical clocks for factories, controlled by one master clock.

"U. S." Metal Polish. Indianapolis. Samples free. Inquiry No. 5548.—For power boiler manufac-

Handle & Spoke Mchy. Ober Mfg. Co., 10 Bell St.

Chagrin Falls, O. Inquiry No. 5549.—For the makers of Gooblers' ocket check protector.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 5550.—For manufacturers of putty and machines for making the same. FOR SALE.-Patent on hand portable fire-escape

oyalty. Inventor, 4128 Steele Street, Denver, Colo. Inquiry No. 5551.—For manufacturers of cracker making machinery.

American inventions negotiated in Europe. Wenzel & Hamburger, Equitable Building, Berlin, Germany. Inquiry No. 5552.—For manufacturers of small ce-making machinery.

For Sale or Royalty.-Patent. Multi-color job printng press. Entirely new. C. M. Shigley, Columbus, O. Inquiry No. 5553.—For drills for drilling hard ock under water.

Young man desires agency of good article for country neighborhood; good references. F. E. Chace, Pawtucket, R. I.

Inquiry No. 5554.—For the address of Mr. Hugh L. Willoughby, for whom there is a letter in this office. In buying or selling patents money may be saved and time gained by writing Chas. A. Scott, 340 Cutler Building, Rochester, New York.

Inquiry No. 5555.—For manufacturers of tools and machinery for making lead bends, traps, etc.

Send fornewand complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broad way New York. Free on application

Inquiry No. 5556.—For makers of small fang rotary vacuum pump, for creating a vacuum in rec ers, for experimental purposes.

.The largest manufacturer in the world of merry-go rounds, shooting galleries and hand organs. For prices and terms write to C. W. Parker, Abilene, Kan.

Inquiry No. 5557.—For dirt-conveying machinery for use in constructing dams, etc.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.

Inquiry No. 5558.—For makers of and dealers in quarrying machinery and supples. I want the agency or right for any good-selling article. Send sample and full particulars.

H. H. Rice, Beloit, Wis.

Inquiry No. 5559.—For makers of broom-making and paper bag-making machinery.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 5560.-For manufacturers of paper.

Export to Australia -Gentleman having good conection wishes to represent first-class American manufacturer. Address N. LeRoy Tracy, care of Tracy, Robinson & Williams Company, Hartford, Conn.

Inquiry No. 5561.—For address of makers household specialties, of small steel wire.

WANTED.-To manufacture on reasonable terms any. thing in wood or metal. First-class facilities for manufacturing and shipping. Satisfaction guaranteed. Send turing Co., Wayland, N. Y.

Inquiry No. 5562.—For makers of working model steam engines. Inquiry No. 5563.-For makers of wood fiber ma-

Inquiry No. 5564.-For a small stationary air engine.

Inquiry No. 5565.—For the manufacturer or inventor of the automatic coin-operating, type-setting and stamping machine.

Inquiry No. 5566.—For the present address of he Armat Moving Picture Co.

Inquiry No. 5567.—For the manufacturers of eatherette wall pockets. Inquiry No. 5568.—For manufacturers of garter

Inquiry No. 5569.—For makers of the "Massey" vise, for pipe and vise combined, called the "Massey Perfect No. 25."

Inquiry No. 5570.—For makers of accordion-plaiting machines.

Inquiry No. 5571.—For a machine drill not too heavy, but strong enough to put in a 3-foot hole for blasting in quarry work.

Inquiry No. 5572;—For a schooner about 140 feet

Inquiry No. 5573. + For a heater to furnish heat in buildings.

reflector, no matter how thin the glass, from vide a device for this purpose that will be of the McLanghlin huband axle.



HINTS TO CORRESPONDENTS

nes 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.

Buyers wishing to purchase any article not adver-tised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

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Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of

Minerals sent for examination should be distinctly marked or labeled.

(9398) J. W. S. says: Kindly inform me through the notes and query column of the SCIENTIFIC AMERICAN whether there is any known chemical or agency known to science that will dissolve or destroy air; that is, whether there is any chemical or other agency known that, being placed in an air-tight cask, will dissolve or destroy the air contained therein, and if so, what are they? A. We do not know any chemical which will destroy air and thus produce a vacuum in an air-tight cask. This is what we understand your question to mean. Phosphorus will consume the oxygen of the air slowly in any air-tight place, and thus produce a partial vacuum. But the nitrogen and carbon dioxid which are always present in the air cannot be disposed of in this manner, nor indeed is there any way known to chemists by which the nitrogen can be transformed directly into a solid.

C. A. R. writes: Will you (9399)please explain, through your question column of the SCIENTIFIC AMERICAN, the action and theory of a reactive coil, such as is used in Thompson's electric hoop welding? A. The common name of reactive coils is choking coils, a name which more clearly indicates their functions. These coils act as rheostats in direct-current circuits, to restrain the flow of current. This they do by their self-induction. A clear presentation of this subject may be found in Sheldon's "Alternating Current Machines," which we send for \$2.50.

(9400) C. E. B. says: I have a very handsome old mahogany table that has been varnished, and would like to know how to put a high polish on it, as you see on new tables that have never been varnished. What I want is polished wood, not varnished wood. A. To produce a wood polish, you must remove the old varnish with sandpaper, and finish the surface by a thorough rubbing with a cloth pad and turpentine; then rub to a bright finish with thin shellac varnish, applying but little at a time on the pad.

NEW BOOKS, ETC.

O'GORMAN'S MOTOR POCKET BOOK, BY Mervyn O'Gorman, M.I.E.E., Assoc.M. New York: E. P. Dutton & I.M.E. Co., 1904. 12mo.; pp. 387. Price, \$3.

This little volume is a practical pocket handbook for the automobilist. It is arranged in the form of a dictionary of automobile terms and topics, all the words being given in English, French, and German. Besides tables in these three languages of words used in first aid to the injured, in regard to time, clothes, drinks, and other subjects of importance to the tourist, there are numerous other tables of value giving, for example, the number of revolutions different sized wheels make in a mile, speeds in miles per hour corresponding to times by seconds from one to three minutes, equivalent temperatures in Fahrenheit, Reaumur, and Centigrade, the specific gravities corresponding to the degrees on the Baumé scale, etc. The book also contains full instructions upon taking an automobile into France for touring purposes. There is a great deal of practical information within its pages, and much of this information is made very clear by nearly 500 cuts.

MACHINES AND TOOLS EMPLOYED IN THE Working of Sheet Metals. By R. B. Hodgson, A.M.I.M.E. Manchester, Hodgson, A.M.I.M.E. Manchester, England: Technical Publishing Company, Ltd., 1903. 12mo.; pp. 311. Price, \$2.

The scarcity of literature upon presses and press tools will cause this book to be welcomed by all sheet metal workers, as in its pages will be found very thorough descriptions of the various kinds of presses and tools used in this industry, as well as of the methods of operation of the same. The 281 illustrations in the book include pictures of typical power presses, the said pictures being supplemented with accurate descriptions. Calculations and definitions of sufficient number have been interspersed throughout the text in such a way as to allow any practical mechanic to grasp the points under consideration with the least possible calculation.

RUBBER, GUTTA-PERCHA, AND BALATA, BY Franz Clouth. New York: D. Van Nostrand Company, 1903. 250; illustrated. Price, \$5. 8vo.; pp.

This is the first English translation from the German edition. Speaking of the scope of the work, the author says: "Everything worth knowing about India rubber and gutta-percha is exhaustively dealt with." The treatment is systematic and thorough, valuable features of it being the botanical cuts, the maps showing the geographical distribution of rubber plants and of gutta-percha supply plants, and the chart giving price-fluctuations of Para rubber since 1861. The first division of the work deals with India rubber, its natural history. the production of the raw material, commercial points, chemical and physical properties of the raw material, the production of soft rubber goods, valcatization, the chemical and physical properties of vulcanized soft rubber, hard rubber, or ebonite, and regenerated and artificial rubber. The second division of the work, dealing with gutta-percha, follows the same general plan, as does the third division also, on "balata," except that this is disposed of in one chapter, its importance being relatively small, although, under certain conditions, it manifests properties which make it, for use under such conditions, superior to gutta-percha. In view of the wide interest that is now being manifested in the experiment of rubber cultivation, the book should find a ready sale among American readers.

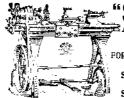
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Bottle belier, G. M. Eba Bottle necks, machine for forming glass, E. Scheidt Bottle opener and stopper, combined, M. E. Bottle opener and stopper, combined, M. E. Bottle or jar press, J. Haley Bowling alleys, mechanical means for re- setting pins of, S. A. Scipel Box or receptacle for crackers or the like, B. B. Vander Veer Bread or cake knife, A. M. & E. E. Roy Brush machine, J. Morrison Brush, paint, N. Stow Brush paint, N. Stow Brush tooth, J. H. Wilson Bucket, grab, W. B. Roberts Building apparatus, pottable, H. Brand Burglar alarm, C. C. Kitter nan Cab Signal, electric, B. McClinteck Cableway, T. S. Miller Calculating machine handle retarding me- chanism, C. Wales Calculating machine handle retarding me- chanism, C. Wales Calculating machine ribbon mechanism, C. D. Baird Calculator, G. P. Wiley Camera, G. H. Dorr Can opener, C. E. Overs Candlestick holder, J. C. Schifferle Candestick, miner's, E. W. Packer Candy cutter, F. W. Stubbs Cane extripor, J. W. Jackson	760,258 760,097 759,989 760,026 760,043 760,255 760,137 759,930 760,477 760,254 759,901 759,944 759,848 760,368 760,668 760,668 760,668 760,673 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373
Bottle belier, G. M. Eba Bottle necks, machine for forming glass, E. Scheidt Bottle opener and stopper, combined, M. E. Bottle opener and stopper, combined, M. E. Bottle or jar press, J. Haley Bowling alleys, mechanical means for re- setting pins of, S. A. Scipel Box or receptacle for crackers or the like, B. B. Vander Veer Bread or cake knife, A. M. & E. E. Roy Brush machine, J. Morrison Brush, paint, N. Stow Brush paint, N. Stow Brush tooth, J. H. Wilson Bucket, grab, W. B. Roberts Building apparatus, pottable, H. Brand Burglar alarm, C. C. Kitter nan Cab Signal, electric, B. McClinteck Cableway, T. S. Miller Calculating machine handle retarding me- chanism, C. Wales Calculating machine handle retarding me- chanism, C. Wales Calculating machine ribbon mechanism, C. D. Baird Calculator, G. P. Wiley Camera, G. H. Dorr Can opener, C. E. Overs Candlestick holder, J. C. Schifferle Candestick, miner's, E. W. Packer Candy cutter, F. W. Stubbs Cane extripor, J. W. Jackson	760,258 760,097 759,989 760,026 760,043 760,255 760,137 759,930 760,477 760,254 759,901 759,944 759,848 760,368 760,668 760,668 760,668 760,673 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373 760,373
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Cuff helder, M. Hernstein Cultivating machine, A. Gray Cultivator, C. A. Anderson Current meter, alternating, A. J. Churchward	760,176 759,986 759,952
ward Curtain pole, I'. Weigel Curtain pole attachment, C. Maurer	759,967 760,287 760,341
Cushion stuffing apparatus, C. A. Lee Cycle, meter, W. Driver Dashboard, vehicle, J. H. Pecan	759,895 760,320 760,346
Current meter, alternating, A. J. Churchward Curtain pole, F. Weigel Curtain pole, F. Weigel Custain pole attachment, C. Maurer Cushion stuffing apparatus, C. A. Lee Cycle, meter, W. Driver Dashboard, vehicle, J. H. Pecan Dental impressions, obtaining correct, W. E. Allen Dental swaging machine, G. B. Wortman Dental swaging machine, G. B. Wortman Dental swaging machine, G. B. Wortman Desk light bracket. T. Smith Digging machine, sewer, J. J. Hickey. Direct acting engine, T. E. Stuttevant. Disinfecting apparatus, G. Dubnis Display casel, J. E. Twitchell Display rack, H. C. Hamilton Demestic beiler, J. Edwards Draft preducing device, J. F. Miles. Drafting implement, H. A. Swensen Druggist's mass divider. J. W. Jacksen. Druggist's mass divider. J. W. cembined, T. P. Fuller Ye, erange sulfur, W. Emmerich	760,2 95
Desk light bracket. T. Smith Digging machine, sewer, J. J. Hickey	760,397 759,924 760,205
Direct acting engine, T. E. Sturtevant Disinfecting apparatus, G. Dubuis Display easel, J. E. Twitchell	760,165 - 760,061 760,403
Display rack, H. C. Hamilton Domestic boiler, J. Edwards Draft producing device, J. F. Miles	759,992 760,322 760,230 759,935
Drafting implement, H. A. Swensen Druggist's mass divider. J. W. Jacksen Dust pan and broom holder, combined, T. P.	759,891
Dyeing machine, Herbine & Rech	760,391 760,110 760,118
Easel, J. Weber Electric alarm, H. Trull Electric apparatus, means for protecting vapor, P. C. Hewitt Electric apparatus, protecting device for	759,946 760,281
	760,096
Electric cable, J. Frisch. Electric circuit automatic regulator, M. Waddell Electric circuit plug receptacle, J. H. Trum-	759,981 760,091
Electric heater G I Leaners	759,941 7 6 0,07 6
Electric heater and battery, combined, T. R. Davis Electric light bracket, T. Smith 759,925, Electric lighting, regulating apparatus for	760,315 759,92 6
theatrical, Mey & Bastle	759,904 760,408
Electric machine or motor dyname, I. E. Storey Electric separator, A. H. Perry Electric suitah M. roy Pecklinghayan	760,086 759,910 759,915
Electric switch, E. R. Dull Electric switch, E. R. Dull Electric wire coupling, R. G. Castillo Electric wires priversal flaor bay far the	760,387 760,305
Electric machine or motor: dyname, I. E. Storey Storey Electric separator. A. II. Perny Electric switch, M. von Recklinghausen Electric switch, E. R. Dull. Electric wires, universal floor box for the distribution of, J. Fountain, Jr Electrical furnace, R. M. Pelton Electrical resistance, G. I. Leonard. Elevator hatchways, autematic closure for, J. W. McChee End gate. 6 B. Revnolds	760,326 759,909 760,075
Elevator hatchways, automatic closure for, J. W. McGhee End gate, O. B. Reynolds	760,139 759,917
End gate, B. B. Reynelds Engine, See Direct acting engine. Engine, W. D. Edwards Engine, F. M. Overhelt Engine, Dicksen & Cuccetti	760,062 760,240 760,318
Engraving machine, automatic, M. Barr,	759,956 759,957 760,374
Engraving machine, pantograph, M. Barr Exercising apparatus, elastic, T. Belvoir Inxtension table, H. Johnson Extension wrench, tap and reamer, G. L. P.	759,997
Extension wrench, tap and reamer, G. L. P. Combs Everlass frame, P. Lafertune Everlass lens attachment, R. Tatum Everlass, P. Moews Fan and soere card, F. S. H. Johnson. Fan guard, C. F. Winch Fare register, F. J. Hull Feed, beiler, F. E. Keyes Fence, S. N. Soer Fence post, C. Colvin Fence post, C. Colvin Fence post, cement, H. P. Ewell Fence tie, wire, O. S. Sturtevant Fencing wire, J. Harris Filter and making same, J. G. Woolworth Filter, rain spout, A. G. Moeckel Finger pad, J. G. Marsh Fishing rod, H. W. Buschemeyer Fishing tackle, W. W. Shulean Flask connection, J. Cunningham Flier, F. H. Martin	760,103 760,000 760,040 760,008
Fan and score card, F. S. H. Johnson Fan guard, C. F. Winch	760,210 759,951 760,125
Feed, boiler, F. E. Keyes Fence, S. N. Soper Fance, past C. Calvin	760,072 760,407 759,968
Fence post, S. Fielder	760,112 760,111 760,271
Fencing wire, J. Harris	759,994 760,364 760,903
Finger pad, J. G. Marsh Fishing red, H. W. Buschemeyer Fishing tackle, W. W. Shulean	760,339 760,181 760,028
Flask connection, J. Cunningham Flier, F. H. Martin Flue or duct, II. H. Laws	
Flue scraper, W. Appenbrink	760,465 760,282 759,923 759,959
Foot rest and pedal extension, A. M. Bates. Fruit gatherer, J. Wilson Funnel, M. Hunter	759,959 760,048 760,069
Flask connection, J. Cunningham Flier, F. H. Martin Flue or duct, H. H. Laws Flue scraper, W. Appenbrink Fluid pressure brake, Turner & Wright. Foot rest and pedal extension, A. M. Bates. Fruit gatherer, J. Wilson Funnel, M. Hunter Furnace feeding plant, metallurgical, Gaines & Cox Furniture, fastening device for detachable parts of A. A. Hanssky	760 ,189
& Cox Furniture, fastening device for detachable parts of A. A. Hausske Fuse, percussion, Wilson & Chase. Gage, A. Basola Game, L. M. Dieterich Gas furnace, regenerative, F. Siemens. Gas making machine, gasoline, Anderson & Erickson Gas purifier cover. P. J. Nolan Gate, door, etc., joint, J. Stevens Gin saw cleaner, G. J. & R. M. Jordan. Glass articles, manufacturing hollow, S. O. Richardson, Jr.	760,116 760,046 760,297
Gas furnace, regenerative, F. Siemens Gas making machine, gaseline, Anderson &	760,384 760,2 6 3
Gas purifier cover. P. J. Nolan Gate, door, etc., joint, J. Stevens	760,296 760,238 759,929
	750 000
Glass articles, manufacturing hollow, S. O. Richardson, Jr	759,998 760,150 760,038
Glass, grinding, C. C. Stutz	76 0,038 75 9,889
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ornamental, C. S. Dolley Glove, H. Hartmann	760,038 759,889 760,059 760,203 760,161
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ornamental, C. S. Dolley Glove, H. Hartmann Golf club, H. B. Smith Governor, E. A. Page Governor, engine, C. Andrews Grading and ditching maching, I. W. Baker.	760,038 759,889 760,059 760,203 760,161 760,344 760,052 759,954
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ornamental, C. S. Dolley Glove, H. Hartmann Golf club, H. B. Smith Governor, E. A. Page Governor, engine, C. Andrews Grading and ditching maching, I. W. Baker.	760,038 759,889 760,059 760,203 760,161 760,344 760,052 759,954
Glass, grinding, C. C. Stutz Glass, grinding, C. C. Stutz Glass, erarthenware vessel, J. C. Howells, Sr. Glass, ernamental, C. S. Delley Glove, H. Hartmann Golf club, H. B. Smith Governor, E. A. Page Governor, E. A. Page Governor, E. G. Andrews Grading and ditching machine, J. W. Baker. Gun, trap, I. N. Thomas Handle. See Tool handle. Handle and socket, R. D. Gallagher, Sr. Harness attachment, F. W. Atwell Harvester tengue truck, S. K. Dennis Hat, J. Tayler Hat frame ferming device, E. A. Howe.	760,038 759,889 760,059 760,203 760,161 760,344 760,052 759,954 760,274 760,331 760,171 750,107 760,087
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ernamental, C. S. Delley Glove, H. Hartmann Gelf club, H. B. Smith Governor, E. A. Page Governor, E. A. Page Governor, E. A. Page Governor, J. W. Baker. Gun, trap, I. N. Thomas Handle See Tool handle. Handle and socket, R. D. Gallagher, Sr. Harness attachment, F. W. Atwell Harvester tengue truck, S. K. Dennis Hat, J. Tayler	760,038 759,889 760,059 760,203 760,161 760,344 760,052 759,954 760,274 760,171 760,171 760,177
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ernamental, C. S. Delley Glove, H. Hartmann Gelf club, H. B. Smith Governor, E. A. Page Governor, E. A. Page Governor, E. A. Page Governor, J. W. Baker. Gun, trap, I. N. Thomas Handle See Tool handle. Handle and socket, R. D. Gallagher, Sr. Harness attachment, F. W. Atwell Harvester tengue truck, S. K. Dennis Hat, J. Tayler	760,038 759,889 760,059 760,203 760,161 760,344 760,052 759,954 760,274 760,171 760,171 760,177
Glass, grinding, C. C. Stutz Glass or earthenware vessel, J. C. Howells, Sr. Glass, ornamental, C. S. Delley Glove, H. Hartmann Golf club, H. B. Smith Governor, E. A. Page Governor, engine, C. Andrews Grading and ditching machine, J. W. Baker. Gun, trap, I. N. Thomas Handle. See Tool handle. Handle and socket, R. D. Gallagher, Sr. Harness attachment, F. W. Atwell Harvester tengue truck, S. K. Dennis Hat, J. Taylor Hat frame forming device, E. A. Howe, 759,996, Hat pin, A. A. McRae Hay press, A. H. & L. C. O'Quhm. Hay rake, H. M. Ramer Heater, E. I. Mahon Hinge, R. W. Hubbard Heist and power device, intermittent, A. M. Smith	760,038 759,889 760,293 760,161 760,393 760,161 760,052 759,954 760,274 760,171 760,171 760,171 760,014 760,014 760,014 760,014 760,193 760,014 760
Glass, grinding, C. C. Stutz Glass, grinding, C. C. Stutz Glass, erarthenware vessel, J. C. Howells, Sr. Glass, ernamental, C. S. Delley Glove, H. Hartmann Gelf club, H. B. Smith Governor, E. A. Page Governor, engine, C. Andrews Grading and ditching machine, J. W. Baker. Gun, trap, I. N. Thomas Handle. See Tool handle. Handle and secket, R. D. Gallagher, Sr. Harness attachment, F. W. Atwell Harvester tengue truck, S. K. Dennis Hat, J. Taylor Hat frame forming device, E. A. Howe, T59,996, Hat pin, A. A. McRae Hay rake, H. M. Ramer Heater, B. I. Mahon Hinge, R. W. Hubbard Hoist and power device, intermittent, A. M.	760,038 759,889 760,659 760,203 760,161 760,052 759,954 760,274 760,171 760,068 760,161 760,068 760,161 760,068 760,014 760,014 760,058 760,188 760

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ceaster brake.

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Hub, wheel, J. Rosenberg 760,252
Hydrocarbon burner, J. L. Hague 759,866
Illuminating and advertising device, F. De Mare Mare 760,055
Incandescent mantle and manufacturing same, W. K. L. Dickson 760,317