## RECENTLY PATENTED INVENTIONS. Hardware.

BRACE.-A. S. E. METCALE, Driscoll, N. D. In this patent the invention relates particularly to improvements in a combined brace, chuck, and wrench, the object of the inventor being the provision of a device of this character having a wide range of adjustments for holding bits and drills and for removing nuts of various sizes.

### Miscellaneous.

MEANS FOR CONSTRUCTING CISTERNS OR THE LIKE .- W. SKINNER and C. LIND-SEY, Wellington, Kan. Though applicable to the building or erection of various structures of masonry, the improvements are intended more especially for use in the construction of cisterns, sewers, caves, and the like; and the principal object is to provide means for this purpose which are both effective and reliable in use or operation besides being quickly applied and removed and also possessing capacity for long and repeated service.

BOTTLE-STOPPER.-A. BUCKMAN, Brookview, N. Y. Though applicable to nearly all forms of bottles employing a cork or similar stopper, the improvements are intended more especially for use in connection with beer and similar bottles, as well as medicine-bottles and the like. One of the principal objects is to provide a cork or stopper with means permanently applied thereto by which the stopper may be readily extracted from the mouth of the bottle without the use or aid of a corkscrew.

TIME HAND-STAMP.-W. F. BARTHOLO MEW, New York, N. Y. This inventor's object is to provide a stamp arranged with interchangeable dates, a fixed time dial-stamp, and a movable pointer-stamp, together with a face-indicating device to permit of quickly and correctly setting the pointer-stamp to allow of correctly stamping the date and time on letters, receipts, sale slips and other matter.

SUSPENDING ATTACHMENT FOR GAME BAGS, ETC .- G. F. CLARKE, Toronto, Canada. The purpose in Mr. Clarke's invention is to provide an attachment for suspending a game or other bag from the shoulders and body of a person so as to support the receptacle upright and hugged closely to the body in a perfectly secure manner, leave one shoulder and both arms free, and prevent displacement of the bag when the wearer assumes a leaning, kneeling, stooping, or crouching position, or when walking, or bicycling. The improvement is applicable to haversacks, school bags, and cartridge bags.

DEVICE FOR USE IN SHARPENING PENCILS.—W. S. Doe, Jersey City, N. J. In this instance the object is to provide a device for use in sharpening pencils and the like which is simple and durable in construction, not liable to get out of order, and arranged to permit the use of an ordinary knife to cut down the wood and core of the pencil to give a fine regular finish to the sharpened end.

WATER-TANK.—J. T. DONAHOO, Edgar, Neb. The improved tank in the present case is so constructed as to resist great pressure from without or within, and while it is adapted for general use it is particularly designed by the inventor for employment in connection with an air forcing and pressure apparatus.

BRACKET .- J. GARDNER, Lismore, South Wales, Australia. The invention is an improvement in locking angle-brackets for use on writing desks in schools, warehouses, etc.; also for shelves for displaying goods at any angle, for steps, trestles, folding wheelbarrowlegs, stools, and other locations wherein an adjustable bracket is desired.

JAR-CLOSURE .-- O. N. HOFFMAN, St. Johnsville, N. Y. This invention refers to closures has received a new supply of the publication referring for fruit-jars or other similar packing-recepts. to the international competition for prizes offered by for fruit-jars or other similar packing-receptacles, and has for its object to provide details of construction for a closure which are very simple, easy to apply and release, and that will effect a reliable air-tight fastening of a fruit or, other jar after filling the same and dispense with the use of tools to close or open the jar.

FOLDABLE STOOL.—W. B. S. HUSSA, West Hoboken, N. J. Mr. Hussa's invention leather, which will be strong, will set readily, and can relates to improvements in foldable stools; and be used without much heat. his object is to provide a construction in which all of the parts may be packed in a hollow member which in the assembled condition of said parts forms an essential part of the stool structure, whereby the article may be easily carried in the hand or pocket.

WOOD-HOLDER .- J. E. WALLIN, Tacoma, Wash. The object of the invention is to provide a novel portable device for holding a billet of wood in an upright position to enable the cutting of shavings therefrom to use as kindling material in the starting of fire to ignite larger wood in a stove or range.

## Designs.

DESIGN FOR A GLOVE .- F. SCHMIDT, New York, N. Y. This ornamental design for a glove comprises a double U-shaped herringbone stitching of three rows on the back of the glove. The open end of the design extends to the knuckles and the lower end about on a line with the base of the thumb.

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. 5049.—For makers of castings for a mall steam engine, for driving a small generator of 10

"U. S." Metal Polish. Indianapolis. Samples free Inquiry No. 5050.-For manufacturers of supplies for making rubber stamps.

AUTOS.-Duryea Power Co., Reading, Pa.

Inquiry No. 5051.—For manufacturers of very ight motors.

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

Inquiry No. 5052. For the address of the manufacturers of the Universal American accordion pleating machine.

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

Inquiry No. 5053.—For dealers in second-hand engine lathes.

Sawmill machinery and outfits manufactured by the

Lane Mfg. Co., Box 13, Montpelier, Vt. Inquiry No. 5054. - For the address of the manufacturers of the Spencer automatic damper regulator.

Hamburger, Equitable Building, Berlin, Germany. Inquiry No. 5055. - For manufacturers of machinery used in cider-making plants.

Edmonds-Metzel Mfg. Co., Chicago, Contract manufacturers of hardware specialties, dies, stampings, etc. Inquiry No. 5056.-For machinery for extracting fiber from flax straw.

Inventions developed and perfected. Designing and machine work. Garvin Machine Co., 149 Varick, cor.

Spring Sts., N. Y. Inquiry No. 5057.—For manufacturers of a complete apparatus and machinery for making concentrated acetic acid.

FOR SALE.—Patent on finest spike and bolt puller in existence. No. 714,107. For particulars write W. L.

Harris, Central City, W. Va

Inquiry No. 5058.—For parties to manufacture a registering face for a water meter.

Empire Brass Works, 106 E. 129th Street, New York. N. V., have exceptional facilities formanufacuring any article requiring machine shop and plating room.

Inquiry No. 5059.—For manufacturers of gasoline lamps. The largest manufacturer in the worldof merry-go-

rounds, shooting galleries and hand organs. For prices pressure of a gas held at a constant volume and terms write to C. W. Parker, Abilene, Kan. Inquiry No. 5060.—For manufacturers of large earthen vats.

The celebrated "Hornsby-Akroyd" Patent Safety Oil metal, such as platinum or nickel, while exposed Engine is built by the De La Vergne Refrigerating Mator of high temperature; others employ the chine Company. Foot of East 138th Street, New York.

from 1872 to 1881, two volumes to a year, in perfect condition. Make us an offer. David Kahnweiler's Sons, 437 Pearl Street, New York.

Inquiry No. 5062.—For makers of flat steel or phosphor bronze springs, similar to clock springs, of special dimensions.

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

Inquiry No. 5063.—For makers of Mrs. Teller's cooking knife and of hardware specialties for the mail order trade.

Wanted-Revolutionary Documents, Autograph Letters, Journals, Prints, Washington Portraits, Early American Illustrated Magazines, Early Patents signed by Presidents of the United States. Valentine's Manuals of the early 40's. Correspondence solicited. Address C. A. M., Box 773, New York.

Inquiry No. 5064.—For manufacturers of or dealers in diamond drilling machines, also for parties doing

SOUTH AMERICAN AGENCY WANTED. - Reliable party resident in South America desires to represent or act as selling agent for manufacturing or export firms. Address A. M., 122 Front Street, New York.

Inquiry No. 5065 .- For manufacturers of steel

The Imperial and Royal Austro-Hungarian Embassy the Austrian Government for plans for best boat-raising works in the construction of the Donau-Oder Canal. Parties interested in the mentioned competition can obtain a copy of said booklet at the Embassy's office 1304 Eighteenth Street,

Washington, D. C. Inquiry No. 5066.—For makers of machinery for making paper pulp from wood, also for dealers in pulp. Wanted-A waterproof cement for use on fabric and

Address A. C., Box 773, N. Y. Inquiry No. 5067.—For a large hydraulic press capable of pressing 500 pounds to the inch of the platen; size of platen 5 x 3 feet, 6 feet preferred; also power pump for same; for makers and second-hand dealers in such dealers in such.

Inquiry No. 5068.—For addresses of manufacturers of goods of all kinds.
Inquiry No. 5069.—For makers of electrical vibration apparatus for massage, etc.

Inquiry No. 5070.—For tin cans of from 1% to 1 yound in size, also for parties to print and give wrapers on such.

Inquiry No. 5071.—For apparatus for the destructive distillation of wood.

Togniry No. 5072.—For makers of portable band was for sawing logs into stave wood. Inquiry No. 5073.—For makers of wrought iron ences and gates, also chairs for use in summer gar-

Inquiry No. 5074.—For addresses of gas, mlneral oil, gasoline, motor, etc., firms of America.

Inquiry No. 5075.—For makers of metal, celluloid and aluminium novelties. Inquiry No. 5076.—For manufacturers of or parties making cutting or grinding machines for brick.

Inquiry No. 5077.—For makers of an electrically heated iron used by veterinary surgeons to burn the legs of horses.

Inquiry No. 5078.—For dies and machines for embossing photographic cards, also a beveling machine for all kinds of cardboard. Inquiry No. 5079.—For makers of machinery for handling peanuts, including hulling, etc.

Inquiry No. 5080.—For machinery for making lead pipe of the size of 1/2 inch upward.

Inquiry No. 5081.—For makers of steel hooks and eyes, such as used on waistbands.



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.

letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised 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 price.

price.
Minerals sent for examination should be distinctly marked or labeled.

(9304) H. F. S. says: 1. In your issue of January 2, in Notes and Queries, No. 9264, you say that water can only be pulled 33.9 feet with a siphon, in which I agree American inventions negotiated in Europe, Felix with you; but it has been disputed in our town. One man claims he raised water out of a well 70 feet deep, from the bottom; took all the water out. Now is this possible by just running an air-tight hose up out of the well and down a hill below the level of the bottom of the well? A. Water cannot be raised higher than stated in question 9264. The story of the man with the hose needs explaining by the man who told it. 2. Please explain why water will siphon at 700 deg. F., as you stated in query No. 9264. A. The 700 deg. F. was a misprint; it should have been **7●** deg.

(9305) J, H. R. asks: Will you please inform me how the degrees of very high temperature are measured, say temperature of 2 000 deg. or 3,000 deg.? How is it ascertained at what temperature iron will melt? A. The instruments by which high temperatures are determined are called pyrometers. There are many kinds of these. Some depend upon the Some depend upon the while heated; others utilize the calorimetric value of the heat acquired by a refractory change in electrical resistance of platinum when Inquiry No. 5061.—For makers of all kinds of slot machines.

For SALE.—Scientific American, twenty volumes highly heated material to determine its temhighly heated material to determine its temperature. This last method is used to determine the temperature of a Bessemer converter. Finally, fusible substances such as Seger's cones are employed to determine the temperature of an oven in which pottery is baked. We have published at different times twelve articles in the Scientific American Supplement upon pyrometers, which we can send for 10 cents each. The whole matter is fully treated in a recent book, "High Temperature Measurements," by Bondouard, which we can furnish for \$3 by mail.

#### INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending January 26, 1904.

AND EACH BEARING THAT DATE [See note at end of list about copies of these patents]

| [Bee 1   | ote at end of hist about copies of these  | parents   |   | 750,601  |
|--|---|---|---|--|
| :  |   |   | Ear drum profector, J. A. R. Elliott  | 720,029  |
| Abras  | ive wheel, D. B. Hyde   | 750,653   | Elastic band or strap, J. D. • Brien<br>Electric battery, W. S. Ryan  | 750,250  |
| - Accou  | nt, credit, W. R. Śwan  | 750,557   | Electric brake, G. C. Anthon750,421,  | 750 499  |
| Acety  | lene generator, W. S. May   | <b>750,674</b>  | Electric brake, P. P. Crafts  | 750,424  |
|  | making dialkyl barbituric, M. Engel-  |   | Electric furnace, R. C. Contardo  |  |
| · m  | ann   | 750,627   |   | 190,193  |
|  | g machine, P. H. Thompson   |   | Electric light bulbs, tool for removing or  | 750 400  |
| Adjus  | table wrench, J. W. Davis   | 750.523   | replacing incandescent, A. T. Speelman  | 750,408  |
|  | l heat pretecter, F. K. Walther   |   | Electric light producing device, H. Viertel   | 750,414  |
|  | I trap, M. Laramie  |   | Electric meter, T. W. Heermans  |  |
|  | wiator, L. Schmidt  |   | Electric time alarm, T. L. Bear   |  |
|  | zer, F. B. Comins   |   | Electrical accumulator, Elieson & de Bo-  |  |
|  | zer, F. V. Braymer  |   | binsky, reissue   | 750 (600   |
|  | ion disks and the product thereof,  |   | Electrical conductor, W. H. Wherry  | 750,509  |
|  | anufacturing, J. C. Graft   |   | Electrical distribution system, J. H. Hall-   | 750 454  |
|  | oox and spindle, G. M. Martien  |   | berg  | 750,454  |
| Reg  | urner, H. Roppel  | 750,703   | Electrical generation, distribution, and con-   |  |
| Bakin  | g meld, C. Fercke   | 758 445   | trel system, Lynden & Sperry  | 750,471  |
|  | g pan, multiple, A. E. Brensen  |   | Electrical generation, distribution, and con-   |  |
|  |   |   | trel system, E. A. Sperry 750,497,  | 750,500  |
|  | press, J. S. Tuttle   |   | Electrical generation, distribution, and con-   |  |
|  | a shipping case, F. Schmitz   |   | trel system, L. Lynden750,549,  | 750,550  |
|  | utter, H. A. Christensen  |   | Electrical vibrations, administering, F. H.   |  |
| Barre  | hoop, E. I. Braddock  | 750,520   | Brown   | 750,584  |
|  | support, E. E. Cress  |   | Elevator brake, G. E. Carnes  | 75 <b>0</b> ,597   |
|  | s, etc., making metal, H. S. Reynolds   |   | End gate, wagen, E. A. Lampitt  | 750,376  |
|  | t handle, B. J. Ragatz  | 750,699   | Engine, De Laval & Abern  |  |
|  | y. See Electric battery.  |   | Engine, A. Russell  | 75 <b>●,</b> 705   |
|  | y receptacle and bell support, com-   |   | Engine starting device, explesive, J. W.  |  |
|  |   |   |   |  |
| le i   | ned electrical, W. A. Harvey  | 790,646   | Swan  | 750,318  |
| Bearin   | g, shaft, J. J. Harrington  | <b>75€,362</b>  | Engine vaperizer, gas, W. W. Grant  | 750,318<br>750,451   |
| Bearin<br>Bed, 1   | g, shaft, J. J. Harrington<br>Obting, V. J. Gillett   | 75€,362<br>75€,762  | Engine vaperizer, gas, W. W. Grant  | 75€,318<br>750,451   |
| Bearing<br>Bed, 1<br>Belt  | ig, shaft, J. J. Harrington   | 75 <b>0</b> ,362<br>75 <b>0</b> ,762  | Engine vaporizer, gas, W. W. Grant<br>Engines, combined gas controller and igniter<br>for explosiv'. S. Cunningham  | 750,451<br>750,349   |
| Rearti<br>Red, 1<br>Belt<br>sl   | ig, shaft, J. J. Harrington   | 750,362<br>750,762<br>750,709   | Engine vaporizer, gas, W. W. Grant<br>Engines, combined gas controller and igniter  | 750,451<br>750,349   |
| Rearti<br>Red, 1<br>Belt<br>sl   | ig, shaft, J. J. Harrington   | 750,362<br>750,762<br>750,709   | Engine vaporizer, gas, W. W. Grant<br>Engines, combined gas controller and igniter<br>for explosiv'. S. Cunningham  | 750,451<br>750,349<br>750,35   |
| Rearth<br>Belt<br>Belt<br>Belt   | ig, shaft, J. J. Harrington   | 750,362<br>750,762<br>750,709   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv', S. Cunningham Envelop, C. B. Denson   | 750,451<br>750,349<br>750,35 <b>0</b><br>750,535   |
| Bearing Belt St. Belt St. Belt St. St.   | g, shaft, J. J. Harrington.  shaling, V. J. Gillett.  and garment fastener for supporting irts or trousers, G. Schmitt fastening device, driving, A. H. B.  | 750,362<br>750,762<br>750,709<br>750,494  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Golings.   | 750,451<br>750,349<br>750,35 <b>0</b><br>750,535<br>750,536  |
| Bearing Belt Slave Belt Slave Belt Belt Belt Belt Belt Belt Belt Bel   | g, stuff, J. J. Harricaton<br>adding, V. J. Gillett.<br>and garment fastener for supporting<br>irts or trousers, G. Schmitt.<br>fastening device, driving, A. H. B.<br>larpe<br>older or attaching device, H. Parkes.   | 750,362<br>750,762<br>750,709<br>750,494<br>750,484   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham.  Envelop, C. B. Denson  Evaperater, E. R. Golngs.  Expansion belt, C. H. Haggerty.  Eyeglasses, C. H. Pixley  | 750,451<br>750,349<br>750,35 <b>0</b><br>750,535<br>750,536<br>750,392   |
| Bearing Head, 1981 Belt Belt Belt Belt Belt Belt Belt Belt   | g, shoft, J. J. Harrington solding, V. J. Gillett, and garment fastener for supporting irts or trousers, G. Schmitt   | 750,762<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion bott, C. H. Haggerty.  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716  |
| Bearing Belt St. Belt St. Belt Belt Belt Belt Belt Belt Belt Belt  | g, stuff, J. J. Harricaton salting, V. J. Gillett and garment fastener for supporting intris or trousers, G. Schmitt. fastening device, driving, A. H. B. alder or attaching device, H. Parkes. g, C. E. Newton.  | 750,762<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperator, E. R. Goings. Expansion bolt, C. H. Haggerty. Eveglasses, C. H. Pixley Fan, electric, A. T. Smith.  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716  |
| Bearing Head, 11 Belt Sland Belt Belt Belt Belting Bicycl  | g, stuff, J. J. Harrington adding, V. J. Gillett.  and garment fastener for supporting irts or trousers, G. Schmitt. fastening device, eriving, A. H. B. larpe.  older or attaching device, H. Parkes. g, C. E. Newton. e attachment, J. McLarty.   | 750,762<br>750,762<br>750,709<br>750,494 i<br>750,484<br>750,299<br>750,393<br>750,480  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperator, E. R. Golings. Expansion bolt, C. H. Haggerty. Everlasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Gither. Feed regulator and low-water alarm, auto-  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450   |
| Bearing Head, 19 Belt Sland Belt Belt Belt Belting Bicycl  | g, stuff, J. J. Harricaton salting, V. J. Gillett. and garment fastener for supporting intris or trousers, G. Schmitt fastening device, driving, A. H. B. large. older or attaching device, H. Parkes g, C. E. Newton e attachment, A. L. Porter e attachment, J. McLarty e lantern safety arrangement, A. Rei- elantern safety arrangement, A. Rei-  | 750,762<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperator, E. R. Goings. Expansion bolt, C. H. Haggerty Eveglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters.   | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293  |
| Bearing Head, 19 Belt Sland Belt Belt Belt Belt Bicycl Bicycl Bicycl   | g, stuff, J. J. Harricaton adding, Y. J. Gillett. and garment fastener for supporting irts or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann  | 750,362<br>750,769<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,556   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperater, E. R. Gölngs. Expansion bolt, C. H. Haggerty. Everlasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Gilther. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Cranford.  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,263   |
| Hearin Hed, Belt St Belt Belt i Beltin Bicycl Bicycl m Bicycl  | ig, shorft, J. J. Harricaton solding, V. J. Gillett and garment fastener for supporting intris or trousers, G. Schmitt  | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,556<br>750,317  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperator, E. R. Goings. Expansion bolt, C. H. Haggerty. Eveglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Granford. Fence post, S. O. Campbell.  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,293<br>750,263<br>750,263   |
| Bearin Hed, Belt St Belt i Belt i Beltin Bicycl Bicycl Bicycl Binder   | g, stuff, J. J. Harricaton adding, V. J. Gillett. and garment fastener for supporting irts or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, metor, W. A. Suddard. , temporary, J. L. C. Montague.   | 750,362<br>750,762<br>750,709<br>750,494<br>750,494<br>750,299<br>750,393<br>750,480<br>750,517<br>750,676  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperater, E. R. Gönigs. Expansion belt, C. H. Haggerty. Eyeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Massiers. Felly joint holder, W. J. Cranford. Fence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler.   | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,293<br>750,263<br>750,263   |
| Hearing Hearing Hearing Hearing Hearing Hearing St. St. Belt 1 Bicycl Bicycl Bicycl Bicycl Binder Binder Binder Binding Hearing Hearin | g, stuff, J. J. Harriegton sidding, V. J. Gillett and garment fastener for supporting intris or trousers, G. Schmitt  | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,556<br>750,317<br>750,676<br>750,723  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperator, E. R. Goings. Expansion bolt, C. H. Haggerty. Evelasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters Felly joint holder, W. J. Cranford. Fence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kess- Fertilizer and grain distributor, R. Y. Kess-  | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,263<br>750,263<br>750,256<br>750,750  |
| Hearing Hearin | g, stoff, J. J. Harricaton siding, V. J. Gillett and garment fastener for supporting ints or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Forter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, meter, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Steugh.  | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,556<br>750,317<br>750,676<br>750,723  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Eveglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Granford. Fence wire stretchet, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler.  | 750,451<br>750,349<br>750,359<br>750,535<br>750,536<br>750,392<br>750,450<br>750,450<br>750,263<br>750,263<br>750,263<br>750,263<br>750,263<br>750,463   |
| Hearing Hearin | g, stuff, J. J. Harriegton adding, Y. J. Gillett. and garment fastener for supporting irts or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe. g, C. E. Newton  | 750,362<br>750,762<br>750,709<br>750,494   750,484<br>750,299<br>750,393<br>750,480<br>750,556<br>750,676<br>750,676<br>750,676<br>750,723<br>751,733   | Engine vaporizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaporater, E. R. Golings. Expansion bolt, C. H. Haggerty. Eveglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Gittner. Feed regulator and low-water alarm, automatic water, A. M. Masters Felly joint holder, W. J. Cranford. Fence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler ler Fertilizer and grain distributer, R. Y. Kessler  | 750,451<br>750,349<br>750,359<br>750,535<br>750,536<br>750,392<br>750,450<br>750,450<br>750,263<br>750,263<br>750,263<br>750,263<br>750,263<br>750,463   |
| Hearing Hearin | g, stuff, J. J. Harricaton solding, V. J. Gillett and garment fastener for supporting inter or revisers, G. Schmitt.  fastening device, driving, A. H. B. arger or attaching device, H. Parkes. g, C. E. Newton.  e attachment, A. L. Porter.  e attachment, J. McLarty.  e lantern safety arrangement, A. Reiann e., motor, W. A. Suddard.  t, temporary, J. L. C. Montague g post, L. Steinberger.  leck, window, W. F. Stough testing apparatus, H. G. Cady.  brace, E. Cook.  | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,556<br>750,676<br>750,676<br>750,723<br>751,730<br>750,767  | Engine vaporizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaporator, E. R. Goings. Expansion belt, C. H. Haggerty. Expeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint helder, W. J. Cranford. Feence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love. Fertilizer distributor and seed drill, J. P.   | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,263<br>750,263<br>750,263<br>750,381  |
| Hearing Hearin | g, stoft, J. J. Harricaton adding, V. J. Gillett. and garment fastener for supporting irts or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, metor, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Stough. testing apparatus, H. G. Cady. brace, E. Cook. cleaning compound, J. McCormack.   | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,393<br>750,480<br>750,566<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson Evaperater, E. R. Gölngs. Expansion belt, C. H. Haggerty. Eyeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint helder, W. J. Cranford. Fence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love. Fertilizer distributor, R. Love. Fertilizer distributor and seed drill, J. P. Stevens   | 750,451<br>750,349<br>750,350<br>750,535<br>750,536<br>750,392<br>750,716<br>750,450<br>750,293<br>750,263<br>750,263<br>750,263<br>750,381  |
| Hearing Heat, Belt sk Belt sk Belt in Bicycl Bicycl Binder Binder Binder Beiler Book,  | g, stuff, J. J. Harriegton salting, V. J. Gillett, and garment fastener for supporting intris or trousers, G. Schmitt fastening device, driving, A. H. B. large and the supporting device, H. Parkes. g, C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Reiann e, meter, W. A. Suddard., temporary, J. L. C. Montague g post, L. Steinberger lock, window, W. F. Stoughtesting apparatus, H. G. Cady brace, E. Cook. J. McCormack. cleaning compound, J. McCormack. check, E. F. Green.   | 750,362<br>750,762<br>750,709<br>750,494<br>750,484<br>750,393<br>750,480<br>750,566<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Eveglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Mastevs. Felly joint helder, W. J. Cranford. Feence post, S. O. Campbell. Eence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love Fertilizer distributor and seed drill, J. F. Stevens.  | 750,451<br>750,349<br>750,350<br>750,350<br>750,536<br>750,392<br>750,450<br>750,263<br>750,263<br>750,263<br>750,263<br>750,263<br>750,263<br>750,463<br>750,463<br>750,381<br>750,463                                      |
| Hearing Hearin | g. storft, J. J. Harricaton adding, V. J. Gillett. and garment fastener for supporting irits or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe lodger or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, metor, W. A. Suddard. t, temporary, J. L. C. Montague. g post, L. Steinberger. leck, window, W. F. Stough. testing apparatus, H. G. Cady. brace, E. Cook. cleaning compound, J. McCormack. check, E. F. Green.   | 750,362<br>750,762<br>750,709<br>750,494<br>750,299<br>750,393<br>750,486<br>750,317<br>750,676<br>750,723<br>750,731<br>750,662<br>750,682<br>750,462  | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Expansion belt, C. H. Haggerty. Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Mastews. Felly joint helder, W. J. Cranford. Feence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love Fertilizer distributor and seed drill, J. F. Stevens Fibrous material, machine for compressing and recling, M. L. Luchben. Fire escape. C. J. Haggstrom.  | 750,461 750,349 750,355 750,536 750,536 750,750,376 750,263 750,266 750,463 750,381 750,381 750,662  |
| Hearin Belt St Belt E Belt E Belt E Belt E Bicycl Bicycl Binder Binder Blinde Blow Book, Book  | g, stuff, J. J. Harriegton salting, V. J. Gillett, and garment fastener for supporting dirts or trousers, G. Schmitt fastening device, driving, A. H. B. introduced and selection of the selec | 750,762<br>750,762<br>750,769<br>750,494<br>750,299<br>750,383<br>750,383<br>750,556<br>750,750,750<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,686<br>750,687<br>750,682<br>750,682                   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Expansion belt, C. H. Haggerty. Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Mastews. Felly joint helder, W. J. Cranford. Feence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love Fertilizer distributor and seed drill, J. F. Stevens Fibrous material, machine for compressing and recling, M. L. Luchben. Fire escape. C. J. Haggstrom.  | 750,461 750,349 750,355 750,536 750,536 750,750,376 750,263 750,266 750,463 750,381 750,381 750,662  |
| Hearin Hed.  Belt Si Belt i Beltin Bicycl Bicycl Bicycl Binder Binder Binder Beller Book, Book T, Book,  | g, stuff, J. J. Harricaton siding, V. J. Gillett and garment fastener for supporting ints or trousers, G. Schmitt. fastening device, driving, A. H. B. large lodder or attaching device, H. Parkes. g, C. E. Newton. e attachment, A. L. Forter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, metor, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Stough testing apparatus, H. G. Cady brace, E. Cook cleaning compound, J. McCormack check, E. F. Green Daniels rell nete, O. Hulback  | 750, 362<br>750, 762<br>750, 762<br>750, 494<br>750, 484<br>750, 299<br>750, 387<br>750, 387<br>750, 317<br>750, 317<br>750, 317<br>750, 317<br>750, 682<br>750, 682<br>750, 682<br>750, 682<br>750, 682                            | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Experises, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Mastews. Felly joint helder, W. J. Granford. Fence post, S. O. Campbell. Ferne wire stretcher, A. J. Chandler. Fertilizer and grain distributor, R. Y. Kessler Fertilizer distributor, R. Love Fertilizer distributor, R. Love Fertilizer distributor and seed drill, J. F. Stevens Fibrous material, machine for compressing and reeling, M. L. Luceben. Fire escape, C. J. Haggstrom. Fire extinguisher, chemical, A. C. Badger.  | 750,461 750,349 750,355 750,536 750,536 750,750,376 750,263 750,266 750,463 750,381 750,381 750,662  |
| Hearin Heart | g, shoft, J. J. Harriegton solding, V. J. Gillett and garment fastener for supporting firts or trousers, G. Schmitt.  fastening device, driving, A. H. B. sarpe older or attaching device, H. Parkes. g, C. E. Newton.  e attachment, A. L. Porter.  e attachment, J. McLarty.  e lantern safety arrangement, A. Reiann e, meter, W. A. Suddard., temporary, J. L. C. Montague g ost, L. Steinberger.  leck. window, W. F. Steugh.  testing apparatus, H. G. Cady.  brace, E. Cook.  cleaning compound, J. McCormack.  check, E. F. Green.  cever cleaning and polishing machine, Daniels.  rell nete, O. Hulback.  ror shee holder, W. C. Benkert.   | 750, 362<br>750, 762<br>750, 769<br>750, 494<br>750, 494<br>750, 299<br>750, 383<br>750, 480<br>750, 723<br>750, 723<br>750, 773<br>750, 676<br>750, 676<br>750, 676<br>750, 676<br>750, 685<br>750, 685<br>750, 685<br>750, 685    | Engine vaporizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaporator, E. R. Goings. Expansion bolt, C. H. Haggerty Eyeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint helder, W. J. Cranford. Feence post, S. O. Campbell. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler. Fertilizer distributer, R. Love. Fertilizer distributer and seed drill, J. P. Stevens Fibrous material, machine for compressing and reeling, M. L. Luchben. Fire extinguisher, chemical, A. C. Badger. Fire extinguisher, chemical, A. C. Badger. Fire extinguisher, chemical, A. C. Badger. Fire extinguisher, sprinkler head for automatic properties. | 750,461 750,349 750,356 750,556 750,556 750,556 750,750 750,293 750,293 750,263 750,463 750,381 750,766 750,640 750,640 750,666  |
| Hearin He | g. stuff, J. J. Harricaton siding, V. J. Gillett and garment fastener for supporting ints or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g. C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, meter, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Stough. testing apparatus, H. G. Cady. brace, E. Cook. cleaning compound, J. McCormack. check, E. F. Green. cover cleaning and polishing machine, Daniels roll note, O. Hulback. or shee holder, W. C. Benkert.  | 750,762<br>750,762<br>750,762<br>750,494<br>750,484<br>750,299<br>750,393<br>750,480<br>750,666<br>750,723<br>750,676<br>750,177<br>750,682<br>750,682<br>750,682<br>750,685<br>750,685<br>750,685<br>750,685                       | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Expeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Granford. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler Fertilizer distributer, R. Love Fertilizer distributer and seed drill, J. P. Stevens Fibrous material, machine for compressing and reeling, M. L. Luchen. Fire escape, G. J. Hagsstrom. Fire extinguisher, chemical, A. C. Badger. Fire extinguishers, sprinkler head for automatic, G. E. Hibbard. 750,767.   | 750, 461 750, 349 750, 359 750, 555 750, 555 750, 555 750, 555 750, 550 750, 450 750, 450 750, 450 750, 450 750, 450 750, 450 750, 463 750, 463 750, 672 750, 646 750, 656 750, 666 750, 666                                 |
| Hearin He | g, stuff, J. J. Harriegton siding, V. J. Gillett and garment fastener for supporting firts or trousers, G. Schmitt  | 750,769 750,769 750,769 750,494 750,484 750,488 750,383 750,480 750,676 750,773 750,676 750,753 750,656 750,267 750,651 750,651 750,651 750,651 750,651 750,558   | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Expeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Granford. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler Fertilizer distributer, R. Love Fertilizer distributer and seed drill, J. P. Stevens Fibrous material, machine for compressing and reeling, M. L. Luchen. Fire escape, G. J. Hagsstrom. Fire extinguisher, chemical, A. C. Badger. Fire extinguishers, sprinkler head for automatic, G. E. Hibbard. 750,767.   | 750, 461 750, 349 750, 359 750, 555 750, 555 750, 555 750, 555 750, 550 750, 450 750, 450 750, 450 750, 450 750, 450 750, 450 750, 463 750, 463 750, 672 750, 646 750, 656 750, 666 750, 666                                 |
| Hearing Hearin | g. stuff, J. J. Harricaton siding, V. J. Gillett and garment fastener for supporting ints or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g. C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, motor, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Stough testing apparatus, H. G. Cady brace, E. Cook. cleaning compound, J. McCormack cleach, E. F. Green cover cleaning and polishing machine, Daniels roll nete, O. Hulback or shee holder, W. C. Benkert. C. C. Clark C. C. B. Rhoods , non-refillable, C. M. Drennan.   | 750,762<br>750,762<br>750,762<br>750,494<br>750,494<br>750,484<br>750,299<br>750,387<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,651<br>750,651<br>750,651<br>750,651<br>750,651<br>750,653<br>750,653<br>750,653 | Engine vaporizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv, S. Cunningham. Envelop, C. B. Denson. Evaporator, E. R. Goings. Expansion belt, C. H. Haggerty. Expeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint helder, W. J. Cranford. Fence post, S. O. Campbell. Fertilizer and grain distributor, R. Y. Kessler. Fertilizer distributor, R. Love Fertilizer distributor and seed drill, J. P. Stevens Fibrous material, machine for compressing and recling, M. L. Luchben. Fire exanged. J. Haggstrom. Fire extinguisher, chemical, A. C. Badger. Fire extinguishers, sprinkler head for automatic, G. E. Hibbard. Top-767, Fire extinguishing device, J. H. Walrath. Firearm, revolving, W. J. Whiting.      | 750, 461 750, 349 750, 356 750, 356 750, 356 750, 358 750, 358 750, 358 750, 463 750, 463 750, 463 750, 463 750, 756 750, 756 750, 756 750, 756 750, 757 750, 646 750, 750, 750 750, 646 750, 647 750, 648 750, 648 750, 648 |
| Hearing Hearin | g. stuff, J. J. Harricaton siding, V. J. Gillett and garment fastener for supporting ints or trousers, G. Schmitt. fastening device, driving, A. H. B. larpe older or attaching device, H. Parkes. g. C. E. Newton. e attachment, A. L. Porter. e attachment, J. McLarty. e lantern safety arrangement, A. Rei- ann e, motor, W. A. Suddard. , temporary, J. L. C. Montague. g post, L. Steinberger. lock, window, W. F. Stough testing apparatus, H. G. Cady brace, E. Cook. cleaning compound, J. McCormack cleach, E. F. Green cover cleaning and polishing machine, Daniels roll nete, O. Hulback or shee holder, W. C. Benkert. C. C. Clark C. C. B. Rhoods , non-refillable, C. M. Drennan.   | 750,762<br>750,762<br>750,762<br>750,494<br>750,494<br>750,484<br>750,299<br>750,387<br>750,676<br>750,676<br>750,676<br>750,676<br>750,676<br>750,651<br>750,651<br>750,651<br>750,651<br>750,651<br>750,653<br>750,653<br>750,653 | Engine vaperizer, gas, W. W. Grant. Engines, combined gas controller and igniter for explosiv. S. Cunningham. Envelop, C. B. Denson. Evaperator, E. R. Goings. Expansion belt, C. H. Haggerty. Expeglasses, C. H. Pixley Fan, electric, A. T. Smith. Fan, ventilating, O. Giltner. Feed regulator and low-water alarm, automatic water, A. M. Masters. Felly joint holder, W. J. Granford. Fence wire stretcher, A. J. Chandler. Fertilizer and grain distributer, R. Y. Kessler Fertilizer distributer, R. Love Fertilizer distributer and seed drill, J. P. Stevens Fibrous material, machine for compressing and reeling, M. L. Luchen. Fire escape, G. J. Hagsstrom. Fire extinguisher, chemical, A. C. Badger. Fire extinguishers, sprinkler head for automatic, G. E. Hibbard. 750,767.   | 750, 461 750, 349 750, 356 750, 356 750, 356 750, 358 750, 358 750, 358 750, 463 750, 463 750, 463 750, 463 750, 756 750, 756 750, 756 750, 756 750, 757 750, 646 750, 750, 750 750, 646 750, 647 750, 648 750, 648 750, 648 |

|  | February 6,   | 1904.  |
|--|---|--|
| 1  | Box fastener, E. T. Reilly  | . 750,700  |
| † <del>*</del> * * * * * * * * * * * * * * * * * * | Bake beam, metallic, A. Stucki. Brake beam, metallic, A. Stucki. Brake bobe, Stimson & Parke. Brick handling apparatus, L. F. Hart. Brick kin furnace, E. M. Clark. Bridge construction, J. F. Morton. Bridge Construction, J. F. Morton.   | ,<br>750,655<br>. 750,732                                |
|  | Brake shoe, Stimson & Parke<br>Brick handling apparatus, L. F. Hart<br>Brick kiln furnace, E. M. Clark  | . 750,728<br>. 750,645<br>. 750,600                      |
| 1  | Bridge construction, J. F. Morton<br>Brooder, W. H. Bennett   | . 750,475<br>. 750,335                                   |
| ٥  | Brieder, W. H. Bennett.  Building block and wall, C. N. Allerding.  Building material, composite, R. Hartman.  Buey for sunken vessels, J. F. Tribble.  Bushing for junction boxes, outlet, F. W.   | . 750,562<br>. 750,456<br>. 750,322                      |
| r  | Bushing for junction boxes, outlet, F. W Erickson   | . 750,35 <b>2</b><br>. 75 <b>0,</b> 360                  |
| e  | Button, cellar, J. Ecksterm. Button, cuff, E. P. Happich.   | . 750,622<br>. 75 <b>0</b> ,643                          |
| e  | Cabinet, I. Mason   | . 750,580<br>. 750,673<br>. 750,760                      |
| ,<br>e   | Bushing for junction boxes, outlet, F. W. Erickson Button, cellar, S. H. Hall. Button, cellar, J. Eckstorm. Button, cellar, J. Eckstorm. Button, suspender, A. Bowers. Cabinet, I. Mason Can filling machine, F. B. Fulton Canning device, fruit or vegetable, F. G. Slemmer Candle molding machine, S. H. Leavenworth Car, combined freight and dump, A. Lip schutz.   | . 750,407<br>1 750,602                                   |
| h  | Car, combined freight and dump, A. Lip  | 750,670  |
| 1  | Car coupling, A. Mointt.<br>Car door, grain, S. A. Bushey<br>Car fender, E. Sprich  | . 750,383<br>. 750,431<br>. 750,719                      |
| d  | car, combined freight and dump, A. Lip schutz. Car coupling, A. Meffitt. Car deer, grain, S. A. Bushey. Car fender, E. Sprich. Car frame, Lindstrom & Streib. Car or barn doer, G. B. Murray. Car side bearing, universal street, J. E. Norwood.  | . 750,431<br>. 750,719<br>. 750,290<br>. 750,679         |
| e<br>f   | Car side bearing, universal street, J. E. Ner wood Car wheel grinding device, P. F. McCormic Cars, railway carriages, or the like, begie of truck for tramway, A. S. Nelson, et al. Carbureter, W. L. Severance Carbureter, H. B. Cornish Carbureter, F. Harmany Careusel, water, A. Mcffert. Carrier. See Fowl carrier. Cart cever, S. Kurzman.  | 750.481<br>750,479                                       |
| y  | truck for tramway, A. S. Nelson, et al<br>Carbureter, W. L. Severance   | 750,387<br>750,311                                       |
| -  | Carbureter, H. B. Cernish Carbureter, F. Harmany Carousel water A Meffort   | 750,433<br>750,764<br>750,472                            |
| - !  | Carrier. See Fowl carrier.<br>Cart cover, S. Kurzman.   | 750,467  |
| 1  | Cartridge, J. M. Edmunds. Cash register and indicator, J. P. Emery. Casing head and tubing anchor, J. C. Boyce Cusket holder, G. Arpin. Casket holder, G. F. Honold.  | 750,623<br>750,272<br>75 <b>0</b> ,428                   |
| •<br>t   | Casket holder, G. Arpin   | 750,428<br>750,245<br>750,282<br>750,668                 |
| ς :<br>7 !   | Centrifugal apparatus, A. Liedbeck  |  |
| ,  | Cheese holder, I. I. Eklund. Churn, J. S. Lindquist.  | 750,440<br>750,756<br>750,380                            |
| -  | ing Cheese holder, I. I. Ekhund Churn, J. S. Lindquist Cigar cutter, W. M. Roberts. Cigarette machine, G. M. Calberia. Cigarette or cigar holders, etc., mold press for making, E. Simon Cigarette paper with leaf metal, apparatus for coating, G. M. Calberia. Clasp, A. Person. Clasp, O. J. Jones.  | 750,305<br>750,254                                       |
| - !  | for making, E. Simon Cigarette paper with Icaf metal, apparatus for coating, G. M. Calberla.  | 750,406<br>75 <b>0</b> ,255                              |
| :  | Class and manor has ask santualled T. H.  |  |
| į  | Kleeman   | 750,374<br>75 <b>0</b> ,787                              |
|  | Closure, E. E. Chapman  | $75 \bullet, 492$ $75 \bullet, 257$ $750, 657$           |
| -  | Kleeman Clock case, A. D. Bledgett. Clock, electric, F. Schmidt. Closure, E. E. Chapman. Coal separator, G. A. Kenner. Coin centrelled apparatus, M. Sielaff. Coin receiving, delivering, sorting, registering, and detecting machine, Spear & Morierty.  | 750,314  |
| į  | Moriarty Coke even door, B. Troutman. Coloring apparatus, yarı, A. Fornander. Comb for applying liquid to the scalp, J. B.  | 750.718<br>750,323<br>75 <b>0</b> ,758                   |
| - :  | Comb for applying liquid to the scalp, J. B. O'Higgins  | 750,388<br>750,336                                       |
|  | Comb for applying liquid to the scalp, J. B. O'Higgins Combustion motor, J. F. Bentz Comperssor, J. Shipway  H. J. Russell Condiment holder, composite, L. B. Parker Container joint, W. L. Austin Conveyor, pneumatic, M. J. Feyer Coeker, steam. C. Cannom.   | 750,313  |
|  | Condiment holder, composite, L. B. Parker<br>Container joint, W. L. Austin  | 750,706<br>750,6×8<br>750,565                            |
| 1  | Conveyor, pneumatic, M. J. Feyer  | 750,356<br>750,596<br>750,548                            |
| 1  | Corn husker, C. G. Billings   | 750,426<br>750,642                                       |
| . !  | Corn-shredder, N. N. Windingstad  | 750,642<br>750,329<br>750,567                            |
| :  | Corn husking machine receing device, J. R. Hall Corn-shredder, N. N. Windingstad Cotton gin, E. R. Barber. Cranes, electric gear for, O. Kammerer. Crematory, Haycock & McDermott. Curling iron case, C. O. Sterling. Curtain and shade adjuster, window, H. P. Adams.  | 750,370<br>750,457<br>750,724                            |
| .  | Curtain and shade adjuster, window, H. P. Adams Curtain support, extensible, E. W. Mathew-  | 750,332  |
|  | Sen   | 100,110  |
|  | Cycle mud guard, Neitiens & Kleinhielen  Dental appliance, W. M. Dailey  Dask lack L. Moare   | 75 (386<br>750,615<br>750,384<br>750,527                 |
| ;  | Desk, school, J. le. Field  | 750,527  |
| 4 . 4  | Disinfecting paper money, apparatus for, C. B. Clark  | 750,665<br>750,347                                       |
| !  | Cutter heads, instrument for determining the position of cutters on moding, J. Fay. Cycle mud guard, Neithens & Kleinhielen.  Dental appliance, W. M. Dailey.  Desk schoel, J. F. Field.  Developing apparatus, daylight plate, J. Lesperance.  Disinfecting paper money, apparatus for, C. B. Clark.  Ditching machine, J. Page  Domestic heater, C. A. Commiskey.  Door, air, J. T. Deviese.  Door check, R. W. Hubbard.  Door fastener, portable, R. F. Poenitz.  Door hanger, F. Burdett.  Door bening attachment, E. F. Hicks.  Douche, nasal, F. W. Moffitt.  Draft connection, L. Keding.  Draft regulator, automatic, G. O. Lindgren.  Drilling recoil B. M. W. Hausen.  Drilling machine, H. Balluet.  Drilling machine, H. Balluet. | 750,686<br>750,606<br>750,617                            |
| :  | Door check, R. W. Habbard   | 750.650<br>750,692<br>750,589                            |
|  | Door hanger, F. B. Cook.  Door opening attachment, E. F. Hicks  | 750,689<br>750,663<br>750,663                            |
|  | Draft connection, L. Keding   | 75 <b>0</b> ,297<br>75 <b>0</b> ,544<br>75 <b>0</b> ,462 |
|  | Draft regulator, automatic, G. O. Lindgren<br>Drier. See Vibratory drier.<br>Dry kiln, E. F. Rouse  | 75 <b>0</b> ,669<br>75 <b>0</b> ,3 <b>0</b> 6            |
|  | Drilling muchine, H. Balluet  | 750,423<br>750,537<br>750,342                            |
| :  | Dyeing, etc., apparatus for, F. Cleff<br>Ear drum protector, J. A. R. Elliott   | 750,601<br>750,625<br>730,780<br>750,250                 |
|  | Electric battery, W. S. Ryan  | 750,78 <b>0</b><br>750,250<br>750,422                    |
|  | Drief: See Vibratory Crief.  Dry kiln, E. F. Rouse.  Drilling muchine, H. Balluet.  Drilling tool, B. M. W. Hansen.  Dust collector, A. C. Brantingham.  Dyeing, etc., apparatus for, F. Cleff.  Elastic band or strap, J. D. Brien.  Electric battery. W. S. Ryan.  Electric brake, P. P. Crafts.  Electric brake, P. P. Crafts.  Electric furnace, R. C. Contardo  Electric furnace, R. C. Contardo  Electric flight bulbs, tool for removing or  replacing incandescent, A. T. Speelman  Electric light producing device, H. Viertel.  Electric time alarm, T. L. Bear  Electric time alarm, T. L. Bear  Electrical accumulator, Elieson & de Be-  binsky, reissue  Electrical distribution system, J. H. Hall-                            | 750,434<br>75●,753                                       |
|  | replacing incandescent, A. T. Speciman<br>Electric light producing device, H. Viertel<br>Electric meter. T. W. Heermans   | 750,408<br>750,414<br>750,765<br>750,569                 |
| :  | Electric time alarm, T. L. Bear   | 750,569  |
|  | Electrical conductor, W. H. Wherry<br>Electrical distribution system, J. H. Hall-   | 12,195<br>750,509  |
| į  | berg Electrical generation, distribution, and control system, Lyndon & Sperry. Electrical generation, distribution, and control system, E.A. Sperry.  750,497   | 750,454<br>750,471                                       |
|  |   | 750,500  |
|  | Electrical generation, distribution, and control system, L. Lyndon750,549, Electrical vibrations, administering, F. H.  | 750,550<br>750,584                                       |
| -  | Electrical vibrations, administering, F. H. Brown Elevator brake, G. E. Carnes  | 750,584<br>75●,597                                       |

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