RECENTLY PATENTED INVENTIONS. Electrical Devices.

This clip belongs to that kind used for suspending wires, cables, and other electric conductors. The invention relates more particularly to the production of a cheap, simple, and efficient clip, which may be placed at any desired angle relatively to the hanger-wires and owing to the locking device may be secured in a permanent and reliable manner.

TROLLEY .- J. H. WALKER, Lexington, Ky. In the present case the invention is an improvement in trolleys, and particularly in the means for supporting the wheel and lubricating it. Means are provided to avoid the formation of arcs which operate to rapidly destroy the wheels in the ordinary construction. There are means for holding the trolley-wheel firmly in line to prevent tilting to either side. Contact is made at the ends of the journal or axle carrying the wheel without extra contactsprings, and the contact is held positively at all times at the ends of the journal.

Mr. Walker has also invented another improvement in trolleys. It has for an object. among others, to provide novel means whereby to support the trolley-wheel, to prevent the wire from dropping immediately alongside the wheel, and for securing a more effective conduction of the current from the wheel and along the pole.

Household Utilities.

HOSE ATTACHMENT.-W. G. MCKAY. Leadville, Col. To prevent water and dirt collecting around a hose and to enable this article to be moved with greater ease, the inventor provides an attachable support, any number of which may be applied to the hose to raise it from the floor or from the ground in case of use on a lawn or the like. The attachment also prevents splinters or the like from injuring the hose and enables the latter to dry more quickly, thus tending to preserve it.

WASHTUB.-G. V. BLACKSTONE, James town, N. Y. The aim of this invention is to provide certain new and useful improvements in washtubs whereby the tub is strengthened and the legs securely held in position on the tub-body to insure a firm standing of the washing-machine on the floor, and at the same time relieving the lower hoop of a portion of the strain incident to the swelling of the bottom of the tub.

FLOUR-SIFTER .- G. W. HANCOCK, Lynchburg, Va. The aim of this inventor is to furnish a manually-operated device adapted to sift flour, meal or other powdered substances faster and with more ease and cleanliness than can be done by the old-style wood or tin rimmed sifters. Means are provided to prevent dirt, bugs, worms, weevils, etc., from being pressed or ground through the meshes of the

BED-COVER HOLDER .- F. C. BILLINGS, Macon, Mo. This invention relates to clamping devices such as shown in a former patent inches diameter. The Cleveland Distributing Co., granted to Mr. Billings; and the object is to provide a bed-cover holder cheap to manufacture, easily applied and designed for holding the coverings securely in position and to allow convenient opening of the holder for removal of the covering.

Miscellaneous.

DISPLAY-TRAY .- J. H. SMITH, Brooklyn, N. Y. The present invention refers to store furniture; and its object is to furnish a new and improved display-tray more especially designed for containing and neatly displaying hos iery and like articles and arranged to hold different sizes of an article of a certain price.

RIFLE-RANGE.-J. DE St. LEGIER and E. HERBAGE, Hicksville, N. Y. The purpose of this invention is to provide a target-box so constructed that it will be quickly freed from smoke and to so construct the sight tube that the smoke will pass out therefrom almost simultaneously with the explosion, enabling the marksman to plainly read the target immediately after firing. Means are provided to coat, paint or clean the target after each shot, and to illuminate or čarken a bull's-eye.

TRIPOD .- W. F. FOLMER. New York, N. Y. This tripod is especially designed for use with cameras, but it may be employed wherever a tripod is necessary. It is so constructed that the legs while pivotally connected with the head, preferably in a detached manner, can be quickly and rapidly spread apart and locked to the head, remaining until purposely re-The tripod is easily folded or reduced in length for storage or transportation.

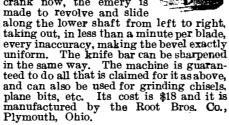
SUBCALIBER FIREARM.-G. H. GARRIson, Rockford, Ill. The claim of the inventor of this firearm is, that he provides an attachment or auxiliary means adapted to be placed in the breech of standard-gage rifles in order to make the arm available for use in discharg ing cartridges of smaller caliber. An insertible subcaliber device is equipped with means arranged to receive the impact of the centerfire firing-pin of the main rifle and to transmit the force to the rim of a subcaliber cartridge. Means are provided to readily extract exploded shells.

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.

THE IDEAL LAWN MOWER GRINDER.

This is an article which is as novel as it CLIP.—L. STEINBERGER, Brooklyn, N. Y. is useful. It needs no practical specialist. And the sharpening can be done in a frac-

tion of the time formerly required.
The mower is placed upside down on two horizontal adjustable iron bars, the blade fastened to the emery wheel by a little clamp on its side, and by turning the crank now, the emery is



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Exeter, N. H.

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

Inquiry No. 4385.—For dealers in novelties, sea

Mechanics' Tools and materials. Net price catalogue. Geo. S. Comstock, Mechanicsburg, Pa.

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

Inquiry No. 4387.—For a machine for counting and folding sheets of manila paper. We make novelties in all kinds of metals. Any quan

tities. Metal Stamping Co., Niagara Falls. N. Y. Inquiry No. 4388.—For manufacturers of fancy wood for inlaying purposes.

Let me sell your patent. I have buyers waiting. Charles A. Scott, Granite Building, Rochester, N. Y.

Iuquiry No. 4389.—For the manufacturers of the Spalding water motor.

Bargain, 300,000 feet seamless steel tubing, 5-16 to 2 Cleveland, O.

Inquiry No. 4390.—For spring motor or cheap notive power for propelling a typesetting machine.

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We have a market for all sorts of novelties and use ful articles. Send circulars and quantity price. Keo kuk Novelty Co., Keokuk, Ia.

Inquiry No. 4392.—For the makers of the Shortts Duplex High Speed Engine."

Crude oil burners for heating and cooking. Simple. efficient and cheap. Fully guaranteed. C. F. Jenkins Co., 1103 Harvard Street, Washington. D. C.

Inquiry No. 4393.—For the address of the makers of the Universal Extractors (Messrs. J. G. Lindner & Merz, of Germany).

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

Inquiry No. 4394.—For makers of extracting pparatus for extracting oil from corn.

We manufacture anything in metal. Patented articles, metal stamping, dies, screw mach. work, etc. Metal Novelty Works, 43 Canal Street, Chicago.

Inquiry No. 4395.—For machines for printing and making shipping tags from the roll.

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Inquiry No. 4396.—For firms in Chicago. St. Louis. Kansas City or Memphis, dealing in second-hand bollers, engines, lathes, drill presses and machine shop fittings.

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Inquiry No. 4397.—For makers of chemical apparatus for extinguishing fires.

Representatives for Spain.-Hormaechea, Elorriaga & Co., Calle Libertad No. 1. Po. 10., Bilbao, Spain. Offer their services to represent American manufacturers of novelties and new patented inventions. Will handle agencies to entire satisfaction, guaranteeing best service. A 1 references furnished to parties interested.

Inquiry No. 4398.—For parties engaged in making buttons from milk.

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

Inquiry No. 4399.—For manufacturers and inventors of vending machines.

Patent 730,717. Permanent fixture. Cleans chimnes in two minutes. Simple, no dust, child can operate. Illustrated in Scientific American July 4. Will sell outright or territory. Write for particulars. J. A. Stine, Manistee, Mich.



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(9089) M. H. N. asks: If a raceway measures 2 feet 6 inches deep and 5 feet 8 inches wide, and water flows at the rate of 60 feet per minute, what is the flow per hour, and what is the probable amount of horse power obtainable from a head of 18 feet? A. A flow of water 2 feet 6 inches deep by 5 feet 8 inches wide at the rate of 60 feet per minute, at a head of 18 feet, is, theoretically, equal to 28.9 horse power. About 75 or 80 per cent of this could be utilized commercially by a turbine, if the flow of water and head remain con-

(9090) J. N. R. says: You will do me quite a favor if you will solve the following problem for me: Supposing we have a vessel with a hole in the bottom into which fits a hollow tube closed at both ends and six inches long. We will say this tube fits the hole so that no water could leak through, yet works with perfect ease. Now say we should put into this vessel four inches of water; what would the result be if the tube weighed one fifth the weight of the water? Would the tube rise, or would it go through, or would it remain stationary? Have submitted this problem to several very "learned" men in this city, but none of them seem to "have time" to work it. They all say they could do it if they just had time. By solving the above for me and explaining why, you will confer a great favor. A. If the hole in the bottom of your vessel is round and smooth, and the hollow tube fits it perfectly and without friction, as you say, the tube will fall through the hole, whether there is water in the vessel or not, and it will take just the same force to hold it up when the vessel is full of water as when it is empty. The reason for this is that water exerts a buoyant effect on bodies which are immersed in it, by causing an upward pressure on the bottom of them. If your tube is so protected by the hole in the bottom of the vessel that the water cannot get underneath, it can have no buoyant effect. If you fill your vessel sufficiently full of water to have the water cover the upper end of the tube, the water will exert a downward pressure on the top of the tube, which should be added to the weight of the tube, in order to get the total force with which it tends to slide through the

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Core, collapsible mole, A. S. Cramer	733,313 732,838 733,275
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Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson. Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vliet Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined,	733,313 732,838 733,275 732,733 732,735 732,932 732,999 732,869 732,869 732,876 733,273 732,886 732,73 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson. Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vliet Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined,	733,313 732,838 733,275 732,733 732,735 732,932 732,999 732,869 732,869 732,876 733,273 732,886 732,73 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson. Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vliet Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined,	733,313 732,838 733,275 732,733 732,735 732,932 732,999 732,869 732,869 732,876 733,273 732,886 732,73 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson. Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vliet Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined,	733,313 732,838 733,275 732,733 732,735 732,932 732,999 732,869 732,869 732,876 733,273 732,886 732,73 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273 733,273
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shredders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vilet Curtain fature, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter. See Formed cutter. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dentist' tapers, composition for, L. C. Mandel Decodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and Jacquards for same, apparatus for making, I. Kitsee	733,313 732,838 733,275 732,131 732,735 732,934 732,999 732,869 732,969 732,876 733,237 732,2886 732,750 733,237 732,2886 732,750 733,041 733,3145 733,221 733,221 733,221 733,321 733,221 733,320 733,041 733,221
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shredders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vilet Curtain fature, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter. See Formed cutter. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dentist' tapers, composition for, L. C. Mandel Decodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and Jacquards for same, apparatus for making, I. Kitsee	733,313 732,838 733,275 732,131 732,735 732,934 732,999 732,869 732,969 732,876 733,237 732,2886 732,750 733,237 732,2886 732,750 733,041 733,3145 733,221 733,221 733,221 733,321 733,221 733,320 733,041 733,221
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shredders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vilet Curtain fature, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter. See Formed cutter. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dentist' tapers, composition for, L. C. Mandel Decodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and Jacquards for same, apparatus for making, I. Kitsee	733,313 732,838 733,275 732,131 732,735 732,934 732,999 732,869 732,969 732,876 733,237 732,2886 732,750 733,237 732,2886 732,750 733,041 733,3145 733,221 733,221 733,221 733,321 733,221 733,320 733,041 733,221
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Curtain pole bracket, H. Bitner Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dental securing device, V. E. Griswold Dental securing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Dentists' tapers, composition for, L. C. Mandel Deodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and jacquards for same, apparatus for making, I. Kitsee Die cutting machine work holder, B. J. Ab- bott Display card, E. Zoller Distilling apparatus, water, J. M. Coffman Ditcher, J. D. Brown Door hanger, G. W. Holly Doors, gang locking mechanism for cell, A. J. Horgan	733,313 732,838 733,275 732,938 732,755 732,938 732,969 732,869 732,869 732,876 733,273 732,980 732,886 732,732 733,273 733,273 733,311 733,272 733,311 733,212 733,311 732,926 732,921 732,948 732,931 732,948 732,931 732,932 733,931 732,932 733,931 733,217 733,219 732,931 732,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,733 733,931 733,931 733,931 733,931
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Curtain pole bracket, H. Bitner Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dental securing device, V. E. Griswold Dental securing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Dentists' tapers, composition for, L. C. Mandel Deodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and jacquards for same, apparatus for making, I. Kitsee Die cutting machine work holder, B. J. Ab- bott Display card, E. Zoller Distilling apparatus, water, J. M. Coffman Ditcher, J. D. Brown Door hanger, G. W. Holly Doors, gang locking mechanism for cell, A. J. Horgan	733,313 732,838 733,275 732,938 732,755 732,938 732,969 732,869 732,869 732,876 733,273 732,980 732,886 732,732 733,273 733,273 733,311 733,272 733,311 733,212 733,311 732,926 732,921 732,948 732,931 732,948 732,931 732,932 733,931 732,932 733,931 733,217 733,219 732,931 732,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,733 733,931 733,931 733,931 733,931
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shreeders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason. Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Curtain pole bracket, H. Bitner Curtain fixture, A. Farland Curtain pole bracket, H. Bitner Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dental securing device, V. E. Griswold Dental securing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Dentists' tapers, composition for, L. C. Mandel Deodorizing device, R. C. De La Hunt. Derailment brake, W. R. Carroll Designs and jacquards for same, apparatus for making, I. Kitsee Die cutting machine work holder, B. J. Ab- bott Display card, E. Zoller Distilling apparatus, water, J. M. Coffman Ditcher, J. D. Brown Door hanger, G. W. Holly Doors, gang locking mechanism for cell, A. J. Horgan	733,313 732,838 733,275 732,938 732,755 732,938 732,969 732,869 732,869 732,876 733,273 732,980 732,886 732,732 733,273 733,273 733,311 733,272 733,311 733,212 733,311 732,926 732,921 732,948 732,931 732,948 732,931 732,932 733,931 732,932 733,931 733,217 733,219 732,931 732,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,733 733,931 733,931 733,931 733,931
Core, collapsible mole, A. S. Cramer. Corn receiver, N. Edwards Corn shredders and huskers, band cutters and feeders for, N. G. Robinson Cortugating tool, J. Blumer Cot and tent, combined, I. L. Gleason Cot, knockdown, J. Linden et al. Cotton chopper, F. F. Gerding Cotton chopper, H. F. Mackey Cotton gin brush, T. Brantley. Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton huller, cleaner, and gin feeder, E. B. Larson Cotton in cotton boxes, means for equalizing the distribution of, M. A. Stephenson. Coupling rod jaws, manufacture of, P. Meyer Cream regulating device for separators, W. W. Price Cream separator, Odell & Egan. Cream separator, centrifugal, P. L. Kim- ball Crushing mill, three roll, J. J. E. Bekker. Cultivator, C. H. Grassing Current motor, C. W. Vilet Curtain fixture, A. Farland Curtain fixture, A. Farland Curtain shade and pole hanger, combined, M. D. Powers Cushion for reciprocating beds or other mov- ing parts, T. M. North. Cutter See Formed cutter. Cutter head, J. M. Kuebler Dam, R. C. Beardsley Dental jig, W. E. Griswold Dentist' tapers, composition for, L. C. Mandel Decolorizing device, R. C. De La Hunt Derailment brake, W. R. Carroll Designs and Jacquards for same, apparatus for making, I. Kitse Die cutting machine work holder, B. J. Ab- bott Display card, E. Zoller Distilling apparatus, water, J. M. Coffman Ditcher, J. D. Brown Ditching machine, W. H. Johnston Door closer and check. M. Klingler. Doors, gang locking mechanism for cell, A.	733,313 732,838 733,275 732,938 732,755 732,938 732,969 732,869 732,869 732,876 733,273 732,980 732,886 732,732 733,273 733,273 733,311 733,272 733,311 733,212 733,311 732,926 732,921 732,948 732,931 732,948 732,931 732,932 733,931 732,932 733,931 733,217 733,219 732,931 732,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,932 733,931 732,733 733,931 733,931 733,931 733,931

July 18, 1903.	<u>_</u>	
Electric cable trough or conduit, under- ground, T. E. Devonshire Electric carriers, means for varying the	733,169	•
Electric cable trough or conduit, underground, T. E. Devonshire Electric carriers, means for varying the speed of overhead, H. M. Harding Electric furnace, P. L. T. Heroult Electric ighting device, H. C. Graybill Electric machine, dynamo, C. P. Steinmetz. Electric motor controller, Merrick & Stull. Electric switch, C. F. Autenrieth Electric switch, J. D. Ihler Electric switch, push button, C. G. Perkins Electrical apparatus for use of ultra violet rays, F. F. Strong	733,035 733,040 733,188 732,906 732,875	
Electric motor controller, Merrick & Stull. Electric switch, C. F. Autenrieth Electric switch, J. D. Ihler Electric switch, push button C. C. Borking	732,875 732,695 732,745	
Electrical apparatus for use of ultra violet rays, F. F. Strong	733,343 733,146	6
Electrolytes, preparing, W. Gardiner Electromagnet, I. G. Waterman733,097, Elevator, D. R. Macpherson Elevator alarm signal, E. L. & G. Hail	732,843 733,305 733,238 732,737 732,868 732,762	:
Electrical apparatus for use of ultra violet rays, F. F. Strong	732,868 732,762 733,152	-
End gate fastening, wagon, H. A. Scher- merhorn Engines, reversing gear for steam or other,	733,165 732,965	8
merhorn Engines, reversing gear for steam or other, H: Lentz Engraving machine, J. T. Austin Ensilage machine, E. W. Silver. Entrance closing apparatus, J. Wendler. Exercising apparatus, H. M. Hansen. Exhaust mechanism, E. Karrer. Exhibiting reflected images apparatus for	733,058 732,694 733,289 732,982 732,740	
Exercising apparatus, H. M. Hansen Exhaust mechanism, E. Karrer. Exhibiting reflected images, apparatus for, W. K. Dickson Extracting apparatus, E. Heimann Extracting A Absence		
Extracting apparatus, E. Heimann Eyeglasses or spectacles, A. Akeson Faucet, J. Brizard	732,838 733,200 732,991 732,824	
Extracting apparatus, E. Heimann Eyeglasses or spectacles, A. Akeson Faucet, J. Brizard Feed bag, J. A. Gray Feeders and band cutters, regulating means for self, C. C. Palmer Fence post, R. T. Van Valkenburg. Fence post, P. Chapman Fence weaving machine, wire, G. W. Whittigton	733, • 32 732,956 732,974	i
Fence post, P. Chapman Fence weaving machine, wire, G. W. Whit- tington Fiber cleaning machine, M. Prieto	733.080	
Fiber cleaning machine, M. Prieto File, paper or card, E. W. Woodruff Filter, sand, G. Engel. Finger ring, C. Gosling Fire escape, Yeager & Rixstine Fire escape, C. N. Johnson Fire extinguishing apparatus, E. Zimmer- me	732,807 733,174 733,029	
Fire escape, C. N. Johnson Fire extinguishing apparatus, E. Zimmerman	732,808 732,946 732,990	F
man Firearm ejector, H. L. Powell Fireproof window casing and sash, C. Schroeder Fishing and trapping device, R. F. Arm-	732,891 732,901	g d d
strong Flashlight apparatus, L. Susanka Floor polisher or oiler, C. Weil Flooring, J. W. Heaton Flow regulating device for solid materials,	733,118 733,300 733,098 732,741	1
Flow regulating device for solid materials, G. Engel Flushing apparatus, H. F. Neumeyer		N -
G. Engel Flushing apparatus, H. F. Neumeyer Folding box, G. H. Savacool Folding chair, A. R. Milner Food product and producing same, A. A. Dunham	732,776 732,964 732,771 732,929	
Fork. See Hay fork. Formed cutter, C. W. Brock Fruit gatherer, Bennett & Allen Fuel, artificial, M. F. Ward Fumigating apparatus, J. D. McReynolds. Funnel and device for supporting same, measuring, L. H. Sternheimer	733,311 733,128 732,979	
		a
Furnace top, blast, Hamietat & lesch. Furnace top, blast, Hamietat & lesch. Furnace top, blast, Hamietat & lesch. R. Hunt	733,196 733,046 732,811	1 1
Game apparatus, E. G. Matthewson Garment fastener, T. O. Hegg Garment supporter, J. Wilkinson Garment supporter, R. H. Waters	732,952 733,199 733,102 733,306	t
Gas burner, C. W. Taylor	733,091 733,160	a e I
Gas check, Bunsen burner, L. T. Weiss Gas engine, W. E. Nageborn Gas furnace, E. P. Reichhelm	732,981 733,256 733,274	u a o
Furnace top, blast, Hamieldt & Tesch. Furniture, leaf support for articles of, O. R. Hunt Galvanic battery, E. L. Anderson. Garme apparatus, E. G. Matthewson. Garment fastener, T. O. Hegg. Garment supporter, J. Wilkinson. Garment supporter, R. H. Waters. Gas burner, C. W. Taylor. Gas burner, B. Columbus. Gas burner, B. Columbus. Gas burner and pilot light, electrically controlled, H. W. Webb. Gas check, Bunsen burner, L. T. Weiss. Gas engine, W. E. Nageborn. Gas gurnace, E. P. Reichhelm. Gas generator, acetylene, J. H. Mount. Gas purifier, E. F. Lloyd. Gas purifier, centrifugal, H. A. Humphrey. Gas valve, time, H. McDuffle, Jr. Gate, W. S. Harmon. Gearing, Dayton & Brennan. Gearing, power transmission, Nye & Jenkins	733,328 732,950 732,756 733,206	IF -
Gas receiver, escape, J. E. Claytor Gas valve, time, H. McDuffle, Jr Gate, W. S. Harmon Gearing, Dayton & Brennan	732,712 733,254 733,197 732,834	. ا
Gearing, power transmission, Nye & Jenkins Gearing, reversing, A. Hrnejar	733,076 733,205 733,130	
Gas receiver, escape, J. E. Claytor Gas valve, time, H. McDuffle, Jr Gate, W. S. Harmon. Gearing, Dayton & Brennan Gearing, power transmission, Nye & Jenkins Gearing, power transmission, Nye & Jenkins Gearing, reversing, A. Hrncjar. Glass blower's tube, J. D. Blakeley. Gold from ores, apparatus for extracting, H. R. Cassel. Gold from ores, extracting, H. R. Cassel Gold from ores, extracting, H. R. Cassel Gold ball, E. Kempshall Grain steepers, combined clearer and lifter for, V. Lapp. Gramophones in and out of operation, device for throwing, T. Birnbaum. Grate, rocking, E. F. Edgar Grinding machine, O. S. Walker Ground, forming openings in the, F. Shuman Gun carriage, field, Dawson & Buckham Hair drying comb, Johnson & Bracher Harvester, corn, N. Bader. Harvester reel support, J. F. Appleby Harvester wing, corn, H. M. Burdick Hay fork, W. Louden Hay rakes, automatic pawl trip for horse, E. A. Johnston Head light reflector, F. Buchanan.	732,709 732,708 733,216	
Grain writer, H. 1. Goss. Grain steepers, combined clearer and lifter for, V. Lapp. Gramophones in and out of operation, device	733,055	
for throwing, T. BirnbaumGrate, rocking, E. F. EdgarGrinding machine, O. S. WalkerGround, forming openings in the, F. Shuman	732,820 732,722 732,803 733,335	
Gun carriage, field, Dawson & Buckham Hair drying comb, Johnson & Bradner Harvester, E. A. Mainguet Harvester, corn. N. Bader	733,166 732,860 732,763 732,816	
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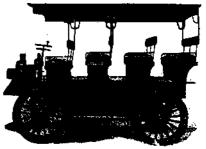
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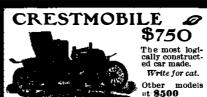
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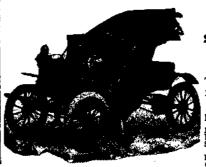
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