RECENTLY PATENTED INVENTIONS. Mechanical Marine Contrivances.

PROPELLER .- JOHN BARNETT, Hotel Irvine, Chicago, Ill. This new form of propeller-wheel is designed to secure the more efficient propulsion of the vessel and is to be used in a series so arranged that the discharge of BUCKSAW.—CHARLES T. REDFIELD, Glenwater from one propeller does not interfere haven, N. Y. The present invention, an imwith the effective action of the next propeller in the rear. Each propeller-wheel comprises a shaft having a rigidly-attached disk provided with spiral blades winding around the shaft. These blades have a free outward discharge away from the disk.

Engineering Improvements.

ENGINE-VALVE.—CHARLES G. HOLMBERG. Woonsocket, So. Dak. The admission and exhaust of steam to and from the engine-cylinder are properly controlled and the desired cutoff is obtained by means of a valve, comprising a main portion and an auxiliary portion, the portion has cut-off flanges each provided with a port adapted to register alternately with ports in the valve-chest. A cut-out portion

Locks.

LOCK .- JASPER H. WILSON, Rockwood, Tenn. The invention provides a bag-fastening lock, and particularly a lock designed to secure the the mail-bag; a staple in the case, and a latch-bar is arranged to pass through the tipplate, and then through the staple. To rock the latch-bar away from the tip-plate and staple, a spring is employed. A device is provided for retaining the latch-bar in engagement with the tip-plate and staple. The hook member of the latch-bar is released from the tip-plate and staple by means of a key. The invention provides a lock which is simple and efficient.

COMBINATION-PADLOCK.—THOMAS HART, Ebenezer, S. C. The inventor has devised a simple and practical combination padlock of small cost, which is easily operated, is not liable to get out of order, and cannot be opened by anyone ignorant of the combination. The shank of the keeper is locked in the case by transverse sliding bars, the opposite ends of which project outside of the case. The invention is intended for use as a stoplock, door-lock, or any other form of lock for which it may be applicable. One of the features of the construction is the tumblers which are provided at both ends with heads limiting their movement. Thus the necessity of providing any separate means for holding the tumbblers in the case is avoided.

Railway Contrivances.

124 Front Street, New York city. The purpose of this invention is so to improve a railway system that passengers can enter and leave a car without stopping the movement of the train. To this end a number of riders or saddle cars are employed, which are successively taken up and dropped from the moving train, and through the medium of which passengers can enter or leave the car without interrupting preventing the convection of heat to the walls the movement of the train.

Vehicle Accessories.

WHEEL.—CHARLES RENARD, 33 Rue Cambon, Paris, France. The inventor has devised an improved wheel-felly provided with a detachable rim. The invention is to be used in connection with the fellies of vehicle-wheels having pneumatic tires. The invention is principally characterized by the combination with circular channels formed in the pulley of one, two, or more wires arranged in such a manner as to permit one of the edges of the felly to be withdrawn for the purpose of de-

MUD-GUARD FOR BICYCLES.—SPENCER MILLER, Rochester, N. Y. The object of the invention is to provide an attachable mudguard for a bicycle, which is adapted for rocking adjustment so as to hold the guard sein lowered position for an elevated position when not needed.

ELASTIC TIRE.—WILLIAM F. WILLIAMS, 17 and 18 Great Pulteney Street, Golden Square, London, Eng. The invention relates to the manufacture of elastic tires of the solid or cushion type. With the object of preventing lengthening or tearing of the tires of motorcar driving-wheels, Mr. Williams embeds in the strips laced together. To two of the strips thickness of the tire, cords or strands which are knotted at frequent intervals, so as to obtain a number of reinforcing points of abutment or resistance to tensional strain. The cords extend around the tire in the circumferential direction of the wheel, and in one layer or in several separate layers located particularly toward the tread of the tire. To these cords, branch cords, also knotted at intervals, are attached, the branch cords diverging herringbone or V wise, so as to reinforce the main spans.

VEHICLE-SPINDLE. - JOSEPH DARLING, Chicora, Pa. Mr. Darling has invented a device for securing nuts upon the outer ends of spindles of vehicle-axles whereby the nuts are the invention, and date of this paper.

prevented from accidentally turning off and from being turned too tightly upon the spindle. The nuts, moreover, can be secured in any desired adjustment upon the spindle.

Miscellaneous Inventions.

provement upon a similar device patented by Mr. Redfield, relates to the means for connecting the continuous brace-bar, which overlies the arch bar, with the end-bars of the saw-frame. The connection of the brace-bar with the endbars is facilitated, and adjustment at such point is permitted, so as to aid in tightening the frame in taking up any slack that may

VETERINARY INSTRUMENT. — ABRAHAM VAN ROEKEL, Sioux Center, Iowa. The invention comprises a number of peculiarly-arranged finger-like rods adapted to be introduced into the vagina of an animal and to lie around the one controlled from the other. The auxiliary muzzle of the fetus. One of these rods carries a prong having a limited movement, and a cord is passed around the ends of the rods, so that when the muzzle of the fetus is properly inor cavity permits the passage of the exhaust. closed by drawing on the cord the rods are engaged firmly therewith and the prong is caused to enter the skin of the fetus. These firmly grasped, the fetus can be readily drawn out of the vagina as the animal labors.

FISHING-REEL.—JAMES H. SMITH, Salisbury Mills, N. Y. The prime object of the mouth of a mail-bag. The essential features invention is to provide a device which will of the construction are a case slotted in its give the fisherman a signal the instant that side to receive an apertured tip-plate on the the hook has been taken by a fish. Combined mail-bag strap; the case being securable on with a frame is a reel, a bell, and a springsustained clapper arranged to turn simultanrockable latch bar. A hook member on the eously with the wheel. The instant the wheel proper is turned in either direction the clapper will sound the bell.

EGG-POACHER.—PETER C. QUAKENBUSH and CHARLES F. CARLSON, Paterson, N. J. The egg-poacher comprises a frame to which a cup is secured. A movable bottom, consisting of sections hinged to the cup at opposite sides, is provided with outward extensions. A slide is carried by the frame. Links, each having one end secured to the slide and the other end to the extension of a bottom section, complete the construction. The eggs when poached are readily freed of the adhering water and can be placed upon a dish or plate without the necessity of lifting them out of the poacher with

CLEANSING FILTER.—AUGUSTINE J. MAD-DEN, 187 Little Collins Street, Melbourne, Victoria, Australia. This invention has been devised to provide an efficient high-class filter so constructed that a simple action of the person turning on or off the cap (which takes the place of the ordinary draw off cock on a water pipe) causes the filter automatically to cleanse and flush away the residue collected from time

REGISTER .- EUGENE B. LOBACH, Denver, Colo. The register is arranged to control the admission of heated air into apartments. The RAILWAY SYSTEM.—JOHN W. JENKINS, register has a face or body portion and a case secured to the rear. A gate is held in the case, the case having its edges extended at the rear of the face. The face or body has perforations lying opposite the extended edges of the case. The perforations allow the free circulation of air and prevent heating the margin of the face of the register. This avoids the necessity of providing other means for

GARMENT-FASTENER.—FANNY B. MATHEWson, Manhattan, New York city. This invention relates to improvements in garment-fasteners of the hook-and-eye order. The object is to provide a fastener of simple construction that can be readily attached to a garment without the usual sewing. The device is provided with a loop section and a hook portion forming part of the loop section. The hook portion is to be passed through the goods from the under side and then carried over and passed through the goods from the upper side and engaged with a plate. After thus engaging the hook with the plate, a tongue is to be turned over the hook to prevent a movement of the loop section and disconnection of the parts.

Designs.

BOARD.—George Barrett, Victoria, B. C., The design provides a novel form of board which is to be used as a covering or weather board on frame-houses. The leading feature consists of a body having an ogee curve on one face at one edge and a groove in its other face at its opposite edge.

BODY-BRACE.—PHILO B. SHELDON, Erie, Pa. The brace consists of vertically-extending shoulder-straps are fastened; and from others a waistband extends. Below the waistband is a stomach-pad laced to certain of the strips. ABDOMINAL BANDAGE.—PHILO B. SHEL-DON, Erie, Pa. From the upper part of vertically-extending strips of equal length a waistband projects, and below this band at the front is a stomach-pad joined in strips by two pairs of straps, the lower pair of which are fastened to the strips at their lower ends and the upper pair of which are fastened to the strips near their upper ends.

Note.-Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Piease state the name of the patentee, title of

INDEX OF INVENTIONS Expansible frame, H. A. Seymoure....... Fabric, See Garnet Fabric, Insole Fabric,

For which Letters Patent of the United States were Issued for the Week Ending October 20, 1001.

AND EACH BEARING THAT DATE.

AND EACH BEARING THAT D See note at end of list about copies of these p	ATE.	Fe:
Accustical apparatus displacem Octob &	atents.	Fii Fil Fir
Acoustical apparatus diaphragm, Osten & Spelding	685,429	Fin Fin
derson et al	685,367 685,478 685,584	Fir Fir
pressed, M. C. Wilkinson	685,704	Fis
Forbes	685,592	Fo Fr
Decor	685,263 685,502 685,337	Fr Fu Fu
Armature winding system, T. J. Murphy Atomizer, liquid, H. H. Dikema	685,290 685,582	Fu Fu
Automatic wrench, J. D. Tupper	685,658 685,446	Fu Fu
Randa forming and loss R R Hill	685,670 685,473 685,474	Fu Ga Ga
Battery, G. Heidel	685,474 685,278	Ga Ga
Macianane	685,686 685,448 685,530	Ga Ga Ga
Sedstead, J. R. Jacobs. Sedstead, F. Schneider. Bicycle luggage carrier, T. Main Binder attachment, Clark & Davis Blast furnace S. W. Vaughen Block. See Lintel block. Soolt, A. Schoenhut Soiler flue plug, R. Bettermann Goiler safety appliance, steam, J. H. Bickford	685,424 685,573 685,499	Ga Ga
Block. See Lintel block. Boat, A. Schoenhut	685,648	Ga
soiler safety appliance, steam, J. H. Bick- ford	685,561 685,244	Ga Ga Ga
ford	685,600 685,454	Ga Ge
steam, D. Halpin	685,454 685,527 685,619	Ge
Bottle washing machine, Schreiber & Mill Brake slack adjuster, S. J. Johnson. 685,377, Brakes, automatic slack adjusting means	685,619 685,351 685,378	Gl: Gl: Gl:
for, S. J. Johnson	685,380 685,335 685,410	Gl Go
Brine, desulfureting and settling raw salt, F. M. Ruschhaupt. Brofler, E. T. Naylor. Burner. See Gas burner.	685,435 685,342	Gr Gr
Broiler, E. T. Naylor		Gr Gr Gr
Surfier. See cas burner. Sutton, H. F. Stowell Suttonbole casing, Z. G. Ward Lable road, elevated, L. Clark Call circuit and apparatus for toll service, universal. A. S. Hibbard	685,360 685,322	Gr Gu Ha
universal, A. S. Hibbard	685,401 685,654	Ha Ha
Car awning, freight, C. R. Doe Car body bolster, railway, G. S. Hastings Car door, S. J. Johnson685,376	685,265 685,422 685,379	Ha Ha
Car fender, A. M. Cupples	685,395 685,616 685,506	Ha Ha Ha
Car, high side gondola, G. I. King. 685,451, Car releasing device, Phillips & Hodge	685,452 685,459	Ha Ha
Sarbureter, Bole & Ruud	685,504 685,333 685,405	Ha Ha He
universal, A. S. Hibbard an cutter, C. E. Storck ar awning, freight, C. R. Doe ar body bolster, railway, G. S. Hastings ar door, S. J. Johnson	685,405 685,602 685,681	і Н е Н е
000,010, 000,000,	685,559	Hi Hi
Centrifugal machine feeding device, J. J. Berrigan Ceramic ware, manufacture of polychrome- ornamented glazed or similar, G. von	685,320	• H o
ornamented glazed or similar, G. von dem Borne	685,666 685,509	Ho Ho
Check sales slip, S. Shoup	685,492 685,664	Ho
Chemille fabric, woven, H. Hardwick Chimney base, J. King Chuck. H. A. Seymoure	685,601 685,615 685,696	Ho Ice Inc
dem Borne. hair, G. A. Dutton. heck sales slip, S. Shoup. heese paste and making same, E. D. Bell henille fabric, woven, H. Hardwick. himney base, J. King. huck, H. A. Seymoure. huck, ball, Z. T. Furbish. ligar container, A. Q. Walsh. ligar making machine, J. W. von Pittler. lämping device, F. C. Billings. lipper, hair, D. J. Archer lloset bowl, siphon, H. S. Maddock. loset bowl, washdown siphon, H. S. Maddock	685,677 685,542	Inc
Diamping device, F. C. Billings	685,415 685,562 685,707	Ind
lloset bowl, siphon, H. S. Maddock	685,621 685,687	Ins Ins
dock Oct Cutting machine, J. B. Gury Clover buncher, A. Smith Clutch, J. R. Scott Clutch, M. C. Johnson Clutch, friction, T. C. Menges Ock, H. Gibbs. Ock, Safety gas, M. Jakobson Ooffee pot, A. M. Lawrence. Ooln controlled apparatus, W. F. M. Ricketts Onreyer, G. G. Howe.	685,329 685,355 685,353	Iro Iro
Clutch, M. C. Johnson Clutch, friction, T. C. Menges	685,721 685,723	Joi Joi
Cock, safety gas, M. Jakobson Coffee pot, A. M. Lawrence	685,597 685,612 685,456	Ke Ke
Coin controlled apparatus, W. F. M. Ricketts Controller regulator, A. D. Thomas	685,642 685,308 685,402	Ki Kn
Conveyer, G. G. Howe	685,515 685,580 685,579	La La La
Cooking and drying apparatus, L. S. Burbank	685,579	La La La
	685,298 685,673	La La
orn nusking and shredding machine conveyer, A. Rosenthal. coronet rolls, A. C. Calkins cotton picker spindle, A. Campbell cultivator, B. G. Paschall cutter. See Can Cutter	685,439 685,636	La
Cutter. See Can Cutter. Cutter bar, A. F. Beman Cutting tool, F. D. Chambers	685,557 685,572	La
Jutter Dat, A. F. Beman. Jutting tool, F. D. Chambers. Jylinder wrench, J. P. Johnson Johnson Dempening machine, R. P. Smith Dental implement, G. M. Williams. Derrick, tramway, B. C. Riblet Detector bar apparatus, W. T. Mead. Jigging machine, ditch, C. W. Bradshaw. Josk or coin holder, G. R. Perry. Joor check, Stewart & Snyder.	685,572 685,282 685,652 685,659	La La
Derrick, tramway, B. C. Riblet Detector bar apparatus, W. T. Mead	685,339	La
Door check, Stewart & Snyder	685,667 685,526 685,306 685,708 685,266	La: La
Door, grain, J. Flesher Dowel connection. Ashby & Miller	685,708 685,266 685,555	La La
Oraw bar, F. L. Granger	685,555 685,272 685,383	La La
Drawing instrument, H. M. Lane	685,668 685,713 685,243	La Le
Orying apparatus, A. P. Mende Oust guard, S. J. Johnson Dyeing machine, J. H. Steadwell	685,287 685,382 685,699	Le Le
Oynamos on cars, mounting and driving, P. Kennedy Slectric brake, P. P. Crafts685,393, Electric circuit switch, H. P. Davis	685,516	Le
Electric cut out. A. J. wurts	685,394 685,507 685,549	Lii
Electric furnace, O. Frolich Electric generating systems, apparatus for regulating, De Dion & Bouton	685,717 685,577	Liı Liı
Electric lighting, W. Nernst Electric lighting apparatus, W. Nernst Electric switch J. W. Hearn	685,577 685,724 685,726 685,604	Lin Lin Lo
regulating, De Dion & Bouton Electric lighting, W. Nernst Electric switch, J. W. Hearn Electric switch, J. W. Hearn Electric distribution system, N. W. Storer Electrical indicator, H. & F. W. Faltermayer Electricity meter, R. S. White 685,313, Electrolytic decomposing annuatatis, M.	685,494 685,590 685,314	Lo
Haas	685,314 685,274	Lo Lo Ma
Electromagnetic spoils or coils, winding for, J. A. Heany	685,470 685,323	Ma Ma
Elevator hoisting mechanism, electric, T.	685,326	Ma
smoroidering machine counterbalancing de-	685,354 685,421	Ma Me Me
wice, J. A. Groebli Emery wheel dresser, E. J. Brisben End gate, Wilde & Stewart Engine. See Air and Gas Engine. Engine regulating mechanism, hydraulic, J. Shradie.	685,709 685,703	Me Me
Engine regulating mechanism, hydraulic, J. Shradle	685,532	Me Me
Shradle Engines, air and gas mixing and governing device for gas, W. P. Flint Engines, sparking igniter for explosive, A.	685,510	Mi
Krastin	685,404 685,482	Mi

,	Expansible frame, H. A. Seymoure Fabric. See Carpet Fabric, Insole Fabric, Chenille Fabric.	685,695
	Chenille Fabric. Fan, electric, G. C. Hawkins. Feed water heater, F. J. Manley. Feed water heater and purifier, F. J. Manley Feeder, automatic boiler, H. J. Davis et al Feeder, boiler, C. W. Hunt. Feeder, boiler, J. A. Morse. Feeding device, boiler, J. H. Bullard. Fence and gate brace tightener, J. R. Wright Fence, foldable, W. Borrman. Fence stays, machine for making steel wire, J. Harris.	680,720 685,624
	Feed water heater and purifier, F. J. Manley Feeder, automatic boiler, H. J. Davis et al Feeder. boiler. C. W. Hunt	685,576 685,280
	Feeder, boiler, J. A. Morse	685,408 685,568
۱.	Fence and gate brace tightener, J. R. Wright Fence, foldable, W. Borrman Fence stays, machine for making steel wire,	685,247
1	Fifth wheel, J. McLaughlin	685,629
į	Finger ring, F. R. Stafford. Fire box, C. W. Hunt	685,653 685,682
7	Fire extinguisher, E. H. Ellis Fire extinguishers, gage attachment for com- pressed air. R. B. Sigafoos	685,304
1	Fireproof blind, W. R. Kinnear685,480, Fish plate and rail chair, W. H. Hamilton	685,481 685,276
2	Files, sharpening worn out, F. Rowley Finger ring, F. R. Stafford Fire box, C. W. Hunt Fire extinguishers, E. H. Ellis. Fire extinguishers, gage attachment for compressed air, R. B. Sigafoos. Fireproof blind, W. R. Kinnear 685,480, Fish plate and rail chair, W. H. Hamilton Flush tank, C. N. Marcellus Bell Frome. See Expansion Frame.	685,665
3 :	Frame. See Expansion Frame. Freezing apparatus, C. W. Vollman	685,310 685,710
; ' } .	Funigating apparatus, H. H. Freedman Funnel holder, J. R. & M. P. Hoffman	685,268 685,607
	Food preparation and making same, E. D. Bell Frame. See Expansion Frame. Freezing apparatus, C. W. Vollman Fuel saving compound, C. P. Harris Funnigating apparatus, H. H. Freedman. Funnace grate, Green & Gent Furnace top, blast, S. W. Vaughen Furnace valve, regenerative, Williamson & Powell	685,498
; '	Furnaces, subheater for hot air, J. Dellinger	685,581
į ·	Gage. See Snac Gage. Gage, W. P. Moulton. Game or puzzle, H. H. Qua Garment supporter, C. J. Bugbee. Gas and air mixer, Stone & Stevens Gas burner, incandescent, J. J. Tonkin. Gas burner, incandescent, J. Mallol Gas generating and burning means, W. Glitsch	685,690 685,639 685,252
3	Garment supporter, C. J. Bugbee	685,252 685,414 685,497
1	Gas burner, incandescent, J. Mallol Gas furnace, W. Swindell	685,623 685,539
,	Gas generator, acetylene, G. H. Cook	
L	685,259, Gas generator, acetylene, White & Harbaugh Gas holder tank, Ö. Intze	685,260 685,545 685,683
ļ	Gas shut off and regulator, automatic, A. C.	685,327
į	Eby Gate, J. R. Wright. Gear, compensating, F. C. Billings Gearing for transmission of power, wheel, G. S. Baker. Glass machine, J. Jackson. Glass or tiling supporting bar, L. Sborigi Glove or dress fastener, S. B. Donchian. Gluing or pasting machine, F. W. Brown. Gold from refractory ores, extracting, R. McKnight	685,706 685,321
1	G. S. Baker	685,503 685,281 685,647
)	Glove or dress fastener, S. B. Donchian Gluing or pasting machine, F. W. Brown	685,397 685,566
)	Gold from refractory ores, extracting, R. McKnight Grading machine, road, T. McDonald. Gradometer, J. H. Bullard. Grain drying apparatus, P. Leroy et al. Grain heater, J. Warrington. Grain unloader and elevator, F. Jestrab. Grate, J. F. Casey. Gun barrel choke attachment, J. C. Broyles Hair retainer, Nowacke & Loesser.	685,691 685,384
2	Gradometer, J. H. Bullard	685,569 685,336 685,701
)	Grain unloader and elevator, F. Jestrab Grate, J. F. Casey	685,684 685,444
	Gun barrel choke attachment, J. C. Broyles Hair retainer, Nowacke & Loesser. Hame fastener, R. H. Waters. Hammer and riveter, pneumatic, H. H. Vanchan	685,669 685,631 685,362
	Hammer and riveter, pneumatic, H. H. Vaughan Hand case, J. A. Comboie. Hanger. See Shafting Hanger. Harness, E. R. Ross	685,359 685,574
	Hanger. See Shafting Hanger. Harness, E. R. Ross	685,434
3	Harness pad, E. & J. Veitung	685,464 685,443
	Harvester, onion, W. A. Schunicht Harvester, etc., seat for, H. W. Avery	685,352 685,663
	Headlight, locomotive, J. S. Henderson Heating apparatus, fitting for steam, T. F.	685,605
į	Dexter	685,396 685,734 685,679
)	Dexter Heating system, hot water, T. C. Purves Hinge, A. L. Fuss Hinge and door check, combined, J. Hughes Hog scraping machine, J. W. Kohlhepp Hoisting apparatus safety device, J. W. Bo- zarth Hook and eye, S. A. Peckham	685,403 685,283
	zarth Hook and eye, S. A. Peckham	685,249 685,637
	zarth Hook and eye, S. A. Peckham Hook. See Locking Hook. Horse detacher, S. A. Haines Horse driving from a distance, device for,	685,375
	H. Grass	685,598 685,293
	Incubator, G. R. & M. O. Adams	685,517 685,550 685,688
	heater for, M. M. Johnson	685,334 685,257 685,285
	Insect catching machine, O. M. Maupin Insole fabric, woven, W. McIlwain Insole making machine, A. B. Fowler	685,285 685,524 685,373
· :	Horse driving from a distance, device for, H. Grass	685,606
	Insulators in place, screw driver for securing A. Henry. Iron. See Sad Iron. Joint. See Rail Joint. Journal box and Ild, S. J. Johnson. Keyboard player, Bielefeldt & Silwar Key-operating machines, automatic actuating mechanism for, D. Murray.	000,100
} !	Journal box and lid, S. J. Johnson Keyboard player, Bielefeldt & Silwar Key-operating machines, automatic actu-	685,381 685,245
	Tr	685,127 685,618
	Knuckle, compensating emergency, J. J. O'Brien Lamp, W. N. Rose. Lamp, W. Johnson. Lamp, electric arc, J. A. Mosher. Lamp, electric arc, J. A. Mosher. Lamp, electric glow, W. Nernst. 685,725 to Lamp glower, electric, W. Nernst, 685,729. 685,732.	685,632 685,297
) .) . 	Lamp, N. Johnson	685,479 685,501 685,426
	Lamp, electric glow, W. Nernst. 685,725 to Lamp glower, electric, W. Nernst.	685,728 685,733
	Lamp glowers, material for electric, W.	685,730
•	Lamp glowers, treating Nernst, M. W. Hanks Lamp heaters, controlling system for elec-	685,512
	Lamp heaters, controlling system for elec- tric, H. N. Potter	685,486 685,528
i	Potter Lamps, ballast device for electric glower, W. Nernst. Lamps, contact key for sockets of electric in candescent, G. H. Proctor. Lamps, heater cut out for electric, H. N. Potter	685,487 685,731
;	Lamps, contact key for sockets of electric incandescent, G. H. Proctor	685,295
	Lamps, heater cut out for electric, H. N. Potter	685,488 685,588
	Lamps, heater cut out for electric, H. N. Potter	685,578 685,288
!	turning, O. D. Rhodes	685,692 685,660
	Leaf cutter. G. S. Dolloff	685,676 685,552
•	Adams, Jr Leather stretching device, J. Caldwell 685,254,	685,551 685,255
	Leather stretching machine clamp, J. Caldwell	685,253
!	Leather stretching machine clamp, J. Caldwell Life preserver, G. I. de Irsa. Link, repair, F. G. Asbill. Linoleum floor cloth, manufacture of, D. N.	685,611 685,654
	Melvin Linotype machine, P. T. Dodge.	685,520 685,533 685,318
	Linoleum floor cloth, manufacture of, D. N. Melvin Linotype machine, P. T. Dodge. Lintel block, H. W. Bell. Lock, F. W. Mix Locking hook, automatic, E. L. Weed. Locking hook, automatic, E. L. Weed. Locomotive exhaust mechanism, R. Harding Loom shedding motion, E. Oldfield. Loom warp tension mechanism, V. E. Morse Magnazine spring drill, Z. T. Furbish. Magnetic device for use in alternating current circuits, J. Pearson. Mail bag receiving and delivering device, G. S. Cromwell. Match making machine, J. H. Stewart. Measure, automatic liquid, L. B. Haberly. Mechanical movement. C. A. Anderson et al	685,289 685,363
1	Loom shedding motion, E. Oldfield Loom warp tension mechanism, V. E. Morse	685,633 685,521
	Magazine spring drill, Z. T. Furbish Magnetic device for use in alternating current circuits I Page 20	685,678 685,421
	Magneto electric generator, J. S. Mead Mail bag receiving and delivering device, G.	685,286
1	Match making machine, J. H. Stewart Measure, automatic liquid, L. B. Haberly	085,324 685,413 685,399
	Mechanical movement, C. A. Anderson et al Mechanical movement, G. Goodline	685,241 685,420
	Measure, automatic liquid, L. B. Haberly. Mechanical movement, C. A. Anderson et al Mechanical movement, G. Goodline Metal planing and shaping machine, G. Richards Metals planing machine, G. Richards Metals from metal bearing material, separating valuable, C. E. Dolbear Miking stool and pail holder, combined, J. H. Beattle Mines, packing for drift, gallery, or other openings in, J. Muirhead	685,3·17 685,348
;	metals from metal bearing material, separating valuable, C. E. Dolbear Milking stool and pail holder, combined. J.	685,508
	H. Beattle	685,419 685,522
- 1	oponingo inj se mininga	200004

graph wires.

302		Scientific
Mop holder, W. B. Hadley	685,275 685,269	Top, B. B. Ward
more turner, Shunk & Davis. (Music leaf turning device, G. Culley. (6 Musical instrument self-playing attachment,	685,638 685,533 685,262	rope, B. C. Riblet
Musical instruments and automatic music sheet therefor, pneumatic tracker for.	685,546	Trolley, electric railway, E. R. Coon. 685,575 Truck, mill, E. Whalley. 685,702 Trunk, J. Longshore, Jr. 685,284 Urine tester, E. A. Starz. 685,538
R. A. Gally	685,270 685,513 685,361	Valve, S. Warburton
Nut lock, P. J. Moran	685,340 685,620 685,407	Valve reseating machine, gate, F. L. Smith 685,697 Valve, safety, J. J. Tonkin
Oil or grease, apparatus for extracting, E. Printz	685,529 685,325 685,610	Vehicle steering device, self propelled, J. H. Bullard 684,570 Vehicle steering mechanism, A. Thompson. 685,540 Vehicle wheel, C. Miller. 685,627
Pancreas, obtaining a preparation of the, W. Weber	685,543 685,370	Vehicle wheel and means for attaching rubber tires thereto, W. J. Kent 685,450 Vehicles, tank filling device for steam pro-
Peat, treating and drying, Sims & Davis	685.650 l	Vessel, cargo, Fernez & Breuer 685,591 Veterinary mouth speculum, E. W. Cannon 685,710
Pegging machine anvil, I. Frechette	685,398 685,258 685,640	Vise, screw, C. Rauhe. 685,386 Wardrobe and bedstead, combined, Bowring & Barnhart. 685,248 Warp beam tension device, C. A. H. Reitsch 685,643 Wash tub cover, stationary, G. W. Everett 685,889
Photographic printing apparatus, A. Pickard Photography, apparatus for submarine, L. E. Walkins	685,432	Watchmaker's tool, R. Leusch 685,338
Picture frame support, adjustable, F. Mc- Intyre. Piling, metallic sheet, G. W. Jackson. (Pipe coupling, automatic, J. E. Forsyth. (Pipe lifter, Odette & Gosselln	685.458 685,147 685,267	Water closet ventilation, W. H. Stilwell. 685,493 Water purifier, J. J. Rose. 685,645 Water raising and distributing system, A. 685,495
Pipe lifter, Odette & Gosselin	685,385 685,357 685,694 685,655	Weather strip, B. M. Whiting. 685,495 Weld drilling and operating apparatus, J. Reid 685,641 Welt grooving and beveling machine, E. E.
Plastic compounds, preparing, C. Reisser	685.556 685.556	Winkley
Pneumatic despatch tube apparatus, transmitter for use in, J. T. Cowley	685,596 685,400	& Öldham 685,433 Windmill regulator, H. L. Ferris 685,716 Window, E. Bradshaw 685,466 Window tightener and holder, H. D. Trefry 685,309
Printing surfaces, making, C. A. O. Rosell 685,461, (Propelling apparatus, boat, D. R. Sheen (Pulley, ribbed, Galloway & Whyman	6 5 5.437 i	Wrench, J. W. Grubbs
Pulley, ribbed, Galloway & Whyman	591,688,691	Wrench, G. F. Sprague
Pump rod balance, A. A. Koch. (Punch, ticket, W. E. Clow. (Push button support, electric, H. F. Keil (Rail joint, C. B. Mead. (Rail joint, Burger & Williams. (Rail joint)	685,617 685,477 685,611 685,519	DESIGNS.
Rail joint, Burger & Williams	685,683	Clamp or fastener member, M. E. Phillips. 35,234 Dish, W. C. Muschenheim
Railway, electric, Arno & Caramagna (Railway, marine, J. L. Crandall	685,242 685,714	Display fixture for suspenders, etc., M. Jacobs 35,247 Door check, S. L. S. Stickle
Railway sleeper and chair, A. Anderson	685,523	Hinge member, D. W. Tower. 35,238 Hoe, F. M. Solomon. 35,242 Knob, D. W. Tower. 35,239 Metal ware, branch arm for solid or plated, S. W. Babbit. 35,241
Emerson	685,425 685,371 685,343	Mustache guard, for drinking vessels, strainer, W. H. Snedeker
Emerson Reclining chair, Davis & Sturm Refrigerator, J. G. Ogden. (Refrigerator, R. Hirsh Revolver, C. P. O'Neill Rheostat, T. S. Perkins Roasting furnace, E. B. Parnell Rolling mill, J. Fawell Rotary engine, R. Sanderson Rotary explosive engine, C. A. Marrder.	685,292 685,485 685,344	Powder box cap and stopper, C. W. Lunt. 35,233 Rug, A. Petzold
Router, carpenter's, A. F. Schade	685,411	Show case, portable, J. T. Robin 35,248 Speculum blade blank, C. J. Pilling 35,229 Spoke holder, J. Jackson 35,244 Spoons, forks, etc., handle for, G. L. Crowell, Jr 35,230
Rubbing and polishing machine, H. P. Gale (Rudder propeller, W. S. Avard	685,328 685,368	Vending machine case, W. D. Doremus 35,237
Sash balance, A. E. Hewitt. Sash lock, J. A. Hasenpflug. Sash lock, F. B. Townsend. Saw, buck, Nicol & Lionberger. Saw frame, buck, W. Smith. Saw grinder adjusting attachment, W. A. Huff. Saw horse, M. A. Elliott	685,469 685,700 685,291	Weighing machine case, W. H. Pumphrey 35,236 TRADE MARKS.
Saw grinder adjusting attachment, W. A. Huff Saw horse, M. A. Elliott	685,609 685,445	Boots and shoes, Frank G. Jones Shoe Co 37,242 Boots and shoes, certain named, Common- wealth Shoe and Leather Company 37,241
Huff Saw horse, M. A. Elliott Sawmill carriage gear, E. S. Berry. Saw set, double action, Roberts & Mara Scale, computing, H. J. Henrichson Scrap bundling press, C. W. Bray. Scraper and grader, J. U. Sargent. Scraper and grader road Walker & Oston	685,560 685,644 685,330 685,565	Brushes, R. P. Martin
Scraper and grader, J. U. Sargent	685,350 685,657 685,264	tobacco, Universal Tobacco Company 37,246 to 37,253 Corsets, corset materials, and underwear, ladies' D. Kops. 37,237
Separator. See Gas and Oil Separator. Shade fixture, adjustable window, F. Winne	685,428 685,366	Corsets, corset materials, and underwear, 1adies', D. Kops. Crackers, or biscuit, and cakes, Columbus Biscuit Company
Shade roller, window, G. A. Berlinghof (Shafting hanger, A. Weed	$685,711 \\ 685,312$	fection 37,259 Extracts, essences, oils, waters, powders, and soaps, toilet, A. Raynaud & Cle. 37,255 to 37,257 Fabrics, certain named woven, Albany Felt
Shafting hanging and lining up instrument, R. Kinkead Shank stiffener machine, Rich & Reed Sheet metal oval or circular frames, machine for making, H. A. Seymoure Shield or protector, R. M. J. McHale	685,489 685,531	Company 37,234 Feed cutters, carriers, and land rollers, Farmers Mfg. Co. 37,265 Gloves, kid. F. Schmidt & Co. 37,238 to 37,240
Shingle die, Palmer & Downs	685 294 :	Grinding and polishing machinery, Diamond Machine Company
Signature gatherer, J. E. Smyth	685,535 685,500	Leather, certain named, Thomas G. Plant Co. 37,245 Oil, lubricating, Signal Oil Company 37,256 Ointment, H. F. Tripp
Slide gage and try square, combined, Olson & Opland	685,634	Soles and heels cut Bayter Schenkelherger
Wiley, Jr. Snap hook, breast yoke, A. R. Otterman. Snap, whiffletree, H. H. Brown Soldering cans, etc., J. McGinnis	685,525 685,250 685,483	& Company. Spool cotton or cotton thread, Societe Anonyme Filature et Filteries Reunies 37,236 Steel and steel blanks, forms, shapes, and parts, Crucible Steel Company of America 37,264
Snap, whimetree, H. H. Brown Soldering cans, etc., J. McGinnis. Sound recording and reproducing machine, Osten & Spalding. Sound reproducing apparatus, G. K. Cheney Speed changing mechanism, G. A. Ensign.	685,409 685,712 685,587	Thread for sewing and for making lace, L. Jachiet
Speed regulator, G. Lombardi	685,518 685,416 685,417 685,477	LABELS.
Spike grooving machinery, L. Williams. Spike grooving machine, L. Williams. Spike grooving machine, O. Irwin. Spike anaking machine, O. Irwin. Square, bevel, E. C. Duncan. Square, T, J. D. Barrie. Stacker, pneumatic, G. W. Morris. Stamp mill guide, E. Major. Stamp retraining davice, B. F. Herold	685,372 685,369 685,628 685,622	"Bohemian," for malt extract, Western Brewery Company
Steam boiler, H. L. Wilson	685,418	"Bully," for cigars, American Lithograph Company
Steam engine, C. C. Worthington. Steam engine, R. H. Botts. Steck head, A. Hulsberg. Stove foel receptacle, cooking, C. D. Orcutt Straightening trough and delivery guide to cooling tables. P. Boyd.	685,567 685,317 685,563 685,332	Reiss & Brady
Stove fuel receptacle, cooking, C. D. Orcutt Straightening trough and delivery guide to cooling tables, P. Boyd	685,484 685,465	chewing gum, Hartford Chemical Co 8,748 "Laurel," for canned goods, A. von Cotz- hausen 8,752
Strainer, A. Sidoti. Street cleaning implement, A. M. Grey. Stretcher for artists use, S. S. Gardner Sugar, producing, S. Duffner Switch. See Electric Switch.	685,599 685,511 685,585	"Our Edna," for shoes, L. Franc & Son
Switch. See Electric Switch. Switchboard and fuse box, M. H. Johnson. Switch controlling device, G. H. Hill Switch throwing device, F. P. Frein	685,613 685,279 685,595	food, P. Johnson & Co
Switch See Electric Switch. Switchboard and fuse box, M. H. Johnson. Switch controlling device, G. H. Hill. Switch throwing device, F. P. Frein. Synchronizer, automatic, J. Pearson. Table support, F. A. Millikan. Tabulating apparatus, H. Hollerith. Tamp, mechanical, W. R. Crane. Tabulating apparatus, Skirrow.	685,430 685,689 685,608	
Telegraph or other system, J. Burry	685,571 685,390	Nome Chemical Company
Telephone power generator, E. Kranenbuni Thelphone system, secrecy, F. A. Cumings Thermo electric couple. Hermite & Cooper	685,685 685,715 685,471	PRINTS.
Thermo electric couples, manufacturing copper sulfid rods for, Hermite & Cooper Thill coupling, E. P. Bowles Thill coupling and antirattler, combined, G. L. Schermerhorn		"Autohav Shoe," for shoes, Smaltz-Goodwin Company 415 "Our Edna," for shoes, L. Franc & Son. 414 "Pittsburg Souvenir Playing Cards," for playing cards, W. J. Glimore & Co. 413
L. Schermerhorn. Thill coupling, anti-rattling, R. E. Sears Threshing machine, E. T. Shelley Ticket transfer, Sittner & Geery	685,436 685,300 685,305	A printed copy of the specification and drawing
Tire or other valve, G. H. F. Schrader Tire tightener W. G. Williamson	685,536 685,649 685,364	
pneumatic, Scott & Nephew	685,491 685,537	York. Canadian natents may now be obtained by the in-
Tool, H. Sommerfeld	685,358	ventors for any of the inventions named in the fore- lgoing list. For terms and further particulars address Munn & Co., 361 Broadway, New York.

,	Top, B. B. Ward	685,311 685,345
, 1	Tramways, automatic bucket loader for wire rope, B. C. Riblet	COE DOS
3 !	Tramways, automatic dumping bucket for	685,387
ź	wire rope, B. C. Riblet	685,388
- 1	Trolley, electric railway, E. R. Coon	685,575
3	Truck, mill, E. Whalley	685,702
	Trunk, J. Longshore, Jr Urine tester, E. A. Starz	685,284
)	Urine tester, E. A. Starz	685,538
3	Valve, S. Warburton	685,438 685,490
í	Valve, hydraulic, Anawalt & Shalkowski.	685,662
5	Valve reseating machine, gate, F. L. Smith	685,697
)	Valve reseating machine, gate, F. L. Smith Valve, safety, J. J. Tonkin. Vehicle brake, automatic, J. D. Boden Vehicle brake, road, Allen & Schumacher	685,496
)	Vehicle brake, automatic, J. D. Boden	685,246
r	Vehicle brake, road, Allen & Schumacher	685,240
, !	Vehicle steering device, self propelled, J. H.	684,570
5	Bullard Vehicle steering mechanism, A. Thompson Vehicle wheel, C. Miller	685,540
ίí	Vehicle wheel, C. Miller	685,627
	Vehicle wheel and means for attaching rub-	,
3	Vehicle wheel and means for attaching rubber tires thereto, W. J. Kent. Vehicles, tank filling device for steam propelled, W. B. Mason. Vending machine, H. S. Mills.	685,450
3	Vehicles, tank filling device for steam pro-	cor cor
1	Vanding machine H S Mills	685,626 685,457
ιl	Vessel, cargo, Fernez & Brener	685,591
5	Vessel, cargo, Fernez & Breuer Veterinary mouth speculum, E. W. Cannon	685,710
3	Vise, screw, C. Rauhe	685,386
3	Wardrobe and bedstead, combined, Bowring	005 040
,	& Barnhart. Warp beam tension device, C. A. H. Reitsch Wash tub cover, stationary, G. W. Everett	685,248 685,643
2	Wash tub cover stationary G W Everett	685,589
	Watch, stop. J. Parkinson	685,630
إب	Watchmaker's tool, R. Leusch	685,338
Ū	Watch, stop, J. Parkinson	685,493
3 !	water puriner. J. J. Rose	685,645
7	D Strong	685,495
7	D. Strong Weather strip, B. M. Whiting Well drilling and operating apparatus, J.	685,547
	Well drilling and operating apparatus, J.	•
5	Reid	685,641
)	Welt grooving and beveling machine, E. E.	cor act
;	Winkley Wheel, J. M. Rankin Winding apparatus, yarn or thread, Rivett	685,368 685,296
1	Winding apparatus, varn or thread. Rivett	000,200
1	/ Kr Oldham	685,433
į	Windmill regulator, H. L. Ferris	685,716
)	Window, E. Bradshaw	685,466
,	Whomas I W Chubbs	685,309
2	Wroneh F T Robinson	685 349
7	Wrench, F. Weimar	685,544
)	Wrench, F. T. Verharen	685,650
1	Wrench, J. W. Grubbs. Wrench, F. T. Robinson. Wrench, F. Weimar. Wrench, F. T. Verharen Wrench, G. F. Sprague. Wrench jaws, producing wrought metal, T. F. Cairns.	685,698
3	Wrench Jaws, producing wrought metal, T.	695 956
7	r. Cairns	000,200
7		
1	DESIGNS.	
•	DENIGHO.	

Clamp or lastener member, M. E. Philips	50,254
Dish, W. C. Muschenheim	35,232
Display fixture for suspenders, etc., M. Jacobs	
Door check, S. L. S. Stickle	35,240
Garment supporter, F. G. Dietz	35,235
Hat holder, E. H. Stowell	35,246
Hinge member, D. W. Tower	35,238
Hoe, F. M. Solomon	35,242
Knob, D. W. Tower	35,239
Metal ware, branch arm for solid or plated,	
S. W. Babbit	35,241
Mustache guard, for drinking vessels, strain-	
er, W. H. Snedeker	35,231
Pavements, marginal protecting strip for,	
D. & A. A. Mullen	35,249
Powder box cap and stopper, C. W. Lunt	35,233
Rug, A. Petzold	35,252
Scraper, mud, J. N. Todd	35,243
Show case, portable, J. T. Robin	35,248
Speculum blade blank, C. J. Pilling	35,229
Spoke holder, J. Jackson	35,244
Spoons, forks, etc., handle for, G. L. Cro-	
well, Jr	35,230
Tumblers, etc., holder for, L. M. Hooper	35,245
Vending machine case, W. D. Doremus	
Weighing machine case, W. H. Pumphrey	35,236

TRADE MARKS.

Boots and shoes, certain named, Common-	,
Boots and shoes, certain named, Common-	37,241
wearth shoe and Deather Company	
wealth Shoe and Leather Company Brushes, R. P. Martin	37,262
Chains, J. F. Sturdy's Sons	37,263
Chains, J. F. Sturdy's Sons	
tobacco, Universal Tobacco Company	
37,246 to	37 253
Congota congot materials and underweam	01,200
Corsets, corset materials, and underwear, ladies', D. Kops	27 227
laties, D. Kops	37,237
Crackers, or biscuit, and cakes, Columbus	
Biscuit Company	37,254
Disinfectants, Societe Francaise de Desin-	
fection	37,259
Extracts, essences, oils, waters, powders, and soaps, toilet, A. Raynaud & Cie.37,255 to	.,
soans toilet A Raynaud & Cie 37 255 to	37 257
Fabrics, certain named woven, Albany Felt	01,-01
Company Certain names woven, Amany Per	37.234
Company Feed cutters, carriers, and land rollers,	01,201
Feed cutters, carriers, and land rollers,	
Farmers Mrg. Co	37,265
Farmers Mfg. Co	37,240
Grinding and polishing machinery, Diamond Machine Company	
Machine Company	37,267
Leather and leather goods, certain named,	•
American Oak Leather Company	37.244
Leather, certain named, Thomas G. Plant Co.	
Oil lebelection Circal Oil Commons	
Oil, lubricating, Signal Oil Company Ointment, H. F. Tripp	37,260
Ointment, H. F. Tripp	37,258
Paints or wall finishes, cold water, Muralo	
Company	37,261
Soles and heels, cut, Baxter, Schenkelberger	
& Company	37,243
Specification or cotton through Societa Apony-	•
me Filature et Filteries Rennies	37.236
me Filature et Filteries Reunies Steel and steel blanks, forms, shapes, and parts, Crucible Steel Company of America	01,200
nerts Consible Steel Company of America	37,264
Thread den acceptant and den malder 1	01,204
Thread for sewing and for making lace, L.	07.005
Jachiet	37,235
venicles, motors, and parts thereof, road,	
Vehicles, motors, and parts thereof, road, Ajax Motor Vehicle Company	37,266

LABELS.

	"Bohemian," for malt extract, Western Brewery Company	8,747
L	"Bully," for cigars, American Lithograph	•
ļ	Company	8,744
ľ	"Cof-No-Mor," for medicine, I. M. Adams "Deliciously Stuffed Dates," for stuffed dates,	8,755
	Reiss & Brady	8.751
	"El Falco," for cigars, cigarettes, and to- bacco, American West Indies Trading Co.	0,,,02
	bacco, American West Indies Trading Co.	8,746
	"Hartford's the Best Chewing Gum," for chewing gum, Hartford Chemical Co	8 748
	"Laurel." for canned goods, A. von Cotz-	
	hausen	8,752
	"Our Edna," for shoes, L. Franc & Son	8,749
	"Peerless Pure Breakfast Cereal," for a cereal	8 753
	food, P. Johnson & Co "Penny Pudding Tablets," for pudding tab-	0,100
	lets, E. D. Basford	8,750
	"Qroil," for a medical compound, C. F.	0.750
I	Schneider "Red Cross Salve," for salve, Red Cross	8,756
	Salve Company	8,758
	"Sal-Nome," for an effervescent laxative salt,	!
	Nome Chemical Company	8,757
	D. Higgins	8.704
	"Vista Del Ray," for cigars, Schmidt & Co.	8,745
١		

PRINTS.

"Autohav				Smaltz-Go		415
"Our Edna,"	' for s	hoes,	L. Fra	inc & Son.		414
"Pittsburg sing card	s, W.	J. Gil	more &	Co	piay-	413

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. 1555.—For a small gasoline engine 1/2. p. with governor.

TURBINES.-Leffel & Co. Springfield, Ohio, U. S. A. Inquiry No. 1556.—For manufacturers of gaso-line engines with tube ignition.

"U.S." Metal Polish. Indianapolis. Samples free Inquiry No. 1557.—For manufacturers of parts of asoline engines.

WATER WHEELS. Alcott & Co., Mt. Holly, N. J. Inquiry No. 1558.—For manufacturers of machin-ry for making glass insulators for telephone and tele-

Yankee Notions. Waterbury Button Co., Waterb'y, Ct. Inquiry No. 1559.—For a ramie defibrating machine.

Gasoline Lamps and Systems. Turner Brass Works

Inquiry No. 1560. -For manufacturers of electric signs.

"Perfect aluminium solder. Amer. Hdw. Mfg. Co., Ottawa, Ill."

Inquiry No. `4561.—For parties to undertake the manufacture of a special automatic electric switch. Hoeing machine patent for sale. J. C. Hallmark,

Georgetown, Tex. Inquiry No. 1562.—For manufacturers of flag-poles.

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

Inquiry No. 1563.—For the manufacturers of the Gorin multigraph.

For Sheet Brass Stamping and small Castings, writ Badger Brass Mfg. Co., Kenosha, Wis.

Inquiry No. 1564.—For parties to make a small tool with aluminium handle.

Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.

Inquiry No. 1565.—For transfers for use in outside advertising.

For metal articles, any kind, made any shape, write us. Metal Stamping Company, Niagara Falls, N. Y.

Inquiry No. 1566.—For manufacturers of unique advertising novelties.

Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

Inquiry No. 1567.-For up-to-date novelties.

For SALE.—One ½ h. p. dynamo, one ¼ h. p. steam engine. R. A. Crihfield, 225 Third Street, Lincoln, Ill.

Inquiry No. 1568.—For parties to make a quilting frame. Kester Electric Mf'g Co's, Self-fluxing solder saves

labor, strong non-corrosive joints, without acid, Chic-

Inquiry No. 1569.—For the manufacturers of the Lotrent sliding door hanger.

Machine Work of every description. Jobbing and repairing. The Garvin Machine Co., 149 Varick, cor. Spring Sts., N. Y.

Inquiry No. 1570.—For dealers in castings for ½ or ¾ h. p. gasoline engine for a tandem bicycle.

Manufacturers of patent articles, stamping dies, tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 1571.—For manufacturers of well casings.

Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.

Inquiry No. 1572.—For a machine for threshing, hulling and cleaning rice.

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. 1573.—For brick machinery for making pressed brick. TO MANUFACTURERS AND INVENTORS.—Send parti-

culars and illustrations of your manufactures and inventions to Calder & Goldwater, Solicitors, Auckland, New Zealand.

Inquiry No. 1574.—For an amplifying telephone receiver.

EVERYTHING ELECTRICAL.—Prices to surprise amateur and dealer, Best small motors and dynamos made. Four cents for catalogue. T. Binford Electric Works, Department H, 994 Washington Boulevard, Chicago.

DESENISS & JACOBI, A. G., Hamburg, deep-well and pumping machinery manufacturers, are desirous to deal in mod'ern pneumatic pumping systems, either for representation or acquiring inventor's rights. Heinrich Eisler, Hamburg, sub. B 6545.

MECHANICAL SUPERINTENDENT WANTED. — Fami-55 | liar with the manufacture of firearms on a large scale, possessing executive and mechanical ability. Address, stating age, experience and references, A. Box 2123 General Post Office, New York.

FOR SALE OR ON ROYALTY. - Patent No. 683.747 issued October 1. 1901. A foot-warmer designed upon sanitary principles to relieve people suffering from on 110-volt alternating current circuit. A. cold feet. Useful in homes, hotels and hospitals. For Stereopticons are usually run with ½-inch specifications and full particulars address Frank Gotsche, 416 Hoffman Avenue, San Francisco, Cal.

FOR SALE.-Three bias cutting machines especially built and suitable for cutting velveteen's and other fabrics on the bias. Each machine cuts a 4 yard length at a stroke; has self-sharpening knives and adjustable automatic feed: is perfectly balanced, requiring but little power to operate. All are in perfect condition; equipped with fast and loose driving pulleys. feed tables, etc. Can be operated at the rate of from 45 to 60 cuts per minute. Address

E. H. B., Box 165, New York.

FORTUNE IN RUBBER CULTURE.—Agriculturist engineer owning valuable rubber lands, splendid situation, wants partner capitalist. Long experience preventing failure. No company squandering money. Comparatively small investment required.

Write Martin, 54 W. 26th, N. Y.

WANTED .- A competent and energetic draughtsman about 33 to 35 years, up in modern methods, to take charge of small machine shop. Good pay to right man. One familiar with bleaching and dyeing machinery preferred. Address, giving full information and wages expected, B. B., No. 32 Kent St., Somerville, Mass.



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.

his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying

accresses of nouses manufacturing or carrying the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of price. Minerals sent for examination should be distinctly marked or labeled.

(8420) G. E. D. asks: Are the exciting balls of a wireless telegraph instrument immersed or rubbed with vaseline or other oil in the best modern methods? A. No. 2. Are choking coils used in the receivers of the instruments? A. No. 3. What would the height of the wires have to be for telegraphing the distance from one and one-half to two miles? A. We think from 20 to 30 feet will answer.
4. Is it practicable to use the instruments in a city with large buildings? A. Yes.

(8421) J. F. K. writes: In answer to F. S. (8241), issue of July 6, 1901, you say there is no destructive local action between the oxide filling and the grid of a storage battery. How is this to be explained, as there appear to be all things necessary for a galvanic cell-metallic contact between different conductors and simultaneously liquid contact be-tween the same? This has been a difficulty of which I have not been able to get the solution. A. You will find the solution in Treadwell's "Storage Battery," page 120, price by mail \$1.75. Local action is avoided by avoiding contact between the conducting grid and the liquid electrolyte. This is accomplished by having an unbroken layer of peroxide upon the surface of the grid. If this is broken by any means, the battery deteriorates by local action.

(8422) A. M. asks: Please let me know what I would need to cause the sound of a clock to be transmitted a distance of, say, 150 feet by electricity. A. A simple device would consist of a telephone transmitter in front of the clock and a receiver at the point at which you would hear the ticking.

(8423) B. F. V. writes: Will it affect the quantity of gas consumed in a building whether the gas is turned on full at the meter and partly turned off at the burners, or partly turned off at the meter and fully turned on at the burners? Assuming the same number of jets burning and the same illuminating power in both cases. A. There is a very slight difference in the volume of gas due to the pressure at the meter and the proper pressure at the burner jet, which indicates a saving of gas by the meter measurement at the higher pressure or by regulating the pressure at the burners instead of at the meter.

(8424) J. W. D. asks: 1. How long does it take to decompose one pound acidified water with a current of 100 volts? A. The time required to decompose a pound of water depends upon the amount of electricity used. If 131/2 amperes are used at 100 volts it will require one hour. From this the time for any other current can be found, or the current for any other time. Water is decomposed with any voltage greater than 1.47 volts. You will see then that 100 volts is very much higher than is necessary. 2. How much does it cost to run a dynamo of 1,000 volts annually, including all expenses? A. That depends upou how many amperes the dynamo is to furnish. A dynamo giving 1,000 volts might be lighting a small village, or it might be lighting a large section of your city. The cost would not be the same in both cases.

(8425) G. G. S. asks: Please inform me as to the amount of current used by (1) 1/2-inch solid carbons, (2) 1/2-inch soft core carbens, (3) %-inch solid carbons, (4) %-inch carbons. We have never used one with a larger carbon. The 1/2-inch carbon will carry as high as 25 amperes, but 10 to 15 amperes is the usual current for such a lamp. A %-inch carbon would carry 25-16ths as much current as a 16-inch carbon. The current would be proportional to the area of cross section of the

(8426) J. V. J. asks: 1. Why are open circuit telegraphs not used as often as closed circuits? A. The calling apparatus requires a closed circuit. 2. Can the duplex be worked on them? A. We do not know as to the possibility. Many things are possible which are not practicable. 3. Does an arc lamp when placed under water decompose? A. No. It heats the water. 4. Can a person get a shock from one carbon-zinc cell? A. Not from the battery alone. 5. Can an electric motor be driven both ways to advantage? A. Yes. Street car motors are reversed very often.

(Continued on page 303)