#### RECENTLY PATENTED INVENTIONS. Railway Appliances.

TRAIN SIGNAL.-Augustus H. R. Guiley, South Easton, Pa. This is an improvement on a formerly patented invention of the same inventor for an electric block system for railways, the earlier patent providing for diagonal contact plates to be engaged by the lateral pressure of contact arms, while the present invention covers an improved form of contact plate and brush. Applied to a single track railway, the apparatus indicates each other the presence of trains on different sections of track, whether the trains are running in the same direction or running toward each other.

MAIL BAG CATCHER AND DELIVERER. -Charles F. Sliger, San Antonio, Texas. This is a device which may be used at either side of a door opening in a car, to transfer mail bags from a hanger to the car while the latter is in motion, or to deliver a mail bag at the station, one operation not interfering with the other the device being automatic in its operation and quite simple and inexpensive. A spring-controlled catcher arm carries a retaining arm and locking mechanism, a delivery arm being fulcrumed on the catcher arm and a locking device engaging the retaining arm, while there is a trip connection between the locking device and the delivery arm, there being also a carrier on the latter arm and a trip to throw it into open position.

#### Mining, Etc.

DRY WASHER.-Frederick E. McKinley, Albuquerque, New Mexico. This is a machine for placer mining, designed to save all the gold, both flour and nuggets in the sand, without the use of water and quicksilver. It consists of a sand roaster discharging into a nugget-separating machine leading to conveyors connected by elevators with the uppermost of a series of screens one above the other, each having riffles to retain the gold and an outlet for the tailings. The screens are graduated, and each has a hopper discharging into the next lower screen. The machine is run by a team attached to sweeps.

#### Mechanical.

LINK MAKING DIE .- Joseph Smith. Puebla, Mexico. This invention provides for sets of dies for successively bending, swaging, overlapping, and welding the iron to form a link, in such way as to greatly facilitate the manufacture of links for railway couplings and other purposes. The individual dies for bending the rod and performing the different operations may be in separate sets, or they may be assembled in two pieces. which one carries all the female dies and the other all the male dies. By treating the rod in the manner provided for by the invention, links of great durability and strength may be very economically made

GLAZIER'S GLASS BREAKER. - George A. Rogers, Allegheny, Pa. This is a tool for use in connection with a glazier's glass cutter, and may be used in combination therewith or 43 an independent tool. It is so constructed that, by the movement of a lever. a sliding jaw has movement in relation to a fixed jaw to accommodate glass of various thicknesses, the glass being received een the two jaws, and a strip or section of glass being then broken off quickly and cleanly.

## Agricultural,

HAY SLING.—Samuel M. Jenks, Madison, South Dakota. This is a device which may be used as a substitute for a fork or other carrier, and made to carry a large quantity, binding the hay so completely that there is no scattering or dribbling, while it may be instantly tripped to depositits load, which it leaves in excellent condition for pitching. It has two separable tripping or center heads, one ith projecting arms having heads and the other with dogs to engage the heads, a bed plate on which levers swing and slide, a second lever working the swinging and sliding levers, and connecting rods extending from the swinging and sliding levers to the dogs. The device may be advantageously used in loading and unloading and in stacking.

## Miscella neous

DUMPING GRATE. - Benjamin E. Weeks, New York City. This is a cheap and simple grate adapted to maintain an entirely level fire. It comprises a cradle formed of parallel bars, one of which is journaled in a support, and connecting cross bars, while a series of grate bare is arranged at right angles to the parallel bars and have transverse slots on their undersides to receive the journaled bar of the cradle. It is arranged in sections which may be successively dumped, enabling the good fire to be held on one while the ashes and poor fire are dumped from the other. A simple and strong mechanism is provided for holding the grates in position, and a very easily operated lever mechanism for

COAL DELIVERY BOX.—Hermann Kehl, New York City. This is a box especially designed for supplying customers with coal in small quantities, without danger of soiling the apartments on delivering or removing the coal from the box as needed for household purposes, while also insuring the customer the proper amount of coal ordered. It has a sheet metal casing with hinged lid, a flat back and curved front, and has a screen like false bottom under which is a removable receptacle In the lower portion of the box a downwardly inclined plate extends nearly across the box, and below the plate is a door hinged to swing outward upon a level with the false bottom, the shovel being introduced in this door to remove the coal. A vertical slot, covered by a translucent strip, enables the customer to see at any time how much coal there is in the box.

HOISTING AND CONVEYING MECHANmm .- Frederick H. McDowell, Montclair, N. J., and Se bern A. Cooney, New York City. This improvement relates to tramways for hoisting material from a quarry or other cutting, and provides for duplicate fall ropes arranged to convey material to either terminal of the tramway, either rope being used to control the travel of the carriage. At one terminal of the carriageway are winding drums operative together or separately, there being on the drums duplicate fall ropes, one leading directly to the carriage and the other to the opposite terminal of the carriageway and returning to the carriage, while there of this paper.

are separate sets of sheaves and separate fall blocks for each of the fall ropes, forming independent tackle. Each fall is operative independently for lowering its block or for maintaining the carriage in place, and both of the independent fall ropes form, when in the raised position, a practically endless haul rope.

WINDMILL.—Peter A. Norberg, Roslyn, Washington. This wheel comprises a shaft from which extends sets of radial arms, the lower arm having beveled recess forming limiting shoulders, and there be ing blades with vertical trunnions journaled in the arms the lower end of each blade being beveled to fit into the recess to abut against the shoulders. is designed to be very simple and durable, and is adapted to utilize the force of the wind to the greatest advan-

FIFTH WHEEL - Caleb R. Turner, Brooklyn, N. Y. This is an improvement in that class of fifth wheels in which roller bearings are used to enable the vehicle to turn easily. It provides oppositel arranged circular angle irons forming top and bottom bearing plates, and constituting a strong but light housing for the rollers, where they cannot become clogged with dirt and dust and are also shielded from water. The improvement is designed to combine simplicity, cheapness and efficiency to the greatest possible extent.

THILL COUPLING. — George Cargin, Wells, N. Y. According to this invention a spring is held on the thill clip, and carries in its free end a shaft having a projection adapted to engage the eye of the shaft or pole, a handle on the shaft being adapted to extend across the pivot pin for the thill coupling. The device is very simple and durable, permits of quickly changing poles or thills, and prevents rattling or acci dentally losing the pivot pin.

PRODUCING CHENILLE.—Nicholas Albrecht, Philadelphia, Pa. This inventor provides a method of forming the chenille strands employed in weaving chenille fabrics-first weaving a chenille cloth with plain or single-ply portions and alternating threeply portions, all the warp threads being interwoven in the single ply and a portion only in each of the three superposed plies; second, cutting the single ply lengthwise between each two sets of warp threads, leaving the three-ply sections uncut, whereby the cloth is separated into three divisions or fabrics; and, third, cutting each of the three plies midway between each two sets of its warp threads.

PAPER GAGING MACHINE. - Louis Schopper, Leipsic, Germany. This invention provides indicating devices arranged on a roller over which pas the paper produced in a paper machine to visibly indicate the thickness and weight of the paper, and to trans mit to various distances audible signals when the thickness or weight of paper has exceeded or fallen below certain limits. The indicating devices are constructed to show at any time on a scale the thickness of the paper passing over the roller and the weight per square meter or any other size, and the signals made on a change of product are produced by suitable electrical connections.

MEASURING AND DRAWING INSTRU-MENT.—William S. Rowell, Muncie, Ind. This invention consists principally of a hlade having at one end a fixed head with a triangular opening, the base of which es through the center of the head, and a centering head held adjustably on the blade and having its arms parallel to the sides of the triangular opening. The instrument may be advantageously used for laying off any shaped figures inside the circumference of another figure, enabling the workman to very accurately draw the desired lines and figures on the work.

ROUND EXTENSION TABLE.—Nestor Lattard, New York City. This invention provides for a small or a larger increase in the diameter of a circular table by the addition of one or more circular series of segmental extension pieces, and also for a convenient storage compartment in the table for the extension pieces. Suitable leg supports are provided and the table s madestrong and stable.

FILTER.—Joseph G. and Smith A. Sutton, West Newton, Pa. Thisis a filter especially adapted for use in wells or cisterns, and it is provided with a cleaning brush adapted to be normally held from contact with the filtering walls, while capable of being rotated and reciprocated over such walks to remove accumula-tions settling on them. A supplemental tank or water holder is also connected with the main filtering chamber, with a valve mechanism adapted to be set in operation as the filtering chamber becomes filled, producing back pressure on the water within the chamber to force it out through the filtering walls and clean them.

FRUIT PITTER.—James L. Hall, Kingston, Mass., and Frank H. Chase, Grand Rivers, Ky. This is an improvement upon a formerly patented seeder or pitter, providing an attachment in the nature of a ring encircling the spring prongs of the seeder, and serving as a guard to prevent the heads of the prongs spreading or expanding laterally, while also increasing the effective ness of the device, hy taking the place of a row or circlet of proper thus siding in cutting the pulp and extrag and retaining seeds.

Lock. - John S. Barney, Brooklyn, N. Y. This is an improved device for locking coats and other articles, and may be attached to the inside of a coat collar and worn without inconvenience. It may be conveniently locked to a hook or other hanger, to fasten the coat thereto, and may be quickly and easily unlocked by one knowing the combination. The combination is simple, but cannot very well beaccidentally worked.

FASTENING DEVICE FOR SEATS. Charles G. Taylor, Farmington, Wash. This improve ment is to facilitate the securing in place of seats and chairs in school houses, halls, etc., in such way that the seats may be readily removed and replaced. An improved fastener is, according to the invention, applied to the legs or frames of the seat, the fastening attachment being adapted to engage fixed sockets or keepers on the floor, the sockets presenting little or no obstruction to the cleaning of the floor when the seats or chairs are removed.

NOTE.—Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention, and date all newsdealers. MUNN & CO., Publishers,

### Business and Personal.

The charge for Insertion under this head is One Dollar a line for each insertion: about eight words to a line. Adver-tisements must be received at publication office as early as Thursday morning to appearin the following week's issue

Try us for manufacturing your wire or sheet metal specialties. The Enterprise Mfg. Co., Akron, Ohio

"C.S." metal polisb. Indianapolis. Samples free

Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J. Handle & Spoke Mchy. Ober Lathe Co., Chagrin Falls, O. Heading machinery. Trevor Mfg. Co., Lockport, N. Y.

Screwmachines, milling machines, and drill presses The Garvin Mach. Co., Laight and Canal Sts., New

Centrifugal Pumps for paper and pulp mills. Irrigating and sand pumpingplants. Irvin Van Wie, Syracuse, N. Y.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4; Munn & Co., publishers, 36 Broadway, N. Y.

Competent persons who desire agencies for a new popular book, of ready sale, with handsome profit, may apply to Munn & Co., Scientific American office. 361 Broadway, New York.

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

#### NEW BOOKS AND PUBLICATIONS.

Poor's Manual. 1894. Twenty-seventh annual number. New York: H. V. & H. W. Poor. Pp. xvi, 1390, 104.

There is no need for us to review Poor's Manual. Its annual appearance is as much a feature of modern life as is that of the directory. For the past year of rather dreary achievements in railroad work, the manual pos es, perhaps, especial interest; notably a column of dividends paid during the eight years from 1886 to 1893, will be particularly interesting reading, in the light of present dividends and of probable future ones.

## SCIENTIFIC AMERICAN

## BUILDING EDITION

MARCH, 1895.-(No. 113.)

#### TABLE OF CONTENTS.

- 1. Elegant plate in colors showing a cottage at Mount Vernon, N. Y., three perspective elevations and floor plans. Mr. H. R. Rapelye, architect, Mount Vernon, N. Y. An attractive design,
- "The Gables," a half timbered cottage recently of pleted at Glen Ridge, N. J. Perspective elevation and floor plan. Mr. Charles E. Miller, architect, New York City.
- A cottage at Great Diamond Island, Me., recently erected for H. M. Bailey, Esq., two perspective elevations and floor plans. A unique design for an island cottage. Mr. Jno. C. Stevens, architect, Portland, Me.
- A dwelling at Armour Villa Park, N. Y., recently erected for J. E. Kent, Esq., at a cost of \$5,200 complete, two perspective elevations and floor plans. A very picturesque design.
- A colonial cottage at New Rochelle, N. Y., recently erected for C. W. Howland, Esq., two perspective elevations and floor plans. Mr. G. K. Thompson, architect, New York City A unique example of a modern dwelling.
- The residence of Charles N. Marvin, Esq., at Montclair, N. J. A design successfully treated in the Flemish style. Two perspective elevations and floor plana Mr. A. V. Porter, architect, Brooklyn, N. Y.
- A fine Colonial house at Elizabeth, N. J., recently completed for Henry A. Haines, Esq. Perspective elevation and floor plans. Architects, Messrs Child & De Goll, New York City.
- A residence at Flatbush, L. I., recently erected for C. H Wheeler, Esq., at a cost of \$11,000 complete. Two perspective elevations and floor plans. Architect, Mr. J. G. Richardson, Flatbush, L. I. An attractive design. A cottage at Plainfield, N. J., erected for Chas. H.
- Lyman, Esq., at a cost of \$5,000 complete. Two persective elevations and floor plans. Architect, Mr. W. H. Clum, Plainfield, N. J. A picturesque
- An elegant house at Scranton, Pa., erected at a cost of \$15,000 complete. Two perspective elevations and floor plans. Architect, Mr. E. G. W. Dietrich, New York City.
- Engraving showing the new building of 'The Bank for Savings," recently erected on 22d Street, New York City. Mr. C. L. W. Eidlitz, architect, New York City.
- 12. Foundation piers of the American Surety Company's building. New York City. Four illustrations. showing the most advanced methods of caisson construction for city buildings.
- 13. Miscellaneous contents -An automatic gas saving governor, illustrated.-Heating a residence with open grates, illustrated.-Arranging effective interior, illustrated.

The Scientific American Building Edition is issued nonthly. \$250 a year. Single copies, 25 cents. Forty large quarto pages, equal to about two hundred ordinary book pages: forming, practically, a large and splendid MAGAZINE OF ARCHITECTURE, richly adorned with elegant plates in colors and with fine engravings, illustrating the most interesting examples of Modern Architec tural Construction and allied subjects.

The Fullness, Richness, Cneapness, and Convenience of this work have won for it the LABORST CIRCULATION of any Architectural Publication in the world. Sold by

861 Broadway, New York.



#### 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 the repeated; correspondents will bear in mind that some answers require not a little coearch, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

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

Wi merals sent for examination should be distinctly marked or labeled.

(6448) H. S. asks: To how low a degree can the spirit thermometer be read, also the mercurial thermometer ? Will the mercury remain fluid in the cold as long as spirit? Which is the more reliable under all circumstances? Of what proof must the spirit be? A. The mercurial thermometer is the more accurate. It can only be read to -39.4° C. The alcohol should be

(6449) F. J. S. writes: Please give definition of sound, and can there be sound without an ear to hear it? A. According to the Century Dictionary, sound must be heard to exist. The definition reads: "The sensation produced through the ear, or organ of hearing; in the physical sense, either the vibrations of the sounding body itself or those of the air or other medium, which are caused by the sounding body, and which immediately affect the ear."

(6450) H. C. S. asks: Do incandescent electric lamps ever explode of themselves? I have had one or two complaints from customers of lamps breaking without being touched. One of these was from the postmaster, who said that on throwing a heavy mail bag on a table ten feet away from the lamp (which was suspended from the ceiling by drop cord), it exploded. A. It is possible and to be anticipated. In the case cited the concussion of the air was probably the determining

(6451) S. N. asks: How many additional layers of wire are necessary to wind simple motor described in Scientific American Supplement, No. 641, for dynamo? I have it wound now for motor. Fields are cast. A. We do not advise the use of the motor as a dynamo. The wire need not be changed in size or quantity. The windings depend on the results de-

(6452) Rollins College, Fla., and F. L. F. ask how to make carbon paper. A. Melt 10 partellard, 1 part of wax, and mix with a sufficient quantity of fine lampblack. Saturate unglazed paper with this, remove excess and press.

## INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

March 12, 1895,

## AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Acetone, apparatus for making, O. Porsch	35.558
Acetone, making, O. Porsch	\$5,552
Amalgamator, ore, G. A. Kennedy	35,901
Acetone, apparatus for maring, U. Forsch. Acetone, making, O. Porsch. Alarm. See Burglar alarm. Amalgamator, ore, G. A. Kennedy. Antimony and obtaining same, double sait of, Schill & Sellacher. Armature conductor for dynamo-electric macthres, Geisenhoner & Sandman. Automatic switch, J. Moeller. Axie, L. I. Waite. Bac. See Mail bag. Bales, end cap, tie, and seal for cylindrical cotton, L. W. Campbell. Ballag press, O. Gates. Ballag press, O. Gates. Band tie, S. Knigbton. Barber's colar, B. Melchior. Barterles, Constructing secondary, A. Hough. Batterles, constructing secondary, A. Hough. Batterles, Constructing secondary, A. Hough. Bed brace, G. W. Green. Bed brace, H. C. Heltman. Bed or couch, invalid, R. V. Wicks. Bees smoker, J. E. Crane. Bed stack, N. Ernst. Bees smoker, J. E. Crane. Bell, bleycle, G. W. Goff. Bicycle statachment, C. A. Coey. Bicycle statachment, C. A. Coey. Bicycle luggage carrier, F. A. Martin. Bicycle pump, automatic, W. R. Moore. Book and index, combined order, S. B. Rosen-baum.	25 601
Armature conductor for dynamo-electric	E-COUL
machines, Geisenhoner & Sandman	5,579
Axle I. I. Waite	5,626
Bag. See Mail bag.	-,,,,
Bales, end cap, tie, and seal for cylindrical cot-	5 751
Baling press, O. Gates	5.754
Band tie, S. Knighton	15,502
Rarrel or package, metallic, G. Waterson	10,046 35,566
Batteries, constructing secondary, A. Hough 5	5,541
Battery, H. N. F. Schaeffer	15,464 5,467
Bed brace, G. W. Green	5.756
Bed brace, H. C. Heitman	5,757
Bed of couch, invalid, R. v. wicks	55,687
Bee smoker, J. E. Crane	5.677
Bell, Dicycle, G. W. Gott	5,580
Bicycle brake, W. M. McCarthy	5.391
Bicycle luggage carrier, F. A. Martin 50	5,385
Bicycle stand C. Mee	5,005
Boiler. See Steam boiler.	
Book and index, combined order, S. B. Rosen-	5 621
baum	5,131 5,747
Boring mill turning and facing attachment, J. T.	
Rottle closing device T. N Thomas	5,649
Williams. 58 Bottle closing device, L. N. Thomas. 58 Bottle, infant's feeding, G. Muller. 58 Bottle, non-fillable, J. H. Reeland. 58 Bottle stopper, F. T. Robinson. 58 Box. See File box. Lubricating box. Self-clos-	5,550
Bottle, non-fillable, J. H. Reeland	5.554
Box. See file box. Lubricating box. Self-clos-	0,000
Brace. See Bed brace. Ratchet brace. Brake. See Bicycle brake. Car rail brake.	
Brake slack adjuster, F. Robinson	5,772
Brake slack acjuster, F. Robinson	5,774
Brick kiln fireplaces, portable grate for W. M.	0,010
Brick and ureplaces, portable grace 10; w	5,882
Bruck, lock. G. J. Herth	5,497
Buckle, suspender, G. F. Atwood	5,749
Burglar alarm and house call, electric, H. L. Car-	35.484
Rurial casket handle, L. E. Woodard	5,651
Burning fuel, process of and apparatus for, F. H.	
penter	5,413
Metcalf	5.454
Cabinet, E. W. Woodruff	5,782
Can filling machine. Hemingway & Rarber	6.873
Can beading and crimping machine, J. W. Gheen. 68	5,694
Can heads, punch and die for forming keyopener,	Z 479
Cane mill, J. H. Fogarty	5,577
Capsule cutting machine, T. C. Merz 58	5.595
Capsule trimming machine, T. C. Merz	5,804
Car coupling, Bischoff & Baird	6,661
Cabinet, E. W. Woodruff. Sign. See Oil can. See Oil can. Can filling machine, Hemingway & Barber. Can beading and crimping machine, J. W. Gheen. & Can beads, punch and die for forming keyopener, N. Troyer. Sign. Sign	5,261
Car coupling, W. Duniap	6.766
Car door, B. F. Grant	Ļ <b>36</b> 9

Car door, grain, E. A. Burrage         595,383           Car duping apparatus, A. Walker         555,684           Car fender, H. B. Ewbank, Jr.         555,688           Car fender, L. L. Seamain         555,783           Car fender, S. H. Shaw         535,783           Car fender, J. C. Sineden         535,783           Car fender, J. C. Sheden         535,783           Car fender, street, S. S. Kimball         535,783           Car fender, street, G. H. Modemann         535,388           Car ilfe-suard. A. E. Wyatt         535,489           Car unotor, street, J. C. Slaughter         535,738           Car sand brake, H. E. Boyd         535,479           Car seat bridge, portable, G. M. Fadner         535,479           Cars. system and apparatus for applying brakes	Insulator, W. J. Belcher
Car fender, H. B. Ewbank, Jr. 535,687	Insulator, W. J. Belcher
Car fender, S. H. Shaw 535,776 Car fender, J. C. Sneden 535,741	Jewel protector, roller, A. N. Gauthier
Car fender, street, S. S. Kimball	Kiln. See Brick kiln. Knife. See Pruning knife.
Car motor, street, J. C. Slaught er	Kill. See Brick Kill. Knifte. See Pruning knife. Knitting machine looping attachment, circular, F. C. Rebm
Car sanding device, street, Baumann & Weinz 535,479 Car seat bridge, portable, G. M. Fadner	Knitting machine tension take-up device, McMichael & Wildman
Cars. system and apparatus for applying brakes to electric, C. E. Davis. S35,679 Carbon bolder for arc lights, A. W. France. S36,689 Carriage stump joint, T. R. Murdock. S35,389 Carriage, upoblistery for baby, R. F. H. Williams S35,748 Cartridges, transparent top wad for, J. N. Lower. 536,384 Case. See Show case.	Knob, drawer, C. Tollner
Carriage stump joint, T. R. Murdock	Lace tag and tie fastener, boot or shoe, A. E.  1) avis  Lace tagring machine, shoe, J. L. Faire et al 535.690  Lacing books, etc., mechanism for feeding, I. E.
Carriages, upholstery for baby, R. F. H. Williams 635.748 Cartridges, transparent ton wad for J. N. Lower, 535.384	Lacing books, etc., mechanism for feeding, I. E. Chandler
Case. See Show case. Cash register, C. W. Swift	Ladder attachment, safety, A. K. Berkman
Casks, etc., machine for smoothing and finishing exteriors of C. D. Ames. 535,477 Casting apparatus, metal. E. H. Casgrain. 535,671	Lacing books, etc., mechanism for feeding, I. E. Chandler.
Casting steel J. A. Potter	Lamp, electric arc. J. C. Knight
Casting window weights, W. Schwan	ling supply of oil to, C. M. Drennan
Chair. See Barber's chair. Registering chair.	Latch, N. H. Colwell 538,780 Latbe taper turning tool, Z. B. Coes 535,480 Latbe taper t Z. B. Coes 535,467
Casting window weights, W. Schwan. 555,510 Chains of transoms, etc., fastening device for stop, W. F. Hall. 555,79 Chair, Bee Barber's chair. Registering chair. 655,795 Chair, Bolens & Gilson 555,348 Chair, W. Meyer. 555,634 Chair, W. Meyer. 555,634 Chonille, apparatus for manufacturing, F. Watzlawik. 555,634 Chimneys and ventilator cap. F. C. & H. A. Stober 555,634 Chimneys, etc., attachment for, A. H. Blackburn. 555,634 Chimneys, etc., attachment for, A. H. Blackburn. 555,634 Clarr bunching machine, Hagen & Wieland. 555,637 Cigar vendiug machine, A. J. Doughly 555,634 Clarry See Girder clamp. Plowsbare immersing clamp. Trolley wire clamp.	Lathing, metallic. G. Hayes
Chenille, apparatus for manufacturing, F. Watzlawik	Lawn sprinkler. C. Anderson. 335,635 Lawn sprinkler. A. Burt. 535,630 Leather punching machine. L. L. Barber. 535,630 Leather punching machine. L. L. Barber. 535,630 Leather punching machine. L. L. Barber. 535,630 Machine. Machi
Chimney and ventilator cap. F. C. & H. A. Stober 855.663 Chimneys, etc., attachment for, A. H. Blackburn. 585.663 Churn desher C. H. Hudson. 585.447	Linoleum, apparatus for m nutacturing, D. N. Melvin
Cigar bunching machine, Hagen & Wieland	Lock. See Door lock. Seal lock. Valise lock. Lock. R. R. Ball. 535,525
Clamp. See Girder clamp. Piowsbare immersing clamp. Trolley wire ciamp. Clasp. See Collar clasp.	Locomotive engine, F. H. Richards 635.414
Clay tempering machine, automatic, W. F. Cook 535,676 Clipper, E. S. Hotchries	Lubricating box, J. J. Melvin
Clock striking mechanism, electric, F. L. Gregory 535,370 Cloth napping machine, N. H. Grossellin 535,581	Malting drum, Schmiedecke & Gade
Clothes pin, M. S. Pittman. 535,399 Clutch, H. W. Hill 535,376 Clutch F. J. Smith 527,720	Matches, wind guard for lighting, J. C. Grout 535,368 Mattress bed spring, P. Fraser
Clutch, A. L. Taylor	Measure, dressmakers, M. C. Keney
Rooks	Matches, wind guard for lighting, J. C. Grout. 353,837 Mattress bed spring, P. Fraser. 535,337 Measure, dressmaker's, M. C. Kelley. 635,378 Measuring apparatus for liquids, automatic self, A. Bowser. 535,338 Message and card receiver, J. T. Stone. 535,636 Metal drawing machine, H. Dollman. 535,534 Meter. See Water meter. Micrometer gage. J. E. Williamson. 535,521 Mill. See Cane mill.
Contraction weench, Bennett & Poe 555,480	Meter. See Water meter. Micrometer gage. J. E. Williamson
Cooker, steam feed. J. W. Adney. 535,652 Cooking utensil. J. Velie. 535,652	Mill feeder, automatic, J. P. Webrer
Cooler for water, etc., G. F. Barron.         535,526           Corkscrew. A. L. Qvarnstrom.         535,726	Mill. See Cane mill. Mill feeder, automatic, J. P. Webrer. 535,423 Moulding cutting machine. W. Zoeller. 532,433 Moulds, pouring gate for, D. L. Van Riet. 635,514 Motor. See Car motor. Hydraulic motor. Starting alternating motor. Vebicle motor. Water motor.
clamp. Trolley wire clamp. Clasp. See Collar clasp. Clasp. See Collar clasp. Clay tempering machine, automatic, W. F. Cook. 535,676 Clipuer, E. S. Hotchkies. 535,620 Clock striking mechanism, electric, F. L. Gregory 535,370 Clotta papping machine, N. H. Grossell n. 635,581 Clottes piu, M. S. Pittman. 535,399 Cjutch, H. W. Hill. 535,376 Clutch, F. L. Smith. 535,376 Clutch, F. L. Smith. 535,376 Clutch, A. L. Taylor. 535,747 Coin delivering and cash recording device, A. N. Rooks. 635,628 Collar clasp. C. L. Jordan. 535,628 Collar clasp. C. L. Jordan. 535,638 Combination wrench, Bennett & Poe. 535,630 Cowber, animal food, H. F. Winkelmann. 535,536 Cooking utensit, J. Velie. 535,473 Cooking utensit, J. Velie. 535,576 Corsect, I. M. Rew. 535,769 Corsect, I. M. Rew. 535,769 Cotton cutter and cuttivator, R. B. Mo is. 535,569 Couting. See Car coupling. Thill coupling. Cover fastening for cans, palls, etc., J. Musgrove. 535,457 Crusher, See Crarusher, Rock grauping.	Starting alternating motor. Vehicle motor. Water motor. Mower, D. A. Gilliom
Cotton picker, J. Neighbors	W ater motor.         636,538           Mower, D. A. Gilliom.         636,538           Music rack, adjustable, T. H. Duustane.         536,535           Music rack, foldung, J. Rockwell.         535,557           Mustacbe guard, J. Frampton.         533,597           Maintenance         536,663           Necktie bolder, G. F. Minto.         535,598           Numbering and paging machine, W. E. Hoole.         535,598           Oar, jointed, F. Harbers.         535,694           Oil can, W. Frosch.         535,693           Oil can, W. Frosch.         535,693           Ore crusber and pulverizer, W. G. Dodd.         535,883           Packing ring, metall c, W. Michalk.         535,713           Pad. See Stair pad.         535,713
Vehicle coupling. Cover fastening for cans, pails, etc., J. Musgrove. 535,457	Mustache guard. J. Frampton 583, 591 Na l driving apparatus. L. Kornder 536, 503
Cultivator, J. O. Ford	Numbering and paging machine, W. E. Hoole 535,698 Our jointed F. Harbara
Cutter. See Cotton cutter. Cutting machine, F. J. Richards. 535.771	Oil and gas separator, J. S. Bougher
Vehicle coupling.         525,457           Cover fastening for cans, palls, etc., J. Musgrove.         585,457           Crusber. See Ore crusher.         636,630           Cultivator, J. O. Ford.         535,437           Cultivator, A. A. Young.         535,437           Cutting machine, F. J. Richards.         535,771           Damper, D. Slates.         535,530           Damper, stovepipe, H. T. Smith         635,562           Dendor; stovepipe, H. T. Smith         635,562           Dendorizing fats or oils, apparatus for. J. H. Fill-         535,530	Oil gage, K. H. Lunken
Deodorizing fats or oiis, apparatus for, J. H. Filbert	Pad. See Stair pad. Padlock, permutation, C. D. Logan
Devotoring law of one, apparatus for, J. H. F. 635,792 Deodorizing sewage filters, G. E. Waring, Jr. 635,579 Derrick, H. B. Gates	Pants securing device, E. C. Rauch. 535.400 Paper bag machine, W. Liddell. 535,591
Display figures, means for operating, J. B. Hei- becker 535 699	Padlock, permutation, C. D. Logan 635,764 Pants securing device, E. C. Rauch 335,400 Paper bag machine, W. Liddell 585,591 Paper doll, W. T. Jefferson 635,521 Paper making machine for strain ng pulp for, Torrance & Howell 535,800 Paper sheets, machine for feeding, J. H. Knowles 635,830 Pen fountain, P. D. Horton 535,559
Dissolving apparatus, G. M. Newball. 535,719 Door check, T. McGrory. 585,507	Paper sheets, machine for feeding, J. H. Knowles
Door check, P. McMahon 535,768 Doorlock, C. A. Dies 535,791	Pen, fountain P. D. Horton 535,588 Pencil sbarpener, W. I. Turner 535,644 Petrol Board of Joseph Resolution Decided
Drag and barrow. combined, A. K. Schaaf	Petroleum and oil of naphr.ba, solidifying, Dardel 535,532 Phonograph operating mechanism, L. Glass 535,445
Dust collector, automatic, J. F. Cole	Picker. See Bean picker. Cotton picker. Hair picker.
Eaves trough, H. Andrews. 535.606 Eag beater C. H. Warrington 535.474	Picture banger, L. A. Piaget. 535,537 Pic lifter J. E. Strarp 535,629 Pin See Clothes nin Sefety nin
Display figures, means for operating, J. B. Helber	Planter, J. N. Wilson
Electric generators, indicating system for thermo, H. B. Cox	picker.  Picture banker, L. A. Piaget
Electric machines, construction and regulat on of dynamo, C. D. Haskins	Plowshare immersing clamp, S. Obryan 535,408 Pool table. G. Mauro 535,625 Prescription indicator. W. H. Blanev 535,610
Electric generator, thermo, H. B. Cox	Press. See Baiing press. Hay press. Veneer press.
Klectric switch, M. W. Dewey	Printing form, W. B. Hamilton.
Elevator. See Tobacco elevator. Elevator. N. C. Bassett	Priming knife, H. O. Hem. 535,758 Pulley, split, I. K. Althouse. 536,654
Engine. See Locomotive engine. Steam eng ne. Wind ergine.	Pulley, split, I. N. Hamilton 585,588 Punch, check, H. S. Newberry 535,508
Wind ergine.  Engine, F. C. Rinsche.  Engine indicator, steam, F. M. Clark	Rack. See Music rack. Raijway, closed conduit electric, E. M. Bentley 535,345
Hutchens 635,567 Engines, framing of steam, M. R. Moore 535,714 Engines, link shifting mechanism for, E. 535,613 Smith 535,603	Raick. See Music Fack.  Railway, closed conduit electric, E. M. Bentley 535,345  Railway, conduit electric, D. O'Flaherty 535,395  Railway fook and switch, automatic, D. Gruhikey 535,371  Railway signaling apparatue. W. H. Walsh 535,535  Railway switch, Hofman & Cook 535,730  Railway track leveling apparatus, H. H. Sponen-  Bailway track leveling apparatus, H. H. Sponen-  S35,531  Railway track seveling apparatus, H. Sponen-  S35,531
Engines, link shifting mechanism for, E. F. Smith	Railway switch, Hofman & Cook
Smita   SS, 662   Evaporator, fruit, A. H. Blackburn.   SSS, 662   Exhibitor, sample, B. Palladino.   SSS, 562   Exhibitor, sample, B. Palladino.   SSS, 551   Extractor. See Stump extractor.   Eyeglass holder, W. Mack.   SS, 468   Fan, centrifugal, G. M. Capell.   SSS, 468   Fan, centrifugal, G. M. Capell.   SSS, 468   Fan, centrifugal, G. M. Capell.   SSS, 468   Feed mixing and measuring device, D. E. Sampson.   SSS, 468   SSS, 468	Railway track leveling apparatus, H. H. Sponen- burg
Eyeglass bolder, W. Mack	Rake. See Hay rake.
Feed mixing and measuring device, D. E. Sampson 535.417	Ratch et brace, J. J. Dillenbeck
Fence w re fastener, H. B. Swartz	Registering chair, J. W. Reynolds, Jr
render. See Car fender. File, bill and letter. J. M. Keep	Rejastering shaves, haircuts, shampoos, etc., device for, A. Goldammer
File for newspapers, etc. W. I. Reed	ResPirator, R. Nagler
Fire excape, J. & J. Anderson	Ring. See Packing ring. Rock crusher, gyratory, S. C. McLanaban
535.478 Fireproof floor or ceiling, W. H. Brown 535.612 Fishing reel, G. R. Medley 533.628	Rolling spur plates, rolls for J. W. Watson 535,702 Rolling spur plates, rolls for J. W. Watson 535,648 Royling or similar machine. R. B. Dalv 525,702
Fender.         See Car fender.           File, buil and letter.         J. M. Keep.         536,622           File box.         P. J. Pauly, Jr.         535,459           File for newspapers, etc.         W. I. Reed.         535,401           Firearm sight.         J. A. Kennedy.         535,379           Fire escape, J. & J. Anderson.         535,5379           Fire escape, J. & J. Anderson.         535,478           Fire proof foor or celling, W. H. Brown.         535,462           Fishing reel, G. E. Medley.         535,363           Five cleaner.         J. Bott.         535,408           Forge, portable.         M. Mehu.         547,12           Furnace.         F. H. Richards,         Furnace.           F. H. Richards,         535,408         535,408         505,409         to 535,412         555,730	Rubber, machine for washing and sheeting crude, M. C. Clark
Furnace, F. H. Richarde,	Rule, Slide, E. Hill 585,375 Sad iron, T. C. Edwards 585,576 Saddle, Croper harmens F. D. F. Li.
Furnace and boiler, combined, J. Cotter 535,354	Safety pin, C. L. Missel. 535,639 Safety pin, C. L. Missel. 535,639
Richards. 525,402  Furnace traveling grate, E. B. Coxe 535,402  Furnace traveling grate, F. H. Richards, 535,405  Furnace, tr veling grate, F. H. Richards, 535,405  Furniture cabinet G. F. Ruby 535,403, 535,406  Furniture cabinet G. F. Ruby 535,509	Saw, drag, A. T. Stimson       535,424         Saw filing machine, J. M. Newton       536,721
Furniture, cabinet, G. F. Ruby 535,404, 535,405, 535,408	Respirator, K. Nagler   S35, 116   Ring. See Packing ring.   S35, 416   Ring. See Packing ring.   S35, 416   Rolling mills, rolls for chain.   O. Klatte.   S35, 716   Rolling mills, rolls for chain.   O. Klatte.   S35, 716   Rolling mills, rolls for chain.   O. Klatte.   S35, 718   Rolling mills, rolls for chain.   O. Klatte.   S35, 718   Rolling spur plates, rolls for J. J. W. Watson.   S35, 648   Roving or similar machine, R. B. Daly.   S35, 648   Roving or similar machine, R. B. Daly.   S35, 648   Rolling spur plates.   S35, 848   S36, 848
Furniture, cabinet, G. F. Ruby 505,405, 555,505 Gaze. See Micrometer gage. Oii gage. Game apparatus. H. Gardner 535,635 Garment support, W. E. Jackson 535,377 Gas wells, apparatus for discharging liquids from J. F. Woods 555,739 Gate. A. Helm 555,739	Seal, car, J. F. Getty
Garment support, W. E. Jackson	Seed, method of and machine for cleaning and deling ng cotton, G. W. Washburn
Trom, J. F. Woods	Self-closing box of bin, C. C. Mallett
	Sewing machine, Waldron & Powers
thrder clamp and hanger, C. MacTaggart	Sewing machine rand and welt guide, S. S. Eddy et al. 535,886 Shaft step, wag on, G. O. Bucknam 585,687 Shelying nortable H. B. Rutta 587,788
Grass and similar fibers, Process of and apparatus for treatment of rhea, H. H. Boyle	Shaft step, war on, G. O. Bucknam.   SS, 687
Grading machine, road, A. Barbite 535,785 Grass and similar fibers. Process of and apparatus for treatment of rhea, H. H. Boyle 535,685 Grate, A. Schrag 535,784 Grinding balls, machine for, J. J. Grant 535,794 Guns, ejecting mechanism for breakdown, M. Rye	Signal. See Railway track signal. Sizing cotton and woolen yarns, composition for,
Guns, ejecting mechanism for breakdown, M.  Bye	Sizing cotton and woolen yarns, composition for, W. B. Sprague. 535,512 Skid, T. W. Sessingbaus. 535,681 Smoke consuming furnace, J. M. Thomas. 536,532 Smoke jack, C. P. Howard. 535,542 Smoke preventer, C. Smith. 535,640 Smoke Oct. B. Smith. 535,640 Smoke preventer, C. Smith. 545,640 Smoke preve
Hair picker, V. Uliman	Smoke jack, C. P. Howard 535.542 Smoke preventer, C. Smith 536.740
Lee. 535,544 Harvester attachment, A. McConnell. 535.715	Snap hook, C. H. Smith. 535,634 Soldering machine, C. L. Olmstead 535,723 Speed changing spur gear train, J. Thomson. 635,634 Spittoon, J. H. Reynoids. 535,600 Spooling machine shell holder, J. W. Foster. 535,733 Spooling or winding machine shell bolder, J. W.
narvester, corn. Cool & Myers	Speeu cuanking spur kear train, J. Thomson
Harrow with grain drll attachment, disk, W. A. Lee. S35, 544 Harve ster attachment, A. McConneil. S35, 545 Harvester, corn. Cool & Myers. S35, 613 Harvester, corn. H. Sommerfeld. S35, 613 Harvesting potatoes. machine for, T. F. Maxwell. S35, 710 Hat pressing apparatus. J. Rowier. S35, 720 Hay carrier elevating pulley and Yoke, J. E. Porter.  ter. S55, 725	Spooling or winding machine shell holder, J. W. Foster
Hay carrier elevating pulley and yoke, J. E. Por- ter 635,725	Spring. See Gate spring. Sprinkler. See Lawn sprinkler. Sprinkler wheel ettaching device E. I. Stimon. 525 405
Hay carrier elevating pulley and yoke, J. E. Porter  ter	Square and bevel. combination, J. McLean
Hidea or at he machine for treating I llough 526 mm	Stamp cushion, hand, R. H. Smith 535,736 Stamp, letter box time, H. G. Wood 535,622
Hides or skins, machine for treating, I. Vaughn. 535,777  Hook. See Snap hook.  Hydrant. fire, W. W. Corey, Jr	Spooling or winding machine shell bolder, J. W. Foster
Hydraulic machine, F. Hessenbruch. 585,586 Hydraulic motor, A. A. Wood. 585,568	Stave bending machine, R. Stecher. 535,632 Steam boiler, J. Buckley 535,441
Ice discharging apparatus, G. O. Rinman	Steam butter, J. Buckley
Indicator	Steel, manufacturing, J. Bedford
Injector, Davies & Metcalfe	Stopper. See Bottlestopper. Stove, oil, A. R. Welch

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	**	
insulator, W. J. Belcher.  ron. manufacture of Russia, A. Hiles.  ack. See Smoke Jack. Wagon Jack.  lar fastener, F. Monlet.  ewel protector, roller, A. N. Gauthier.  loint. See Carriage stump joint. Wire joint.  Kiln. See Brick Kiln.  Kiln. See Brick Kiln.  Kilter. See Fruning knife.  Knitting machine looping attachment, circular,  F. C. Rebm  Knitting machine tension take-up device,  McMichael & Wildman.  Knob drawer, C. Toller.  Aoel holder, G. H. Richter.  Aoel holder, G. H. Richter.  Lavis aged tie fastener, boot or shoe, A. E.  Lavis.	535,660	Ī
lar fastener, F. Monler.	535,549	
lewel protector, roller, A. N. Gauthier	635,693	
Knife. See Pruning knife. Knitting machine, A. Lee.	635,705	l
F. C. Rebm Knitting machine tension take-up device,	535,461	
McMichael & Wildman Knob, drawer, C. Tollner Laoel holder, G. H. Richter	535,564 535,462	
Lace tag and tie fastener, boot or shoe, A. E.  I) avis  .ace tagging machine, shoe, J. L. Faire et al.  .acing books, etc., mechanism for feeding, I. E.	535,680 535,493	
acing books, etc., mechanism for feeding, I. E. Chandler	635,572 535,346	
ace tagging machine, shoe, J. L. Faire et al., acing books, etc., mechanism for feeding, I. E. Chandler. Adder attachment, safety, A. K. Berkman. Adder, extension, B. A. Hilf. Amps, automatic regulating device for controlling supply of oil to, C. M. Drennan. Anners holder, tubular, H. Leavitt. Anters holder, L. B. Coes. Authors, metallic, G. Hayes. Anters better, A. Burt. Anters better, A. Burt. Anters better, A. Burt. Anters better, J. Richards. Anters better, J. J. Melvin dail bag, Strader & Ruud. Malting drum, Schmiedecke & Gade. Mattress bed spring, F. Fraser. Message and card receiver, J. T. Stone.	535,759 535,742 535,490	
amp burner, H. Salsbury amp, electric arc, J. C. Knight	535.559 635.589	
Jamps, automatic regulating device for control- ling supply of oil to, C. M. Drennan	535,444 535,543	
atch, N. H. Colwelltbe taper turning tool, Z. B. Coes	535,790 535,486 535,487	
athing, metallic. G. Hayes	535,585 535,655 535,669	
eather punching machine. L. L. Barberinoleum, apparatus for m nufacturing, D. N. Molyin	535.784	
inoleum, manufacturing, D. N. Melvinock. See Door lock. Seal lock. Valise lock.	635.453	
ocomotive M. B. Bulla	635,668 635.414	
Loom heald, N. & J. Chaize	535,529 535,547 535,638	
Malting drum, Schmiedecke & Gade	535.560 535.517 535.698	
dattress bed spring, P. Fraser deasure, dressmaker's, M. C. Kelley	535,367 635,378	
A Bower.  A Bower.  A Bower.  dessage and card receiver, J. T. Stone.  detaid rawing machine, H. Dollman.  deter. See Water meter.  ditorometer gage. J. E. Williamson.  dill. See Cane mill.  dill feeder, automatic, J. P. Webrer.  doulding cutting machine. W. Zoeller.  doulds, pouring gate for, D. L. Van Riet  dotor. See Car motor. Hydraulic motor.  Starting alternating motor. Vehicle motor.  Water motor.	535,350 535,636	
Metal drawing machine, H. Dollman	535,534 535,521	
Mill. See Cane mill. Mill feeder, automatic, J. P. Webrer	535,429 535,438	
doulds, pouring gate for, D. L. Van Riet	535,438 635,514	
Water motor.  1 ower, D. A. Gilliom	636,538	I
dusic rack, adjustable, T. H. Dunstane dusic rack, folding, J. Rockwelldustane dustache guard. J. Frampton	535,557 535,691	
Na I driving apparatus, L. Kornder	535,596 535,596 535,498	
doulds, pouring fate for, D. L. Van Riet dotor. See Car motor. Hydraulic motor. Starting alternating motor. Vehicle motor. Water motor. Water motor. Wower, D. A. Gilliom. Music rack, adjustable, T. H. Dunstane. Music rack, adjustable, T. H. Dunstane. Music rack, folding, J. Rockwell. Music rack, folding, J. S. Bougher. Markette bolder, G. F. Minto. Mumbering and paging machine, W. E. Hoole. Dar, jointed, F. Harbers. Mil and gas separator, J. S. Bougher. Mil gaze, K. H. Lunken precruser and pulverizer, W. G. Dodd. Packing ring, metall c. W. Michajk. Malock, permutation, C. D. Logan. Paper bag machine, W. Liddell. Paper bag machine, W. Liddell. Paper some machine, W. Liddell. Paper some machine for strain ng pulp for, Torrance & Howell. Paper sheets, machine for feeding, J. H. Knowles.	535,684 535,611 535,628	
bli gage, K. H. Lunken Dre crusber and Pulverlzer, W. G. Dodd	635.449 535,683	
Pad. See Stair pad. Padlock, permutation, C. D. Logan	635,764	
Pants securing device, E. C. Rauch Paper bag machine, W. Liddell Paper doll, W. T. Jefferson	535.400 535,591 535.621	
Paper making machine for strain ng pulp for, Torrance & Howell  Paper sheets machine for feeding I H	535,471	
Knowles  en, fountain. P. D. Horton  encli sharpener, W. I. Turner  etroleum and oil of naph.ba, solidifying, Dardel	535,380 535,588 535,644	
Petroleum and oil of naphr ha, solidifying, Dardel	EOF E00	
Picker. See Bean picker. Cotton picker. Hair		
picker.  icture banker, L. A. Piaget  le lifter, J. E. Strarp  lin. Sec Clothes pin. Safety pin.  lanter, J. N. Wilson	535,597 535,629	
Planter, J. N. Wilson	535,433 535,800 535,689	
Plow, H. F. Jessup	535,701 535,458	
rescription indicator, W. H. Blaney Press. See Baiing press. Hay press. Veneer	635,610	
ress. See Bailing press. Hay press. Veneer press.  rinting form, W. B. Hamilton.  ropeling attachment for garden or like implements. H. Wilson  runing knife, H. O. Hem.  ruller, split, I. K. Althouse  ruller, split, I. N. Hamilton  runch, check, H. S. Newberry  ryrotechnic compound, J. Graham  Rock. See Music rack	635,582	
ments, H. Wilson Prinning knife, H. O. Hem Pulley, split, I. K. Altbouse	535,650 535,758 535,654	
Pulley, split, I. N. Hamilton Punch, check, H. S. Newbarry.	585,583 535,508 526,495	
Rack. See Music rack. Railway, closed conduit electric, E. M. Bentley	535,345	
Asiway, closed conduit electric, E. M. Bentley Railway, conduit electric, D. O'Flaherty. Railway forg and switch, automatic, D. Grubikey Railway signaling apparatus. W. H. Walsh Railway switch, Hoffman & Cook Railway tool, B. Molloy Railway track leveling apparatus, H. H. Sponen- burg.	535,371 535,586 586,780	
Railway tool, B. Molloy	535,805	
Railwas track signal, B. Coddington	535,573	
Rammer, road or payement, L. W. Brown	535,527 535,682 535,761	
Rake. See Hay rake.  Rammer, road or pavement, L. W. Brown.  Ratchet brace, J. J. Dillenbeck.  Sarrigerating machine, automatic, E. W. Howell.  tegister: See Cash register.  tegistering chait, J. W. Reynolds, Jr.  tegistering shaves, baircuts, shampoos, etc.,  device for, A. Goldammer.  telasting machine, A. D. Gardner.  tespirator, R. Nagjer.  tice cleaning machine, J. H. Roman.  Ring. See Packing ring.  Rock crusher, gyratory, S. C. McLanaban.	635,699	
device for, A. Goldammer  Relasting machine, A. D. Gardner	535,618 535.536	
tice cleaning machine. J. H. Roman	535,416	
Sing. See Packing ring. tock crusher, gyratory, S. C. McLanahan. tolling mills, rolls for chain, O. Klatte. tolling mills, rolls for chain, O. Klatte. tolling spur plates, rolls for J. W. Watson. tolling spur plates, rolling spur p	635,716 635,702 635,648 635,574	
toving or similar machine, R. B. Daly	535,574	
Rule, slide, E. Hill	535,789 535,375 535,576 525,600	
afety pin, C. L. Graham afety pin, C. L. Missel.	535,698 535,619 535,456	
saw filing machine, J. M. Newton	535,424 535,721 535,722	
law guide, band. H. S. Long law sharpening machine, J. R. Hall leal. car. J. F. Getty	535,383 535,496 535,755	
eal lock, F. E. King. Seed, method of and machine for cleaning and	535,501 535,498	
gelf-closing box or bin, C. C. Mallett Separator. See Oil and gas separator.	535,428 535,708	
seal car, J. F. Getty seal lock, F. E. King sead, method of and machine for cleaning and delitti ngcotton, G. W. Washburn self-closing box or bin, C. C. Mallett separator. See Oli and gas separator. sewang machine, Waldron & Powers sewing machine, Waldron & Powers	535,515 535,646	
et al	535,788	
haft step, wag on, G. O. Bucknam haft step, wag on, G. O. Bucknam helving, portable, H. B. Butts hips' bunkers, manbole for, J. M. rphy how case, J. Lochner lgraal. See Railway track signal. signag cotton and woolen yarns, composition for, W. B. Sprague http://dr. W. Seesinghaps	635,390 535,624	
Sizing cotton and woolen yarns, composition for, W. B. Sprague	635,512 535 5c1	
W. B. Sprague.  kid, T. W. Sessingbaus.  moke consuming furnace, J. M. Thomas.  moke jack, C. P. Howard.  moke preventer, C. Smith  hap hook, C. H. Smith  loidering machine, C. L. Olmstead.	535,638 535,542	
omoke preventer, C. Smith	535,604 535,723	
peed changing spur gear train, J. Thomson pittoon, J. H. Reynolds. pooling machine shell holder, J. W. Foster. pooling or winding machine shell holder, J. W.		
Spooling or winding machine shell holder, J. W. Foster	635,617	
spooling of winding machine shell noticer, J. W. Foster	535,425	
Stair pad, Marcus & Collins	535.R03	
	535,736	
Sprinkler. See Lawn sprinkler. Sprocket wheel attaching device, F. J. Stimson Square and bevel. combination. J. McLean stair pad, Marcus & Collins stamp ousbion, hand, R. H. Smith stamp, letter box time, H. G. Wood stamp, letter box time, H. G. Wood starching device, W. A. James starching device, W. A. James starting alternating motor, O, Chytræus stave bending machine, R. Stecher.	535,736 535,522 535,555 535,500	

Stovepipe joints, machine for forming, J. E.
Smiley 535,735
Storepipe joints, machine for forming, J. E. Smiley
Sucker rod socket, Masseth & Rlack 585 709
Sugar dissol ing apparatus, G. M. Newball 535,720
Surgical instrument, J. P. Hawkes 535,798
Switch See Automatic switch Floatric switch
Railway switch. Telephone switch.
Switch and switch shifter, Brack elsberg & Graff., 535,666
Switch operating device, J. C. Woolverton 535,435
Table. See Pool table.
Table. See Pool table. Tag. L. Weiss
la Touanne
P. N1991 535 906
Thill coupling, J. W. Sprint 535.423
Telie See Band tie.  Telie Done's witch, automatic, N. H. Holland. 535,540 Thill support, Woodruff & Bellew. 535,423 Tie. See Band tie.
Tin plate, apparatus for manufacture of H. N.
Tin plate, apparatus for manufacture of, H. N. Norton.  Tin plate, apparatus for manufacturing, E. Nor-
Tin plate, apparatus for manufacturing, E. Nor-
(Din plate during and fluxing mechine III) North 535,395
Tin plate, urving and nuxing machine, E. Norton 689,588
ton. 535,336  Tin plate, drying and fluxing machine, E. Norton 535,333  Tin plate, machine for manufacturing, E. & H. N. Norton. 535,336
Tinning machine, E. Norton
Tinsmith's beading machine, Hadley & Danford 535,539
Tire, pneumatic bicycle. R. S. Anderson. 535,342
Tobacco elevator, J. U. Allphin
Trie upsetting machine, C. Boulay 535,431 Tobacco elevator, J. U. Allphin 535,476 Tongs, cuspidor, Crocker & Earll 535,367
Norton 535,396  Tinning machine, E. Norton 535,396  Tinsmith's heading machine, Hadley & Danford. 535,539  Tire, pneumatic bicycle, R. S. Anderson. 535,5342  Tire upsetting machine, C. Boulay 535,431  Tobacco elevator, J. U. Aliphin. 535,476  Tongs, emspidor, Crocker & Earll. 535,367  Tool holder, J. Armstrong. 535,440  Tools, etc., safety feeding device for rotary. A.  E. W. Meissner. 535,440  Tootherown artificial W. M. Secont. 535,447
Tools, etc., safety feeding device for rotary, A. E. W. Meissner
Tooth crown, artificial, W. M. Seeger
TOPED, J. Gradam 635 404
Toy house, V. W. Wilson
Tramway rail, W. H. Wright
Trolley wire clamp W W Annahia 525 694
Trough. See Eaves trough.
Truck, motor, J. A. Brill
Truss for bridges, roofs, etc., J. E. Greiner. 535,635 Tuning hammer, W. A. Bremer. 535,432 Twine machine nipper. F. G. Becker 535,344
Twine machine nipper. F. G. Becker 585,344
Twisting coiler and drawing frame, R. B. Daly 535,678
Typewriting machine, B. T. Smith 525, 520
Typewriting machine, R. T. Smith
Typewriting machine, C. B. Whitaker. 535,607 Vallee lock, W. H. Southworth. 536,630
Valve, D. W. Field
Trough, See Eaves trough Truck, motor, J. A. Brill.  Frusk for bridges, roofs, etc., J. E. Greiner  535,382 Trusk shammer, W. A. Bremer  Twins bammer, W. A. Bremer  Twine machine nipper, F. G. Becker  535,344 Twisting coller and drawing frame, R. B. Daly  535,531 Typewriting machine, R. T. Smith  Typewriting machine, R. T. Smith  Typewriting machine, C. B. Whitaker  535,637 Valles lock, W. H. Southworth  535,637 Valve, D. W. Field  Valve, J. R. Meadowroft  Valve, J. R. Meadowroft  Valve, air brake, A. J. Michel.  535,548 Valve, balanced slide, S. A. Alexander  535,549 Valve, balanced slide, S. A. Alexander  535,549 Valve, balanced slide, S. A. Alexander  535,541
Valve, air brake, A. J. Michel
Valve gear, W. J. Lewis.         525,545           Valve, rotary, B. W. Smith.         535,737           Vebic le coupling, C. G. Turner         535,427
Valve, rotary, B. W. Smith
Vehicle motor. C. A. Tower
Mann
Vehicle torsion spring gear, W. Kyle
Vehicle wheel, F. P. Share
Velocipede. marine, J. Klein
Vending machine, W. S. Burnett
Vending machine, coin-actuate, W. S. Burnett. 525,787
Veneer press, W. Clayton. 536, 673 Ventilator, M. C. Parkhurst. 536, 774
Ventilator. M. C. Parkhurst.         535 724           Vise. J. O. Therien         535 513
Vulcanizer, E. H. Casgrain       535.672         Wagon, dumping, A. P. Reed       535,460
Wagon lack, H. R. Swett
Vehicle steering and propelling mechanism, J. E.         Mann           Yebicle torsion spring gear, W. Kyle.         535,538           Vehicle torsion spring gear, W. Kyle.         535,658           Vehicle wheel, F. P. Share.         535,755           Velocipede crank shaft, F. S. Luther.         535,768           Velocipede. marine, J. Klein.         535,823           Vending macbine, coin-actuate         W. S. Burnett.           Vending macbine, coin-actuate         W. S. Burnett.           Ventilator. M. C. Parkhurst.         535,721           Ventilator. M. C. Parkhurst.         535,722           Vise. J. O. Therien.         535,632           Valcanizer, E. H. Caskrain.         535,632           Wazon, dumping, A. P. Reed.         535,442           Wazon shoveling board. H. Clark.         535,442           Washing machine, C. Bopp.         535,349
Washing machine, C. Bopp
Schroeder
Water meter, disk, J. Thomson 535.641
Water meter, proportional, J. Thomson635,639, 635,642
Schröder
Water meter, proportional, J. Thomson635,639, 635,642 Water meters, means for controlling ction of oscillating disks in, J. Thomson
Water meter, proportional, J. Thomson635,639, 635,642 Water meters, means for controlling ction of oscillating disks in J. Thomson
Water meter, proportional, J. Thomson
oscillating disks in J. Thomson. 555,640 Warer motor, C. I. Wilkins. 535,632 Water, purifying, O. Lugo. 555,632 Water wheel, turbine, A. M. Swain. 555,632 Weighing machine, automatic F. H. Richards.
oscillating disks in J. Thomson. 555,640 Warer motor, C. I. Wilkins. 535,632 Water, purifying, O. Lugo. 555,632 Water wheel, turbine, A. M. Swain. 555,632 Weighing machine, automatic F. H. Richards.
oscillating disks in J. Thomson. 555,640 Warer motor, C. I. Wilkins. 535,632 Water, purifying. O. Lugo. 555,632 Water wheel. curbine. A. M. Swain. 555,632 Weighing machine, automatic F. H. Richards.
water motor, C. L. Wilkins
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
water motor, C. L. Wilkins
woscillating disks in J. Thomson.         585,640           water motor, C. L. Wilkins.         535,632           Water, purifying, O. Lugo.         535,802           Water wheel. urbine, A. M. Swain.         535,727           Weighing machine, automatic F. H. Richards,         535,727 to           Wheel. See Vehicle wheel.         Water wheel.           Whistle, revolving steam, J. F. Batchelor.         535,662           Wind engine, H. F. Sherman.         535,662           Windmill, E. E. Millicen.         535,504
oscillating disks in J. Thomson. 535,640 Water motor, C. I. Wilkins. 536,431 Water motor, C. I. Wilkins. 536,431 Water, purifying, O. Lugo. 535,622 Water wheel, turbine, A. M. Swain. 535,727 to 535,728 Weighing machine, automatic F. H. Richards. 535,622 Wheel. See Vehicle wheel. Water wheel. 535,724 to 535,724 Whistle, revolving steam, J. F. Batchelor. 535,682 Wind engine, H. T. Sherman. 535,682 Wind engine, H. T. Sherman. 535,682 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,684 W
oscillating disks in J. Thomson. 585,643 Water motor. C. I. Wilkins. 585,631 Water motor. C. I. Wilkins. 585,632 Water, purifying. O. Lugo. 585,632 Water, purifying. O. Lugo. 585,632 Water wheel. Lurbine. A. M. Swain. 585,637 to 585,632 Wing machine, automatic F. H. Richards. Wheel. See Vehicle wheel. Water wheel. 585,632 Wind engine, H. T. Sherman. 585,602 Wind engine, H. T. Sherman. 585,602 Windmill, E. E. Milliken. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Wire joint, N. W. Lillie. 585,504 Wire joint, N. W. Lillie. 585,504 Wire stretcher, B. R. Stere. 585,504 Wood, means for graining, A. M. Lawrence. 585,704 Wooden stopples, process of and apparatus for treating, H. F. Radebaugh. 585,704 Wrench. See Combination wrench.
oscillating disks in J. Thomson. 585,643 Water motor. C. I. Wilkins. 585,631 Water motor. C. I. Wilkins. 585,632 Water, purifying. O. Lugo. 585,632 Water, purifying. O. Lugo. 585,632 Water wheel. Lurbine. A. M. Swain. 585,637 to 585,632 Wing machine, automatic F. H. Richards. Wheel. See Vehicle wheel. Water wheel. 585,632 Wind engine, H. T. Sherman. 585,602 Wind engine, H. T. Sherman. 585,602 Windmill, E. E. Milliken. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Wire joint, N. W. Lillie. 585,504 Wire joint, N. W. Lillie. 585,504 Wire stretcher, B. R. Stere. 585,504 Wood, means for graining, A. M. Lawrence. 585,704 Wooden stopples, process of and apparatus for treating, H. F. Radebaugh. 585,704 Wrench. See Combination wrench.
oscillating disks in J. Thomson. 585,643 Water motor. C. I. Wilkins. 585,631 Water motor. C. I. Wilkins. 585,632 Water, purifying. O. Lugo. 585,632 Water, purifying. O. Lugo. 585,632 Water wheel. Lurbine. A. M. Swain. 585,637 to 585,632 Wing machine, automatic F. H. Richards. Wheel. See Vehicle wheel. Water wheel. 585,632 Wind engine, H. T. Sherman. 585,602 Wind engine, H. T. Sherman. 585,602 Windmill, E. E. Milliken. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Winding or spooling machine, thread, J. W. Foster. 585,604 Wire joint, N. W. Lillie. 585,504 Wire joint, N. W. Lillie. 585,504 Wire stretcher, B. R. Stere. 585,504 Wood, means for graining, A. M. Lawrence. 585,704 Wooden stopples, process of and apparatus for treating, H. F. Radebaugh. 585,704 Wrench. See Combination wrench.
oscillating disks in J. Thomson. 535,640 Water motor, C. I. Wilkins. 536,431 Water motor, C. I. Wilkins. 536,431 Water, purifying, O. Lugo. 535,622 Water wheel, turbine, A. M. Swain. 535,727 to 535,728 Weighing machine, automatic F. H. Richards. 535,622 Wheel. See Vehicle wheel. Water wheel. 535,724 to 535,724 Whistle, revolving steam, J. F. Batchelor. 535,682 Wind engine, H. T. Sherman. 535,682 Wind engine, H. T. Sherman. 535,682 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,683 Windenill, E. E. Milliken. 535,684 W

Bedstead, S. Schlesinger 24,103
Bottle cap, siphon, H. Landgraf
Buile cap, sipuon, H. Landkrai
Button, cuff, J. A. Flomerfelt
Button, link cuff, J. A. Fiomerfelt 24,092
Cabinet, C. J. Backhaus 24.104
Carpet, H. Horan 24.099. 24,101
Carpet, J. Matthews
Carpet, A. M. Rose
Carpet, E. G. Sauer
Carpet, E. G. Sauer
Curb for chain pumps, covered, O.P. Schriver 24,116
Curtain pole bracket. C. W. Smith 24.105 to 24,108
Finger ring, M. L. Powers24,089, 24,090
Flower pot, A. H. Snapp
Fringe, E. Walliser 24,097
Game cube, C. A. Fetters 24,112
Metal tube. R.S. Crawford. 24.114
Ded book & C Come 94 110
Pail book, S. C. Cary 24,110
Pattern for printed fabrica, L. Kuenemann,
24,194 to 24,196
Razor blade boider, F. Kampfe et al 24,088
Stove, oil, C. Whittingham 24,115
Tuyere, M. L. Williams
Type, font of printing, J. F. Tenney 24,113
Type, funt of printing, J. F. Tenney

## TRADE MARKS.

Apparel, certain named articles of, W. H. Wiley &
300
Boots and shoes for ladies, misses, and children,
N. Fisher & Company
Bread, cake, and confections, Goudy & Kent 26,216
China. Pairpoint Manufacturing Company 26.222
Coffee, Smith Brothers & Company 26,214
Cramp and diarrhea compound, S. D. Vansickle 26,225
Cutlery, shears, and scissors, pocket, Weyth Hard-
ware and Manufacturing Company
Dolis, Hamburger & Company 26,196
Dolis, Hamburger & Company
panv
Food for animais, compound, Howald & Robinson 26,209
Food or medicine for live stock, preparation to be
used as. Dr. Hess & Company
Flour, wheat, Firm of A. Kufeke
Flour, wheat. Love, Sunshine & Company 26,211
Gloves, Perrin Freres & Cie
Gum, chewing, W. Heermann
Hair dve. E. Jeantet 26.202
Hate and cone F W Hocking 96 109
Hats, men's, White, Brauch & McConkin 26,226
Hats, men's. White, Brauch & McConkin. 28,226 Insect destroyers, E. G. Lewis. 22,204 Medicine to render the use of tobacco in necuous,
Medicine to render the use of tobacco in nocuous,
E. G. Lewis
Oils non-explosive, lamp powder for rendering, E.
Jennison
Perfumery. A. J. Hilbert & Company
Perfumes, D. S. Brown & Company
Plaster casts, bituminized, W. H. Jennens 26,221
Preserved fruits, jams, marmalades, and jellies,
Coulter Manufacturing Company 26,213
Remedies for certain named diseases, J. Niven 26,200
Remedy, cough, F. H. Young 26,199
Salves, healing, H. J. Delaney 26,203
Sirup, maple, Coulter Manufacturing Company 26,212
Soap powder, Peerless Manufacturing Company 26,206
Solvent, dipht heritic. Fairchild Brothers & Foster 26,198
Tobacco and cigarettes, National Cigarette and
Tobacco ('ompany
Velocipedes, bicycles tricycles, and the like, Dow
Wire Works Company
Whisky, W. Endemann
Whistles, Mossberg Wrench Company 26,197

A printed copy of the specification and drawing of any patent in the forescoing list or any patent in print issued since 1863, will be furnished from this office for 36 cents. In ordering please state the name and number of the patent desired, and remit to Munn & Co., 361 Broadway, New York.

Canadian intents may now be obtained by the inventors for any of the inventions named in the foregoing list, provided they are simple, at a cost of \$40 each. If complicated the cost will be a little more. For full instructions address Munn & Co., 30 Bro dwsy, New York. Other foreign patents may also be obtained.

## Movertisements.

#### ORDINARY RATES.

inside Page, each insertion - - 75 cents a line Back Page, each insertion - - - \$1.00 a line EF For some classes of Advertisements, Special and Higher rates are required.

Higher rates are required.

The above are charges per agaze line—about eight words per line. This notice shows the width of the line, and is set in agaze type. Empravings may head advertisements at the same rate per agaze line, by measurement, as the letter press. Advertisements must be received at Publication Office as early as Thursday morning to appear in the following week's issue.



LATHES, Shapers, Pia ers, Drills, Machine Shop Outfits, Foot Lathes, Tools and Supplies. Catalogue Free. SKBASTIAN LATHE CO., 120 CULVERT ST., CINCINNATI, O



SCIENTIFIC AMERICAN SUPPLE-MENT. Any desired back number of the SCIENTIFIC AMERICAN SUPPLEMENT can be bad at this office for 10 cents. Also to be had of newsdealers ir. all parts of the country.



## HAVE YOU SEEN The New Green River At Drilling Machine?

verything done—drilling and reversing—with one hand, without taking it from crank. Price \$15.00 WILEY & RUSSELL MFG. CO. Greenfield, Mass., U. S. A.

ARE YOU INTERESTED in Electricity, Engines. The Indicator. Machine Phop Practice, or General Mechanical Mattere? Lord's Power and Mach ne y Massaine, a 100-page ill tr t d monthly, is filled with interesting articles on these subjects, written by the highest authorities, in piain language. Price \$1.00 per year. Send for this month's issue. Lord's Power and Machinery Magazine. 620 Atlantic Avenue, Boston, Mass.



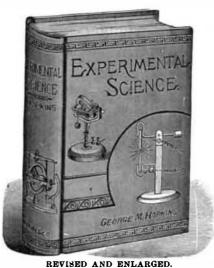
# URBINE WATER WHEELS. Send for Pamphlet. JAMES LEFFEL 4 CO., Springfield, Ohio, U. S. A.



NOW READY!

Fourteenth Edition of

## Experimental Science



120 Pages and 110 Superb Cuts added.

Just the thing for a holiday present for any man, woman, student, teacher, or anyone interested in science. In the new matter contained in the last edition will be found the Scientific Use of the Phonograph, the curious optical illusion known as the Anorthoscope, together with other new and interesting Optical Illusions, the Optical Projection of Opaque Objects, new experiments in Projection, Iridescent Glass, some points in Photography, including Hand Cameras, Cane Cameras, etc.; Systems of Electrical Distribution, Electrical Ore Finder, Electrical Rocker, Electric Chimes, How to Color Lantern Sides, Study of the Stars, and a great deal of other new matter which will prove of interest to scientific readers.

840 pages, 782 fine cuta, substantially and beautifully hound. Price in cloth, by mail, \$4. Half morocco, \$5.

Send for illustrated circular.

MUNN & CO., Publishers, Office of the SCIENTIFIC AMERICAN. 361 BROADWAY, NEW YORK.