RECENTLY PATENTED INVENTIONS. Bicycle Appliances.

PEDAL.-ISAAC A. BRADDOCK, Haddonfield, N. J. The pedal is a combined "rat-trap' pedal and ordinary swinging pedal. The swinging member is to be used when the roadbed is uneven, very muddy or obstructed by loose sand, and when the bicycle is running on an upgrade. The increased leverage afforded by the swinging members of the pedals enables the rider to propel his machine easily. On a good roadbed the rat-trap combination is used.

Mechanical Devices.

COMBINED COTTON-PLANTER AND GUA NO-DISTRIBUTER.—SIMEON S. CUDD. Kelton S. C. This combined cotton-planter and guanodistributer is a very simple and practical seed-planter. Although specially designed for planting cotton-seed the machine can also be used for other kinds of seed. The fertilizerdistributer is completely under the control of the operator, so that the guano can be controlled and cut off at will.

PROCESS OF SEPARATING GARLIC FROM WHEAT .- JACOB K. SCHEIRER, Northampton, Pa. When wheat is harvested, the garlic growing among it is still green and the seeds are pulpy and juicy. Both garlic and wheat are threshed together before the garlic seeds have become entirely dry. The garlic juice forms a glutinous glaze on the wheat and communicates a garlic odor to the grain. Moreover, many unbroken garlic seeds same size and weight as the wheat kernels are delivered to the miller, for the reason that they cannot be removed by an air-blast. The present inventions effects the complete removal of the garlic seeds, whereupon the grain cuticle is removed, so that flour obtained by grinding the wheat has no trace of garlic.

MECHANICAL TOY .- JOHN W. MACKIN and JULIUS ZWEIGART, Chicago, Ill. The mechanical toy represents a monkey walking on the top of a rolling ball. When the ball rolls along the monkey appears to walk on top of the ball, especially as the several joints of his body are loosely connected and hence are free to vibrate with the ball.

CLUTCH-PULLEY. — CHARLES NEWSOM, Portland. Colo. On the shaft a sleeve is splined, loosely carrying the pulley. Clutch members are mounted on the sleeve at each side of the pulley, one of the clutch members having connection with the sleeve to be moved therewith. A connecting member works between the other clutch members and the sleeve to press the parts and cause both clutch members to engage the pulley.

Vehicles and Their Accessories.

HORSELESS CARRIAGE.-Enrique San-CHIS, Madrid, Spaln. The Invention is a horseless carriage which belongs to that class in which the motor is mounted on a fore-carriage. The novel features of the invention are a running-gear having on each side driving ground-wheels mounted to rotate upon axes capable of swinging about vertical pivots, and motors mounted to swing with the wheels in their steering movement and having their driveshafts located centrally of the wheels.

COMPENSATING GEARING.-JOSEPH F. KRAMER and JOHN II. BLUM, Gunderson, Mont. The compensating gear is particularly adapted for wheeled vehicles, the object being to permit the rotation of the two opposite traction wheels at different rates of speed while turning corners. On adjacent ends of two sections of a shaft ratchet-wheels are mounted. A sleeve surrounds these ends of the shaft sections, in which sleeve the ratchet-wheels are arranged. Double-arm pawls coact with the ratchetwheels, and are in turn acted upon by springs On the sleeve a driving-wheel is mounted.

Railway Contrivances.

AUTOMATIC MAIL-BAG CATCHING AND DELIVERING APPARATUS. — CHARLIE E. LOCKE, 1,202, 12th Street, Louisville, Ky. Mr. Locke has invented a very simple and ingenious apparatus which includes an automatic mailbag catcher arranged on a postal-car and another catcher arranged and suspended outside of the track. The invention includes trustworthy means for suspending and automatically releasing and catching mail-bags on cars and at stations in general.

SPARK-ARRESTER .- LARKIN L. CRUMP, Westpoint, Miss. Within a casing an inner shell or drum is fitted, converging toward its upper end and having openings in its lower end. Discharge-flues communicate with the lower end. Between the drum and casing are guides, converging toward their respective outlet openings. A steam-pipe within the drum and casing is provided with steam-discharge openings. A separating wheel is journaled upon the steam-pipe between the openings and above the inner shell or drum. The wheel discharges the sparks or cinders outwardly so that they will be thrown out of the current of heat and will drop between the casing and the drum. The steam extinguishes the sparks.

Miscellaneous Inventions.

SNATCH-BLOCK.—GUSTAVE AMUNDSON and JESSE E. KNIGHT, Blue Canon, Wash. This invention is an improvement in snatch-hooks which are made to open automatically by fastening or forming on the rope which is used the invention, and date of this paper.

with the block, an enlargement of some kind which, upon engagement with the block, will throw open the movable check and permit the rope to run off the block.

SASH-LOCK. - JOHN H. GRACEY, Westfield, N. Y. This improved sash-lock and window-fastener securely fastens the sashes together when the window is either closed or open for ventilation and when the sashes are open to prevent either being moved.

COMPOSITION FOR REMOVING BOILER SCALE. — BENJAMIN PEÑA, Laredo, Texas. The boiler-scale compound consists of an extract of the plant Larrea Mexicana, which extract is added to the water in the boiler. The solution prepared and used as directed by the inventor is said to prevent reincrustation without any effect whatever on the metal of the boiler.

FINGER-RING.—JOSEPH L. HERZOG, Manhattan, New York city. This finger-ring is constructed so that a stone or gem can be securely or removably held in place. The stone is removed inwardly and the fastening or hold-ing devices are invisible from the outside of the ring, so that in outward appearance the ring does not differ from those of ordinary construction.

MEANS FOR APPLYING SOLDER TO METALLIC ARTICLES.—EMILE BESSE and LOUIS LUBIN, Rue d'Angoulême 93, Paris, France. The lid or bottom of a can previously suitably shaped either with a groove around its periphery or with a flange has a number of small holes punched in its periphery, and upon its inner face is laid a circular or oval ring of soldering metal. The ring of solder is preferably so crushed or compressed as to form a groove into which the edge of the body of the can fits so that a proper position is maintained.

GAME-TABLE.—SYLVESTER B. COMSTOCK, La Colorado, Mexico. The table is provided with a pit or pits into which dice may be passed while playing a game, so as to be in plain view of the person acting as counter for the game. The table has a rim to prevent the dice from rolling off, the rim being removable to permit the cleaning and repairing of the table.

FOLDING CATAFALQUE. - ADOLPH M. SMITZ, West Depere, Wis. This collapsible catafalque comprises two main parts or frames and a series of connecting frames which are hinged to and adapted to fold into the spaces in the main frames, so that the entire device can be readily stored away in a small space.

QUILTING - FRAME. -- SIDNEY S. RUSSELL P. O. Box 193, Memphis, Tenn. The end frames of this quilting-frame can be folded into a compact form and can be readily operated to secure and tighten the lining and cover of the

HAIR-FASTENER .- LOTTIE BASSETT, Cedar ville, Cal. The patent describes a clamp which can be attached to the hair when braided and serve not only to tie the hair tightly and prevent its unbraiding. but also to carry a ribbon or bow, so that the ribbon may be permanently attached to the clamp. The necessity of frequently tying and untying the ribbon is thus avoided.

CLASP .- CLARA A. BARROWS, Bethel, Vt. The clasp is designed to hold the ends of shoe strings, and is composed of a body portion provided with a yielding tongue, and a clamping member hinged on the body portion and provided with a yielding tongue coacting with the tongue of the body portion, and also having a finger designed to engage a part of the body to hold the clamping member in engaged position.

PLATE FOR USE IN STEREOTYPING. Frederick A. Ringler, Manhattan, New York city. By means of this plate, half-tone lineetched engravings or duplicate electrotype etched engravings or unphreate cleaning plates are securely held in position in the matrix while the metal for forming the stereotype plate is poured into the mold. The plates are secured in their proper position in the stereotype plate to form integral parts thereof.

SHOW-CASE.-FRANK J. and JOHN A. BANK, Manhattan, New York city. The construction of the show-case is such that the side rails of the door are concealed by the corner posts or uprights of the body of the case, thus permitting the glass in the door to extend to and within the inner vertical edges of the corner posts. A maximum of display surface is ob-

BOUTONNIERE .- THOMAS L. McCormack Danville, Ark. The invention is an artificial boutonnière which has a device representing a bird movable in and out of the flower and under the control of the person wearing the boutonnière.

SHAFT AND JOURNAL THEREFOR.-FRANK M. KENNEDY, Clarendon, Ark. Heretofore in mounting tubular shafting much difficulty has been experienced in adjusting the fournals. To overcome this difficulty a conical journal and a body portion of a semi-circular contour integral therewith have been devised

Designs.

RING .- CHARLES P. GOLDSMITH, Manhattan, New York city. The leading features of the design are two opposing buffalo heads on the upper periphery of the ring.

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

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 your name and address to 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. 551.—For compound engines for aunches of about 5 and 10 by 8 or 6 and 12 by 10 inches. "U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 552.—For plant protectors of water-proof paper, 15 to 18 inches high and 15 to 18 inches broad, for keeping frost from tomato plants.

WATER WHEELS. Alcott & Co., Mt. Holly, N. J. Inquiry No. 553.—For dynamos for a private plant.

Yankee Notions. Waterbury Button Co., Waterb'y, Ct. Inquiry No. 554.—For manufacturers of rubber dooring.

Turbines.-James Leffel & Co. Springfield, Ohio, U.S.A. Inquiry No. 555.—For parties in Canada to make a three-piece metal novelty.

Dies & Special Machinery. Amer. Hdw. Mfg. Co. Ottawa, 1ll.

Inquiry No. 556.—For manufacturers of small brass tubing known as hollow wire.

Sheet Metal Stamping: difficult forms a specialty. The Crosby Company, Buffalo, N. Y.

Inquiry No. 557.—For manufacturers of model engine castings, marine and stationary.

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

Inquiry No. 55%.—For manufacturers of steam brick yard apparatus.

Our number 4 Catalogue of Automobile parts, write us, Standard Welding Co., Cleveland Ohio.

Inquiry No. 559.-For manufacturers of agate

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

Inquiry No. 560.-For wholesale dealers in har-

SAWMILLS .- Variable friction feed. Send for Catalogue B. Geo. S. Comstock, Mechanicsburg, Pa.

Inquiry No. 561.-For manufacturers of novelties FOR SALE.—Patented invention, "Nut Lock." S, Koralewski, 19 Eagle Block, 20th Street, Pitisburg, Pa,

Inquiry No. 562.-For the present address of the Aluminium Novelty Mfg. Co.

Foundry Machine, Pattern and Biacksmith shop for sale. Address M, Box 772 SCIENTIFIC AMERICAN.

Inquiry No. 563.—For parties to make lamps in quantities. T'en days' trial given on Daus' Tip Top Duplicator

Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

Inquiry No. 564.—For manufacturers of apparatus for sleight of hand tricks. Kester Electric Mf'g Co's, Self-fluxing soider saves labor, strong non-corrosive joints, without acid, Chic-

ago. Ill.

luquiry No. 565.—For oil heating and cooking toves for use with crude oil.

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

Inquiry No. 566.—For $\frac{1}{2}$ inch seamless steel tubing, with bore of hole $\frac{1}{2}$ and $\frac{1}{2}$ inch.

For sale and introduction in Scandinavia, of Ameri can goods, any and all. Apply to O. P. Jespersen and Sonner, Copenhagen, Denmark.

Inquiry No. 567.—For Ferris or pleasure wheels about 40 or 50 feet for fairgrounds or street fair use.

FOR SALE cheap, in perfect condition, SCIENTIFIC AMERICAN and SUPPLEMENT, 1894 to 1900 inclusive J. Elliott Shaw, 632 Arch Street, Philadelphia.

Inquiry No. 568.—For parties to make a barrel similar to a common sugar barrel, made of clear basswood without knots, and to be grooved like washtubs.

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

Inquiry No. 569.—For manufacturers of round wooden boxes with screw tops for mailing purposes.

The best book for electricians and beginners in elecricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. 'Munn & Co., publishers. 361 Broadway, N. Y. Inquiry No. 570.—For manufacturers of spooling fishing reel, also parties who make spiral gear to fishing reel.

Sheet Metal Novelties, Articles and Stampings of all sizes. Tools and dies manufactured on contract. Ad-

dress Standard Stamping Co. Cor. 7th & Hudson Sts.,

Inquiry No. 571.—For manufacturers of X-ray plants for hospital work,

WELL DRILLERS .- St. Landry Oil and Mineral Co. Opelousas, La., will receive proposals until May 20, for drilling oil well. Bond required and usual rights reserved. St. Landry Oil and Mineral Co.

Inquiry No. 572.—For manufacturers massic mixers.

cannons, etc, from Government Auction are now being sold at ridiculously low prices. Send for illustrated lists. Francis Bannerman, 579 Broadway, N. Y.

Inquiry No. 573.-For manufacturers of sand driers.

WANTED .- An experienced specification writer and patent expert having a thorough knowledge of the patent practice and preferably one competent to handle electrical cases. Munn & Co., Solicitors, Office of SCIENTIFIC AMERICAN, 361 Broadway, New York.

Inquiry No. 574.—For a second-hand, one horse water motor or gas engine.

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

Inquiry No. 575.—For a manufacturer of metal novelties to make a small mechanical typewriter eraser (automatic).

Inquiry No. 576.—For manufacturers of automatic fire sprinklers.

Inquiry No. 577.—For manufacturers of machinery for making wood screws.

Inquiry No. 578.—For manufacturers of furnaces for burning oil.

Inquiry No. 580.—For manufacturers of pocket match safes with a hinge on the side and shut at the

Inquiry No. 581.—For a lathe having a 6-inch wing and 12 inches between centers being a foot power athe. but also do screw cutting.

Inquiry No. 582.—For manufacturers of steam oys.

Inquiry No. 583.—For manufacturers of electric cauterizing instruments.

Inquiry No. 584.—For manufacturers of a small ce plant of about 2 tons capacity.

Inquiry No. 585.-For the manufacturer of the Kitchen Ice Machine."

Inquiry No. 586.—For manufacturers of aluminium numbers and letters. Inquiry No. 587.—For manufacturers of water notors for pumping pipe organs.

Inquiry No. 588.-For sod cutters.

Inquiry No. 589.—For special files, 1% inches long by % inch wide by three thirty-seconds inch thick.

Inquiry No. 590.—For a water still, filter, fountain pen, invalid's chair, watch, artificial diamonds, etc., for the mail order business.

Inquiry No. 591.—For a friction electric machine, uch as the Holtz, Voss or Wimshurst, for experimental

Inquiry No. 592.—For a manufacturer or dealer in quare gilt wire such as is used in making letters and

Inquiry No. 593.—For manufacturers of tools for repairing pianos, harmoniums and other musical instru-

Inquiry No. 594.—For machinery for making cloth circles such as are used in making cheese.

Inquiry No. 595.—For the manufacturer of a re-ceiving box for spice and sugar grinding mill.

Inquiry No. 596.-For manufacturers of railroad and boat spike machines.

Inquiry No. 597.—For manufacturers of chains for the transfer of power similar to a bicycle chain with a sprocket.

Inquiry No. 598.—For small dynamos for 10 or 12 lights.

Inquiry No. 599.—For the present address of the Linney Air Churn Co. Inquiry No. 600. - For wholesale dealers in laundry and toilet soaps.

Inquiry No. 601.—For the present address of the netal polish "The Yankee Cleaner."

Inquiry No. 602.—For a gasoline burner with a cap 6 or 7 inches in diameter. Inquiry No. 603.—For manufacturers of cotton-threading machines.

Inquiry No. 604.—For manufacturers of an apparatus for feeding crude petroleum into furnaces.

Inquiry No. 605.-For manufacturers of the straight-way" generator for party line telephones. Inquiry No. 606.—For waste paper receptacles, flatted at the side so as to take up less space against the wall.

Inquiry No. 607.—For dealers in racks or gears, either new or second-hand; in New England preferred. Inquiry No. 608.—For information as to the "French Tailer System" and the "Paris Glove Fitting Machine"

Inquiry No. 609.—For a spring motor machine which can be operated by one man.

Inquiry No. 610.—For manufacturers of wooden spigots with locks.

Inquiry No. 611.—For manufacturers of permanent magnets.

Inquiry No. 612.—For manufacturers of machinery o make portrait frames. Inquiry No. 613.—For parties to make hoisting machines and clamshell buckets.

Inquiry No. 614.—For an engine with a capacity for running a small ice machine of about 5 tons daily, also with sufficient power to run a small laundry (washing machine).

Inquiry No. 615.—For machinery for small laundry complete.

Inquiry No. 616.—For complete machines for making ice, of about 5 tons daily capacity.



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.

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

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

Minerals sent for examination should be distinctly marked or labeled.

(8182) J. J. R. asks: 1. About what is the proper amperage and voltage of an open arc? A. The open arc has a drop of about 45 volts in it. Such a lamp, if rated at 2,000 candles, has 10 amperes flowing through it. 2. How many candle power per watt, and how is it rated? A. A 2,000-candle lamp is one which consumes 450 watts as defined by the National Electric Light Association. gives a little over 4 candles per watt. 3. At what ratio with each other should the two carbons be consumed (direct-current arc)? A. The positive carbon wastes about twice as fast as the negative. 4. Could you recommend a good treatise devoted entirely to the arc light and the different systems; also issues of the SCIENTIFIC AMERICAN? A. Crocker's "Electric Lighting," Vol. I.; "The Generating Plant," price \$3. Vol. II. is soon to be out. This will be a standard work. . Supplements 1047 to 1052, six numbers, at ten cents each, contain a series of articles on the arc lamp. We also recommend SUPPLEMENTS 694, 695, and 696. 5. Could I double the power of the motor de scribed in December issue by making the field and armature ring twice as wide and not Inquiry No. 579.—For manufacturers of glass change the number of turns or number of wire:
"stars" for holding photographs.

A. You may do so. 6. If I increase the numchange the number of turns or number of wire:

ber of coils on an armature and not change the other dimensions, is it necessary to have an uneven number. A. The number of coils may be odd or even. 7. About what is the voltage of the motor? A. A current from one storage cell will run the motor. This has a pressure of 2 volts. 8. In charging a storage battery having on positive and negative plates red lead, is it necessary to reverse the charging current at each charge for the first few charges to form the plates? A. The charging current is reversed to and fro until the plate is formed.

(8183) W. J. L. asks: Will you please inform me of a simple motor that will have power to run a baby carriage, to have the commutator bars on the axle, that the speed can be increased or decreased, simple as a fan, that will take as small space as possible, and if brass will do as well as copper for the commutator, and if a storage battery will be better than any other as to the expense, strength and weight? A. There is no motor whose armature rotates as slowly as the wheels of a baby carriage; so if the armature of any existing motor were attached to the axle of a baby carriage the nurse would need a trolley car to enable her to keep up with her charge. You will have to design a special motor for the service. Brass will not answer as well as copper for commutator bars, since it is not as tough as copper. You would almost of necessity use a storage battery to run the motor, since no primary battery will last as long and give so little trouble in maintaining it.

NEW BOOKS, ETC.

THE COPPER HANDBOOK. By Horace J Stevens. Author's edition. Houghton, Mich. 1900. 8vo, paper. Pp.

This little volume is intended for a work of reference on the mines of the lake copper district of Michigan, whose annual profits, when active, are greater than those of any other mining district in the world with the single exception of the Witwatersrand in South Africa. In this region are situated the famous Calumet and Hecla mines, together with many others of interest. Full particulars and data regarding all these mines will be found in this volume, as well as geological and miscellaneous notes on the subject.

HIGH-SPEED STEAM ENGINES. By W. Norris and Ben. H. Morgan. 114 Pp. 115 illustrations. London: P. S. King 114 Pp. & Son.

This little volume forms a practical handbook of modern steam engine practice. Thirtyfive modern high-speed engines of English and American make are illustrated and described, and tests are inserted wherever accurate ones were obtainable. These descriptions are pre-faced by a helpful chapter on the development and operation of this type of engine; and the book concludes with a description of the De Laval and Parsons steam turbines.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending APRIL 30, 1901,

AND EACH BEARING THAT DATE

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

Abrading or polishing machine, C. S. Yar-	
nell	672,930
nell	
r. volimaun	672,993
Advertisement pillar or column, H. Klein- schmidt	
schmidt	673,272
Air or other gases, receptacle for containing liquid, G. A. Bobrick	
liquid. G. A. Bobrick	673,073
Aluminium plates, manufacture of silver-	,
control P Montin	673,126
Aluminium, purification of, W. Hoopes Apparel pad, L. Bouchat Automatic gate, C. M. Stone Automobile, R. F. Jackson Automobile, R. F. Jackson	673,364
Apparel pad. L. Bouchat	673,331
Automatic gate, C. M. Stone	672,924
Automobile, R. F. Jackson	672,941
	673,226
Axle, J. McCauley Axle for railway cars, etc., A. C. Massey Axle lubricator, car, H. Gallager Back pedaling brake, W. G. Schaeffer Bag holder, E. Dinsmore Bultung nowdow	673,084
Ayle for railway cars, etc., A. C. Massey	672,949
Ayle lubricator car H Gallager	673,166
Back nedsling brake W G Schaeffer	673,342
Bag holder E Dinsmore	673,117
Ruking nowder A I R Kacha	673,057
Baking powder, A. J. B. Kochs Bale tie, M. L. Cronenberger Barrel closure, J. V. Walsh	672 977
Rurral closura I V Walsh	672,977 673,309
Burral rollar A C Rowa	673,030
Barrel roller, A. C. Rowe Bath. See Foot bath.	010,000
Duttor miver & H. Coombe	673,198
Pottory call begg Evenson & Shinn	673,249
Batter mixer, S. H. Coombs	013,240
for storage A S Hubbard	673,266
Rayring roller I A Parking	673,220
Busing ston F F Edgecombe	673,162
Possing throat I Holt	673,264
for storage, A. S. Hubbard. Bearing, roller, J. A. Perkins Bearing, step, E. F. Edgecombe Bearing, thrust, J. Holt Bedclothes fastener, G. A. Allen	672,881
Parl amach C D Podell	679 919
Bed couch, G. E. Bedell	673,313 673,366
Dod spring adjustable I D Uncklobury	672,904
Ded Spring, adjustable, J. D. Hucklebury	673,179
Beehive, B. C. Smith	673,207
Dilliand one shalker automatic I E Stone	013,201
mard cue charker, automatic, J. E. Stone-	673,094
man Enlogen & Indonesia	672,894
nder, Ericsson & Andersoninder, loose sheet, J. B. Irving	673,004
Bit attachment, P. Riley	672,988
Boiler front I Vanag	673,101
Boiler front, J. Vanes	013,101
D. Castle	673,015
Rottle non-refillable I R Donovan	673,337
Rottle stonner H S Brawington	673,236
Bottling appearatus liquid C R Van Horn	673,147
D. Castle Bottle, non-refillable, J. B. Donovan Bottle stopper, H. S. Brewington Bottling apparatus, liquid, C. B. Van Horn. Rox shooks, machine for making, W. Dupre.	673,049
Bruka F I Lingamann	673,209
Brake, F. J. Lingemann	010,200
I D McCillvenddy	673,129
Driek truck D F Duchtel	673,232
Brick truck, B. E. Bechtel Brush, F. G. Farnham Brush head, L. Herrman Bucket elevator, C. W. Levalley Buildings, metal clip for steel framework,	673,119
Rench hand I. Harrman	672 909
Rucket alayator C W Lavellav	672,902 673,32●
Ruildings matel clin for steal framework	010,020
If A Strouter	673,144
H. A. Streeter	
II. A. Streeter Burial casket, J. Devine Button piercing machine, automatic, G.	673,246
Criffin	673,077
Griffin	672 049
Duttonnote Cutter of shears, M. E. Burner	019,049

Established Nearly 50 Years.



CIGAR AT ANY



"THE 3 GREAT B's."



(BUENO SIZE)



(BONITO SIZE)



Guaranteed to give the consumer the most value for his money obtainable in Cigars.

Brunita

All Havana, Strictly Spanish Hand-Made.

\$10.00 for 100. Box of 12 for \$1.50

Brunswick (BONITO SIZE)

Sumatra and Havana Domestic Cigars. \$7.50 for 100. 12 for \$1.00.

Hossy (BARATO SIZE) A SELECT NICKEL CIGAR. \$4.50 for 100. 25 for \$1.25.

Send Your Money by Registered Mail.

We will not tire you with the usual Parrot chatter that goes with most other brands of Cigars regarding their worth; our goods are on sale at all the leading stands, hotels and clubs in the United States. TEST THEM!

We are responsible for their quality and we must bear the severest criticism of the Great American Consumer; on his judgment rests the future of our brands.

Brunita (BUENO SIZE)

High Grade "Vuelta" All Havana. Strictly Spanish Hand Made. Long practice and constant observation have enabled us to

place this brand before the public, a perfect product. High grade Vuelta Havana, grown on the most favored tracts of the renowned VUELTA ABAJO DISTRICT, is used, thus imparting that exquisite flavor peculiar to this tobacco.

Brunswick (BONITO SIZE)

The "BRUNSWICK BRAND" of Cigars is the most extensively used and widely known Brand of Cigars in the world. Wherever tested it has been pronounced the superior in make and quality of tobacco. Two International

Exhibitions have awarded it Diplomas and Medals for being first in Purity, Flavor and Perfection of Manufacture. It is sold in the leading Cities of the U. S. and largely exported to Foreign Countries. Could we offer you greater testimonials to express its worth?—TEST IT!

HOSSY (BARATO SIZE)

The BOSSY CIGAR is first among the five-cent Cigars on the American market. It is manufactured with the care of a high grade cigar and has the easy, even-burning quality so rarely found in a five-cent cigar.



Smokers take to the Bossy and refuse to change. Dealers who want to meet the expectations of their Look for the star on every cigar. customers should sell the Bossy.

Each Brand is made in a separate factory, thus avoiding any possible mistake in putting together the various tobaccos.

CONSUMERS, if you are not within immediate reach of our Cigars, we will to any part of the world. We will endeavor to supply your regular dealer if you will kindly send us his name and address.

Our Cigars are on sale in the principal cities of the U. S. and foreign countries. We are seeking wholesale distributors in districts which are not reached by our representatives and invite correspondence.

Special Terms on Quantities Furnished on Application.

A. Montañez Company.

All Havana Cigars Exclusively. BRUNITA FACTORY, 149 Duane St., Cor. West Broadway, N. Y. City.

Jacob Stahl, Jr., & Co. BRUNSWICK FACTORY: N. Y. Citv. BOSSY FACTORY: Stahl City, N. Y. Address all Correspondence to 168th St. and Third Ave., N. Y. City.

TELEPHONE: 2530 Franklin. TELEPHONE: 87 Melrose.

CABLE ADDRESS: "Success" Western Union Code.



	Calculator, G. Roegner Calendar, S. S. Leach Camera, panoramic, D. H. Houston Car brake beam, J. Timms Car brake, momentum, T. E. McCollum Car brake, wrom railway G. S. Barker	673,088 673,025 673,054
	Car brake beam, J. Timms	673,305
	Car brake system, railway, G. S. Barker Car coupling, C. E. Tench Car door appliance, express, F. L. Sandoz Car, dump. Williamson & Pries	673,107 672,968 673,291 673,103
l	Car, dump, Williamson & Pries Car fender, S. H. Evans Car mover, P. Roisum Car unloading apparatus, W. O. Dequede Cars alectromechanical empragney brake for	673,103 673,361 672,961 673,360
l	Cars, electromechanical emergency brake for tram, E. von Planta	673,286
	Cars, electromechanical emergency brake for tram, E. von Planta Carbonator, C. B. Van Horn Carbureter, J. Henderson Carbureter, A. H. Hopkins Card shuffling device, playing, B. F. Bellows	673,146 673,123 673,365
	Carnet fabric ingrain T F & A Navler	673,154 673,059
	Carrier. See Overhead carrier. Carridge pouch, A. P. J. P. Jacobs	673,269
	magazines, etc., W. B. Holtzclaw Castrating tool, G. W. Wootan	673,265 672,997
	construction of, G. A. Wayss	673,310 672,946
١	Carriage and go-cart, convertible baby, A. H. Schlueter Carrier. See Overhead carrier. Cartridge pouch, A. P. J. P. Jacobs Case or cabinet for holding newspapers, magazines, etc., W. B. Holtzclaw Castrating tool, G. W. Wootan Ceillings, floors, etc., of iron and concrete, construction of, G. A. Wayss Cellulose, producing cupro-ammoniacal solutions of, R. Langhans Chambers, water closets, etc., cover for, W. C. Miles Cheese maker's milk proving apparatus, F. Sette Cigar bunch machine, H. Jerstum	672,912
١		
١	Gleim Cithern, keyed, J. Parduba Clock, A. L. Henderson Clock, electric pendulum, F. & O. A. Haeni-	673,252 673,027 673,053
١	cnen	673,020 673,046
	Cloth for bias cutting, device for marking, J. Conzett Clothes line prop, W. W. Bouldry Clothes line prop, W. Bouldry Coll drill, M. Hardscog Coffee, etc., apparatus for seasoning, T. R. Timby Coln holding card, J. N. Spies Coin wrapper, W. J. Youmans Collar, borse, A. G. Couch Comb heater, R. G. Ferguson Combination lock, S. Merritt Continuous burning kiln for bricks, etc., A.	673,046 673,235 673,332 673,205
	Coffee, etc., apparatus for seasoning, T. R. Timby Coin holding card, J. N. Spies	673,227 673,299 673,373
١	Collar, horse, A. G. Couch Comb heater, R. G. Ferguson Combination lash	673,373 672,976 673,018
١	Adams	673,231
١	Counter machine, Stevens & Ware Coupling device, W. D. Sargent Cover, cooking utensil, J. Talladay Cover, kettle, H. Rosenthal Cranes, automatic reverse cut-out for elec-	673,151 673,093 673,178 673,302 673,010
١		673,010
١	Crate for bottled liquids, etc., shipping,	673,317 673,346 673,251
١	Cream separator, C. S. Fowler Crucibles, combined shield, shaker and conveyer for, W. S. Mather	673,251 673,212
١	White & Youngblood Cream separator, C. S. Fowler Crucibles, combined shield, shaker and conveyer for, W. S. Mather Crossing signal, double relay, B. N. Parrish. Cultivator share or shovel, A. G. Perry Curtain shade raiser, S. G. Haverstick Cutting machine, Edson & Clough Cycle, motor, E. N. Dickerson Dental plugger, H. Shoemaker Dentures, support for artificial, V. W. Gilbert	673,212 673,219 673,221 673,260
I	Cycle, motor, E. N. Dickerson Dental plugger, H. Shoemaker Dentures, support for artificial V. W. Gil-	672,893 673,336 672,920
I	Desk, hotel register, D. Moyes	673,019 673,026 673,335
١		673,158
	Day Display jar, J. T. Williams Drawing board, R. Engelmann Drip pan, O. M. Campbell. Dye and making same, disazo, F. Herwig Edge trimming machines, rotary cutter for, S. N. Corthell Edgling machine, B. G. Luther	672,995 673,201 673,241 673,079
	S. N. Corthell Esgling machine, B. G. Luther Egg case and tray, combined, W. A. Shelson Electric circuit controller, H. W. Leonard.	673,318 673,322 672,966
	Electric circuit controller, H. W. Leonard Electric elevator, N. O. Lindstrom Electric motor, Merrick & Forrer	673,274 673,169 672,950
	Electric elevator, N. O. Lindstrom Electric motor, Merrick & Forrer Electric motor control, F. W. Garrett Electric motor corroller, E. W. Stull Electric motor regulation and control, J.	672,936 672,992
	Burke Electric signal, Buck & Love Electrical connector, H. E. Norris Electrical distribution, J. L. Woodbridge Electrical machinery, regulation of dynamo.	673,239 673,238 672,959
	S. S. Wheeler	673,348 673,345
	Electrolytic current rectifier and condenser, C. Pollak Elevator hatch covers, automatic device for	672,913 672,954
	operating, H. B. Murdock Elevator machinery, G. W. Nistle Elevator safety gate, C. F. Kurtz Engine, A. B. Floyd Engine bearing, J. Walrath Engines, cooling means for gas, J. W. Ray-	672,954 672,985 673,005 673,120
	шона	010,020
	Engines, igniting and regulating combustion for internal combustion, R. Diesel Engines, means for regulating size of com- pression chambers of gas, C. Hautier Engines, vaporizing device for explosive, H.	673,160
	pression chambers of gas, C. Hautier Engines, vaporizing device for explosive, H. G. Tassell	013,180
	G. Tassell Envelop, S. Rosenberg Envelop-making machine, J. A. Sherman Eraser, blackboard, D. Greenwood Excavator plow, B. R. Snider	673,224 672,919 673,254 673,036
	Excavator plow, B. R. Snider Explosion engine and spring motor, combined, H. C. Osborn Explosive, S. D. Smollaninoff. Explosive, accelerating, P. Du Buit Explosives, manufacturing, H. W. Wiley Explosives, salt mixture for, J. V. Skoglund Eyeglass mounting, W. G. Beek Eyelet, knob, J. F. Powell Eyelet setting tool, W. E. Bennett Fabric. See Woven fabric. Fan or pump, centrifugal, S. C. Davidson	673,284 672,991
	Explosive, accelerating, P. Du Buit Explosives, manufacturing, H. W. Wiley Explosives, salt mixture for, J. V. Skoglund	673,161 673,347 673,328 672,932 673,369 672,884
	Eyelet, knob, J. F. Powell Eyelet setting tool, W. E. Bennett Eyelet setting tool, W. E. Bennett	672,932 673,369 672,884
	Fan or pump, centrifugal, S. C. Davidson Fan, portable electric, Post & Wright Feed apparatus for steam boilers, automatic	673, 139
	Fence brace and wire tightener, W. A.	673,113
1	Willis Fence post joint, metallic, Swank & Dwiggins Fence, wire, J. W. Hammett	672,256
	Fertilizers, making, R. K. Giffen File for interest computers, C. L. Del- bridge	673,200
	File for interest computers, C. L. Del- bridge File, letter, F. A. Edmands Fire escape, B. B. Briggs Fire escape, Steinfeld & Meyer Fire extinguisher, T. F. Handly Fire hose support, T. Prentice Fish dressing machine, S. Haigh	673,200 673,248 672,998 673,301 673,204
	Fire hose support, T. Prentice	673,061 673,255 673,184
	Flash light, A. R. Welch Flash light apparatus, H. B. Shaeffer Flax breaking machine, De Courcy & Craw- ford	673,184 672,964 673,199
	Flax breaking machine, De Courcy & Crawford Fluid meter attachment, W. P. Flint Fluid pressure brake, J. B. O'Donnell Folding box, L. A. Schmidt Foot bath, B. A. Stevens	672,935 673,175 673,064 673,923
	Foot bath, B. A. Stevens Fruit gatherer, W. A. Trimble Fruit picker, H. F. Ruggles Fruit sorting machine, E. N. Maull Furnace, F. L. McGahan	673,306 673,225 673 127
	Furnace, F. L. McGahan Game apparatus, W. J. Burtis Game board, H. M. Conner	673,008 672,999 672,933
i i	Game apparatus, W. J. Burtis Game board, H. M. Conner Game, parlor, C. S. Hill Garment, bifurcated, F. W. Weston Garment stretcher, A. L. Collins Garment supporter, J. Jorgenson Gas, apparatus for extracting tar from coal, F. J. Mayer	672,933 673,080 673,040 673,197 673,023
	Gas, apparatus for extracting tar from coal, F. J. Mayer	673,023 673,171 673,303
	F. J. Mayer Gas burner, incandescent, C. W. Taylor Gas cut-off, automatic, H. Shoemaker Gas engine, G. A. Bronder Gas generator, Laraway & Houser Gas holder, F. J. Mayer Gaslight apparatus, incandescent Burrows	673,303 672,990 673,109 672,947 673,170
	Gate. Maxwell & Granger	673,007
	Gate, O. K. Cleaveland Gearing, L. Anderson Gin saw side-filer and gager, T. H. Nance (Continued on page 301)	673,352 6 73,28 3

(Continued on page 301)