### RECENTLY PATENTED INVENTIONS. Pertaining to Apparel.

COAT-HANGER .- L. TRESTMAN, New York, N. Y. This invention relates especially to the cords or chains which are attached on the inner side of the collar to enable the same to be hung upon a hook. The purpose is to provide an anchor plate which can be readily secured to the material of the garment. There are two of these anchor plates provided and they are connected by a chain.

#### Electrical Devices.

IGNITER.-G. W. SAGE, EUREKA, Cal. The improvements are in igniters for use in connection with internal combustion engines, and more particularly to that type of igniter in which two electrodes are brought into contact and then separated at the instant it is desired to produce the spark. It relates to that type disclosed in the previous patent granted to Mr.

TELEPHONE-MOUTHPIECE.—G. H. REED, New York, N. Y. The invention refers more particularly to means for rendering the mouth- moved or replaced, for containing sponges and and it only takes three tons or less per day, past profits involves many points of theoretical piece antiseptic and for increasing the volume of the sound transmitted. The diaphragm and pad may be readily removed or replaced, and drainage devices. the mouthpiece in presenting a large bell-shaped the diaphragm of the transmitter.

ROTARY CONVERTER.—J. L. MURDOCK, Boundbrook, N. J. Mr. Murdock's invention pertains to so-called "current shaping mechanism," his more particular object being to produce a converter, for selecting from three-phase alternating currents predetermined portions of said currents, in such manner as to accumulate the effect of the portions thus selected, and thus build up a virtually direct current which is practically constant.

## Of Interest to Farmers.

GIN COTTON-SEED CLEANER.—H. Sugg, Kennett, Mo. This cleaner is a shaking screen for cleaning gin cotton-seed by removing therefrom hulls, loose cotton, dirt, and sand. It is adapted and used for securing Ore. Mr. Stedman's invention has for its more cotton-seed discharged from the gins, and separates from the seed the cotton and hulls, which proved mounting for securing the cutters upon are conveyed to a storage bin, the cotton being subsequently returned to the gin to be re-ginned, whereby an important saving is effected.

THERMOMETER - HANGER FOR INCU-BATORS .- G. H. LEE, Omaha, Neb. In this case the invention refers especially to ther- Cal. A purpose of this inventor is to construct mometers when used in incubators or in similar a motor particularly automatic in action, situations where it is desirable to have the bulb wherein a pier is built out into the ocean or supported adjustably so that the level of the equivalent body of water, a desirable distance, bulb may be regulated and placed at any point in connection with which tracks are employed, desired.

La. In the present patent the invention is in plows, and has for its purpose to provide means to vary the sweep of the plow, whereby the The more particular purpose of this invention soil may be thrown from furrows close to grow- is to provide a type of wind motor in which ing plants at each side, and the plow thus used there are two sets of wind wheels turning in for different spaced rows.

## Of General Interest.

CAMERA.-A. L. RICHARDSON, Melrose, New Mex. This invention has reference to improvements in photographic apparatus and is applicable chiefly to cameras used in photographic studios for the purpose of making portraits; also it may be used with other cameras such as those used for taking landscapes or for other outdoor photographs.

HIGH-SERVICE DAM, -R. GRISWOLD, Denver, Colo. The purpose here is to provide novel details of construction for a high service dam that adapt the dam for erection in a gorge or canyon near the highland, so as to arrest a portion of the water drained therethrough, and produce back water for irrigation of the soil over which the arrested water is returned.

EAVES-TROUGH.—LIZZIE H. DICKELMAN. Forest, Ohio. The aim in this instance is to provide a construction whereby to increase the hydrant or other water supply, and provided power in "low" than in "high"? strength and rigidity of the trough when the with a plurality of outlets for connection with sections are coupled together and at the same separate fire hose, and main piston valves artime to provide a construction in which the ranged within the said valve casing for conprocess of manufacture is simplified and in which the sections may be more quickly and easily put together and disconnected when desired.

# Hardware.

NAIL-HOLD struction for the handle of a nail driving tool, such as a hammer or hatchet, which convert the handle into a magazine, wherein nails of and a proper cutting of the cutter wheel is a selected dimension may be carried, and by a insured, without danger of breaking the latter shaking movement of the handle be passed. through a longitudinal slot in the hollow body thereof, and hang by their heads projected from the slot, to be manually removed as de-

## Heating and Lighting.

INCANDESCENT-LAMP SOCKET SWITCH .-- I. L. CASH, Portland, Ore. invention relates to incandescent lamp sockets, and the intention of the invention is to improve the construction at the socket, and particularly that of the switch, for turning the lamp on or off. Means are provided for making signs visible that indicate that the current is turned on or off.

CONDENSING SYSTEM. -S. WOOLF and C. W. RAFFERTY, Lynch, Neb. An object of the invention is to provide means for disposing of the exhaust steam by condensing the same, thereby providing means for overcoming back pressure. Means also provide for removing impurities carried along with the steam thereby leaving the feed water in a pure condition for immediate re-entrance into the boiler.

#### Household Utilities.

SAD-IRON .- G. P. CLEMENTS, New Milford, Pa. The iron has an adjustable extension adapted for opening and pressing seams, ruffles, tucks, etc. In retracted position the extension conforms to the outward contour of the iron, It retains heat much longer than small irons, yet is capable of ironing small and complicated work even more thoroughly than small irons, besides avoiding the necessity of having several sizes of irons.

BED ATTACHMENT.—H. L. APPLETON. Shelby, Ala. In this patent the intention of feet long. To do this took altogether too much the improvement is the provision of an attach coal. They used about eight tons per day. ment for hospital beds or the like, easily re- | They dropped off 100 horse-power of this load, view of a concern's financial status and of its instruments, and so arranged as not to interfere with the use of the Kelly pad or similar

CURTAIN-FIXTURE .- J. DARLING, Chicora. outer end increases the effect of the voice upon Pa. The improvement here is particularly in that class illustrated in Mr. Darling's former patent. The construction permits the convenient utilization of the ordinary curtain rollers on the market and provides for securing the same in the hook bracket in such manner as to prevent any accidental displacement of the shade when applied for use.

CLOTHES-DRYING DEVICE .- J. M. TEACH, Santa Monica, Cal. The aim here is to provide a drier, erected in the open air, which affords a device that is very convenient in use and well adapted for the reception of a considerable number of pieces of clothing or other fabric that are to be exposed to the sun and air.

#### Machines and Mechanical Devices.

CUTTER-HEAD .- J. F. STEDMAN, Newburg, particular purpose the provision of an imthe cutter head in such a manner that the cutters may be readily attached and detached at will, and may also be adjusted as desired. without removing them from the cutter head.

WAVE-MOTOR .- C. W. HICKS, Los Angeles, having an inclination upward in direction of PLOW.—S. A. ESTABROOK, JR., Ponchatoula, the shore, upon which tracks a motor carriage is adapted to travel.

WIND-MOTOR .- C. DAUB, New York, N. Y. planes which cross each other, the combined effect of all of the wind wheels being transmitted ultimately to a shaft or other driven member common to all of the wind wheels

FILLING DEVICE.—E. N. GAUDRON, Hasbrouck Heights, N. J. The object here is to provide a device, more especially designed for filling bottles and other receptacles with liquids contained in kegs, barrels, vats, tanks and other storage vessels, and arranged to automatically stop the filling at the time the bottle is filled, to prevent the return flow into the storage vessels and thus avoid displacement of sediment.

REDUCING-VALVE .-- T. P. FORD, New York, N. Y. The valve is more especially designed for high-pressure fire systems and the like, and arranged to permit variable pressures from a common supply, such as a hydrant, to allow, for instance, use of several hose of low and higher pressure for outside work. Use is made of a valve casing having a connection with the trolling the flow of water to said outlets.

## Prime Movers and Their Accessories.

FLUE-CLEANER .- J. WIECHMANN, Albany, N. Y. This cleaner thoroughly cuts the scale HAMMERS OR of a cuttor beed arrived by the use of a cutter head rotating with the turbine One purpose here is to provide details of conmounted to rotate loosely on the end of a centrifugal swing arm, so that the center pin of the turbine wheel is relieved of undue strain or causing it to stick in the scale.

## Designs.

DESIGN FOR A PICTURE-FRAME. A. KAISERMAN, Rochelle, Ill. This neat ornamental design for a picture frame comprises a frame of an inverted kite shape, the frame standing by a prop support on a flat surface. A cord and tassel hangs from the top point, and a tube shaped projection extends from the center of

Note.-Copies of any of these patents will Please state the name of the patentee, title of the invention, and date of this paper.



Kindly write queries on separate sheets when writing about other matters, such as patents, subscriptions, books, etc. This will facilitate answering your ques-

of this column in the issue of March 13th or will be sent by mail on request.

plant has been supplying steam for some time to several power plants in this city. They have half or more of the total horse-power is con-. ciable loss of power. It is probable, however, that the boilers are overloaded, and a reduction by half of the power consumption might well cause a greater proportionate reduction in the fuel consumption.

(12122) C. H. P. asks: We have two tanks lying horizontally. One is 6 feet 6 inches in diameter and 29 feet 6 inches long, and there is 24½ inches of oil in this tank. The other is 6 feet in diameter and 25 feet 3 inches long, with 32% inches of oil (from bottom of tank to top of oil). How many gallons in each tank? Please give formula used if possible. A. Your question is not very clear, as you refer to the distance from the bottom of the tank (usually meaning the circular flat bottom) to the top of the oil; but as you refer to the tanks as lying horizontally, we presume you mean that the axis or longer dimension is horizontal, and mean by the bottom, the curved side of the cylinder lying on the ground. In this case the volume of the oil is the product ment is calculated by the formula

$$A = \frac{4h^2}{2} \sqrt{\frac{D}{b} - 0.608}$$

 $\left(A = \frac{4h^2}{3} \sqrt{\frac{D}{h}} - 0.608\right)$  in which A is the area, h the height of the segment (in your case the depth of the oil), and D the diameter of the circle of which the segment is part. The derivation of the formula is difficult, involving higher mathematics, which you presumably do not want, but its results are very closely approximate. In your first case D=6 feet 6 inches=78 inches, and h=24.5

$$\left(A = \frac{4 \times 600.25}{3} \sqrt{\frac{78}{24.5}} - 0.608 = 800.33 \sqrt{2.576} = \begin{vmatrix} \text{admirably illustrated.} & \text{Among the naval articles of more than passing mention are those under the headings "Artilleristische"} \end{vmatrix}$$

inches = 454,713 cubic inches =

gallons = 1,968 gallons nearly. With the above example you can easily calculate the second amount, substituting h=32.75 and D=72 inches, and multiplying the area found by 25

(12123) P. O. B. 35 asks: Does a 22horse-power automobile develop more horsesure it does not, but just to prove it to the fellow with whom I am betting, I am asking you. Do you answer by letter or in the next SCIENTIFIC AMERICAN following the receipt of the question? A. We make it a rule not to settle bets, but as we can only guess at the meaning of your question we do not mind stating a general principle from which you can draw your own conclusions. Supposing that your question has some reference to the change-HATCHETS.—W. E. Wieland, Durango, Col. wheel, and provided with a cutter wheel of gearing can alter the power generated by speed gear of an automobile, no amount or kind through one foot in a second with his hands, comic journal with humorous approval, as tackle, he must continue for ten seconds ex- "Geschichte von den sieben Gehengten." penditure of the same amount of energy per system described is an excellent arrangement cause where he gains in mechanical advantage, he loses in speed. In the same way with an engine, if a certain number of revolutions pro- a weak body can be scientifically built up. ducing through gears a given torque on the wheels will drive a car 20 miles an hour A NEW LIGHT ON ANCIENT EGYPT. By G. along a level road, a greater torque is required to drive at even a much less speed up steep grade. The engine speed is therefore reduced by the increased load, and, as a high speed is necessary for efficiency in gasoline enbe furnished by Munn & Co. for ten cents each. the engine to run as fast as before while the to bring a science, supposed to be comprehensible wheels turn more slowly, thus distributing the

and overcoming a heavier load; but the power generated is the same, power being the work done divided by the time consumed in doing it. This is not to say that the output in brake horse-power of an automobile or any other engine is always the same, but merely that it cannot be affected by the gearing.

#### NEW BOOKS, ETC.

tions. Be sure and give full name and address on every sheet.

Full hints to correspondents were printed at the head Full hints to correspondents were printed at the head & Co., 1909. 12mo.; 367 pp. Price, \$1.70.

This is a most valuable treatise, giving in lucid style the best principles of accounting. (12121) O. M. T. asks: A local steam The essence of accounting from the author's viewpoint is the presentation first of a careful exhibit of a definite status of the concern at a two boilers of 100 horse-power each. They given moment of time, and secondly a showing have been supplying about 200 horse-power of the results obtained during a given period steam through a 4-inch steam line, about 500 of time. The first is embodied in the balance sheet, the second in the income or profit and loss statement. The presentation of a correct using one boiler only. What is the explana-interest and practical import. The present tion? Would the size of steam pipe make any volume will do much to give those who are difference in the amount of coal used? A. The charged with the ultimate revision of figures size of the steam pipe might easily affect the most valuable information. The chapters re-ccal consumption per horse-power generated. late to: Principles of Double Entry Bookkeep-Without further particulars as to the distribuing, Balance Sheet, Assets and the Principles tion we cannot say exactly, but supposing that of Valuation, Valuation of Particular Assets, Mutual Assets, Depreciation, Capital Stock, sumed by engines half or more of the total Liabilities, Profits, Surplus and Reserve, Sinkdistance from the boilers, a 4-inch main is ing Funds, Trading, Manufacturing, and Income certainly small enough to cause an appre- Accounts, Cost Accounts, Partnership Accounts, Statement of Affairs and Deficiency Account, Technical Improvements in Accounting Practice. The subjects treated are very well arranged, and the book will certainly be of great value to the heads of business corporations as well as those who are charged with the actual accounting.

HANDBUCH FÜR HEER UND FLOTTE. klopädie der Kriegswissenschaften und verwandter Gebiete. Herausgegeben von Georg von Alten, General-leutnant z. D. Vollständig in 108 leutnant z. D. Vollständig in 108 Lieferungen reichillustrierten Textes mit farbigen Beilagen, Karten, Plänen, Gefechtsskizzen, etc. Deu-tsches Verlagshaus Bong & Co. Price per part, 50 cents.

The last five installments of this admirable military and naval encyclopedia contain some excellent articles on tactics, most of them istorical in treatment, and some based upon the results of the recent Russian-Japanese war. of the length of the tank by the area of the segment of a circle of which the surface of titled "Aufklaerung," "Aufmarsch," and "Austhe oil is the chord. The area of such a seg-dehnung der Gefechtsfront." Some excellent articles on historical battles and sieges, are to be found under the headings: "Aspern," "Aus-terlitz," "Bayaume," "Bar-sur-Aube," "Baut-zen," "Ath," "Badajoz," and "Barcelona." European military geography is also discussed, particularly under the headings "Athen," "Baden," and "Bayern." Among the numerous articles of general military interest may be mentioned those entitled "Aufgebot," "Aufnehmen," and "Aushebung." while some special technical subjects will be found discussed under such titles as "Bajonettangriff," "Attacke," and "Batteriedeckungsbau," which last is most those under the headings "Artilleristische Maschinen der Kriesgsschiffe," "Atlantischer Ozean," "Ausstossrohr," "Azimut," "Babcock So the volume of the oil is 1,284.5 × 29 feet und Wilcoxkessel," Military hospitals and military sanitation are ably discussed under the titles "Arznei- und Verbandmittelversorgung," "Aerztliche Fortbildung," "Atmung," "Augenkrankheiten," "Bakteriologie," and "Baracken." A very clear presentation of military and legal relations, in other words, the subject of military jurisprudence, will be found nder the titles "Ausland" and "Auswanderung." For the first time we find an exhaustive review of the historical development and the military value of expositions.

> My System. Fifteen Minutes' Work a Day for Health's Sake. By J. P. Müller, ex-Lieut. of Engineers, Klampenborg, Denmark. With forty-four illustrations and a time-table. Translated from the fifth edition of the Danish original. New York: G. E. Stechert & Co. Price, in colored paper covers, 75 cents net; red cloth, gold lettering, \$1 net.

Miller's book "My System" has become almost a household word in Germany. Indeed, any engine. If a man can lift 100 pounds it is referred to in more than one German but can raise 1,000 pounds with a fall and well as in such literary works as Andrejev's second required to raise the smaller weight of gymnastic exercises intended to consume not in order to raise the 1,000 pounds 1 foot, be- more than fifteen minutes a day and yet to develop the physique. There can be no doubt that if the suggestions of this book are carried out.

> Maspero. New York: D. Appleton & Co., 1909. 8vo.; 315 pp. Price, \$4 net.

Prof. Maspero is one of the most noted Egyptologists in the world, and he states in his gines, a change of gear is made which allows Preface that he has been fifteen years trying only to experts, within the reach of the ordinary same amount of work over a longer period man, and it is gratifying to find that his time has not been wasted. He has drawn his materials from everything than can be discussed with educated people, without demanding anything more than a little attention. Excavations, religion, travels, popular customs, litera ture, and history have each and all furnished him with subjects. The result is a living picture of the researches made in the domain of Egyptology during a period of fifteen years. The book is a most fascinating one to all who have even a slight appreciation of what Egyptology really means. Many chapters deal with the very latest discoveries and matter that has never before appeared in book form.

THE LIFE OF MAJOR-GENERAL SIR CHARLES WILLIAM WILSON, ROYAL ENGINEERS, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D., M.E. By Colonel Sir Charles N. Watson. New York: E. P. Dutton & Co., 1909. 8vo.; 419 pp. Price,

The material from which this memoir of the late Sir Charles Wilson has been compiled consists principally of his own diaries and notebooks, which he always kept in a very thorough anner; all his official reports printed in Parliamentary papers and all other public writings; and more especially, all his letters to his which recorded everything which he did A and saw during his travels. Sir Charles Wilson's career was a remarkably varied and interesting one. He was selected to serve on the North American Boundary Commission. For many years he served upon the Astronomical Survey, and had charge of that department in Scotland, Ireland, and afterward in the United Kingdom. He also was employed by the War Office; Foreign Office Survey under Lord Dufferin in Egypt. Sir Charles was prominent in his close connection with the Soudan question and the mission of Gen. Gordon. In the Nile Expedition of 1884 he held the important position of Chief of the Intelligence Department. Sir Charles Wilson had many interests in life outside of his military and political positions, and probably did more than any other man to increase the knowledge of the geography and Ba archæology of Asia Minor, Palestine, and adjacent countries. The book is an entertaining one B to those who care for memoirs.

STAINED GLASS WINDOWS IN ENGLAND. By 1 Bt Charles Hitchcock Shirrel. New Both York: J. Lane Company, 1909. Be 12mo: 254 pp. Price 29 50 - 14 12mo.; 254 pp. Price, \$2.50 net.

This admirable book is a rational guide to the study of stained glass in England. It is accompanied by maps which show how the cities may be visited in their proper sequence with as little fatigue and crossing of one's path as possible. Not only are many noble cathedrals visited, but smaller religious edifices and secular buildings of many types are treated. In this latter category are treated, B the universities of Oxford and Cambridge and Bi one of the finest of the stately homes of England-Knole. Any cultivated person who completes the tour as outlined will have obtained a well-rounded impression not only of glass but also of history, as well as an intelligent insight B of the customs of England. Unfortunately, no form of illustration can hope to reproduce the combination of light and color which makes up the beauty of stained glass. Those selected by Be this book are the best obtainable, but are chiefly useful in showing how the windows are set. It is is not a technical book, so that scale drawings are not required. It is a beautifully printed and bound book.

HAPPY HAWKINS. By Robert Alexander Burden. Boston: Small, Maynard & Co., 1909. 16mo.; 352 pp. Price, \$1.50.

"Happy Hawkins" is a quick-tempered, inde-  $|\frac{B}{B}|$ pendent, loyal, lovable, adventurous, and philosophical cowboy of the plains. He tells his B own story in his own way, and after a plan of his own. His knowledge of human nature, his B simple-hearted devotion to those he loves, his B ability to get into trouble and out of it, his self-possession in any society-all these qualities make him one of the most original characters in modern fiction. Mr. Wason tells a story full of red blood, with action, romance, and the interplay of hot human passions, with an intricate plot, an abundance of incident, a great variety of scene and type, shrewd philosophy, genuine pathos, and, perhaps best of all, real fun and humor on nearly every page. It covers the growth from childhood to womanhood of Happy's little playmate, Barbara, the daughter Diamond Dot ranch, and swings round from Wyoming to Texas, Nevada, California, Montana, and back again. The book easily establishes the author's reputation as a great storyteller and fun-maker.

## INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending August 24, 1909,

AND EACH BEARING THAT DATE

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

 Adding machine, J. G. Vincent
 932,073

 Aerodrome, W. Sinclair
 931,966

 Air, distributer for apparatus for carbureting, A. A. Louis
 932,150

## Legal Notices

# **PATENTS**

Ikali silicates, manufacture of soluble, R. E. Weissmuller	932 204
lum, making iron free, E. Strohbach	932,067 932,094
musement apparatus, P. B. Haight musement apparatus, J. W. Armitage	931,863 932,089
musement device, Potts & Lovell nchor, W. F. Kenney	932,057 932,397
nimal antirooting device, L. J. Owensh can and other or similar receptacle, T.	931,794
utomobile, U. S. Snyder	931,893
E. Diamond  E. Diamond  Utomobile volumentation lock, M. L. Yuster.  utomobile foot-warming radiator, E. M. Field, Jr.  utomobile wind shield, H. F. Holbrook  wring H. Smith	931,981 932,113
utomobile wind shield, H. F. Holbrookwning, H. Smith	932,126 931,967
utomobile wind shield, H. F. Holbrook whing, H. Smith xle cutter, adjustable, O. J. L. Byers ag, Reaney & McAnulty931,886, ag holder, G. L. Lyon aggage rack, W. S. Hamm aking powder, J. H. Kellogg aling press, I. S. Peightel all players' armor, base, W. J. Sullivan andeau, W. L. Manchester arrette, E. B. Kingman asket rack, G. L. Walters attery see Secondary battery.	931,729 931,887
ag holder, G. L. Lyonaggage rack, W. S. Hamm	932,151
saling press, I. S. Peightel	931,887 932,151 932,121 932,138 932,316 932,352
andeau, W. L. Manchester	932,352 932,304 931,877
asket rack, G. L. Walters	931,877 932,199
attery cells, gas controlling apparatus for, O. D. Apple	932,087
earing, ball, H. La Casse	932,144 932,247
arrette, E. B. Kingman. assket rack, G. L. Walters. attery. See Secondary battery. attery cells, gas controlling apparatus for, 0. D. Apple. earing, ball, H. La Casse. earing retaining collar and cap, ball, W. R. Clarkson earing, roller, A. T. Killian. ed and davenport, combined, A. F. Englerth ed attachment, H. L. Appleton.	931,931
lerthed attachment, H. L. Appleton	931,852 932,236
ed, disappearing, J. Rountreeed joint, metal, J. M. Adams	931,962 932,233
ed, swinging couch, J. Luppinoeds, invalid's foot rest for, M. Weld	931,780 931,908
for, F. D. Pelletier	932,169
bonating and dispensing, E. B. Mower	932,048 931,891
ted and davenport, combined, A. F. Englerth Leth Appleton ted attachment, H. L. Appleton ted, disappearing, J. Rountree ted, disappearing, J. Rountree ted, sivalid's foot rest for, M. Weld teds, invalid's foot rest for, M. Weld tedsteads, folding clothes rack attachment for, F. D. Pelletier teer and other liquids, apparatus for car- bonating and dispensing, E. B. Mower. teer cooler, K. T. Schutzinger. telt, conveyer, H. E. Heaton telt shifter, J. Cressman teverage dispensing system, A. D. Jones, 932,284,	932,015 932,000
everage dispensing system, A. D. Jones, 932,284,	932,285
icycle frame, cushioning, O. J. Laravie	931,932 932,205
J. Walker, Jr	931,819
H. Renworth	932,059 932,171
lind, E. A. Foster	932,263 932,035
dats, entrance shaft for submarine, R. d'Equevilley-Montjustin	932,379
oiler arches, rib for, E. W. Ashenden	931,834 932,209
toiler furnace, steam, W. G. Munson oilers, interior arrangement for smoke	931,952
boxes of tubular, F. W. Bornolt mechanism, door, Furman & Rowe	$\begin{array}{c} 931,727 \\ 932,383 \end{array}$
ook bilder, A. F. Stone, Jr	931,816 932,348
dock, 100se lear, Page & Heages	931,796
L. A. Gale	931,748 932,378
ottle bracket, J. W. Barnard	932,366 932,362
or materials, G. J. Packe	931,795
ottle holder, nursing, C. Starbard	932,344 932,422
ottle washing machine, Utard & Gimonet Bottles or like articles, machine for clean-	932,193
ielt, conveyer, H. E. Heaton ielt shifter, J. Cressman.  932,284, icycle frame, cushioning, O. J. Laravie. iill fold, S. L. Wentz.  J. Walker, Jr.  J. Walker, Jr.  J. Walker, Jr.  Inder or loose sheet holder, temporary, J. Walker, Jr.  Inder or loose sheet holder, temporary, G. H. Renworth  Iacking box, J. F. Pinson.  Iline, E. A. Foster.  Ilock forming machine, G. L. Langer.  Ilock forming machine, G. L. Langer.  Ilock forming machine, G. L. Langer.  Inder or loose shaft for submarine, R.  d'Equevilley-Montjustin  Inder, C. Wegener.  Indier flue cleaner, J. Wiechmann.  Indier flue cleaner, J. W. Born.  Indie flue cleaner, J. W. Barnard.  Indie flue cleaner, J. W. Barnard.  Indie flue cleaner, J. W. Barnard.  Indie flue cleaner, J. W. Houston.  Indi	932,145 932,415
A. Pierce	931,798 932,017
ridge, lift, Waddell & Harrington crominated beta-naphthylindigo, Schmidt &	932,359
Voss	932,334 932,309
uckle, garment, M. Rubin	931.802 932,393
wilding block and wall, A. E. Matthews	931,823 932,157 931,943
uilding frame anchorage and weather- proofing, C. J. Appleton	931,714 932,358
rominated beta-naphthylindigo, Schmidt & Voss voss rush holder, A. L. McHugh uckle, garment, M. Rubin uckle, trace-supporting back band, D. Jacks uckles, coin holder for belt, J. C. Waugh. uilding block and wall. A. E. Matthews. uilding construction. E. D. Martin uilding frame anchorage and weather- proofing, C. J. Appleton. uurglar alarm, A. Verhoeven. uutter molding and printing machine, F. Mellish	932,358
able clamp, W. H. Kempton	932,043 931,930
dutter molding and printing machine, F. Mellish able clamp, W. H. Kempton. able retaining mechanism for overhead carrier yokes and rollers, W. Gutenkunst. able switch mechanism, overhead carrier, addy, grocer's, G. A. Schmid. alculating machine. Dreyfus & Levy. aliper gage, E. F. Hathaway. amera, A. L. Richardson.	931,860
W. Gutenkunst	931,861 932,062
alculating machine. Dreyfus & Levy	932,255 931,759 932,326 932,392
amera, A. L. Richardsonamera, photographic, C. E. Hutchingsan lock milk J. Varoga	932,392 932,194
aliper gage, E. F. Hathaway. amera, A. L. Richardson. amera, photographic, C. E. Hutchings. an lock, milk, J. Varoga. ans, manufacture of sheet metal, R. H. Smith	932,341
ar coupling device, J. W. & W. W. Howard ar door, grain, C. S. Eaton	931,927 931,739
ar door, grain, P. J. A. Schnoor	931,739 932,335 931,720 931,933
ar lighting system, E. C. Folsomar roof. E. V. Donelson.	
ar sheathing, L. C. Bassfordar, street, C. O. Birney	931,736 932,367 931,724 932,051
ans, manufacture of sheet metal, R. H. Smith ar coupling device, J. W. & W. W. Howard ar door, grain, C. S. Eaton. ar, dumping, A. Becker. ar, dumping, T. Lawson. ar lighting system. E. C. Folsom. ar roof, E. V. Donelson. ar sheathing, L. C. Bassford. ar, street, C. O. Birney. ar window cleaning device. G. W. McKee. ars, step-operated circuit breaker for electric, B. B. Herron.	
tric, B. B. Herron	932,018 932,093 932,360
arcass handling apparatus, W. B. Farris ards, playing, A. H. Wheeler	932,3 <b>6</b> 0 931,744 931,977
arriers, direct movement lock and trip mechanism for, W. Gutenkunst	931,859
artridge magazine pocket for self-loading rifles, L. F. Kennedy	931,766
aster, ball, H. M. Powers	932,038 931.958
asting machine mold. Mohr & Gerwig astings, device for forming molds to pro-	932,047
arcass handling apparatus, W. B. Farris. ards, playing, A. H. Wheeler	981,760
AM AIRING ************************************	JU29 U20

	American	<u> </u>
Legal Notices	Cement and making same, waterproof Portland, C. McCormick	ns to prevent misuse of, F. 932,1
PATENTS	Cement and making same, waterproof Portal Land, C. McCormick	erating, J. E. Mitchell 932,1 sulfur dioxid, purifying, einz 931,8 device, transmission, A. F.
INVENTORS are invited to communicate with	Terry	n, J. M. Wilderman 931,7 1kson 932,2 1kson 931,7 931,8
Junn & Co., 361 Broadway, New York. or 325 F Street, Washington, D. C., in regard	Circuits, means for protecting operators'  ringing leads from short W. W. Doan 1929 002 Class plates tore	1 Working quartz, H. Men- 
o securing valid patent protection for their in- rentions. Trade-Marks and Copyrights egistered. Design Patents and Foreign	Cloth cutting and folding machine, C. N. D. J. Murnan Colpitts 931,996 Gold separator, E Clothes drier. W. C. Davids 931,917 Governor, engine,	e
Patents secured.  A Free Opinion as to the probable patenta-	Clothes drier. W. C. Davids 931,917 Governor, engine, Clothes drying device, J. M. Teach 932,253 Grinding mill, F. Clothes stick, J. B. Hays 932,276 Gun carriage, wh Clutch, A. C. Mather 932,155 Gun, percussion I Clutch, A. C. Mather 932,155 Gun, percussion I	A. Ryther
ility of an invention will be readily given to any nventor furnishing us with a model or sketch and brief description of the device in question. All	Clutch, friction, G. E. Titcomb	brake, recoil, F. Boming-
ommunications are strictly confidential. Our land-Book on Patents will be sent free on	Cock, M. Streiezky	driven elevating mechan- el recoil, J. Krone, et al 932,00 driven elevating mechan-
Ours is the Oldest agency for securing patents;	Coin controlled apparatus, G. A. Long, ism for barre	el recoil, J. Krone, et al 932,03 erriage for portable, Behnke 932,03
was established over sixty years ago.  IUNN & CO., 361 Broadway, New York	Comb lock, side and back, W. C. Bridges 931,841 Guns, transport Comb protector, J. A. Kennedy 932,027 Behnke Combination wrench, J. O. Johnson 932,136 Gymnasium appar	carriage for portable, O 932,09 ratus, M. B. Reach 932,4
Branch Office, 625 F St., Washington, D. C,	Compound of the anthracene series and mak-   Hammer, magazing same F. Kacer   932,290   Hammers or hat	e, R. A. Marr
	Bartlett 932,092 Hammers, valve 1 Goncrete pipes, machine for making, J. Harness, D. F. Ihomas 931,972 Harrow attachmer	932,2 system for, C. B. Albree 932,4 Balentine
ali silicates, manufacture of soluble, R. E. Weissmuller	uxing devices in reinforced. Liebeaux & Harvester, beet, i	nt, disk, V. E. Hulce 931,2 Kartrude 932,2: P. E. Newlon 931,7: g spindle, cotton, O. C. 931,9:
munition rammer, J. Becker	Condensing system, Woolf & Rafferty 932,226 Houghton Controller time limit device, H. W. Cheney. 931,994 Harvesting machi Conveying apparatus, W. M. Shaw 931,892 Hatch and roof cooker and processer, agitating, J. Jennings, Remington	ne. potato. W. M. Martin. 931.8
usement apparatus, P. B. Haight	reissue 13,015 Hay loader, S. K Cooking apparatus, J. Truman 931,814 Hay loader and r Coop, brooding, P. G. Townsend 931,974 Headlight, R. C.	
E. Diamond	Cotton gin, W. M. Rheem	
omobile foot-warming radiator, E. M. Field, Jr	M. Holmes 931,762 Heater. See Tan Cotton pickers, suction head for vacuum, J. Heater, H. E. Ca S. Thurman 932,068 Heating and ven	k heater. rleton 931,73 tilating system. combined.
e cutter, adjustable, O. J. L. Byers. 931,739 e, Reaney & McAnulty. 931,886, 931,887 holder, G. L. Lyon. 932,151 gage rack, W. S. Hamm. 932,121 ing powder, J. H. Kellogg. 932,138 ing press, I. S. Peightel. 932,316	Counting machine, mechanical, F. W. Russell, et al. 932,331 Heating apparatu Heating system, Sell, et al. 932,331 Heating system, Crate, folding, S. E. Smith. 931,954 Hinge, F. B. Aus Crate. folding, S. E. Smith. 931,808 Cup holding rack, A. Insinger 932,072 Hinge, door, G. M. Curtain fixture, F. A. Newton 981,790 Hitching device, S. Curtain fixture, F. A. Newton 981,790 Hitching device, S. Curtain fixture, J. Darling 932,252 Hose H. A. Congression of the contract of the co	931,8 931,8 I. Hughes
doen W T Manahastan 029 204	Curtain fixture, J. Darling	afety, Church & McCall 931,8- don 932,2- F. Rockwell 932,3:
rette, E. Kingman. 931,877 ket rack, G. L. Walters. 932,199 tery. See Secondary battery. tery cells, gas controlling apparatus for,	Curtain fixture, J. Darling. 932,252 Hoe, H. A. Cong Curtain pole support and curtain shade roller bracket, combined, H. E. McCoy. 932,308 Cushioned wheel, W. H. Bachtel. 931,717 Hydraulic piston Cuspidor carrier, A. J. Fasenmyer. 932,258 [e.e, apparatus for	Comins
O. D. Apple	Cuspidor carrier, A. J. Fasenmyer	pan, M. Glassberg 932,3; achment, W. A. Hutchison. 931,8;
R. Clarkson 932,247 ring, roller, A. T. Killian 931,931 and davenport, combined, A. F. Englerth 931,852	E. G. Acheson	ge
attachment, H. L. Appleton	Disinfecting apparatus, J. R. Van Dyne 931,817   Lee	
, swinging couch, J. Luppino	Hoor bolt multiple 'l' E' Rotchford 932 330 Internal combusti	on engine, E. M. Turner 931,97 on engine, C. H. Sergeant 932,18 on engine, valveless, L. E.
for, F. D. Pelletier	Door fastener, barn, W. F. Jones	Rupley
cooler, K. T. Schutzinger. 931,891 , conveyer, H. E. Heaton. 932,015 shifter, J. Cressman. 932,000 erage dispensing system, A. D. Jones,		, double lift open shed, E
7cle frame, cushioning, O. J. Laravie 932,284, 932,285 fold, S. L. Wentz 931,932 ler, file, loose leaf book, etc., temporary,	D. Wilcox 932,215 Journal bearing, 1 Draft hook, G. Snell 932,416 Kettle and pan li Draft rigging, friction, C. J. Nash 931,955 Knitted web, ribb Drying apparatus, A. Boleg 932,106 Lace, F. M. Mort	H. Hess. 931,9: tter, F. & A. L. Miller. 932,3: ed, R. W. Scott. 932,3: ow. 931,9:
J. Walker, Jr 931,819	fluid controlled. J. G. Leyner 931,779 Lacing hook ma	irschfield
H. Renworth 932,059 cking box, J. F. Pinson 932,171 ad, E. A. Foster 932,263	Dye and making yellow, E. Fussenegger 952,200 [Lamp bracket, J.	un
d'Equevilley-Montjustin	Earth scraping apparatus, H. G. Ward 932,075 Meyers	932,46 eptacle, automatic, J. A. 932.02
er arches, rib for, E. W. Ashenden	Electric engine. W. Farrell	nt, E. H. Smith. 931,80 Adair. 931,71 Wheeler 932,20 H. Kempton. 932,13
ers, interior arrangement for smoke boxes of tubular, F. W. Born 931,727 i mechanism, door, Furman & Rowe 932,333 k binder, loose leaf, C. G. Van Buren 931,816	Electric furnace, F. M. Becket 932,368 Lamp socket, W. Electric installation outlet box, W. H. Vib-	switch, incandescent, I. L.
k holder, A. F. Stone, Jr		ter, R. B. Benjamin
t and shoe straps, machine for covering, L. A. Gale	E. Dunton	E. A. Stiggins
tle filling device. L. Whitton 932.362	Engine crank-shaft connection, A. J. Gifford. 931,750 Latch, sliding gat	ates, doors, and the like, 932,24e, E. W. Adams 932,2
tle for teething liquids and other liquids or materials, G. J. Packe. 931,795 lei holder, R. W. Houston. 932,128 lei holder, nursing, C. Starbard. 932,344	Clarke	Bender
tle, non-refillable, M. V. Griffin	Exercising apparatus, W. F. Valentine 931,818 Leak detector, J.	B. Williams 932,00  R. L. Kimmel 932,1
ing, G. R. Lawrence. 932,145 lling apparatus, liquid, F. G. Riley. 932,415 ke applying mechanism, automatic, F. A. Pierce 931,798	Fare register, I. E. Work	Knoll
A. Pierce 931,798  ech closure, M. Hermsdorf 932,017  ige, lift, Waddell & Harrington 932,259  minated beta-naphthylindigo, Schmidt &	Feucet J. J. Marcus. 931,880 Lightning arreste: Feed regulator, R. B. Coltrin. 932,110   Lining hoop nailir Feed water regulator. H. Evans. 932,007 Liquid server, E. Feeding apparatus, stock, F. T. English. 931,742   Liquids, aerating	932,2' r, R. A. Fessenden 932,1' r, B. A. Fessenden 932,1' r, B. A. Fessenden 932,1' S. Backman 931,9' agitator for, R. D. Win
Voss 932,334 sh holder, A. L. McHugh 932,309 kle, garment, M. Rubin 931.802 kle, trace-supporting back hand, D. Jacks 932,339		rger
kle, garment, M. Rubin. 931.802 kle, trace-supporting back hand, D. Jacks 932,393 kles, coin holder for belt, J. C. Waugh. 931,823 ding block and wall. A. E. Matthews. 932,157 ding construction. E. D. Martin. 931,943	M. Hamlin	chanism, W. E. Fischer 931.73
ding frame anchorage and weather- proofing, C. J. Appleton	Wood	achment, B. Janelle 932,02 hanism, I. E. Lawrence 932,28 rting mechanism, W. E.
ter molding and printing machine, F.  Mellish	Film reversing mechanism, J. M. Triviss 931,813 Loom, weft repler   Filter, oil, G. A. Sims 932,063 Loom, weft replex	nishing, H. Wyman 931,82 nishing, A. A. Gordon. Jr., 932,11
le retaining mechanism for overhead car- rier yokes and rollers, W. Gutenkunst. 931,860 le switch mechanism, overhead carrier, W. Gutenkunst	Filtering device, C. Muller	ishing, Jenckes & Hutchins 932,13 nishing, E. H. Ryon 932,17 ng, automatic weft replen- nism for, J. W. Cook 931,93
ulating machine. Dreyfus & Levy 932,255 per gage. E. F. Hathaway 931,759	combined, F. B. & H. B. Hunter 932,282 Lubricator. F. S. Firearm lock mechanism, automatic, A. W. Magnesium salts Schwarzloga	Miller 932,09 and ammonia, making, H.
era, A. L. Richardson	Flue cleaner, H. A. Ruggles	enand 931.85 H. C. Goldsmith 931.95 D. W. Council 932.25
s, manufacture of sheet metal, R. H. Smith	from smoke passing through, J. Mc- Laughlin	er aid catcher, O. J. Sey- 
door, grain, C. S. Eaton.       931,739         door, grain, P. J. A. Schnoor       932,335         dumping, A. Becker       931,720         dumping, T. Lawson       931,833	Flushomatar W H Rotingan   USP 244 Mainsaring Window	r, O. S. Evans 932,25 ctory incandescing earths, . D. Gleason 931,92
dumping, A. Becker       931,720         dumping, T. Lawson       931,933         lighting system, E. C. Folsom       932,114         roof, E. V. Donelson       931,736         sheathing, L. C. Bassford       932,367	Forge, steam generating blacksmith's, N. D. Mat. See Table in Munn	mat. I. Zimmerman 931,83 r. machine crown F O
sheathing L C Bassford 932,367 , street, C O Birney 931,724 window cleaning device. G. W. McKee. 932,051 s, step-operated circuit breaker for elec-	Fruit drying apparatus, Hough & Wilson 931,873 Jaques, Jr  Fruit sizer, H. B. Cary	achine, R. Coopersmith 931,99
tric, B. B. Herron	Furnace for volatile metals, W. Hommel 932,279 Measuring instrum Furnace raking mechanism, A. Tucker 931,815 Meat cutters, cutt Furnace water heater attachment, bot air.	ent, H. L. E. Krueger 931,77 ing plate for, T. Williams. 931,85 ent. J. Allingham
ds, playing, A. H. Wheeler 931,977 riers. direct movement lock and trip	Furnaces, metal port and end wall construction for regenerative, McKennan & Parks 932,411 Metals, electroly	tic deposition of, F. C.
mechanism for, W. Gutenkunst	Fuse adjusting device, Schwartz & Wick 932,182   Mathers Fuse adjusting machine, W. Schwartz 932,181   Mining apparatus	931,94
	Fuses, igniting appliance for safety, Weyel & Jager	Herzler, et al. 932,12 le 932,07 M. Jensen 932,1
tings, device for forming molds to pro-	Game puzzie, A. menderson	eomposition W. C. Smith