RECENTLY PATENTED INVENTIONS.

Electrical Devices.

RECEIVER FOR WIRELESS COMMUNI-CATION .- G. MORIN, Havana, Cuba. Morin's coherer differs from the ordinary type in being decohered magnetically. The terminals of the coherer extend into the tube from the bottom and are separated by an insulating plate. Iron filings cover the terminals and lying loosely in the tube on these filings is an armature. When the filings are cohered a solenoid surrounding the tube is actuated by the local circuit to energize the armature and lift it away from the terminals, drawing with it the filings which have adhered thereto.

Engineering Improvements.

SPARK ARRESTER AND EXTINGUISHER -A. P. Zink, Lorain, Ohio. The object of all sparks entering the stack and convey them discharged from the receptacle, which wnen emptied returns to normal position for renewed service.

BACK-PRESSURE RELIEF-VALVE.—C. A. object is to provide a new and improved backpressure relief-valve arranged to completely tion and not interfere with the playing of a relieve the piston in the steam-cylinder of musical instrument. back pressure, thus insuring a steady running of the engine and utilization of the motive agent to the fullest extent.

ROTARY ENGINE .-- I. V. KETCHAM, New York, N. Y. Mr. Ketcham's invention relates to a mechanical device adapted to be embodied in the construction of rotary engines, pulleys, wheels, rams, and other constructions. The object of the improvement is to provide a compact and simple construction wherein the power may be augmented without a corresponding increase in the pressure of the motive fluid.

LUBRICA'TING DEVICE FOR HIGH-SPEED AND EXPLOSION MOTORS.—L. RENAULT, Billancourt, Seine, France. The object of this inventor is to obviate many inconveniences in applying lubricants, and to this end he utilizes the action of the centrifugal force of the heads of the connecting-rods by collecting in reservoirs placed in a suitable manner above the bearings the oil thrown out from the heads of the rods, the reservoirs serving at the same time as lubricators partly to the bearings, and consequently to these same heads of the rods. The system is applicable to all kinds of motors, but is more particularly adapted to motor-vehicles.

Hardware.

TOOL-HEATING HANDLE.-M. KALABA, TOOL-HEATING HANDLE.—M. KALARI,
New Rochelle, N. Y., and F. GAILER, New York, holder driven by electricity for holding wood carvers'
N. Y. This handle is especially adapted for clissels and engravers' tools. N. Y. This handle is especially adapted for book-binders' tools, and it is capable of heating the tool continually. This is effected by providing burner devices and supplying gas thereto through a flexible tube. The invention enables the tool to be kept heated continuously, and at a uniform and any desired temperature. It also provides for interchanging the tools at will, so that a single handle will do for any liquor. number of tools.

RATCHET-WRENCH. W. W. MURCH, New York, N. Y. The object of the invention is the provision of an improved ratchet-wrench which is arranged to permit the user to quickly and conveniently screw up or unscrew nuts, bolts, and the like without disengaging the nut or bolt-head during the operations. The wrench will prove very serviceable in places in which but a limited swinging motion can be given to the handle.

BRACE .-- A. S. E. METCALF, Moville, Iowa. In this patent the invention relates particularly to improvements in a combined brace, chuck, and wrench, the object of the inventor being the provision of a device of this character having a wide range of adjustment for holding bits and drills and for removing nuts of various sizes.

Machines and Mechanical Devices,

UNIVERSAL SANDING-MACHINE.-A. C. this invention is the provision of an improved machine which combines the desirable features of prior irregular, drum, and horizontal machines by reason of an adjustment, which may be easily and quickly performed, to bring the grinding element into any one of a number of positions according to the requirements of the

BLADE-SHAR PENER.—S. R. DUVAL, New Orleans, La. In this instance, the object is to provide a sharpener of a type having coacting grinding, honing, or stropping rollers, whereby both sides of a blade may be operated upon simultaneously, thus quickly bringing the for weaving rattan. "teeth" or "feather" of a razor-blade edge to a uniform and central line, leaving the blade in condition for use.

Miscellaneous.

BOOK SUPPORT AND CONTAINER.—J. J. Inquiry No. 4968.—For a butter cutter which cuts about 40 pieces to the pound. DUSSTER, 11mm, Onio. In this patent, the Inquiry No. 4969.—For machinery for making object of the invention is to provide a new fountain pen holders and feeders of hard rubber. EUGSTER, Tiffin, Ohio. In this patent, the

and improved support and container more especially designed for use in churches, chapels, and other places and arranged to form a rest ing-desk for a mass-book or the like, and to form a receptacle for containing the book when

CLASP FOR SHAPING HAT OR BONNET FRAMES .- A. Brodin, St. Joseph, Mo. The purpose of this improvement is to provide means to enable a milliner to quickly shape a frame of wire as a foundation of a hat to be made of chiffon or other light goods by using a hat formed of felt, straw, or other substantial material that has been pressed into shape on a block, such means consisting of a clasp to be applied in sufficient number for the retention of wire as it is bent into shape over the hat or bonnet body that is to be duplicated in flimsy material.

CANDELABRUM.-W. SCHIMPF. New York. N. Y. This article is especially adapted for the improvement is to provide details of contable and decorative purposes, and also upon struction for a spark arrester and extinguisher an altar or for other devotional purposes. Ine well adapted for coaction with the draft-candelbra is so constructed that it may be stack of a locomotive and which will arrest presented in the form of a single light or candlestick or may be provided with arms of into a receptacle wherein they are extinguished any number within the compass of a given by water and at intervals are automatically circle with or without a central candle-holding cup or candle-support. .

MUSIC-LEAF TURNER.—L. POULIN, Butte, Mont. Mr. Poulin's invention has reference to improvements in music-leaf turners, and the CUNNINGHAM, Brainerd, Minn. In this patent object in view is the provision of a simple the invention relates to steam engines; and the mechanism by means of which the leaves of music may be readily turned in either direc-

> Note.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

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READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. in every case it is necessary to give the number of the inquiry. MUNN & CO.

Marine Iron Works. Chicago. Catalogue free

Inquiry No. 4947.—For machinery for crushing and mashing silica.

"U.S." Metal Polish. Indianapolis. Samples free

Inquire No. 4948.—For machinery for manufacturing barrel staves.

Autos.-Duryea Power Co., Reading, Pa. Inquiry No. 4949.—For makers of air pumps operated by foot power.

For bridgeerectingengines. J. S. Mundy, Newark, N. J.

Inquiry No. 4950.-For manufacturers and dealers in the "Kombi" camera. Sawmill machinery and outfits manufactured by the

Lane Mfg. Co.. Box 13, Montpelier, Vt.

American inventions negotiated in Europe, Felix

Hamburger, Equitable Building, Berlin, Germany. Inquiry No. 4952.—For dealers in parts for the "P. Merminne" and "M. Henley & Co." revolvers.

Edmonds-Metzel Mfg. Co., Chicago, Contract manu

facturers of hardware specialties, dies, stampings, etc. Inquiry No. 4953.—For apparatus or process for ecovering free carbonic acid gas from fermenting

Machine Work of every description. Jobbing and re The Garvin Machine Co., 149 Varick, cor.

pairing. The Ga Spring Sts., N. Y. Inquiry No. 4954.—For a water carafe which is divined in the center by a screw and having a nickel band around it.

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Inquiry No. 4955.—For makers of glass pape weights in which to mount photographs.

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Inquiry No. 4957.—For makers of strawboard ressed boxes such as are on the ends of mailing tubes 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. 4958. For automatic machinery for Manufacturers of patent articles, dies, metal stamp ing, screw machine work, hardware specialties, machin-

ery and tools. Quadriga Manufacturing Company, 19 South Canal Street, Chicago.

Inquiry No. 4959.—For a second-hand boiler of about 70h. p. capacity for heating purposes. Inquiry No. 4960.—For makers of reversible air motors of 16 to 2 h. p.

Inquiry No. 4961.—For makers of small ice and refrigerating outlits.

Inquiry No. 4962.—For makers of briquette machinery.

Inquiry No. 4963.—For machines for pressing liquid and mud peat.

Inquiry No. 4965.—For manufacturers of core drills.

Inquiry No. 4966.—For the address of the Allen Dense Air Ice Machine Co.

Inquiry No. 4967.—For manufacturers of mica axle grease.



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. mate of paper and page or number of question.

nquiries 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.

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Minerals sent for examination should be distinctly marked or labeled.

(9269) R. P. asks. Please inform me through the column of "Answers and Queries" in your valued paper of any solutions of a specific gravity of three times as heavy as water or over and kindly oblige reader. A very heavy liquid is prepared by dissolving mercuric iodide in a solution of potassium iodide in water. If the mercuric iodide is not available, it may be prepared by precipitating a strong solution of mercuric chloride with a solution of potassium iodide, avoiding an excess of potassium iodide, since it would dissolve the precipitate. When it has settled decant the liquid and dissolve the precipitate in potassium iodide as before.

(9270) H. H. H. asks: Would you kindly give us information on the following problem: Suppose I have in my hand a military rifle which shoots 30,000 feet per second. I stand on a flat car going at the same rate, viz., 30,000 feet per second, and shoot at a target in the front end of the car. Would the ball strike the target? If so, explain; or if not, explain. A. Your inquiry is constantly reappearing with slight change of form. It was answered in our column of "Notes and Queries" Nos. 8823 and 8862. The answer depends upon the three fundamental laws of motion first stated by Sir Isaac Newton in the seventeenth century and known by his name to the present time. The first law states that "a force produces the same effect whether the body on which it acts is at rest or in motion." this reason the powder sends the bullet in the case you propose just as if car and gun were at rest. The ball has two motions, one with the car caused by the car, the other caused by the powder which causes it to go along the car and hit the target at the front of the car exactly as if the car had stood still. could stand in a car and throw a ball from the rear to the front, could you not? Why not be able to shoot a bullet in the same man-

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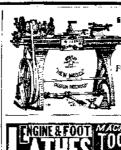
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AND EACH BEARING THAT DATE Lee note at end of list about copies of these patents.

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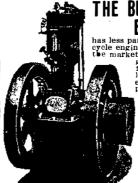


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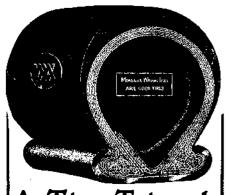
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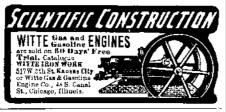
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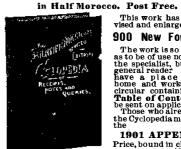
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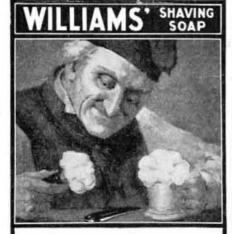
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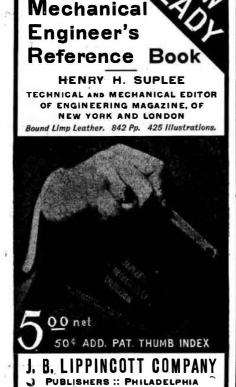
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