RECENTLY PATENTED INVENTIONS.

Electrical Devices.

INSULATOR.—J. A. Hanson and A. F. Lambert, Davenport, Wash. This invention relates to insulators, more particularly of the type used upon wire fences where it is desirable to employ one or more of the fence-wires, for the purpose of telephoning, telegraphing, etc. The dielecric may be made of porcelain, clay, china, or other brittle materials, and the staples may be rapidly secured upon the same by any farm laborer.

CURRENT-REGULATOR. — E. Dysterud, Monterey, Nueva Leon, Mexico. The object of this invention, which relates to automatic current-regulators, is to produce a neat, simple, and efficient form of regulator which will require a minimum of attention and which is not liable to get out of order. The instrument works best where the variations in current strength are comparatively light; but it may be nevertheless used to advantage whether the variations are considerable or are abrupt. It also serves to render the potential of the current being generated substantially constant.

Hardware.

NUT-LOCK.—J. F. Rieman, Goshen, Ind. The aim of this invention is the provision of a simple nut-box that may be easily applied and removed, that effectively holds a loose nut, permits of convenient release for tightening the nut against an object, takes up no available room, is perfectly reliable in service, and that may be produced at low cost.

WIRE-ROPE CUTTER.—M. T. Wolf, Washington, Pa. Mr. Wolf's invention relates to means employed for drilling deep wells to obtain water, gas, or oil. The intention is to provide a cutting device that may be conveniently lowered in the well-bore and by its impact on the drill-holder be caused to cut the wire rope that has been connected with the drill, and thus permit the removal of the rope.

Machines and Mechanical Devices.

ROLLER-BEARING.—R. F. Bower, Lima, Ohio. The object in this improvement is to provide a construction of bearing which will be useful wherever a journal-bearing is desired and will be especially useful in such bearings as are designed to permit lateral motion by allowing the shaft or journal to slide laterally in the bearing. It may be used in car-axle boxes or line shafts, stationary machinery, propeller-shafts, and wherever a journal-bearing is employed.

MAGNIFYING ATTACHMENT FOR SEWING-MACHINES.—Sallie Jones, Glasgow, Ky. This device will facilitate the setting, threading, or adjustment of the needle, etc. Persons having defects of vision find it almost impossible to make adjustments and extremely difficult to even thread the needle. The purpose is to overcome these difficulties and permit any one to make the most delicate adjustment of the needle, thread it, and see that the sewing is properly executed.

CASH-REGISTER.—J. C. Vahjen, New York, N. Y. Mr. Vahjen's purpose is to provide a positively-acting construction whereby as each lever-key is depressed a corresponding tablet will be displayed and remain so until another key is operated, each key returning automatically to normal position on release. Also to provide means whereby a key must be fully depressed at each operation to discharge a printed check of amount, which check is cut from a roll of tape and drops from the machine with a display of the tablet. When a key is partially depressed it cannot be forced to normal position before pressed downward to the limit of its travel. Mr. Vahjen has invented another cash-register which relates to a printing mechanism for registers operated by key-levers, which mechanism is particularly designed to print in duplicate and when desired to operate in conjunction with a knife adapted to cut one of the printing tapes or ribbons into checks for delivery from the machine, while the other printed tape remains concealed within. The purpose is to provide a construction of printing attachment applicable to any key-lever-operated machine.

AUTOMATIC PIANO-PLAYER.—H. Meyer, New York, N. Y. The object of the invention is to provide an automatic player for a piano, organ, or like key-actuated musical instrument arranged to permit convenient varying of the speed of the note-sheet traveling over the tracker-board to actuate the key-strikers with more or less force, to keep the note-sheet in proper alinement with the tracker-board, and to quickly reroll the note-sheet.

SAWING-MACHINE.—E. H. Hoff, Mosinee, Wis. The invention relates to improvements in sawing-machines for felling trees, sawing stumps, or the like, an object being to provide a machine of simple construction that may be easily carried from place to place, that may be operated with comparatively little manual exertion, and in which the saw may be arranged for operation at any desired angle.

Pertaining to Vehicles.

STEAM-SLEIGH.—J. R. Tibbits, Delmar, N. Y. The invention consists in effective means whereby the sleigh may be guided. The propelling means and the guiding means are thrown into and out of engagement with the snow or ice by levers extending up within reach of a person sitting on the sleigh-seat. The guiding means has the further advantage in being adapted to be used as a brake.

Prime Movers and Their Accessories.

RELIEF-VALVE.—S. O. Brune, Mine Centre, Canada. In this patent, the object of the invention is to produce a simple, efficient, and reliable device adapted to be easily and quickly applied, capable of a quick action when pressure is admitted, so as to minimize leakage of steam, and susceptible of regulation to adjust itself to different steam-pressures.

HOT-WATER COOLER.—J. S. Scott, Brantford, Canada. In the present invention the aim is to provide a new and improved hot-water cooler, more especially designed for use in connection with the water-jacket of an explosive-engine or the like and arranged to insure a quick cooling of the water to keep the cylinder cool at an approximately uniform temperature.

Of General Interest.

ENVELOP-CLASP.—A. De Saint Chamas, Chicago, Ill. In carrying out this invention Mr. Chamas has particularly in view the provision of a clasp or fastener which will securely seal an envelop or similar receptacle in such manner that the latter may be quickly and rapidly opened by the postal authorities or other persons to permit the contents to be inspected and such envelop then to be readily closed and sealed again. The clasp or clip embodies features of simplicity, durability, lightness, and strength in addition to convenience in use—that is to say, the clasp may be readily adjusted and removed, while at the same time it will form a safe and reliable closure.

COMBINED HYDROMETER AND SYRINGE.—R. Van Benthuysen, New York, N. Y. The purpose here is to prevent hydrometer-tubes from touching the side walls of syringe-barrels and to provide means whereby to prevent rotary motion of the hydrometer in the barrels. And further the purpose is to so construct the scale section of the hydrometer-tube that it will be polygonal in cross-section, having a reading upon one face, for example, indicating density, upon another face degrees Baumé, and upon the third face a reading setting forth a required percentage of liquid to bring the solution tested to proper density.

CABINET.—W. B. Altick, Lancaster, Pa. Briefly stated, the invention comprises a rigid framing furnishing the top, bottom, and back wall of the cabinet and two arc-shaped sections which are arranged to slide between the top and bottom walls, so as to extend outward to meet at their front edges and close the cabinet or so that they may be folded back apart from each other, thus opening the cabinet completely. The invention relates to a cabinet designed so that a person using the telephone will not be annoyed by surrounding noises or his conversation heard by persons near.

COMBINED TABLE AND DESK.—J. McG. Wood, Court-House, Ohio. Mr. Wood's invention relates to improvements in combined tables and desks, an object being to provide a combined table and desk so arranged that when not in use the desk may be slid into the table, so that the complete device will occupy comparatively little space.

CAN.—C. B. Howell and A. C. De Yoe, Campbell Hall, N. Y. In this case the invention relates to cans used for the transportation and storage of milk and like fluids; and the object of the invention is to provide certain new and useful improvements in cans whereby the ears for the handles of the can are securely fastened in place to prevent the ears from becoming loose or detached and the handle lost.

HOSE-SUPPORTER.—A. M. Wilson, Cherokee, Iowa. Briefly stated, the object of this improvement is to provide a supporter arranged to give the desired comfort and ease to the wearer, especially when moving the limbs or bending the body, and to prevent undue strain on the hose or the parts of the supporter. The supporter may be attached to a corset without danger of accidental detachment when the corset and supporter are worn or when the corset is removed and with it the supporter.

SELF-CLEARING PROPELLER. — C. H. Lee, Southampton, N. Y. This improvement is more especially adapted for use on that class of vessels known as "launches," although the principle may be utilized in propellers adapted for service on other styles of marine vessels. The object is to provide means in co-operative relation to the propeller for removing seaweed and other vegetable matter from the blades, thus making the propeller self-clearing and overcoming the lodgment of matter that interferes with the efficiency of the propeller.

HAIR-PIN.—Louisa Ousey, Bellevue Villa, South Wimbledon, Surrey, England. In this patent the invention is in the nature of an improved hair-pin constructed in such a manner as to enter the hair easily, to glide smoothly over the scalp without pricking, abrading, or scratching the same, and at the same time to hold the pin in the hair against falling out.

BLOCK AND TACKLE.—J. O. Walton, Boston, Mass. The invention in this instance is in the nature of a novel block and tackle designed to provide a very compact construction of great power in which the blocks may be conveniently formed by casting and in which the various runs of the rope are sufficiently separated to avoid rubbing against each other, thereby reducing friction and increasing the efficiency of the device.

BOTTLE-CLOSURE.—B. Clemens, Moundsville, W. Va. The present invention refers to a cap or closure intended particularly for bar-bottles used in retailing liquid goods. It may be applied, however, to various other purposes. It comprises, broadly speaking, a body preferably of spring metal, so as to snap over and retain its position on the mouth of the bottle, a spout projecting from the body, and a peculiarly-arranged cover for the spout.

WRITING-TABLET.—D. F. Curtin, Butte, Mont. In this instance the invention relates to that class of tablets in which a continuous strip or supply of paper is held within a case and drawn out of the case and over the outside thereof which forms a base upon which the paper rests while being written on; and the object is to provide a tablet combined with a supplementary receptacle for holding pencils, matches, stamps, etc.

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.

Business and Personal Wants.

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

MUNN & CO.

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 5418.—For manufacturers of soft rubber specialties.

Autos.—Duryea Power Co., Reading, Pa.

Inquiry No. 5419.—For an attachment for emery wheels or grind stones, to hold a twist drill firmly and at a correct angle to sharpen same.

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

Inquiry No. 5420.—For steel plates 45 inches long by 4½ inches wide by ¼ inch tnick, with 1-16 round holes and ¼ inch centers.

Handle & Spoke Mchy. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

Inquiry No. 5421.—For machines to graduate linear measure in inches and their subdivisions.

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

Inquiry No. 5422.—For the manufacturers of the Patent Safety Wrench, which is made in Vermant.

American inventions negotiated in Europe. Wenzel & Hamburger, Equitable Building, Berlin, Germany.

Inquiry No. 5423.—For dealers in electro-platers' supplies.

I want the western agency or right for any good selling article; send samples with full particulars. Bernard Nassau, Mills Building, San Francisco.

Inquiry No. 5424.—For manufacturers of refrigerating machines.

☞ 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. 5425.—For manufacturers of grinding machines.

Fine machine work of all kinds. Electrical instruments a specialty. Models built to order. Page Machine Co., 812 Greenwich Street, New York.

Inquiry No. 5426.—For manufacturers of wireless telegraph instruments.

We manufacture anything in metal. Patented articles, metal stamping, dies, screw mach. work, etc., Metal Novelty Works, 43 Canal Street, Chicago.

Inquiry No. 5427.—For manufacturers of pocket match boxes and similar novelties.

The largest manufacturer in the world of merry-go-rounds, shooting galleries and hand organs. For prices and terms write to C. W. Parker, Abilene, Kan.

Inquiry No. 5428.—For manufacturers of brass trimmings for fire apparatus, such as seat rails, hand rails, lantern hangers, etc., for hose wagons and trucks.

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

Inquiry No. 5429.—For manufacturers of transparent celluloid, in very thin sheets.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 5430.—For manufacturers of roller skates.

Wanted by a manufacturer owning his own plant with both wood and metal-working machinery, as a side line, some article or novelty that will have a ready sale during fall and winter months, located near Boston, Mass. Novelty, Box 773, New York.

Inquiry No. 5431.—For an outfit for cutting stencils in brass sheet.

"The Household Sewing Machine Co., Providence, R. I., is prepared to take on contracts for the manufacture of high grade mechanical apparatus, requiring accurate workmanship, in either machine shop, cabinet work, or foundry lines. Expert mechanics, designers and tool makers. Facilities unexcelled. Estimates furnished on application."

Inquiry No. 5432.—For parties to stamp steel plates 1-16 inch thick in any desired shape or size.

Patent and Export Company, Christiania, Norway. Specialty: Sale of patents and patented articles in Norway, Sweden and Denmark. Corresp. solicited.

Inquiry No. 5433.—For manufacturers of small circular cardboard boxes about ½ by 2 inches

Inquiry No. 5434.—For makers of small locomotives.

Inquiry No. 5435.—For manufacturers of rubber toys.

Inquiry No. 5436.—For a small family ice machine which makes 100 pounds of ice.

Inquiry No. 5437.—For handpower scroll punches and hand power corking machines, such as used in manufacturing iron fence.

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.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(9369) C. W. B. says: I do not wish to prolong any argument about how the ocean got its saltness, but in your letter in reply to my letter in which I suggested that the ocean became salty in primeval time when the water first settled on the surface of the globe, it brought down chlorine gas and was the medium for uniting that with sodium in such quantity that the whole ocean became salty, as at present. You say that you will not altogether disagree with my suggestion, but then you add: "The water of the ocean was once fresh water. It has received salt from the water that has come into the ocean. LeConte says that salt lakes received their salt from deposits left by the ocean. The ocean received its salt from the rocks." Now, if this last statement is true, how did the salt get into the rocks? Salt is not an original element. There must have been a time when its constituents were separate and independent. All of the seven geological text books that I have before me claim or assume that all salt deposits or brines are remnants of the ocean evaporated. The salt in the rocks that you refer to must have been deposited there by water, and that water was salt water. When I first wrote you my impressions as to the origin of the saltness of the ocean I could not find any authority for it. But now I find it in Prof. Alexander Winchell's "Sketches of Creation." After saying that the deposits of salt found everywhere are dried-up remnants of the ocean, he says, on page 296: "How the waters of the sea came into possession of their saltness is a question of primeval chemistry to which allusion has heretofore been made. It was the result of the chemical actions which took place between the fire-born rocks and the atmospheric acids washed down by the primeval rains, and gathered with the gathering together of the waters." In discussing the various chemical unions that probably took place when the primeval waters settled on the globe he says, on page 60; "Carbonate of lime refusing, for the greater part, to dissolve in sea water, would settle to the bottom and become limestone; while chloride of sodium—which is only the chemist's name for common salt—remained in solution, and thus gave its characteristic salinity to the sea." Unless you can find a better authority than this I think you will have to concede that the ocean got its saltness originally from the union of chlorine gas brought down by the primeval rains which constituted the medium for bringing that and sodium together to form salt; and that all the salt in the rocks, soil, mines, or wells was deposited from some evaporated part of the salty ocean. A. We now understand that we are thinking of the earth at one time and you at another in reference to the genesis of salt water in the ocean. At some time the earth was hot, too hot for water or salt either, to exist. When the cooling had proceeded far enough, the various substances began to combine, and chemical action became possible between the several elements as their various temperatures of association were reached. Thus water was formed. We did not suppose that any one would maintain that water was salt at first, and although you assert the original saltness of the ocean, we must think that you cannot intend this declaration to apply to the genesis of the water in the seas. The salt itself must have been formed at some time when the earth had cooled below the temperature of dissociation of sodium and chlorine. We confess we do not know when this was in the sequence of events under discussion, but suppose any one asserting positively regarding this matter must have definite knowledge on this important point. The quotation you make from Winchell is quite to the point that the water now in the sea was originally fresh. The salt "was the result of the chemical actions which took place between the fire-born rocks and the atmospheric acids washed down by the primeval rains, and gathered in by the gathering together of the waters." That is sufficient. The salt was formed after the water was formed and gathered in by the inflowing of the waters into the lower parts of the earth. It does not seem necessary to pursue the subject farther.