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41,92 pany Rubber sponges, Russian American India Rub-ber Co.

LABELS.

PRINTS.

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Canadian patents may now be obtained by the in-ventors for any of the Inventions named in the fore-going list. For terms and further particulars address Munn & Co., 361 Broadway, New York.

RECENTLY PATENTED INVENTIONS. Electrical Devices.

INSULATED SUPPORT FOR WIRES .- L. STEINBERGER, New York, N. Y. The invention pertains to insulated clips, the more particular object being to improve the insulation and to attain certain advantages. The principal object is to insulate the conductor-wire from the hanger devices, span-wires, and poles and also to prevent arcing, surface leakage, and grounding of the current. The ear may be readily replaced when worn out. The insulating-body member will last indefinitely.

INSULATOR .- L. STEINBERGER, New York. N. Y. In this instance Mr. Steinberger's improvement relates to insulators for external use, and more particularly to the type commonly designated as "feed-wire" insulators. With many of the feed-wire insulators now in use considerable difficulty is found in securing insulation, especially where currents of high potential are concerned. The idea is to make an insulator which has considerable strength and in which every precaution is taken against leakage of the current.

Engineering Improvements.

ROTARY EXPLOSIVE-ENGINE.-B. BAN TA, and C. MATHEWS. Fenton. Mich. The invention is in the nature of an improved engine designed to actuate under an explosive mixture, reversible under two or more propelling im puises in a single revolution, and it primarily seeks to provide an engine of this character of a simple, compact, and durable nature, in which the use of toothed gear-wheels or disk connections are dispensed with and in which the parts are co-operatively arranged to effect an even and uniform operation and in which the action of reversing speed can be quickly ARMATURE WINDING, RIGHT AND Left Handed.—An important paper for all amateurs. 17 illustrations. SCIENTIFIC AMERICAN SUPPLEMENT, No. 1139, price 10 cents, For sale by Munn & Co. and all newsdealers. Send for catalogue. accomplished.





This mechanism comprises a rocking vice. lever, fulcrumed in a vertical slot on the inside of the machine head and operated by a cam in the periphery of a cam disk. The method of operation is as follows. When the machine is started, and the needle-bar in its travel upward has reached the height of its stroke, the cam, which is an offset and at the same time a continuation of a groove around the cam disk, engages the upper end of the fulcrumed lever and causes it to rock outward, thereby imparting an inward motion to the lower end of the lever and passing a plunger, carried by the lever through a guide way for the thread. The thread is thus pushed through the eye of the machine needle, whereupon it is caught by a rotating hook. The needle is then completely threaded before it enters the cloth, the entire operation taking place before a complete revolution of the machine has been completed, and consequently before a stitch has been made. The whole mechanism is thrown out of operation at near the end of the downward stroke of the needle bar and does not work again unless . the thread breaks, when the operation of automatic threading is repeated by mere touching of a button.

poses, and the object is to provide features of construction which afford a very simple, inexpensive, practical, and convenient generator and burner that may be placed in the firechamber of a heating-stove, a kitchen-range, or a steam-boiler for the generation and combustion of gaseous fuel therein from hydrocarbon liquí i ds.

Machines and Mechanical Devices.

PUNCHING AND SHEARING MACHINE, ETC.-R. NORRIE, Rangoon, British Burma, India. In order to obviate defects in other machines for cutting metal, Mr. Norrie has devised a special form of shears in which instead of only cutting edges a blade works in be-tween two other cutting edges, which has the effect of shearing out strips of the material being cut. This blade is mounted so as to en-shle the material being worked to pass on either side of it, which enables any length of cut to be made.

AUTOMATIC WEIGHING-MACHINE. - W. BROUGH, Baltimore, Md. In this patent the invention is an improvement in automatic weighing-machines, and is especially designed for use in weighing granular or pulverulent or powdered substances and may be employed to advantage in the weighing of coffee, tea, sugar or the like, and without any wasting of the material.

LIQUID-MEASURE .- H. J. BRANTLEY, Valdosta, Ga., and J. C. BRANTLEY, Marksville, Miss. The invention is an improvement particularly in that class of measures illustrated in an application for a former patent filed by these inventors. 'The present invention relates to improvements in the construction of the measuring vessel, in the connections thereof with the barrel or cask, so the measuring vessel can be leveled when applied for use, in the means for vending the measuring vessel and the cask, and in other improvements.

ADDING-MACHINE .- F. BURESH, Mapleleaf, Iowa. The purpose in this improvement is to provide a reliable machine of very simple construction and which may be conveniently and quickly operated and applied directly to the columns of figures to be added, and further, to provide an indicator which as the machine is moved down a column to be added will be at the right or at the left, or which may be made to cover or conceal the last figure added.

FHREADING DEVICE.-S. B. BATTEY, New York, N. Y. In the present case the object of the improvement is to provide a threading device designed either for hand use or for use on sewing-machines to automatically push the sewing-thread through the needle-eye when-ever the device is in active position and the needle moves into an uppermost position.

THREADING DEVICE FOR SEWING-MA-CHINES .- S. B. BATT'EY, New York, N. Y. In this patent the purpose of the invention is the provision of an improved threading device for sewing-machines arranged to automatically thread the needle in case the thread breaks, hence requiring no stopping of the machine for threading purposes. The operator may throw the threading device into action at any time in case the automatic thread-controlled device should fail.

ECCENTRIC-SCREW BREECH-CLOSING-DEVICE .- P. DE NORDENFELT and E. TERN-STRÖM, 8 Rue Auber, Paris, France. In this patent the invention relates to an arrangement for facilitating the operation of the eccentric screw, particularly in heavy ordnance. deavors have already been made to facilitate such operation by means of bearing-balls on which the screw turns with less friction. However, this means is only an insufficient palliative in the case of heavy ordnance, because it dees not diminish the variable resistance arising from the eccentric position of the center of gravity of the screw relatively to the axis around which it rotates. SELF-THREADING SEWING-MACHINE .---

DR. SUMTER B. BATTEY, 152 W. 49th Street,

New York, N. Y. To do away with the perplex-

ing necessity of any hand manipulation in

threading a sewing machine, the inventor has devised a novel and simple construction of sew-

ing machine, the salient feature of which is the

mechanism which operates the threading de-

Heating and Lighting.

SAFETY GAS-COCK .- H. J. DOLL, San Francisco, Cal. In this instance the invention pertains to improvements in safety gas-cocks; and the object of the inventor is to furnish a simple device which will insure the complete shutting off of the gas when the key is turned and which will also provide means for regulating the flow of gas independent of the key.

VAPOR GENERATOR AND BURNER .-- Q. CRANE and J. RESTINE, San Diego, Cal. This vapor apparatus belongs to that class of generators and burners employed for heating puron quantities. The P. @ B. Wheels are sold under a strong

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SHUTTLE-THREADEL.-O. R. JACQUES,

MACHINERY FOR THE MANUFACTURE OF HORSESHOE-NAILS.—J. M. LAUGHLIN, Fourchambault, Nièvre, France. By this machine all kinds of nails or nail-blanks or finished nails of the French, American, and other types may be made, and it will be understood that the rods from which the blanks or nails are to be cut may be rolled of any form to suit the type of nail-blanks or nails to be; made. For instance, the rod intended more particularly for making French nails may be rolled so as to present the same profile on both faces. The machine is also adapted for directly cutting out completely-finished nails. The nails are mâde from a wire or rod of wrought-iron or mild steel rolled either hot or cold.

FAN ATTACHMENT FOR SEWING-MA-CHINES.—M. STEINER, New York, N. Y. The object of this invention is to provide means for fanning the operator, and in attaining this end the inventor provides a peculiarly-constructed fan which is attached to the shaft carrying the fly-wheel of the machine, or to the fly-wheel itself, so that as soon as the machine is operated the fan is turned and a current of air is produced.

CONCENTRATOR.—B. McL. STOREY, Weeping Water, Neb. The invention refers to concentrators such as shown and described in the application for former Letters Patent, filed by Mr. Storey. The object of the present invention is to provide a concentrator designed for treating materials from stamp-mills or from placers to effectively separate the precious metals from the tailings.

GOVERNOR FOR FEEDERS OF THRESH-ING-MACHINES.—W. C. PETERSON, Geneva, Neb. The aim of this inventor is to provide an adjustable bundle-carrier so constructed that it can be folded under the feeder when desired and a feed-roller and shield for the same by means of which the amount of grain being fed to the cylinder is regulated and controlled automatically after the amount of pressure required to raise the shield has been determined upon.

CENTRIFUGAL MACHINE.—M. DE MAR-CHÉVILLE, 44 Rue de Château Landon, Paris, France. In this patent the invention refers to a centrifugal hydro-extractor whereof the basket or drum is in the form of a truncated cone, the bottom being at the larger base, while the smaller base is entirely open and, unlike the usual form, devoid of internal flange, thus permitting the use of an extractor having an alternating rectilinear movement and capable of passing completely out of the drum, which in consequence of its form will retain the material under treatment, notwithstanding the absence of any internal flange.

TREADLE MECHANISM FOR LIGHT MACHINERY.—J. WIEBE, Whitewater, Kan. The object of this improvement is to provide a mechanism more especially designed for use on washing-machines, churns, and other light machinery, the mechanism being arranged to enable the operator to turn the main shaft of the machine to be driven for a considerable length of time without much physical exertion on the part of the operator.

PACKING-MACHINE FOR PLASTIC MA-TERIALS.—J. C. THOM, Helmetta, N. J. This invention relates to improvements in machines for packing material into jars, bottles, cans, or other receptacles. In packing plastic or damp material—such, for instance, as snuff—considerable difficulty is found in that the material or a portion thereof adheres to the conveyer and retards the packing, and therefore one object of the invention is to provide a novel form of conveyor by means of which the above difficulty is overcome.

ROLLS FOR USE IN THE PRODUCTION OF SHEET-METAL STRIPS.—G. B. JOHN-SON, 8 Victoria Street, city of Westminster, London, England. This invention pertains to improvements in the rolls used in a machine for rolling sheet-metal strips to a curved, reversely-curved, or other form in cross-section (for fencing standards, "droopers," and pales, guttering, sash-bars, and the like) for which The Luxury of Living finds fullest expression in the perfect appointments and absolute safety of

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to construct a music-leaf turner which may be used in connection with any sort of a musical instrument, such as a piano or a violin, and which shall be positive in its operation and shall have the parts so correlated that the music will be turned sheet by sheet.

KINETIC-ENERGY MACHINE.—E. L. N. DENIS, 135 Boulevard (Ménilmontant, Paris, France. The invention forming the object of this application for a patent is relative to a system of mechanism acting on the principle of vis vive, the movement of which is desino-,, dromicel, and which is applicable to punches, scales, cutters, hammers, and the like. The invention consists of a mechanism of transmission between a heavy body and a gearing-shaft having a rotary and uniform motion.

WEIGHING AND PACKAGING MACHINE. —T. J. BROUGH, Baltimore, Md. Mr. Brough's invention is an automatic machine adapted for measuring and weighing pulverulent substances or those of allied character, such as tea, coffee, spices, etc. The material being measured and weighed is prevented from being packed, through the operation of means practically self-discharging and at the same time that duly agitate and remove the material from the hopper.

Of Interest to Farmers.

COTTON-STALK PULLER.—C. R. SMITH, Gonzales, Texas. The intention in this instance is to provide a construction by which a powerful pull may be exerted on the stalks for the purpose of extracting the stalks and roots as the machine crosses the field, whereby the stalks may be collected and cremated for the destruction of insect pests, such as the cotton-weevil, and the ground may be prepared without the labor of first plowing to eliminate the cotton-stalk roots.

DISK CULTIVATOR-PLOW.—E. B. LEE and C. H. BEAZLEY, Leesburg, Ga. One of the pricipal objects of the inventors is the provisio of means for overcoming numerous disadvan tages found in cultivator-plows of the disc. form and also to provide a plow of this character which is simple and comparatively inexpensive to manufacture, as well as easily adjusted, and comprising but few parts not liable to get out of order or become easily broken or dislocated. Soil of any kind may be admirably bedded and otherwise operated upon by the use of the improvements.

CUTTER-BAR FOR MOWING-MACHINES. W. W. JONES, Downs, Kan. The purpose in this case is to so construct a cutter-har especially adapted for field-machines. that the sickle-bar will have a uniform and firm support throughout the length of its travel and in operation will be protected from dust, gum, or any material likely to crowd its action, thereby insuring the least possible amount of friction and enabling both bars to be made lighter and wear longer than usual.

HAY-PRESS.—J. C. DAMRON, Roanoke, Va. Mr. Damron's invention is an improvement in baling-presses especially designed for baling hay, but which may be used for other material when desired. In carrying out the invention he employs a bale-box, together with suitable framing for the press, which bale-box and framing may be in general respects and some exceptions, of ordinary construction.

Pertaining to Vehicles.

STEERING-GEAR FOR MOTOR-VEHICLES. —L. RENAULT, Billancourt, Seine, France. In this instance the invention has reference to steering-gear for motor and other vehicles; and the improved apparatus presents the advantage of realizing a steering almost completely irreversible, very solid, and not wearing away, since the screw works normally without the intervention of a lever-arm. Furthermore, the cylindrical screw permits of employing a nut of very great length and bearing consequently on a large surface.

BALL-BEAKING WHEEL-HUB.—B. P. YOU-MANS and H. W. RAND, Vancouver, Wash. In this patent the invention has reference to improvements in ball-bearing wheel-hubs for vehicles; and the object the inventors have in view is the provision of a construction adapted to be readily applied to ordinary wooden hubs of any size and style which insures easy running of the hub on the axle-spindle and is thoroughly dust-proof.

Railways and Their Accessories. SWITCH MECHANISM.—J. W. OSBORNE, Exeter, Ill. In this patent the invention relates to improvements in switch mechanism for railways, the object being to provide a mechanism of this character of simple construction that may be operated in one direction by a device carried by a car and under the control of the motorman or other attendant. INCLINED RAILWAY .- S. E. JACKMAN, New York, N. Y. The aim in this invention is to provide a switch-back railway arranged to allow two cars to race by their own momentum down adjacent tracks to afford exciting rides for the passengers, especially as it is possible for the car on the outer longer track, loaded heavier than the car on the inner shorter track, to outstrip the car on the shorter or inner track. Mr. Jackman has invented another inclined railway. wherein the object is to provide a switch-back railway arranged for racing two cars by their own momentum down adjacent separate continuous tracks, crossing each other twice above grade and in reverse

guttering, sash-bars, and the like) for which previous Letters Patent were granted to Mr. Johnson; and the invention has for its object to obviate rubbing friction on the opposite s'des of the strips consequent on difference of surface velocity of the rolls of a pair.

TILE-MACHINE. — D. E. FORTON, EVART, Mich. By means of this machine tile may be readily and accurately formed. In operation the parts being assembled, the cement is entered at the top, while the core is rotated. The spiral flange carried by the core forces the material downward, first to the bottom, and filling as cement is supplied, and after forming the main Portion of a tile the upper enlarged portion will be formed. The tile is readily removed, or the sections of the outer casing may be separated therefrom, because of the paper lining, which prevents the material sticking to the casing surface.

MUSIC-LEAF TURNER. - P. ENGELKING and F. C. ENGELKING, Peters, Texas. One of the principal objects of this improvement is

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to make the chances equal for either car to reach the station first.

CAR-SEAT .--- B. REPSDORPH and W. H. BUR-TON, Houston, Texas. In this patent the invention is an improvement in car-seats, being especially intended to provide a novel construction whereby seats and the backs thereof may be adjusted to form a bed for use when desired. The backs are upholstered alike on both sides, and one back will operate as a pillow for the passenger when the parts are adjusted.

Miscellaneous,

SHOULDER-PAD.-H. LAVINE, New York, N. Y. The invention pertains to improvements in shoulder-pads for coats or like garments, an object being to provide a pad so constructed as to maintain a gradually-increasing thickness from one edge to the other, thus preventing any abrupt depressions in the shoulder portion of a coat or the like in which the pad may be placed.

DISTANCE OR RANGE-FINDING INSTRU-MENT.-T. ADAMSON, New York, N. Y. Mr. Adamson's improvements are intended more especially for use upon marine vessels and the like, and the principal object is to provide an instrument of this kind whereby the navigator is enabled to ascertain at any time the distance of the vessel from a given distant point aheadas a lighthouse, for instance-and also to likewise ascertain the distance the vessel will be from such a point when abreast of the same CHART OR PATTERN FOR CROCHET-WORK .- EMILY C. FAUST, Kasson, Minn. In

this instance the invention has reference to apparel apparatus; and the inventors object is to provide a new and improved chart or pattern more especially designed for use in crocheting jackets and like garments and arranged to guide the worker in such a manner as to insure the formation of a well-fitting garment.

POCKET DEVELOPING AND FIXING DE-VICE.—R. R. LUTZ, San German, Porto Rico. In this patent the invention pertains to a portable developing and fixing device; and one ob ject in view is to furnish a compact construc-tion adapted to be easily carried in the pocket, and to be used in the daylight for developing, washing, and fixing photographic plates with out exposing them to the action of injurious light-rays.

JAR-CLOSURE .- C. H. NICHOLSON, New York, N. Y. The object of the improvement is to provide a jar-closure which is simple and durable in construction, cheap to manufacture, and arranged to hermetically seal the jar and preserve the contents thereof against deterioration. To open the jar, an air passage is easily formed through the exposed rubber ring by inserting any sharp instrument under the outer beveled edge of the V-shaped rim of the cover.

PESSARY .- F. L. PRIEST, Dallas, Texas. The invention relates to mechanical means for supporting the womb, relieve menstruation, and provide for drainage in ulceration. The appliance is made so as to avoid abrasion of tissue; it may be conveniently self-applied or removed, and worn without discomfort any length of time, and will afford safe and reliable means for the application of medicaments to diseased parts, or a tampon to check hemorrhage.

MATCH SAFE AND LIGHTER.-C. F. A. CAMMANN. New York. N. Y. The object of the invention is to provide an improved match safe and lighter arranged to permit of conveniently igniting matches without danger of ignited particles or sparks flying into the room and firing curtains and the like and to allow of holding the match in position for convenient each by the user and for immediate ignition, specially in the night.

STEREOSCOPE.-W. F. FOLMER and A. M. LAWRENCE, New York, N. Y. The Purpose in the present case is to provide a stereoscope so constructed that a view, no matter of what character, taken with stereoscopic lenses may be placed in the instrument without the object being mechanically reversed, as is customary, and through adjustment of the lenses to optically reverse the object, whereby to obtain proper stereoscopic effect.

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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