

RECENTLY PATENTED INVENTIONS.
Pertaining to Apparel.

GARMENT-FORM.—ANNA L. TRAVISS, Virginia, Minn. This apparel apparatus comprises a garment form for use in dressmaking establishments, stores, homes, and other places, and is arranged to display a garment to the fullest advantage, to preserve its shape, and to permit of conveniently folding the garment form into comparatively little space when not in use.

Electrical Devices.

ELECTRICAL CUT-OUT.—P. T. McNALLY, Mandan, N. D. This device is especially intended for turning on and off any one or more of a system of arc lamps, operated by a single alternating current dynamo, where it is not profitable to make a separate line circuit from the power house, or install a separate alternator for operating the arc lamps and incandescent lamps. It shuts off transformers when not in use, thus preventing loss of power in idle transformers, or for any other analogous purpose.

Of Interest to Farmers.

FEED-TROUGH.—G. D. KOEHLER, Macedonia, Iowa. The invention comprises a trough proper which forms the base of the feeder as a whole, and a part which is hinged thereto and consists of a hopper, for receiving the feed and a series of transverse partitions arranged on the sides of the hopper and dividing the feeding space of the trough so as to form a series of what may be called "stalls," each adapted to accommodate the head of a single animal. The trough may be constructed double or single and easily and quickly cleaned.

GATE.—J. M. HIGBE, Manson, Iowa. The object of this invention is to produce a gate which can be formed of wire or similar light material, and to provide a construction which will prevent the gate from sagging without necessitating a construction involving the use of a heavy frame for the gate. It relates to gates such as used in the fencing of farms and gardens.

GATE.—E. J. A. RICE, Harvard, Neb. One of the several objects of this invention is to provide a construction of farm gate, or that class of gates adapted to be opened by a person approaching it and closed by a person after having passed through the gate, no matter whether such person is on foot, mounted, or seated in a vehicle.

COMBINED COTTON CHOPPER AND CULTIVATOR.—R. H. PURNELL, Rosedale, Miss. The invention is a machine for chopping, or cutting out, cotton rows at regular intervals, and also for throwing dirt up to the plants which remain standing. The runners will always rest and travel upon the ground, and if the team be large, or tall, the front end of the frame will be held higher. This insures the chopper striking the row of plants squarely, or at right angles thereto.

Of General Interest.

POWDER-COMPACTING DEVICE FOR DRUGGISTS.—O. WARE, Muskogee, Ind. Ter. This invention pertains to a device for facilitating the subdivision of powder into smaller portions to be put up in papers or capsules according to the requirements of the prescription being filled by the druggist, and has for its object to compact the powder into a regular sized body whereby the druggist may more easily estimate the proportional parts and may subdivide the powder into any number of parts of equal size.

BAGASSE-FURNACE.—F. F. WILLEMS, Delangoe, Soerakarta, Java. The invention relates to improvements in furnaces, and more particularly to furnaces adapted for the burning of bagasse, the fiber refuse of sugar cane discharged from the juice-extracting machinery. The bagasse may be dried before reaching the grate bars, and may thus be utilized more economically as a fuel.

CONCRETE STEEL SUSPENSION-ARCH.—E. J. SCHAUWECKER, Clay City, Ind. The object of the inventor is to provide means adapted to enable concrete arches to be constructed with a much larger span than is practical at the present time, with less concrete and with a smaller rise. By means of the construction the arch may be made with a span of any desired length.

ANCHOR FOR AIR-SHIPS.—D. THOMAS, San Francisco, Cal. One purpose of the inventor is to provide an automatic anchor particularly adapted for use in connection with buoyant vessels to effect a landing at a given point quickly and accurately, and to so construct the anchor that when it has entered the ground claws will be forced out into the ground when the anchor is subjected to upward strain, preventing the anchor from being withdrawn or dislodged until the means are operated for permitting the claws to be drawn out.

HORN-SUPPORT.—V. H. RAPKE, New York, N. Y. One object in this case is to provide in the construction of a supporting device particularly for phonograph horns, a novel and simple clamping device that may be readily engaged with a molding of the machine casing, and to provide a supporting rod so constructed that the horn may be supported vertically or horizontally, or in other words, a universal or interchangeable supporting rod.

BAG-LOCK.—L. B. PRAHAR, New York, N. Y. A purpose of the invention is to furnish a friction lock or latch for purse frames, being particularly adapted to the frames of what is known as hand or wrist bags, which lock or latch is intended to be more simple, durable, and economic to manufacture than any of its class now in use.

SYRINGE-NOZZLE.—H. F. ONG, Portland, Ore. The aim of the inventor is to provide a nozzle for fountain syringes or douches, in which a tube having a catheter pointed extremity is provided with an attached bulb, but is not in communication therewith, the tube being adapted to enter the cavity of organs, permitting the inflowing liquid to leave the nozzle at an angle with sufficient current and force to be highly serviceable in agitating any and all fluid in the cavity at any time in its use.

MEANS FOR RECOVERING SUBMARINE BOATS.—E. OSWALD, United States Navy. The invention is an improved means for the recovery of lost submarine boats, designed to place the location of the submarine with certainty in both day and night, permitting communication with those imprisoned therein and obtaining a hawser attached to the boat without the use of divers. It can be installed on boats already built or now building at a small cost.

DEVICE FOR PROTECTING SAFE-VAULTS.—E. V. LORIG and U. G. GRAHAM, South Omaha, Neb. An object of the invention among others is not only to provide a means to act with certainty in giving alarms, but also at the same time to extinguish fire which can be in or near its location at the time the alarm is sounded, and at the same time by the generation and distribution of noxious gases, drive away burglars or other unauthorized persons.

POST-HOLE DIGGER.—R. T. JENNEY, De Pere, Wis. There is provision in this invention for a simple, durable, economic, and easily operated post-hole digger, one wherein the blade-carrying portion or body is constructed in but two parts, and wherein further the entire structure may be made exceedingly light without sacrificing strength.

SUSTAINING DEVICE FOR AERIAL VESSELS.—I. GRUBER, New York, N. Y. It is sought by this inventor to provide a pneumatic device capable of operation from within a basket or car of a balloon to direct the balloon in one or the other direction or to prevent a too rapid descent of the balloon in the event of a leakage of gas, or should the balloon be prone to drop from other causes.

APPARATUS FOR COOLING OR HEATING BEER.—E. A. APPELL, New York, N. Y. The object of the invention is to provide an apparatus for use in breweries and other establishments, and designed for cooling beer and like liquids in a very simple and rapid manner, or for heating fluids by the use of steam or like heating medium.

Hardware.

DOOR-FASTENER.—M. D. MERRING, East Stroudsburg, Pa. The object of the inventor is to provide means effective in operation and durable in use, adapted to securely fasten a door so as to prevent it from being opened from the outside. The device is inoperative when not in use by folding the lower section against the upper, and as a spring passes over the hinge joint it is stretched and again contracts, thereby pulling the brace sections firmly together.

WRENCH.—F. C. MAGENHEIMER, Evansville, Ind. In the operation of this monkey wrench the shaft may be partially rotated by its handle which projects from it a point midway between the upper and lower loop frames, and as it is turned it will operate upon blocks in such manner as to draw the serrations, and to free said serrations from engagement as may be desired.

NUT-LOCK.—C. C. HALGREN, New York, N. Y. The direction of this invention is to improvements in nut locks relating to that type of nut lock embodying in its construction a helical nut. When the nut is threaded upon the bolt and forced to its seat, its threads will automatically be forced into tight embrace with the threads of the bolt and thus securely lock them together.

GAGE.—G. W. MCLAUGHLIN, Hoquiam, Wash. This invention relates to gages of the type adapted for discovering irregularities in the cutting edges of saws, and it is an object of the inventor to provide a gage which is particularly adapted for use in gaging saws with curved cutting edges, such as cross-saws and the like.

Heating and Lighting.

SAFETY DEVICE FOR GAS-BURNERS.—A. A. CHURCHILL, Portland, Ore. The improvement pertains to a device designed for the prevention of accidents resulting from the accidental escape of gas due to a failure to light same when it is turned on, or due to the gas having been blown out after being lighted. The object is to provide a device for closing an electric circuit and ringing a bell or operating any other indicator when unburned gas escapes from the gas jet.

APPARATUS FOR PRODUCING MIXTURES OF GASES OR OF GAS AND AIR FOR ILLUMINATING PURPOSES.—H. L.

KARGER, 26 Frankfurter Allee, Berlin, Germany. In accordance with the present invention, the two admission devices for gas and air respectively which are dependent upon the operation of the suction and forcing appliances, are arranged behind the admission aperture common to them both, in such a manner that during the admission to the suction chamber the gas and air mutually penetrate each other. Novel arrangement of valves secures a number of advantages.

HEATER.—H. F. LANGENHOF, New York, N. Y. The object in this instance is to provide a stove or heater arranged to utilize heat arising from the burning fuel in the fire-box to the fullest advantage, to heat a room by radiation of heat from the stove or heater, and to heat water, air, or both and conduct it to radiators or registers for heating other rooms and to assist in heating the room in which the heater is located.

Household Utilities.

CUSPIDOR-CLEANER.—O. KEROUSE, San Francisco, Cal. This inventor's improvement is a contractible and expansible device adapted for cleaning cuspidors and other receptacles or tubular bodies, especially those whose mouths or entrant portions are contracted or made of less diameter than the body portion. The rubbing and cleaning is done in a rapid and effective manner.

Machines and Mechanical Devices.

LABELING-MACHINE.—F. X. MALOCSAY, New York, N. Y. The principal objects of the invention are to provide means whereby an adhesive can be applied to cans or other articles, to provide for thereafter feeding and applying labels to the cans successively onto the portion supplied with the adhesive, and to provide means for manipulating the several essential parts of the machine and feeding the cans, both before and after the labels are applied.

BRICKMAKING-MACHINE.—E. L. MARTIN, Woodburn, Iowa. The invention has reference to machines for making bricks, and is especially adapted to be operated by hand. The object of the invention is to simplify and improve the machine, and the finished bricks removed by a single operation of one lever.

ELEVATOR.—C. A. LINDSTROM, Seattle, Wash. This improvement relates to elevators designed to be used for stacking lumber, and has for its object to provide means simple in construction, effective in operation and durable in use, adapted to be moved about in a yard and to elevate and deposit lumber at any desired height to form a stack.

COLLAR.—D. J. KELLY, Aberdeen, Wash. The invention is an improvement in collars as used on the shafting of machinery, especially shafting likely to come in contact with the clothing of workmen and others. An object is the production of a means to be placed over the ordinary collar as now in use for covering the set-screw head which is the source of much danger and many accidents.

PLUNGER FOR BOTTLE-MACHINES.—R. JOHNS, Fairmount, W. Va. The purpose of the invention is to provide an improved construction of plunger whereby to preserve a proper and uniform degree of temperature necessary to the successful operation of such plungers as are commonly used as a part of machines and presses employed in the manufacture of bottles, jars, and other tubular glass ware.

POWER-SHOVEL.—R. BELDEN, Spanish Ranch, Cal. Mr. Belden's invention has reference to improvements in power shovels for digging railroad beds, ores, ditches, and the like, the object being to provide a power-shovel of comparatively simple construction by means of which the work may be rapidly carried on.

RATCHET-POWER.—J. H. HARDEN, Anniston, Ala. The invention refers to means, manual or mechanical, whereby to convert applied reciprocal motion into rotary motion, and has for its object peculiar, novel, and improved means for the purpose stated, involving rotatable shafts operatively connected by suitable gearing, and a novel form of ratchet power devices.

Prime Movers and Their Accessories.

AUTOMATIC DRAINAGE ATTACHMENT FOR LUBRICATORS.—J. C. HUBBARD, Georgetown, S. C. The invention relates to an improvement in lubricators for steam engines in which the lubricator is coupled up with the steam pipe for a regulated feed. As lubricators of this type contain water it frequently happens that the engineer forgets to open the drain valve of the lubricator when leaving at night, with the result that the lubricators freeze and burst, thereby entailing expense of new ones. The invention prevents this possibility. Mr. Hubbard has also received a patent on an invention designed to provide an automatic drainage attachment for each lubricator, which is entirely independent of any separate connection with the boiler and comes into action by the mere act of disuse of the lubricator, or shutting down of the engine.

TRIPLE-EXPANSION ENGINE.—W. S. LYCAN, Marshall, Ill. In the present patent the object of the invention is the provision of a new and improved triple expansion engine, which is arranged to utilize the motive agent to the fullest advantage and without back pressure during the third expansion of the steam.

Railways and Their Accessories.

RAILWAY-TIE.—H. E. MATTHEWS, Salda, Col. The invention pertains to railway ties, and the object is to produce a metal tie of simple construction having a special form which facilitates the fastening of the rails thereto, and which tends to prevent a lateral displacement of the tie in the roadbed.

Pertaining to Recreation.

SNAPPING DEVICE FOR MARBLES.—W. L. HOFFMAN, Jersey City, N. J. The device is grasped in the hand, and by pressure of the latter the marble may be projected as when snapped from the fingers. The inventor's object is to produce a device adapted to be used in playing marbles, and enables the marbles to be snapped with greater force and accuracy than in the ordinary way.

TRANSFORMABLE TOY.—MARY A. GLAEN, Elizabeth, N. J. The toy is primarily in sheet form and adapted to be cut out, folded, glued, and the parts connected to produce a transformable object. Objects may be produced upon sheets of paper, pasteboard, metal, or other material, manufactured, issued, or published separately, or in book form, or other form, and printed, drawn, stamped, or painted in colors or otherwise, with single, double, compound, or separate figures or parts, animals, creatures, or the like, which, after being made up, when turned inside out or about, will show different figures of persons, animals, creatures, or objects.

Pertaining to Vehicles.

VEHICLE-WHEEL.—J. B. HUNTER, Pittsburg, Pa. The object of the invention is to provide a construction of wheel in which the rim is cushioned with respect to the hub, special features being an octagonal metal hub, an outer rim, an inner ring, spokes between the rim and ring, and radial spiral springs between the hub and ring allowing free vibrations in all directions radial to the hub, four annular metal plates being fitted between the hub and the ring and lapped and bolted together so as to brace the wheel in all directions.

AUXILIARY FELLY AND TIRE.—C. BUCKLAND, Habana, Cuba. The invention relates to wheels having inflated pneumatic tires. The object is to provide means adapted to be readily attached to or removed from vehicle wheels of ordinary construction, and when applied thereto to protect the pneumatic tire from injury without interfering with the resiliency of the tire.

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.



HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters of 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.

(10567) W. W. R. writes: We have an artesian well here about 1,000 feet deep that is throwing out salt and white sulphur water at the rate of 400 gallons per second. This is correct. I tested it three different times, and made it that or a little over. I am satisfied it will rise in a 6-inch pipe 30 to 50 feet, and probably higher. With say a rise of 30 feet, what horse-power will it make with a turbine wheel, and what size wheel will it take to run a flouring mill, or will it do it at all? Our town has a population of 600, and could we light the town with the power from well? Say eight large electric lights and 400 incandescent lights for stores and dwellings. A. Four hundred gallons of water per second at a pressure equal to a head of 30 feet would develop 180 horse-power. The number of pounds of water per second, multiplied by the head and divided by 5,500 will give you the theoretical power. If this flow of water could be constantly relied on, from 75 to 80 per cent of the above horse-power could be generated by a turbine wheel, which would be sufficient to light your town, with considerable margin to spare. It is very doubtful if your well will continue its present output at the pressure which you mention for a great length of time. We would advise you, therefore, to get an expert's opinion on this point before making any large investment.

(10568) C. H. M. says: What is the formula for finding the horse-power required

