

NEW BOOKS AND PUBLICATIONS.

LIFE BOATS, PROJECTILES, AND OTHER MEANS FOR SAVING LIFE
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Mr. Forbes is Chairman of the Standing Committee of the Massachusetts Humane Society, and he details some of his views on another page of this issue. His work now before us is a well written *resume* of what has been done in this country and in Europe in inventing and perfecting means of saving life in case of shipwreck; and it should be read by all shipowners and seafaring men, as well as by philanthropists and others who are trying to mitigate the dangers of the sea.

Recent American and Foreign Patents.

Improved Wooden Frame for Hinged Awnings.

Henry Sykes, New York city, assignor to himself and William Campbell, Brooklyn, N. Y.—This awning frame consists of metallic crew-threaded elbow couplings and wooden bars, provided with tenons, which are screwed into the said couplings, so as to make a perfectly rigid and smooth frame. It is stiffer than iron frames, and is not liable to rust, or to cause injury to the cloth.

Improved Farriers' Tool.

Michel Baltes, Frankville, Wis.—This is an instrument for cutting grooves in horses' hoofs to receive the clinch of the shoe nails. A straight jaw has a notch formed in the inner edge of its forward end. A curved jaw has an edge formed upon its forward end, and a spring is arranged in connection with the two jaws. In using the instrument, the straight jaw is placed against the hoof upon the upper side of the projecting part of the nail, and with the nail in the notch of the said jaw. The edge of the curved jaw is pressed against the hoof, and with an outward and downward pressure enough of the hoof will be scraped out to form a groove for the clinch. The use of this instrument avoids the use of a rasp to form a groove for the clinch, and avoids the injurious rasping of the hoof to take out the said grooves.

Improved Toy Whistle.

Henry B. King, Paterson, N. J.—This is a whistle or reed with funnel-shaped mouth and guide wing, the whole attached to a cord and whirled through the air to produce a sound. A vane keeps the mouth steadily against the wind, and produces thereby the sound, which, if more than one whistle or reed be used, may be varied so as to be harmonious and pleasant to the ear.

Improved Composition for Preserving Eggs.

Joseph K. Boone, Booneville, Mo.—This is a compound of alum and lime, in equal proportions, dissolved in hot water, for the preservation of eggs, which are dipped in, and allowed to remain for ten seconds. A cement is formed on the eggshell, producing an airtight polished surface.

Improved Feed Water Regulator.

Christopher M. Bridges, Leon, Iowa, assignor to himself and Creed Bobbitt, of same place—A float in a chamber connected to the boiler at the water level rises when the water fills the chamber, and opens a passage from the chamber containing the float to the pump, thus allowing the boiler pressure to close the check valve in the supply pipe from the tank. A circulation of the hot water of the boiler by this means will be maintained through the pump as long as the water in the boiler is high enough to keep the chamber full and the float up; but when the water falls in the boiler below the connection with the chamber, the pump will exhaust the chamber, and the float will fall and close the passage from the float chamber. The check valve then, being relieved of the boiler pressure, will open, thus making an automatic regulator, and at the same time facilitating the circulation of the water, so that steam is made faster and more economically.

Improved Life-Preserving Stool.

Henry H. Nash, Baltimore, Md.—The object of this invention is to provide a simple, cheap, and effective life-preserving stool, applicable for use upon steamers and other sea-going vessels. It consists simply in arranging one or more disks of cork between two rounded boards, which constitute the seat of the stool.

Machine for Grinding and Fitting Pearl Veneers.

Jacob Hoffman and Georg Hoffman, Philadelphia, Pa.—The invention consists in a recessed gage and holder for the veneers, combined with the carriage, and an end-beveled gage connected with a beveled block and hinged dog. These improvements have been found in practice greatly to facilitate the grinding of the veneer.

Improved Meat Chopper.

H. P. Rankin, Allegheny, Pa.—The invention consists of a meat-block made in sections, held together by a metallic band that extends there above, so as to prevent the meat from escaping over the edges; and so that when one or more sections become uneven, the same may be replaced without destroying the whole block.

Improved Crimping Machine.

Thomas J. Greenwood, Warren, Ill.—This is a base plate, whereon is a crimping block or former, on which the boot is to be stretched. There is a clamp, which is the counterpart of some portions of the block, and a base plate for pressing the leather into shape upon it. A shaft, cam, and lever actuate the clamp, the shaft being detachably supported in its bearings, so that it can be taken out of the way readily for removing and applying the clamp, and the clamp being notched or serrated in the seat on which the cam works, to hold it whenever it comes to rest.

Improved Endless Chain Pump Bucket.

Jared S. Manley, Canton, Pa.—A circular disk is placed between two semi-globular pieces of rubber, and the whole is secured together by a bolt having washers, and swivels at the ends.

Improved Blind Slat Adjuster.

George A. Myers, Brooklyn, E. D., N. Y.—This is a device for adjusting and fastening the slats of a window blind at any desired angle, and for securing the blinds at an angle with each other. A wire attached to one cleat of the blind is secured at the other end to a block which slides in ways. After the slats are adjusted, the wire holds all in place, by a screw securing the block at any desired point on the ways.

Improved Apparatus for Holding Meat in Cutting.

William Tetley, Pana, Ill.—This is a curved bar hinged at one side of the butcher's block so as to be detachable. It is brought over the meat to be cut, so as to hold the same by pins projecting downward from the bar and into the meat, and is suitably secured on the opposite side of the block.

Improved Hose and Pipe Coupling.

Henry G. Koehler, Cleveland, Ohio.—One portion of the coupling enters the opposite portion. About the inner piece is a ring groove. On the outer piece are beveled spring catches, which, when the parts are pressed together, are forced into the grooves. Suitable spring tongs are used to pull the catches outward in uncoupling.

Apparatus for Gathering and Elevating Hay.

Alfred J. Park, Virginia, Mo.—This consists of a vertical frame supported on a pivot, and also on wheels resting on a bed, so that it has free rotation about a perpendicular axis. In the frame are posts having curved grooves in their sides to receive the shaft which forms the fulcrum of a hoisting lever. Said lever has a rapping device at one end, and a rope for raising or lowering it the other.

Improved Eaves Trough.

Chas. A. Coddling, Dowagiac, Mich.—This invention relates to certain improvements in the half-round eaves troughs attached to the lower edges of the roofs of houses for the purpose of conducting away the water. It consists of a band of metal, soldered upon the transverse lap seam and fastened at one end beneath the stiffening tube, and bent over the edge of the trough and soldered at the other. It also consists in a brace bar, one end of which is bent around and soldered to the tube, and the other soldered to the opposite side of the trough, to brace and hold the sides of the trough the proper distance apart.

Improved Drag.

David Miller, Carrollton, Md.—This invention relates to certain improvements in that class of drags in which a single log of wood is provided with draft attachments, and is drawn laterally across the field for the purpose of crushing and pulverizing the clods and leveling the surface of the ground. It consists in the combination, with such a drag, of a pair of handles rigidly attached thereto and projecting to the rear, provided with a pair of wheels, upon which as a fulcrum the drag may be raised from the ground by bearing upon the handles, so as to avoid stumps and stones, and facilitate the turning of the corners at the end of the row, the said wheels and handles serving also to prevent the drag from rolling under the horses' heels when going down hill.

Improved Method of Making Pills.

Jacob Dunton, Philadelphia, Pa.—This invention relates to certain improvements in the manufacture of pills, made by compression in dies or molds. In manufacturing pills according to this method, it is found that the pill compressed of materials containing the natural moisture of the air possesses but little cohesion of particles and stability of form; and in removing them from the die, the attraction of adhesion is often greater than that of cohesion, and they crumble and break in such a manner as to render this method of compressing certain materials into pills wholly impracticable. This invention is intended to obviate this difficulty, and it consists in the method of drying the material to be compressed, so as to expel the moisture and insure the more thorough cohesion of particles, and the lubrication of the die or mold.

Improved Three-Horse Equalizer.

Ezra Graham, Manchester, Iowa.—The invention relates to an equalizer by which three horses may be hitched abreast and be enabled to draw their respective proportions of weight. It consists in two unequal levers jointed on the same pole pin, and connected by a chain passing over a rear pulley.

Improved Wash Board.

Edwin S. Heath, North Hope, Pa.—The invention relates to the construction and arrangement of parts whereby the corrugated zinc plates which form the rubbing surfaces of the wash board are secured together and to the flexible grooved and bent frame piece.

Improved Car Coupling.

George Wernimont, Dubuque, Iowa.—The invention consists of a serrated link guide that is adjustably attached to supports of a lateral shaft. The crank shaft is also connected, by crank arm and chain, with a swinging crank frame that raises the pin chain and pin in the drawhead for uncoupling.

Improved Dinner Box.

James S. Davis, Monroe, Mich., assignor to himself and George R. Hurd, of same place.—This is a case having a series of drawers for the solid food entering at one side between suitable partitions, and a coffee or tea holder, connected to the front by slides, in such manner as to fasten the drawers in the case. This makes a simple and efficient arrangement, by which as many separate drawers or boxes as desired may be had for the solid food.

Process for Forming the Ends of Carriage Slat Bows.

Charles Renton, Meriden, Conn.—This is an improved die for forming the ends of slat bows for carriage tops, or similar forgings. The invention consists in passing the ends of the slat bows through a series of gradually narrowing and deepening dies with inclined edges, which raise the stock by the impressions given to the ends without the edging used at present.

Improved Carbonic Acid Motive Power.

John Westcott, Tocol, Fla.—This invention has in view the utilization of carbonic acid and other gases as motive powers, and it consists in storing up the carbonic acid gas in a separate receiver from that in which it is generated through the agency of the surface attraction of animal or vegetable charcoal, the latter material absorbing five times its volume of the gas, so that large quantities of the gas may be stored up without increased risk to the tensile strength of the receiver, and yet be easily developed and eliminated by heat so as to furnish an available motive power. The invention also consists in the method of developing and eliminating and expanding the gas from its condensation upon the absorbent material by means of a vehicle of boiling oil passing through pipes in the reservoir.

Improved Harvester Rake.

Moses Ray, Valley Grove, W. Va.—This invention relates to certain improvements in harvester rakes, and it consists in a shaft driven by the harvester mechanism, and terminating in a pulley which engages with a frictional contact two other similar pulleys, one on each side. Around these pulleys passes a band to which is attached an arm or extension, one end of which is provided with a friction roller and moves in a groove in the adjustable supporting frame, and the other end carrying at right angles to the arm a barrel. In said barrel is contained a loose standard which carries the rake. The standard falls out of the barrel of its own gravity when on the descending part of its revolution, and the rake takes the gavel at the cutter head and delivers it at the side of the harvester in the rear, a projecting arm attached to the rake standard striking a pin upon the table and giving the rake the necessary sweep. On the ascent of the rake, the standard is telescoped into the barrel and out of the way until ready for the next gavel. The entire frame work carrying the above described mechanism is pivoted upon the main shaft, and is provided with adjustable locking devices which engage with vertical supports and give necessary adjustment to the rake for high or low grain.

Improved Die Stock.

Virginius J. Reece, Greenfield, Mass.—In place of the bushing at present in use, adjustable guides are used, that are made in the shape of curved elbow levers, pivoted at one end to the die stock and acted upon by a sliding plate having eccentrically curved slots, which engage lugs of the guides at the corners of the same. The free ends of the guides are thrown, by the turning of the plate, in one direction toward the center of the die stock, being in any position at equal distance therefrom, so that they may be set to any size of bolt, and be firmly secured in position by a clamp screw.

Improved Gate Fastening.

William Leach, Omaha, Neb.—This invention relates to fastenings that enable a gate to be latched automatically as it swings to the head post, and consists in combining a rod having reversely beveled wings and weighted arm with a slotted angle plate.

Improved Fireplace Heater.

John B. Oldershaw, Baltimore, Md.—This invention consists in making a fireplace heater in sections, with a magazine open both at top and side as well as the cylinder, the two being connected by a chute.

Improved Hot Air Registers.

Edward A. Tuttle, New York city.—This is a combination of wall frame and register frame, fitting closely together in front, having lugs for fastening screws in a divergent angle between said frames.

In another register, patented to the same inventor, there is a segmental roller for carrying a slide and a slot and pin for working the fan, arranged on opposite sides of the slide. The pin for working the fan is arranged half the length of the throw of the slide from the pivot of the fan, in combination of a groove or slot of forty-five degrees of inclination to the slide. A notch in the end of the fans and a projection of the frame are so arranged that, by turning the fans a little beyond the vertical position to which they are brought to open the register, the notches pass beyond the projections, and thus free the fans to slide endwise far enough toward the frame to withdraw the opposite pivot from its bearing for taking out the fan or entering it to put the fan in its place.

Improved Strainer for Pumps.

Leonard Blass, Germantown, N. Y.—This invention consists in the combination of a cylinder having a cap screwed upon its lower end and a cap plate bolted to its upper end, and provided with an inlet pipe and an outlet pipe. The tube has a flange formed upon its upper end, a wire gauze plate attached to its beveled lower end, and a hole formed in its side, combined with each other to adapt the device to be attached to a pump pipe.

Improved Refrigerator.

Henry G. Gleyre, Glasgow, Mo.—In this refrigerator, the interior is supplied with cold and pure air, while it is also used as a water cooler. The ice receptacle has an inclined perforated rear flange, and forms, with the rear walls, an intermediate ventilating flue. A perforated cover, having a pendant flange, cuts off direct air communication between the ice receptacle and ventilating outlet for the passage of air outside of the refrigerator.

Improved Wagon Springs.

Michael Feigel, New Utrecht, N. Y.—This is a novel combination of the V rod and tie rods with the body and other portions of the wagon, the object being to strengthen the forward part of the running gear, to prevent the platform from sagging in the middle, and thus throwing the weight upon the fifth wheel, instead of keeping it around the king bolt, thus enabling the vehicle to be much more easily guided by the team.

Improved Earth Auger.

William Low, Webster, Mich.—The cutting bits have a point formed by a curve from the inner end to the wall of the throat and curved downward from the junction with the bottom to the point. They are arranged at opposite sides of the center with space between for the passage of stones, in combination with the bottoms, spirally molded for clearance.

Improved Pocket Book Lock.

Julius Hanau and Sigmund Bendit, New York city.—This invention consists of a series of short pieces of wire placed side by side in a little box, in combination with a spring at one or both ends of the series, so contrived that the hasp may engage between any two of the rods whenever it may come along the rods, by reason of the pocket book being more or less full, the row of rods being ranged in the line of the hasp. Thus the fastening is self-adjusting to the fullness of the book.

Improved Road Scraper.

Edward Huber, Marion, Ohio.—This invention is an improvement in the class of scrapers, the handles of which are unlocked from the body thereof by the action of the bail or draft rod when the handles are raised to a vertical, or nearly vertical, position. The elevation of the handles causes their spring catches to slide off the horizontal lugs affixed to the sides of the body of the scraper, thus allowing the latter to revolve and discharge its contents.

Improved Invalid Lounge.

Andrew Shiels, Portland, Oregon.—This invention relates to certain improvements in lounges, and consists in the combination, with the hinged bottom boards, of devices which enable the patient to adjust himself either from a recumbent to a sitting posture, or vice versa, without assistance.

Improved Horse-Detaching Apparatus.

Johua W. Glover, Mount Savage, Ky., assignor to himself and William R. Kitchen, same place.—This consists of spring catches for detaching the traces by a cord passing over guide pulleys, and up into the carriage box, where a weight is attached for automatically detaching in case the carriage is suddenly overturned and the driver prevented from pulling the cord.

Improved Clothes Dryer.

John Sutton, Deep River, Iowa.—This consists of two racks suspended from a long plate supported at the middle on the top of a standard having a long narrow base, having swing feet to throw out and brace it laterally. The racks have braces which throw them out obliquely for use when the braces are adjusted on arms projecting from the standard below the top plate; and above these are two racks similarly supported on standards rising up from the top plate, and having braces to hold them out obliquely for use. Other clothes-supporting arms are used, some being permanently and others detachably connected, the whole making a rack that can be readily opened and extended for use and folded up out of the way.

Improved Hollow Staff for Watches.

William A. Belcher and David J. Plume, Ophir City, Utah Ter.—This is an improved staff, which may be quickly replaced when one of the pivots is broken off, without in the least interfering with the balance wheel or other parts. The staff is made hollow, with detachable center plug, that is readily removed and replaced without interfering with the other parts.

Improved Chimney Cowl.

Theodore C. Nativel, San Jose, Cal.—The ventilating cowl is formed of two parts or cylinder flues, one enclosed by the other. The inner part, or flue, has vertical exterior ribs, which form a bearing or support for the section of the outer flue, leaving air passages between. The flue sections are leveled at their ends to form a close and strong joint, and the ribs act as buttresses for each flue.

Improved Turbine Water Wheel.

Y. W. Larmao, Russellville, Ky.—This invention contemplates the improvement of turbine wheels so that they may run more easily against back water, under a less head of water, and be susceptible of adjustment of the power. The several features of improvement seem well adapted to the object in view, and will doubtless economize water and enable the power to be graduated with facility.

Improved Steaming Table.

Asahel J. Randell, Belvidere Seminary, N. J.—This invention relates to a culinary apparatus combined with a falling-leaved table, designed for cooking by steam. Beneath the table top is a case, which contains a steam chest having an upper bottom, beneath which is a drawer which extends entirely through the case and forms a fire chamber. A lamp and a gas burner are placed in this chamber, either of which may be used in the absence of the other. There is a removable bread tray in which is a dough mixer, and a case contains drawers for keeping dishes, table linen, and similar articles. With this apparatus, a family in close quarters or small apartments may be accommodated with the essentials of housekeeping in a small space.