

arranging the names and residences of debtors and creditors, and in stating the amounts, and in the objects and purposes of said arrangement.

The answer denies that the book published by the defendants is a copy, in whole or in part, of "The Advertiser and Collector's Chart," and denies that the complainant can have any valid copyright for any arrangement of the names of debtors and creditors, or any other classes of persons, or for stating amounts, or any other purposes of arrangement.

The publication of the complainant is clearly one of that class embracing dictionaries, directories, catalogues, maps, and similar publications where the same sources of information being open to all, the author, by his copyright only, protects himself from a piracy of his own labors by a copy from his publication, but cannot exclude others from publishing similar maps or charts from their own surveys, or similar directories or catalogues, the result of their own labors and compilations, without copying the copyrighted publication or availing themselves of the labors of the author or compiler.

Although the plan or arrangement of a book may be secured to the author, if it be the product of his own genius, there does not seem in this case to be anything in a mere list of debtors and creditors, with their residences, and amounts and value of debts, which possesses any such novelty of plan or arrangement as would preclude any other person from making and publishing from his own independent sources of information similar lists.

The question is correctly stated by the learned counsel for the complainant to be whether the defendants have used the plan, arrangements, and illustrations of the complainant as the model of their own book, with colorable alterations and variations only to disguise the use thereof, or whether the work is the result of their own labor, skill, and use of common materials and common sources of knowledge, and the resemblance are either accidental or arising from the nature of the subject. (Curtis on Copyrights, 258, 260.)

Although many of the same names, residences, and amounts appear in the defendants' as in the complainant's tables, the answer positively denies that they were copied, and the uncontradicted proof is that they were derived from independent sources of information. One of the defendants testifies that the names of debtors are bills placed in defendants' hands for collection, and that a great many of the subscribers (creditors) are persons they were doing business with previously to complainant's publication, and that they were obtained through their canvassing clerk. The list of names marked as identical in the two publications are testified to have been in possession of defendants previous to the publication of complainant's "guide," or of defendants' "chart."

There is no evidence, therefore, of any infringement of any rights secured by his copyright to the complainant.

Bill dismissed with costs.

[C. D. Moore, for complainant.

O. S. Knapp and C. J. Brooks, for defendant.]

Recent American and Foreign Patents.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

COMBINED LIFE BOAT AND TRUNK.

Wilson E. Facer, Toronto, Ont., Can.—The object of this invention is to provide a combined trunk and lifeboat for the use of travelers upon sea-going vessels, which, as a trunk, occupies no more room than the ordinary traveling trunk, and yet, in the event of a disaster, is capable of being unfolded and extended, so as to form, with a suitable covering of rubber canvas, a convenient and effective lifeboat. The invention consists in a rectangular frame and lattice work about the size of a trunk, made lightly of steel and provided with hinged doors, which constitute the trunk or the middle portion of the boat. The stem and stern is constructed alike of a hinged folding frame at each end of the trunk portion, which, together with the said trunk portion, is provided with pivoted folding ribs, which, when the frames are extended and braced, and the ribs opened, form the skeleton of a lifeboat, which is to be covered with heavy duck or canvas, coated with rubber.

IMPROVED CAR AXLE.

Simon Hall and Samuel L. Hall, Ahnapee, Wis.—The object of this invention is to enable the wheels to be adjusted on the axle to conform to different widths of gage which exist on some of our railroads without change of truck. When the wheel is to be adjusted to a narrower width of gage, a sleeve is screwed back, and a sectional washer, made of two semi-sections suitably connected by dovetails, placed between the outer end of hub and collar. The sleeve is then screwed up, so as to force the loose wheel and washer firmly in position, the joints of the hub, washer, and collar being closed by the elastic packing rings to retain the oil.

IMPROVED BALE TIE.

Virgil F. P. Alexander, Greenville, Miss.—This is an improved bale tie for packing cotton and other articles capable of baling; and it consists of a buckle with suitable slots attached to one end of the band, in connection with suitable fastening buttons for attaching the slotted end of the band by passing over the same and through the slot of the buckle.

IMPROVED CROSSCUT SAW HANDLES.

Lewis Shepard, Mace, Ind., assignor to himself and David W. Kennedy, same place.—The object of this invention is to improve the construction of the crosscut saw handles for which letters patent were granted to the same inventor October 5, 1875, so as to enable the handles to be readily detached, to allow the saw to be drawn out of the kerf lengthwise, and to enable the handles to be adjusted in or out upon the saw. The invention consists in the curved and straight handles, secured to each other at their upper ends, and provided with bolts at their lower slotted ends, in combination with the saw blade.

DOOR FRAME AND JAMB PLATE FOR FURNACES.

James C. Longland, Rome, N. Y.—Hitherto door frames and jamb plates for furnaces have been made of cast iron, the door frames having a small pipe cast into them, for the passage of water; but the intense heat of the furnaces acting on the inside of the door frame, and the outside being kept much cooler by the action of the water, causes an irregular expansion of the cast iron, and, consequently, breakage, after which the water must be stopped, and the door frame soon burns out and must be replaced with a new one. Jamb plates are usually made of cast iron and cooled by the action of blast supplied by a blower. Plates thus constructed and cooled are of short duration. In the present invention the bottom plate is of wrought iron, being forged into one solid piece, having a chamber for a water passage. The cover to said water passage is tongued and grooved to make watertight joints. The side posts are also made of a solid piece of wrought iron, connected with the plate by a screw thread, to make watertight joints. In the top plate, also of solid wrought iron, is cut a water reservoir, which is connected with one of the posts by a passage, thereby causing a constant circulation of water. The jamb plate is also made of solid wrought iron, and is cut out from the bottom up to make a water chamber. The ends of the jamb plate are beveled to fit, the one to the side of the furnace and door frame, and the other to the water bridge bosh, thereby forming a complete water circulation all around the furnace.

IMPROVED MOISTENING DEVICE FOR GRINDING WHEELS.

Andrew A. Hazeltine, New Bedford, Mass.—This consists of a spring-clamped sponge, which is applied to a movable standard, and supplied with moisture from an adjustable fountain arranged above the sponge, said fountain having a spout and elastic cover to discharge, by slight pressure, a quantity of liquid on the sponge. The device forms thus a convenient and readily operated moisture for grinding wheels of all kinds, being easily cleaned and applied to the point where it is required.

ELECTRIC RAILROAD SIGNAL APPARATUS.

Dr. George Whyte, Northview, Scotland.—This invention relates to the establishment of a block system of railroad signals. It consists in apparatus placed upon the train operating in connection with apparatus placed upon the roadway or track, through the instrumentality of line wires, batteries and semaphoric masts, whereby a moving train cannot enter upon the block or section of track before the preceding train has left it without being notified of the fact, both by a stationary signal upon the road and the ringing of a bell on the train, which bell always rings when the signal indicates the presence of a train upon the section in advance,

and does not ring when the signal is down and the preceding train has left the section in advance. It also consists in the arrangement of the devices and circuits whereby each train is made to automatically remove its danger signal before going on to the next section, whereby the following train is notified of the fact that the intermediate section is clear.

IMPROVED NUT LOCK.

Samuel A. Brumbaugh, Harrisburg, Pa.—This invention consists of screw bolts with nuts which are set into recesses of washer plates provided at the under side with ratchet teeth. The washers of two adjoining nuts are connected by a key that enters the ratchets by a point and tooth at diagonally opposite ends, and locks thereby the nuts.

IMPROVED MACHINE FOR FORMING PERFORATED LETTERS.

William C. Robertson and Frederick Pearce, New York city.—By forcing down the free end of a lever, the guide and holding plates will be drawn down, forcing pins down through guide and bed plates, and through the strip interposed between said plates. As the lever is released from the pressure, the plates are raised by spiral springs, and by their upward movement draw the pins out so that they may not interfere with the putting in and taking out of the strip to be perforated. By this construction, by removing a detachable plate, the pins may be adjusted to form any desired letter or other device.

IMPROVED ROTARY PUMP.

William T. Doremus, New York city.—In this rotary pump, the fluid is forced through a flexible tube coiled around the face of a cylinder, through the hollow journals of which it enters. The tube is compressed between the faces of the cylinder to which it is attached and of another cylinder. The effect is to force the fluid in front of the point of contact out through the discharge end of the tube and form a vacuum in the rear into which the fluid is forced by atmospheric pressure, so that there will be a continuous discharge.

IMPROVED METHOD FOR TREATING RAILROAD RAILS.

Andrew J. Gustin, St. Albans, Vt.—For the purpose of imparting the proper camber to a heated railroad rail to compensate for unequal shrinkage of the metal while becoming cold, this inventor proposes a combination of three pairs of plain rolls, the middle one being adjustable and placed slightly out of line with the others.

IMPROVED CASK TILTER.

Joseph Barton, Hartford, Conn.—This consists of a cask or barrel supporting stand that is provided at the rear part with a spring bearer that works in a socket hung to the stand, and tilts the barrel when released from the socket by a lever device from the front. When the barrel is emptied to such an extent that the power of the spring equals and gradually overcomes the pressure of the liquor still remaining therein, the rear part of the barrel is slowly and imperceptibly raised, and thus the barrel tilted without causing the least disturbance in the liquor.

IMPROVED GRAPPLING HOOKS.

Gain Beeman and George A. Phifer, Ironton, O.—In this invention the hooks are pivoted to the end of a tube, in which the operating rod is arranged to slide. A spring pawl is fixed on the tube, in connection with notches in the lifting rod, by which to limit the opening of the hooks by the sliding movement of the rod in the tube. The tube may be continuous or sectional, and any form of grappling hooks or scoops may be used.

IMPROVED CAR COUPLING.

Edward A. Goodell, Tecumseh, Kan.—A drawhead is provided at the bottom with a central hook that is curved to guide the entering link and then drop it into a concave rear part. A vertically sliding stirrup is guided in top holes of the drawhead back of the hook, and seated, when dropped, in a bottom recess. When the cars are coupled the stirrup is seated in the bottom recess, so that the link assumes its position above the same. For uncoupling, the stirrup is raised, which carries the link to such height that it may readily pass out of the drawhead over the central coupling hook. The raised position of the stirrup may be secured by seating the ball in a groove, at the top of the drawhead in front of the stirrup, so that the ball, by its inclined position, supports the stirrups.

IMPROVED PUMP.

John Woodville, Washington, Ind.—With the stirrup of the presser, which produces a suction and force action, is combined a forked detachable lever handle, attached by a forked sliding lock-piece, to retain the handle firmly for pumping, and a fulcrum and stirrup connecting pivot link to give rigidity and stability to the connection of stirrup and handle.

IMPROVED RAILROAD RAIL JOINT.

Henry D. Leishman, Yates City, Ill.—This rail-joint clasp consists of two separate plates fitted to the base and sides of the rail. One extends over the top and along an outer projection of the other, and is bolted thereto, while both plates are bolted through the webs of the rails.

IMPROVED ORE CRUSHER.

Wilson L. Waters, Watertown, Tenn.—This consists in the combination, with two interior movable jaws, of a wheel located between the same, and having diametrical cams, or their equivalents, whereby the strain upon the wheel shaft is neutralized by making the working strain simultaneous upon opposite sides of the wheel.

IMPROVED TREADLE.

George T. D. Barnjum, Boston, Mass., and Wilbur F. Dial, Montreal, Canada.—This invention consists of alternately swinging treadles, connected by belts with an intermediate reciprocating shaft, that operates alternately, by belts in opposite directions, loose sleeves with end eccentrics. The latter engage clutches for imparting, by their alternately reciprocating action, continuous rotary motion to a flanged fly wheel.

IMPROVED CAR STARTER.

Archibald H. Crozier, Carlyle, Ill.—This invention consists of an arrangement of apparatus of novel contrivance, whereby a spring is employed as the brake to stop the car, and as a means of starting it again by the power expended in stopping it, which is stored up in the spring.

IMPROVED FLOUR AND MEAL BOLT.

Edwin Slagle and John M. Graham, Albany, Mo.—This consists of a flat inclined shaking bolt, in which the cloth is arranged in wave-like form, which greatly facilitates the work. The invention also comprises details in the construction and arrangement of the sieve; also knockers for keeping the cloth clean, and also a contrivance of the bolt to cool the meal.

IMPROVED MACHINERY FOR SCREW-THREADING WIRE FOR UNITING THE SOLES AND UPPERS OF BOOTS AND SHOES

Edouard Fromentin, Paris, France, assignor to Joseph M. V. Durand and Joseph DUBORGET, same place.—This invention relates to certain improvements in that class of machines which cut a thread upon a continuous length of wire, insert the screw into the sole of the shoe, and cut it off, so as to form a secure fastening in one and the same operation. It consists in the means employed for tilting the upper pivoted portion of the machine, so as to bring the devices down upon the sole, in the means for applying the power to

effect and definitely control the intermittent rotary movement and in the construction of the feed for the wire.

IMPROVED PIPE WRENCH.

Edward G. Clinch, St. John, N. B., Canada.—The rear parts of the jaws are connected by two bars, the ends of which are pivoted to the said two jaws to keep them always parallel with each other. With this construction, as the wrench is turned, the jaws will grasp the object with greater force as more power is applied.

IMPROVED WINDMILL

Samuel Shannon, Shellsburg Iowa.—This invention consists of a shield on the sliding hub that shifts the vanes to prevent the lodgment of snow and ice on the shaft, which obstructs the working of the hub. There is also a detachable and adjustable contrivance of the eccentric which works the pump rod, to vary the length of the stroke; a wearing plate, to sustain and take up the wear of the wheel shaft at the end; and a contrivance of the coupling by which the vanes that regulate the opening and closing of the wheel vanes are mounted on the machine and connected with the sliding hub.

IMPROVED GRINDING MILL

James M. Collier, Gadsden, Ala.—This consists of a novel and ingenious contrivance for adjusting, holding, and regulating a concave bed stone to a revolving cylinder. It combines a largenumber of new contrivances, to explain which, clearly, drawings would be necessary.

IMPROVED CENTERING DEVICE FOR GAGE LATHES.

James E. F. Leland, Bowling Green, Ky.—This device enables blank handles and other pieces of wood to be quickly and accurately centered, so as to prevent imperfect work and loss of stock from inaccurate centering, and to increase the working capacity of the lathe. The invention consists in the combination of a disk, adjustable guides, and a spring with the mandrel of the lathe.

IMPROVED HYDRAULIC AIR COMPRESSOR.

Frank Laurence, Washington, Kan.—This improved air compressor is operated by the direct hydraulic pressure of a limited quantity of water, so that a uniform power may be stored up for various working purposes. There are two cylinders, to which water is alternately supplied from the supply pipe, so as to work the pistons, which are connected by a walking beam that operates the supply valve. A compressing cylinder is arranged above each of the lower cylinders, and operated by valves and pistons at the upper ends of the piston rods. The cylinders are connected, by pipes, with a receiver into which the air is compressed.

NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

IMPROVED TOY CAP EXPLODER.

Charles Coester, Jr., Bridgeport, Conn.—This consists of two pieces of metal attached to a string, and so constructed and arranged that, on being projected from the hand, they may be caused to strike together by coming in contact with another object, or by having their motion suddenly arrested by the strings, and so explode a fulminating powder placed between them.

IMPROVED PAPER BOX.

Terence Devine, Jr., Newark, N. J.—This box may be readily and securely closed without requiring pasting. It is made from a blank of one continuous piece, with central closing tongues and folding side flaps symmetrically thereto. The top of the box is made of double sections to be locked by the tongues. The box may be printed in any suitable manner on the face and side parts, forming a neat and secure inclosure for letter paper, candies, and other articles.

IMPROVED SNOW SHOVEL.

Eugene Campbell, South Westerlo, N. Y.—The invention consists in the combination of runners with the blade of a shovel. The former prevent the edge of the blade from catching upon the seams of a metal roof, or upon inequalities in a cement roof, and thus protect the roof from being injured.

IMPROVED GLOVE FASTENING.

Frank G. Farnham, Hawley, Pa.—A plate having a rack is secured to one side of the wrist of the glove. A second plate, attached to the other side, is provided with vertical lugs that are connected by a pin. On this pin slides a lever, having a spur, and folded so as to form a loop to receive said pin. The operation is as follows: In order to fasten the glove, the lever is slid forward until the fold strikes the pin, and then raised into a vertical position, so as to be passed through the eye of the rack plate. The lever is then slid in horizontal direction over the pin, until the spur catches in a tooth of the rack.

IMPROVED INKSTAND.

Jerome Kidder, New York city.—This portable inkstand is composed of a tube or elongated ink reservoir, having a filling and delivery orifice in its upper side, at or near one end. It is adapted for carrying in the pocket.

IMPROVED ROWLOCK.

Frederic A. Gower, Providence, R. I.—The invention is intended to increase the speed and improve the convenience of racing boats with outriggers, by providing them with rowlocks that prevent wabbling, crabs, and other interruptions. It consists of a rowlock of novel shape, that is mounted by ball and socket joint on the supporting shaft, which connects and binds directly the four rods of the outrigger, in connection with one screw nut.

IMPROVED GAS REGULATOR AND PURIFIER.

Eli T. Booth and Daniel J. Esser, Mauch Chunk, Pa.—The invention consists in using gasoline and charcoal in the purification of gas by arranging it between perforated plates, one of which is over the space wherein the gas enters, and the other just under the space wherein the purified gas is collected before use.

IMPROVED SIGNAL HEAD LIGHT FOR LOCOMOTIVES.

John V. Slusser, Louisville, Ky.—This invention proposes to combine the signal lights with the head lamp of the locomotive, so that they receive their light from the burner of the head lamp. The invention consists in the arrangement of one or more short tubes applied to the head light of a locomotive, said tubes to be fitted with movable caps with colored glass for signals. The engineer can thus at any time, on receiving orders on the road, change without delay the solid caps which cover the lamps to transparent glass ones, which give the signals without having the trouble to light the signal lamps now in use.

IMPROVED FUR-CUTTING KNIFE.

William F. Hoffman, Brooklyn, N. Y.—This consists of a gang of knife blades, fixed at suitable distance apart in a frame, to which they are pivoted at the end of the shank. Between pivots they are fixed adjustably on a clamp screw, so that the blades can be readily adjusted to set the points all in the same plane from time to time, as they wear away irregularly. The cutter is designed for cutting the fur into narrow strips for trimming and the like, which is now done with one blade only.

IMPROVED METHOD OF MANUFACTURING FLOATS.

Linn B. Benton, Milwaukee, Wis.—This is a float made of spun hemispheres forced on a beveled connecting band, and foldered at the joint with galvanic copper solution.