

RECENTLY PATENTED INVENTIONS.

Pertaining to Apparel.

SAFETY-PIN.—W. STRAYER, Axtell, Kan. This invention relates to certain improvements in safety pins adapted for general use but more particularly adapted for use in securing any suitable attachment to the person. It may be made in any convenient size or shape. It cannot be opened by pressure alone, nor become accidentally unfastened.

Electrical Devices.

ELECTRIC HEATER.—J. S. REYNOLDS, Santa Barbara, Cal. In the present patent the invention has reference to electric heaters, the inventor's more particular object being to improve the general construction of the heater and more particularly to provide an improved manner for mounting the heating wire.

ELECTRIC CONTROLLER.—R. VAN R. SILL, Newark, N. J. The object of the invention is to provide a controller, more especially designed for use on electric street cars and other electric motor vehicles, and arranged to insure long life to the contact members and to provide an exceedingly strong contact between the said members for the proper transmission of electricity.

ELECTRICAL CONTACT-JOINT.—R. H. WAPPLER, New York, N. Y. Mr. Wappler's more particular object is to produce a type of joint suitable for use in connection with miniature lamps employed in surgery, dentistry, watch-making, and various other professions and avocations in which it is necessary to manipulate the lamp by hand, or to secure it upon the operator's head, as the case may be.

Of Interest to Farmers.

CORN-HARVESTER.—F. D. WILSON and A. D. WILSON, Ottumwa, Iowa. In operation the harvester is driven up the row with one horse between the unharvested corn and the row being harvested, and the others on the outside of the row being harvested, thus bringing stalks in the row into position to be engaged by conveyer chains. These pass the stalks backwardly toward the vertical rollers at the rear which are separated to allow the stalk to pass but not the corn thereon. Means provide for snapping off the ears and knocking them into a conveyer, stripped stalks passing between the rollers. The latter yield for the passage of larger stalks or slight obstructions.

SEED-PLANTER AND FERTILIZER-DISTRIBUTER.—C. E. LITTLEFIELD, Jesup, Ga. A purpose of the invention is to provide a combined planter and distributor which can be used for continuous sowing, drilling, or for planting seed at desired distances apart, and which will be simple and light of draft, and whereby also two kinds of seed can be planted at the same time from the same machine at desired intervals apart.

STONE-PICKER.—G. L. HOLLIDAY and I. S. HAWKS, Curtiss, Wis. This machine is adapted to remove stones from farm land as it is pulled along, and load them into an auxiliary cart coupled to the rear of the machine, and it can be uncoupled when loaded and driven to the desired dumping ground, thereby dispensing with the labor entailed in such machines as dump stones in piles thereafter to be re-loaded before being carted away.

Of General Interest.

TONSILLOTOME.—E. E. STRAW, Marshfield, Ore. The object of the inventor is to provide cutting blades to remove any desired amount of tissue at a single cut, to provide means for adjusting the blades at any angle relatively to the handles operating the blades, and also means for detaching one blade from the other.

STAR-FINDER.—J. T. ROGERS, New York, N. Y., and W. H. RIDINGS, Milwaukee, Wis. This finder is more especially designed for the use of mariners and others, and arranged to enable a person to tell at a glance which stars are most favorably located at a given time for making observations, without requiring tedious calculations; to give the shortest formula for working out longitude and latitude by the simultaneous altitude of two different stars, and to find the deviation of the compass by the bearing of stars, planets, or moon.

CLOSURE.—F. H. PALMER, New York, N. Y. The object of the improvement is to provide an internal closure for the necks of bottles, jars and other packages, and arranged to hermetically close and seal the package in a very simple manner and with economical means. Means enable the prying of the closure out of the bottle when desired.

AERIAL VESSEL.—L. D. MERRICK, New York, N. Y. One of the purposes of the invention is to combine in one vessel the aeroplane and balloon systems in such manner that the two will co-operate and be under the complete control of the operator, and so that the frame of the vessel may be made of exceedingly light material, timber for example, and yet be safe and strong and capable of all the necessary elasticity.

COMBINED EASEL AND PLATE-HOLDER.—S. McMICHAEI, Newark, N. J. An object in this case is to provide a device which can be quickly, conveniently and economically secured or removably applied to any object capable of being supported by an easel, or which is to be suspended from a support, and furthermore to

so construct the device that it may be readily adapted to either of such uses without dismemberment.

ANCHOR-PROJECTILE.—E. MINGUS, Marshfield, Ore. The projectile has in all respects the outward formation of the ordinary projectile, but with arms forming part of the periphery of the projectile, designed to fly outward due to the action of an attached line as the projectile is shot and engage in the earth or other matter in which it becomes embedded, thereby forming an effective anchoring means.

THAWING-POINT.—J. H. LAMLEY, Tacoma, Wash. This invention pertains to thawing-points, such as are used in placer mining for gold. These points are used in frozen earth to a great extent, and are provided with means for conducting steam to the forward end or tip of the point, which effect a thawing of the ground as the point is driven in. The object is to produce a point having means for attaching the hose to the body.

TABLE.—H. H. LEVY, New York, N. Y. This table is particularly for use in manicuring operations or for the use of chiropodists, the object of the invention being to provide a table, on the side opposite to the operator, with a rocking rest for the arm or leg of a person being operated upon, thus not only relieving the person from tiresome annoyance, but making it more convenient for the operator.

KODAK-FILM.—J. B. KETCHUM, Joplin, Mo. The film is for use in a camera having a ground glass focusing plate across which the film is passed. An opening is provided in the film or its web, which may be brought into position over the ground glass; in this way one is enabled to focus an image on the ground glass without removing the film from the camera. The invention prevents tearing the edges of the focusing opening.

NON-REFILLABLE BOTTLE.—I. I. KREMER, New York, N. Y. An improved plug is adapted to be secured within the mouth of a bottle, whereby the latter is prevented from being refilled. The plug is unremovable and its mechanism is so constructed that liquid may readily flow out of the bottle through the plug, but impossible for liquid to be forced into the bottle. Insertion of wire or other tool is also impossible.

PORTABLE MOLD.—W. L. HART, West Liberty, Ill. Especially that type of mold in which the side walls are removed when the molded block becomes firm enough to stand, is improved by the invention. The side walls of the mold may be removed by simply tipping them to one side and without raising the structure to a height above the molded material. The walls may then be employed upon a second base plate or pallet.

LOOSE-LEAF INDEXED LEDGER.—J. P. GLOE, Manning, Iowa. The invention is in the nature of a form of ledger known as loose leaf ledgers, in which removable and interchangeable leaves are firmly held together in a temporary mechanical binder. The object is to make the ledger self indexing and capable of indefinite extension and to facilitate the reference to the various accounts, thus saving much valuable time.

VENTILATOR.—J. F. BOWES, North Adams, Mass. This ventilator is such as those ordinarily removably placed in window openings of buildings, cars, etc., and which will automatically operate to close and shut off a draft of air on blowing therethrough. This is done by swinging two or more sheets of thin material within the opening of the ventilator frame, these being slightly spaced apart and having other openings, whereby as the sheets are blown together, the ventilator is automatically closed, and when separated, is likewise opened.

Hardware.

TUBE EXPANDING AND BEADING TOOL.—W. MCCORMICK, Hillyard, Wash. Means provide for expanding and beading the tubes of boilers into the tube sheet. One object of the invention is to provide means whereby the pin may be constructed of greater strength and the beading tool more centrally arranged to eliminate the jarring effect when in operation. It relates to improvements in the tube-expanding and beading tool described and claimed in a former U. S. patent granted to Mr. McCormick.

HAMMER.—S. S. STUHAG, New York, N. Y. The aim of the improvement is to produce a hammer having means for holding the nail so as to start it in the wood without necessitating that the nail be held in the fingers when the first blows are struck. It is especially useful in facilitating the application of nails in inaccessible places such as a corner.

WRENCH.—G. H. TATGE, Randolph, Neb. The object in this instance is to provide a wrench more especially designed for screwing up or unscrewing the nuts on the teeth of threshing machine cylinders. By using a separate handle for turning the shaft the wrench can be conveniently manipulated in inaccessible places in which only a partial turning of the shaft at a time is permissible until the position of the handle is changed in the eye.

Heating and Lighting.

OIL-RESERVOIR FOR LAMPS.—C. T. WHIPPLE, Glens Falls, N. Y. The invention is especially adapted for use in connection with

lamps, oil stoves or the like, which are intended to be removed from place to place, and which are liable to be accidentally overturned. The device will not permit oil to flow or leak from the reservoir when the lamp to which it is attached is overturned, thereby preventing ignition or explosion.

GAS-BURNER.—B. F. JACKSON, Jersey City, N. J. In the present patent the invention has reference to gas burners, and the improvement has for its object the provision of means for thoroughly mixing gas and atmospheric air in the proper proportion to produce quick and complete combustion of the gas.

BASE FOR STOVES OR RANGES.—M. F. ALLEN, Nashville, Tenn. The present invention provides a base for sheet metal stoves and ranges, arranged to increase the strength and durability of the body of the stove or range, to dispense with separate base bands, and to render the manufacture of the stove or range very economical. It relates to range construction such as shown and described in the Letters Patent of the U. S. formerly granted to Mr. Allen.

Machines and Mechanical Devices.

FLYING-MACHINE.—W. PHILLIPS, Chicago, Ill. In brief the invention embodies a car, a plurality of peculiarly constructed wings mounted on the car, novel means for communicating motion to and controlling the adjustment of the wings for effecting progressive movement in any direction, a guiding vane, and means for changing the position of the vane from the interior of the car.

PIANO-PLAYER.—R. MORGAN, Ellsworth, Kan. Blowing into one of the perforations the upper portion of the yoke body is rocked toward the player, thus elevating the switch and completing the circuit including the electro-magnet connected therewith, whereby to sound the key engaged by the striker corresponding to the magnet. When, however, suction is created in the perforations the yoke rocks in opposite direction and elevates the opposite plate, playing another key. It is preferable to connect the strikers to the switched plates in a way corresponding to the placing of the reeds in a mouth organ, so that one familiar with a mouth organ may operate the player.

ANIMAL-TRAP.—J. M. KELLOGG, Bozeman, Mont. The object of the present invention is to provide a trap more especially designed for catching small animals, such as mice, rats, rabbits, etc., and successively in large numbers, each caught animal resetting the trap for the next animal. It relates to traps, such as shown and described in Letters Patent of the U. S., formerly granted to Mr. Kellogg.

CREASING AND FOLDING MACHINE FOR COLLARS, CUFFS, AND THE LIKE.—H. GERHARDT, Hazelton, Pa. The invention has reference to apparatus employed in the manufacture of collars, cuffs and like wearing apparel, and the object is to provide a machine, arranged to crease a piece of fabric on all sides, to form outer sewing flaps and to fold the same over onto the fabric-body.

HANDHOLD-FORMING MACHINE.—A. J. COLVIN, C. G. HOCKETT, and J. W. FITZPATRICK, Grants Pass, Ore. In this instance the invention relates to wood working machinery, and its object is the provision of a new and improved hand hold forming machine more especially designed for cutting hand holes in boards employed for forming boxes and the like.

GEARING.—J. SCHROEDER, Davenport, Iowa. This improvement relates to gearing especially adapted for devices having a rotary beater or stirrer arranged within a receptacle and may be applied to devices of various characters, but it is especially designed to be used in connection with washing machines of the character shown and described in Letters Patent formerly issued to Mr. Schroeder.

DRILLING DEVICE.—L. K. MOORE and G. J. COSCELLO, Philadelphia, Pa. The principal object of the invention is to so construct the device that it may be used to operate the drill in obscure and inconvenient places, and to drive the drill either by hand or motive power. The invention has reference to a device for carrying and driving drills.

HYDRAULIC ELEVATOR.—R. H. BEEBE and I. R. CONCOFF, St. Johns, Ore. The object here is to provide an elevator arranged to insure full utilization of the power applied by reducing the friction of the surrounding parts to minimum, and by causing the piston in the hydraulic cylinder to exert at all times a straight-line pull on the flexible connection employed for turning the hoisting drum, and to allow the latter to travel bodily on its shaft to exert a straight-line pull on the hoisting rope.

AIR-SHIP.—W. HULL, Souris, Manitoba, Canada. The patent covers features designed to improve air ships and make them more controllable. Improvements comprise special arrangements of horizontal and vertical propellers to be employed; a series of sheets of canvas or the like are mounted on rollers so as to be wound and unwound. These to be utilized as steering sails and a certain adjustment of them gives the ship the nature of a parachute to retard downward movement. Inflatable bags are arranged to be rolled up. When unwound and inflated they serve to increase buoyancy, either for aerial navigation

or to aid in sustaining the ship floating in water. Wheels may be provided for moving on land, and runners for ice.

PORTABLE COTTON COMPRESS OR BALING MACHINE.—J. W. PHILLIPS, Austin, Texas. The object of the invention is to provide a simple, powerful and economic mechanism or device, by which the material to be pressed can be subjected to great pressure, while the operation may be rapid and conducted in a manner to most satisfactorily compress the material with uniformity. Its general principle can be applied to other and various kinds of presses.

Railways and Their Accessories.

RAILROAD-SWITCH.—J. M. POWELL, Stockton, Utah. A purpose of the inventor is to improve upon the construction of the switch for which Letters Patent were formerly granted to Mr. Powell, to the extent that a short switch rail is employed between adjacent rail sections of the main line and sidings, pivotally mounted to constitute a bridge rail for the break occurring at such sections of the track, and to provide switch points having concerted movement with the switch rail.

TRACK-SANDING DEVICE.—A. A. CHURCHILL, Portland, Ore. The invention relates more particularly to specific means whereby the sand may be delivered from the sand box to the track by the force of compressed air supplied from the brake system or other source. One object is to provide means for controlling delivery of sand, that it may be manufactured by an ordinary mechanic and the use of all special castings and delicate mechanism obviated.

RAIL-FASTENING.—A. W. AVERY, Cove, N. C. The invention comprises the combination with a rail and a clamp plate, of a bolt and a tie having a slot notched in its opposite walls to receive corners of the bolt shank whereby to lock the bolt when applied to secure the clamp plate. The combination with the rail, and plate and the bolt for securing the same, of a tie plate having a slot receiving the bolt and provided with an enlarged semicircular end portion for the introduction of the bolt head, the rounded side of said portion being sloped to facilitate the introduction of the head.

Pertaining to Recreation.

ATTACHMENT FOR BAIT-HOOKS, JIGGERS, AND LIKE ANGLING DEVICES.—J. W. HAYWARD, St. Johns, Newfoundland. The object of the inventor is to provide an attachment arranged to prevent depredation of the dead bait, artificial bait or like bait by small fish, to allow convenient and safe use of choicest bait, such as mussels, cockles and other shell fish, as well as white fish, squids, herring pips and like entrails too soft to be strung on the hook; to prevent fouling of the hook on the bottom of the fishing grounds, and to securely hold bait in place for any length of time, thus requiring no hauling of lines to see if the hook is still baited or not.

Pertaining to Vehicles.

TIRE FOR VEHICLE-WHEELS.—T. F. HAMILTON, Chicago, Ill. The invention relates to improvements in vehicle wheel tires, a special object being to provide a tire formed of a plurality of similar segments so connected and secured, that in case of injury to one or more segments, said injured segments can be readily removed and replaced with new ones.

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 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.

(10574) T. W. A. asks: 1. A railroad train going at a rate of over 60 miles per hour rounds a sharp curve. Will the train if it should leave the track be likely to fall outward, or does the raising of the outside rail overcome this tendency and make it likely to fall inward? Grant the following: If the track were level, the train would fall outward, now if the outside rail is raised, will it fall inward? A. A railway train rounding a sharp

curve at a high speed cannot under any supposable conditions fall over in the inner side of the track.

(10575) A. H. S. asks: How much more sunshine is there at the equator than at the north pole during the year?

(10576) G. T. asks: How to remove gases of combustion and decomposition from a small room.

(10577) F. C. F. asks: 1. What is the best method to produce lantern slides in which the high lights will be clear glass and the shadows dense enough for the lime light?

(10578) A. B. S. writes: As a long reader and subscriber of your publications, I desire to ask if there is any secret in the preparation of fluoroscopic screens for X-radiance...

(10579) J. B. S. says: I want to excavate earth and move the same to make a fill of about 60,000 cubic yards.

be pleased to hear from you. I do not want to go to the expense of a steam locomotive excavator.

(10580) T. C. G. says: Can you give me reliable rules for finding the sets of elliptical and spiral car springs?

(10581) A. E. K. says: The owners of one of the mills in this vicinity are having a great deal of trouble with foaming of the water in the boilers.

(10582) M. F. F. asks: 1. State what effect oil or greases in a boiler may have upon the boiler itself.

(10583) T. N. K. says: Will you kindly give me horse-power of a fore-and-aft compound engine 8 and 17 x 12, 200 pounds boiler pressure...

(10584) F. A. T. asks: Is there any gain in power by using an Archimedes screw beyond the power required to work an ordinary pump?

NEW BOOKS, ETC. LE CARBONE ET SON INDUSTRIE. By Jean Escard. Paris: H. Dunod et E. Pinat, 1906.

M. Jean Escard in his new work has taken for his end as complete and wide a description as possible of the recent applications of the different forms of carbon...

LES FORCES HYDRAULIQUES ET LES APPLICATIONS ELECTRIQUES AU PEROU. Par Em. Guarini, Professeur à l'École d'Arts et Métiers de Lima.

M. Em. Guarini, in this pamphlet, tells of his journey in the south of Peru, to Mollendo, Tambo, Arequipa, and Lake Titicaca.

TECHNISCHE ANWENDUNGEN DER PHYSIKALISCHEN CHEMIE. By Dr. Kurt Arndt. Berlin: Mayer & Müller, 1907.

The author has written this book primarily to meet the requirements of engineers, proprietors of industrial works, teachers, and students.

DIE BETRIEBSICHERHEIT DER EISENBAHNEN. Sonderabdruck aus dem 'Archiv fuer Eisenbahnwesen' von C. Guillery, königlicher Baurat.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending June 18, 1907.

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

- Acid from formates, producing concentrated formic, E. Frankel... 857,046
Adjusting box, G. W. & E. E. Edwards... 857,042
Air brake, O. T. Beatty... 857,010

- Bed bottom, spring, C. D. Brouyette... 857,324
Bed lounge, O. B. Starkwater... 857,315
Bed spring, tilting, A. Lawrence... 857,353
Bedstead, F. Krupp... 857,407