

RECENTLY PATENTED INVENTIONS.

Railway Appliances.

CAR COUPLING.—John F. Tiner, Sutherland Springs, Texas. This is an improvement in automatic couplings of the link and gravity pin type, and provides a device which may be set to couple two approaching cars provided with the improvement, and which may be manipulated for uncoupling by the usual lever or chain attachment. In a central recess of the drawhead is a slide block, and in a recess of the block is a vibratable brake bar, while an incased spring-pressed coupling pin slides vertically in the drawhead in front of the slide block, and the pin case has a flexible connection with the brake bar.

Mechanical.

TAP WRENCH.—Frederick C. Williams, 57 Park Hill Avenue, Yonkers, N. Y. This is a strong and simple tool, in which the jaws may be quickly and conveniently operated to receive the dies, and when the jaws are fixed they will be firmly held in place, being clamped by a short turn of a lever. The jaws are held to slide on the beveled surfaces of the walls of the body within an opening therefor, and by means of a lock lever may be locked at any point in the opening. All wear is taken up at each adjustment, and there is an equal amount of strength in both handles.

RATCHET DRILL BRACE.—William P. Nolan, San Francisco, Cal. This is an improvement on a formerly patented invention of the same inventor, providing an improved brace in which the speed of the tool shaft can be conveniently changed from a high rate of speed to a single motion corresponding to the movement of the crank arm, or vice versa. The frame has a casing with an internal gear wheel, a crank arm turning within the frame, and a ratchet wheel adapted to be locked to the crank arm. A series of gear wheels on the ratchet wheel are in mesh with the internal gear wheel, and a sliding tool shaft has a gear wheel with ratchet teeth adapted to engage the corresponding teeth on the ratchet wheel.

BED FOR MORTISING MACHINES.—Alfred J. Saunders, Port Arthur, Canada. Upon a carriage fitted to slide upon the bed frame is secured a pattern formed with notches arranged according to the mortise to be formed in the stile, while a locking device held on the bed frame is adapted to lock the carriage thereto. The construction is simple and durable, and the improvement is well adapted for convenient adjustment to various sized stiles.

SAWING MACHINE.—Leslie P. Smith, Otego, N. Y. This improvement consists of a table supported at its front edge on swinging legs and at its rear end on a swinging arm, the machine being designed to conveniently support a log and move it to the saw to be cut. The log is fed against the saw by pushing the table rearward, the table swinging on its front legs and on the extension, the cut-off end of the log sagging so that no binding of the saw occurs during the operation.

Mining.

ORE SEPARATOR.—Alonzo C. Campbell, Nashville, Tenn. A reciprocating pan, according to this improvement, is adapted to deliver concentrates from one end and tailings from the other, the apparatus being also designed to serve for washing coal. It is adapted to work successfully on coarse and fine material of different densities, the mechanical movement operating the pan shaking it in such a way as to keep the pulp well stirred up, while water is delivered in nicely regulated quantities to the top and bottom of the material operated upon. The apparatus is also designed to economize space, while it entirely separates the metals from their ores with the utmost rapidity and the least possible expense.

MINERAL LOCATOR.—Robert T. Lacy, Jr., Camden, N. J. This is an instrument to be driven into the earth and bring up samples of rock and minerals from different levels, to determine the value of any location for mining purposes. Combined with a driving rod and pointed bit is a tubular sheath of greater length than the bit, and through the lower end of which the bit projects. There is an adjustable connection between the rod and the sheath, and the lower end of the latter may be converted into a receptacle to gather and hold the material to be brought up from the different levels.

Agricultural.

WHEAT STACKER.—Nicholas Housinger, Sylvia, Kansas. This is a strong and simple machine by which the grain, when placed in suitable receptacles, may be drawn up inclined planes and quickly and conveniently dumped, the receptacle being restored to the vehicle or support from which it was taken. In combination with a vehicle having one pivoted side board are sliding receptacles adapted for a locking engagement, while a track section is pivotally connected with the vehicle supports, an inclined track being adapted to engage with the vehicle track sections, and a tilting platform forming a portion of the track.

Miscellaneous.

AERIAL VESSEL.—Axel F. Bergqvist, Fairfield, Iowa. This vessel comprises a balloon from which is suspended a basket, with propeller wheels at the front ends of both the basket and the balloon, with machinery for driving the wheels and tilting the balloon from the basket. A rudder sail extends from the balloon to a boom projecting from the basket, and the balloon is supplied with gas through pipes connecting with a reservoir in the basket, the driving shaft being operated either by the gas from the reservoir or by other means.

FENCE WIRE STRETCHER.—John H. Gillis, Coesfield, Texas. This is a simple and inexpensive device, quickly placed against a post and secured to a wire, connecting with wires of dissimilar heights, for stretching a wire to any necessary tension. It comprises a beam to one end of which is pivoted a clutch plate having laterally extending serrated arms, a detachable

swinging frame on which is a windlass being carried by the beam. A cable carried by the windlass has a wire-engaging hook, and a guide pulley is pivoted on the side of the beam.

TENT.—Benjamin F. Upton, St. Augustine, Fla. This is a tent in which one or two hammocks may be suspended and protected from the weather on either side, or the tent may be practically thrown open to permit currents of air to pass over the hammocks. The tent is especially adapted for purposes of camping out, being foldable in small space when struck, and weighing but little when folded, while being amply strong to support and shelter at least two occupants.

HOOF PAD.—Frank A. Ryan, Sherman, Tex. This is an adjustable rubber pad adapted to be arranged within the shoe of a horse, and having metal braces passing through the pad for engagement between the foot and shoe. A strap from the braces passes from the heel end over and around the foot of the animal. The pad is readily adjustable to a foot of any shape or size, avoiding all contact of metal with any tender part of the foot, and the rubber when worn may be renewed without replacing the metal or mechanical parts. The device may also be used to expand a contracted hoof in a natural and easy manner.

CARTRIDGE SHELL EXTRACTOR.—Rolf P. y Cubillos, Bogota, Colombia. This is a device having spring fingers, one of which has two cutting edges at its lower end, while the other has a flattened extremity. The fingers operate conjointly to remove a broken or lodged shell from a rifle, the device being introduced and forced down the grooves, with the fingers compressed, by means of a ramrod, when the shell is cut by one finger as the other passes behind the loosened parts.

CANE LOADING APPARATUS.—George W. Bennett, Bennettsville, La. This is an improvement in devices for loading cane into cars, comprising a basket with a number of connected chains and end cross bars, a hoisting frame or head having supports to carry the cross bars, with means for raising and lowering it and a tripping lever to force the cross bars from their seat on the head or frame. By the apparatus a quantity of cane to fill an ordinary cart may be easily lifted and dumped into the cars so as to lie straight, as it would lie if packed in by hand.

WINDOW SCREEN.—Francis M. Jay, Chicago, Oklahoma Territory. This screen is secured to a spring-controlled roller journaled in the window frame, a hook being attached to the free end of the screen, while there are hooks in the sash, a connecting S-shaped hook engaging the hook of the screen and the hook on the sash. The arrangement is such that when the upper sash is lowered or the lower sash raised the screen automatically covers the opening which would otherwise be left by the sash.

WINDOW SHUTTER AND CURTAIN.—John O'Donnell, Mountain Lake Park, Md. A curtain made of open chain-like netting, strong enough to resist an ordinary bullet, and also designed to prevent burglars from gaining easy access to a house, is provided by this inventor. The shutter and shade are also so made that it may be easily fastened at any desired height, will run up automatically when released, will serve the purpose of an ordinary mosquito screen as well as a shade, and may be applied to any usual style of window in a building, car or other structure.

FAN MOTOR.—C. P. Elieson, New York City. This is an electrically operated fan comprising a suitable base or support on which turns an electric motor, the armature of which carries the fan, propelling mechanism being also driven by the armature to revolve the motor itself. By the slow revolution of the motor and the more rapid rotation of the fan, a better circulation and more even distribution of the air is effected than can be obtained by the ordinary fan movement.

VEIL FASTENER.—William H. Harrison, Newark, N. J. This is a simple device, readily applied on the ends of a veil, to facilitate tying it in the desired position without danger of its becoming unfastened. It consists of two coupling members, each provided with loop-forming veil end adjusters, one of the members having an eye with its front bar widened near the middle, to be engaged by a hook on the other member, the hook being formed of curved bars united by a connecting bar formed with an inward bend.

MOSQUITO NET FRAME.—Harry H. Rumble, Norfolk, Va. According to this invention a top or canopy frame, extending over the head of the bed, is attached to the head board, and an edge frame, preferably made of strong light wood, as bamboo or cane, is removably attached to the bed on a level with the lower edge of the bed rails. The net is thrown over the top frame and bed, while its edges are secured to the edge frame. The application of the two frames to the bed is very simple, and the frames may be easily taken apart and stored in small space when not in use.

IRONING BOARD.—John E. Tracy and Arthur N. Graham, Chicago, Ill. This is an improvement in that class of ironing boards adapted to be attached to and receive partial support from a table. It is of very simple and inexpensive construction, and the board is adapted to automatically clamp one of its ends fast to the edge of the table when the prop support of the board is swung into position to hold the board up in position for use.

LAUNDRY TONGS.—Thomas Eagan, New Haven, Conn. This is a very cheap, simple, and convenient implement, which may be made to answer the purpose of an ordinary clothes stick, and is adapted to be dipped into a boiler of hot water to pick out articles, grasping a collar button, collar, or other small thing, while also strong enough to lift large articles.

INKSTAND AND ATTACHMENTS.—Willard C. Eldridge, Chicago, Ill. This improvement comprises a unique and advantageous combination of parts embodying in compact arrangement many necessary adjuncts of a desk or writing table. Combined with the supporting stand for ink wells are postage stamp holders, pen remover, penknife sharpener, pencil sharp-

ener, card holder, pen rack, bill file, pen holders, a universal calendar, a pen wiper, and pincushions, etc. The entire device may be made of metal, suitably ornamented.

ENVELOPE.—Malcolm Scougale, Fort Worth, Tex. Two overlapping end flaps, according to this invention, are connected with each other by a band, forming, with the front, an expansible pocket for the accommodation of a large number of letters, documents, or other matter, a top flap and a bottom flap being adapted to fold one above the other, and both over the end flaps, while a band holds the top and bottom flaps closed.

FRAME FOR BLOTTERS.—Adolph Ludwig, Brooklyn, N. Y. This is a frame between which several sheets of blotting material and a cover may be conveniently clamped, the frame carrying a locking device which is passed through the pad. In addition to binding the blotting sheets, the frame may be employed to disclose a shifting calendar, or to receive and disclose a photograph, a memorandum tablet, or other articles for ornamentation or use around a desk.

TEETH GRINDING DENTAL APPARATUS.—Daniel E. Morse, New York City. This invention provides a method of and means for rapidly fitting and joining adjacent block sections of porcelain or other artificial teeth. The method consists in removing the block sections from their mould in the position they occupied thereon, and then grinding the adjacent edges of the sections on parallel grinding faces. A frame is also provided having sliding carriers adapted to hold the adjacent block sections.

FRAME FOR MAIL BAGS, ETC.—George A. La Fever, Selkirk, N. Y. This is a frame applicable to any character of bag in which it is desirable to have the mouth held open or to hold the mouth readily closed. It is composed of rigid sections united by hinged connections in such manner that the sections may be folded out in rectangular form, or folded one upon the other to form practically a long flat bar. Two of the members have projecting flanges, which, when the frame is opened, will be at diagonally opposite corners, enabling the bag to be suspended in a ready and convenient manner.

PRINTER'S CHASE.—Harry S. Foster, Albany, N. Y. In a chase of the usual kind, in which matter is locked by the use of the ordinary furniture, an angular form may be arranged in one corner, or such other position as desired, by the use of this improved chase, which has an outer square frame with an inner circular ring on which is a graduated scale. The ring has a shoulder on its inner side on which rests and turns the shoulder of an inner circular chase, having faceted or flattened inner sides, for convenience of locking up matter therein. The inner chase also has gauge marks to register with the graduated scale, whereby it may be nicely adjusted to position and insure a perfect register.

BABY CARRIAGE BRAKE.—Milton W. Bohn and James H. Machen, Norfolk, Va. This is a simple and inexpensive device which will lock the vehicle from movement except when it is being propelled by the attendant. The brake is held normally in engagement with the wheel, and there is a connection between a hand hold adjacent to the handle and the brake, whereby the attendant may, in propelling the vehicle, also hold and retain the brake out of engagement with the wheel.

BED BOTTOM.—James W. M. Witt, Cedar Bluff, Ala. The corner stays, according to this improvement, have hooks, with which are connected the stay rods and mattress support, while coiled springs depending from the sides of the bed support the mattress frame and retain each slat thereon independently of the other, so that one may yield without interfering with the others.

SPRING BED.—William M. Myers, Hannibal, Mo. According to this improvement the springs are so supported in connection with the headboard that the springs may be shipped and stored in connection therewith, and the same devices for holding the spring to the headboard may serve to give tension to the spring. The construction of the spring is such, also, that it may be adjusted in reasonable limits to suit beds of different widths, and will be comfortable and easy at any width.

CLOTHES PIN.—John W. Cook, Harrisburg, Oregon. A piece of wire is bent about midway of its length to form a spring clasp to hold the clothes, the wire being then twisted to form two oppositely disposed eyes to which a drawing cord may be attached, and the ends being curved and lapped to form an open supporting eye. It may be used with a pulling or drawing cord to stretch articles along a line, without leaving a fixed position, and the pin may be readily attached to and detached from a line without interfering with other pins.

ERASER.—George Freund, Durango, Col. On one end of this eraser are a burnisher and abrader, on opposite sides of the implement, and on the other end is an arrow-like scraper head having a marginal groove in both edges forming an increased number of scraping edges.

MUSIC CHART.—James H. Brady, William A. Whitehead, and Samuel J. Shea, Frankfort, Ky. This chart should be made of heavy cardboard or similar material, about twenty-three inches long and six inches wide, and in use is to be placed edgewise upon the rear portion of the keyboard. It is divided into major and minor sections, and arranged to indicate clearly to an inexperienced person the keys of a piano, organ, or similar instrument to be struck to produce the several major and minor chords of the key to which the chart has been applied.

MAKING UNINFLAMMABLE FABRICS.—Carl Baswitz, Berlin, Germany. The preparation of textile fabrics by means of ammoniacal oxide of copper, according to an improved process, is the object of this invention. The fabrics are dipped in a solution of vegetable parchment in ammoniacal oxide of copper, the ammonia is then evaporated and the fabrics treated with sulphate of ammonia and acetate of alumina to remove the copper and render the fabric uninflammable.

UTERINE DILATOR.—Arthur J. Beavis, Aspen, Col. This is a simple surgical instrument for the rapid and safe dilation of the cervical canal and urethra, with ease to the operator and safety to the patient.

NOTE.—Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention, and date of this paper.

NEW BOOKS AND PUBLICATIONS.

SOUND SENSE IN SUBURBAN ARCHITECTURE: CONTAINING HINTS, SUGGESTIONS, AND BITS OF PRACTICAL INFORMATION FOR THE BUILDING OF INEXPENSIVE COUNTRY HOUSES. By Frank T. Lent, architect, with illustrations by the author. Cranford, N. J.: Frank T. Lent. 1893. Pp. 98. Price \$1.

This very pretty work by a New Jersey architect contains very good suggestions for cottage residences, illustrated by drawings in many cases from buildings erected in this vicinity. For those contemplating alterations in country buildings, there is no question that many excellent hints can be found, as well as for those who have in mind the possibly more critical operation of complete building.

THE DYNAMO: ITS THEORY, DESIGN, AND MANUFACTURE. By C. C. Hawkins and F. Wallis. London: Whitaker & Co. The right of translation is reserved. 1893. Pp. xiv, 520. Price \$3.

It is fair to assume that in the present days of progress of electrical engineering every new work will embody something new. Whether in the face of the recent publications it is necessary to produce a new work on the dynamo is questionable, yet it is undoubted that the present work will fill a space, as being more popular and less expensive than such works as we have alluded to. It is fully illustrated, contains a reasonable quantity of formulae without being too mathematical for the everyday practical engineer, and is very fully illustrated in examples of recent practice.

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3. A dwelling erected at Holyoke, Mass. Perspective view and floor plans. A model design. Cost \$6,900 complete. Mr. B. P. Alderman, architect, Holyoke, Mass.
4. A suburban cottage erected at New Haven, Conn., at a cost of \$2,854 complete. Floor plans, perspective view, etc. Messrs. Wilson & Brown, architects, New Haven, Conn. An excellent design.
5. Engraving and floor plans of an elegant residence erected for W. R. Mygatt, Esq., at Denver, Col., at a cost of \$28,000. Messrs. Lang & Pugh, architects, Denver, Col.
6. The beautiful residence of Mr. Walter Dunning, at Denver, Col., erected at a cost of \$26,000. Floor plans and perspective elevation. Messrs. Lang & Pugh, architects, Denver, Col.
7. A cottage at Hartford, Conn. Floor plans and perspective elevation. A unique and convenient design.
8. A residence at Carthage, Ill., erected at a total cost of \$4,500. Perspective view and floor plans. Mr. G. W. Payne, architect, Carthage, Ill.
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