

RECENTLY PATENTED INVENTIONS.

Railway Appliances.

CAR BRAKE.—Albert H. Kirker, Avon, Pa. This brake is provided with two differential brake levers adapted to be connected with a pair of brake beams, a bar pivotally connecting the levers with each other near the beams, and a link connecting the free ends of the levers with each other. This improved brake is of simple and durable construction and applicable to all kinds of cars, the connected differential brake levers affording means for applying the brake shoes on heavy cars with great power.

CAR COUPLING.—William B. Yates, Bucoda, Washington. In this coupling the drawbar has a main section and a side section bolted together and arranged at their front ends to form jaws, between which the drawhead is horizontally pivoted and provided with a depending integral link. The construction is simple, and is designed to obviate all danger of injuring the fingers or hands of trainmen, and to facilitate the coupling together of cars of different height, while it permits of convenient coupling with an ordinary drawhead as well as with another of the same kind.

Miscellaneous.

PIPE JOINT.—Charles C. Merrill, Riverside, Cal. The pipe sections are made with a screw-threaded socketed connection and annular internal recesses where the ends of the sections abut, a split ring being embedded with a suitable cement in the recess formed by the two recesses, with its inner face flush with the inner surfaces of the pipes. The joint is especially designed to use with vitrified clay pipes and similar pipes and tubes, employed for conveying liquids under high pressure.

CALIPERS.—Johann C. Reimann, Union, N. J. The body of this device, to which the arms are pivotally connected, has scales arranged upon the arc of a circle, and reading in opposite directions, indicators connected with the arms traveling one along each scale. The device is simple and durable and is more especially adapted for use in measuring a horse for a collar. The callipers are so made that they may be folded when not in use and readily carried in the pocket.

COIN DETECTOR.—Edgar H. Cook, Brooklyn, N. Y. This is an improvement adapted for application to coin-operated or nickel-in-the-slot machines, for guarding the mouth of the coin chute, and detecting and rejecting all coins of the wrong size, and all rubbish, such as washers, buttons, etc. The invention covers various novel features and combinations of parts whereby the appropriate coin may be conveniently deposited in the chute, but designed to make it practically impossible to deposit any other article.

HOSE COUPLING.—Philip H. Dencer, Sprague, Washington. This is a coupling that will not leak, for quickly and conveniently uniting sections of fire and other hose. It consists of two ring-shaped sections having upon one side a loose hinge joint and on the other side means for drawing together and locking the two sections. There is a lip or shoulder on one section, and a lever hinged to the other section has an elbow adapted to bear against this lip to draw the sections together, there being also means for locking the lever in its closed position.

HAND PUNCH.—Wilson Carey, Forest Hill, Cal. In this punch one arm terminates in a sleeve to which is fitted a boss to receive tubular punches, a bolt in the sleeve extending over the inner ends of the punches to force out small pieces of leather or other material removed by the punches. The tool is especially adapted for making holes in leather, cloth, rubber, etc., and its construction insures equal pressure on all portions of the end of the punch, avoiding the lateral strain common to punches in which both jaws have a swinging motion.

CIGAR BOX.—Oscar Kunzell, Dusseldorf, Germany. This box is divided into a series of parallel compartments open at both ends, fabric membranes adapted to be punctured closing both ends of the series of compartments, so that the finger may be pushed through one membrane to force the desired article from its compartment and through the opposite membrane. The membrane is preferably of soft paper, the latter for protection covered with thin boards, to be removed before any articles are taken out.

GAME APPARATUS.—Edgar L. Williams, Peoria, Ill. This apparatus comprises a board held upon a suitable supporting frame and provided with a group of holes near the center and holes near the ends, open-arch wickets secured to the board extending over the holes. Transverse lines divide the board into compartments, and counters or chucks are snapped from one end of the board, the player endeavoring to snap the counter through one of the wickets and into one of the holes, the counting varying for different holes.

BOWLING ALLEY ATTACHMENT.—James H. Winn, Winchester, Mass. This is a device for checking the speed of balls returned through the trough of the alley, thus preventing injurious percussion of the balls on each other. It consists of a pivoted, weighted tilting bar, longitudinally inclined above the trough in position to receive the impact of a ball at one end, and having its other end connected by a link with a shock-absorbing device.

ANIMAL TRAP.—James Alexander, Lakeview, Idaho. This is a simple, cheap, and very strong trap, in which the upper sides of the jaws are entirely free when the trap is set, and the trip plate lies very low in the trap, being pivoted in such a way that it cannot be readily broken. The trap is adapted to catch animals of almost any kind, the size of the opening through the trip plate being adjustable to expose more or less of the bait, as desired.

ELECTRIC CUT-OUT.—Patrick J. Barrett, Boston, Mass. This is a fuse box of simple construction, especially applicable to incandescent lamp circuits, but also suitable for other uses, and designed to carry a number of fusible conductors in such a way that one will be brought into position to close the circuit after one or more of the others have been burnt out, as is

able to occur when the current is suddenly increased beyond a calculated limit. The invention provides for two forms of a device in which a drum carrying the fusible wires may be revolved or the fusible wires may be held in a stationary position and the contact brush for engaging them may be revolved.

RECORDER OR TELEMETER.—John T. Todd, Newman, Ill. This is a machine for automatically recording for any stated time the state or variations of any force, whether of temperature, pressure, or other changing agent, in any locality, machine, or apparatus. The recording receiver has a series of type wheels, the force-recording wheel being actuated by electro-magnets actuated from a transmitter according to the rise or fall of the temperature, or height of water, or pounds of pressure, etc., additional type wheels being used for two or more agents or forces, and the arrangement is such that a complete record may be made for any desired length of time of the changes which take place in the agents under observation.

MUSIC LEAF SUPPORT.—Adolph J. Lehmann, Liverpool, England. This device comprises an arm formed of a bowed strip or loop whose conveying ends are connected by a solid portion with a pivot aperture, and from which a weight depends, forming a counterbalanced support to be engaged by the leaves while being turned. The device is very simple, and may be readily carried in the pocket, or the counterbalanced loop may be attached pivotally as a fixture to a music rack.

EYEGLASSES.—Adolphus J. Landry, Boston, Mass. This invention provides a novel construction of eyeglass frames of the sliding bar type, subject to the control of a spring, whereby the lenses are made readily or automatically adjustable toward or from each other in a straight line. The construction affords great facility of adjustment, the frames being strong and durable, and holding the glasses very steadily.

PEN OR PENCIL HOLDER.—Charles Kertell, San Francisco, Cal. This is a holder and protector for various kinds of pencils, and for stylographic or fountain pens, being adapted to be secured in a pocket to hold the pen safely when not in use and protect its point from injury. It consists of a tubular elastic sheath, tapered and closed at the lower end and open at the upper end, in connection with a device for attaching the sheath to a garment.

PIPE HANGER.—John H. Hunter and Friedrich Cajar, New York City. A single rod or wire is bent to form end clasps and an intermediate loop or coil adapted to receive a pipe, the material forming the end clasps being bent outward from the coil and returned on itself, and having eyes at its terminals to afford a broad bearing. The device is more especially designed to facilitate the suspension of metal or other pipes from beams, the hanger being inexpensive and elastically adjustable in its limb to engage the parts of the beams from which the pipe is to be hung.

LAMP CHIMNEY ATTACHMENT.—Kinler N. Hollister, Delavan, Wis. A piece of wire is bent to form a series of horizontal arms or stretchers, coiled at their ends and crossing under or over and bracing one another, and terminating at their center in a downwardly projecting hollow and open screw. The device forms a convenient rest or support and guide for heating different bodies or vessels by the lamp flame, especially for heating curling irons.

WATCH CASE SPRING.—Victor Nivois, Brooklyn, N. Y. This improvement combines in one piece a dust band, lift spring, and release spring, the parts being so united that they may be produced from a single piece of metal, and when formed may be quickly, conveniently, and accurately fitted in the center of the case, avoiding the use of a number of springs, and the expense and time of attaching a lift spring to an encircling band or spring for a center.

SEWAGE TREATING APPARATUS.—James J. Powers, Brooklyn, N. Y. A tank is made in duplicate, each half provided with labyrinthic sluiceways for the passage of sewage, and in combination with the sluices are wires and screens for holding back the solid matter, and dip boards for retaining oily matter and other floating substances. Apparatus is also provided for introducing chemicals to purify the sewage before it is discharged, there being a receptacle for the treated sewage, and an automatic discharge siphon.

GLASS CARRYING VEHICLE.—Robert M. Roberts, Anderson, Ind. This is an improved apparatus for conveying glass cylinders from the point where they are blown to the place where they are to be further operated upon. The main wheel is provided with a cushion which will not be cut by glass, and the cylinder-carrying belts are so arranged and supported that the cylinders cannot be jarred and broken. The main frame is also so suspended as to be springy and easy, to avoid any sudden shock to the glass cylinders carried.

TREE SUPPORT.—William H. Cook, Riverside, Cal. This support comprises a pole, adapted to be fastened by straps to the trunk or branches of a tree, or to be set in the ground, a frame and sliding sleeve being held adjustably on the pole, a flange of the sleeve being adapted to be engaged by a cable, wire or rod. The device is simple and easily applied, and is designed to securely prop up and support heavily laden branches of fruit trees, etc., and for training shrubbery.

FIRE ESCAPE.—Charles Dobbs, Nevada, Texas. The folding ladder type of escape has been improved by this inventor, who has designed a construction comprising a series of like sections, each composed of two side bars laterally bossed on like edges at their ends, the sections having transverse rungs and being loosely connected at their ends by pivoted link plates. The parts fold together compactly, and the ladder is designed to be kept in an upper room, and as it is dropped the parts unfold by gravity and fall into position for use. The construction is such that the ladder is held away from the wall, and a duplicate ladder may be attached when necessary.

TOBACCO PLIERS.—Milton B. Hatcher, Augusta, Ga. This is an implement to facilitate the removal of plug or slab tobacco from the box. It has two

crossed and pivoted handle members, a depending curved rack being formed near the end of one of the members, while near the end of the other member and between the jaws is pivoted a curved toe having teeth to engage the rack. By inserting the sharp end of the toe between the end of a plug or slab and the side of the box, a powerful purchase is obtained when the handles are gripped tightly together.

GRAIN PURIFIER.—Frank M. Schell, Perry, Kansas. To facilitate the cleaning and polishing of wheat, corn, rye, oats, barley, and other grain, is the object of this invention, the purifier having a casing with upper and lower suction chambers, between which is a fan box arranged in a cylinder, there being a lower finishing chamber provided with a screen or sieve and a revolving brush, while a pipe connects the screenings box of the finishing chamber with one of the fan suction tubes. A yielding surface concave and head are operated in the cylinder above the fan box to thoroughly separate the grain, hulling white caps, mashing soft grains, etc., and put the grain in condition to be efficiently acted on by the suction.

HOISTING APPARATUS.—Noble H. Gilmore, Greenville, Mich. An arrangement of draught equalizing pulleys below and as an attachment of the upper pulley block of a compound pulley system is provided by this invention. It comprises equalizing pulleys journaled in a frame permanently attached to the frame of the upper pulley block, in connection with a chain which runs on the several sheaves of the system, the improvement being designed to obviate the greater friction, draught and wear incident to the ordinary compound pulley system.

WINDOW CORNICE AND CURTAIN SUPPORT.—Jeremiah M. Hoffman, Cressona, Pa. This improvement provides for adjustable fastening devices at each end of the cornice body on the inside of a window, the devices to be operated in unison, and the cornice body being readily connected to windows of different widths. Combined with the cornice supports there are also adjustable curtain-holding brackets and lambrequin supports, the construction being such that the devices can be produced at small cost, and placed in position and adjusted by anyone, without the employment of screws, nails, or tools of any kind.

COKE OVEN.—George W. Nixon, Chattanooga, Tenn. This is a traveling oven, arranged to receive its charge from the chute of a coal bin, and, after the coking has progressed to a certain degree, the oven is hauled on its own wheels over a suitably arranged track to the top of a furnace, where the still burning contents are discharged, the same general construction being followed where the contents are to be dumped into a stock pile. The oven has a dome-shaped top, lined with fire brick, a layer of which material is also applied to the base, the dome being hinged to the rear edge of the base, so that the two may be opened to discharge the coked contents.

GAS STOVE.—Anton Weiskittel, Baltimore, Md. This invention provides a cock or fitting consisting of a pipe section having a controlling valve with a handle projecting to one side and a laterally projecting section on the opposite side, a vertical section carrying a burner tube valve being jointed on and turning in the latter section, whereby a single fitting furnishes the controlling valve and ignitor tube and valve, the manipulation of neither the controlling valve nor the ignitor or its valve interfering with the manipulations of the other part.

BOOT OR SHOE.—William Wass, Philadelphia, Pa. This is an improvement in boot or shoe heels provided with detachable wear plates, one plate secured to the leather, having a recess with under-cut walls and lugs on its lower surface, while the other and outer plate has a locking button adapted to enter the recess, a binding screw connecting the two plates. This protecting plate may be cheaply manufactured, and the plates are quickly and easily applied.

Designs.

PENHOLDER.—Dent L. Lydick, Quaker City, Ohio. This holder simulates an oar bearing on one side of the blade an illustration of the three ships of Columbus on the sea.

FLOWER BED SUPPORT FOR GRAVES.—George W. Burns, Troy, N. Y. This design represents a bed, at the head of which appears an angel with an open book, while at the foot is a smaller figure of an angel blowing a horn, there being also crosses on the side pieces.

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.

HICKS' BUILDERS' GUIDE. Comprising an easy, practical system of estimating material and labor for carpenters, contractors and builders. By I. P. Hicks. New York: David Williams, 1893. Pp. 160. Price \$1.

The subject of house building, framing especially, is the subject of this work, with special view to the estimation of material and labor used in structures. The system seems excellent and simple and the book may be confidently recommended to the trade.

HISTORY OF THE MASTER BUILDERS' EXCHANGE OF THE CITY OF PHILADELPHIA. By Clem. H. Congdon. Illustrations by William W. Morgan. Philadelphia: Sunshine Publishing Company, 1893. Pp. ix, 493.

While the subject of this work would seem to be a very local one, and while its text is certainly of rather restricted interest, the fact that the work is illustrated by very beautiful half tones of the different habitations of men, as shown at the Paris exposition of 1889, gives it an interest of its own. The subject of trade schools receives considerable space, which subject, of course, is one of universal interest.

THE MANUFACTURE OF LIQUORS AND PRESERVES. By J. De Brevans, Chief Chemist of the Municipal Laboratory of Paris. New York: Munn & Co. 16mo. Pp. vi, 200. 65 illustrations and 18 tables. Cloth. 1893. Price \$3.

A practical work on the manufacture of liquors which by its price would be within the reach of all has long been wanted. The present work is by an eminent French chemist who has devoted much time and study to the preparation of liquors and preserves. The great value of the work consists in the formulas, which number over 300, and are so arranged that, if the manufacturer has no distilling plant of his own, he can still make many of the liquors from the essences. The manufacture of French liquors from essences is very profitable and does not require large capital. The raw materials, the plant of the distiller, etc., are described according to the best modern practice. The book is well illustrated and is accompanied by valuable tables and a very full index. Table of contents sent free on application.

JAHRBUCH FÜR PHOTOGRAPHIE UND REPRODUKTIONSTECHNIK. By Dr. Josef Maria Eder. Halle an der Saale, Germany: Wilhelm Knapp, 1893. 145 woodcuts, zinc plates and 34 artistic tables. 586 pages.

The seventh yearly volume of the above entitled work has recently been issued, and it contains 84 original contributions from the best writers and covering all subjects relating to photography. A retrospect of the progress of photography during the years 1891 and 1892 by the well known author, Dr. Eder, together with a list of the several patents which have been granted on photography in Austria and Germany during the year 1892, concludes the volume. The publisher has done great credit to himself by the addition of the beautiful plates covering the various processes of reproduction known in photography.

DIE BEKÄMPFUNG DER STURZWELLEN DURCH OEL. By Joseph Grossman, Engineer. Vienna: Carl Gerold's Sohn, 1892. 140 pages.

The book gives a short history of the use of oil on the troubled waters of the sea, and cites in the beginning Aristotle, Plutarch, and Philus, to whom this property of oil was, apparently, known. The author treats, in a very intelligent manner, the value of the use of oil on board of marine vessels to quiet the sea, also the oil almost serviceable for the purpose.

Any of the above books may be purchased through this office. Send for new book catalogue just published. MUNN & Co., 351 Broadway, New York.

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- A handsome colonial dwelling on Beacon Hill, Boston, Mass. Two perspective views and floor plans. A model design. Messrs. Shepley, Rutan & Coolidge, architects, Boston, Mass.
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