RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

CORN-HARVESTER. — Wilson Howard, Belvidere, Kans. The harvester is made to harvest corn in one or two rows, as may be desired, so that the moment the horse ceases to pull or the driver leaves his seat, the knives are automatically carried beneath a platform. They cannot, therefore, come in contact with any object which the harvester may strike. The machine is thereby rendered safe while at rest, and the knives are at the same time protected.

SICKLE-BAR.—William H. and Oliver F. Brusman, Elkhart, Ind. The sickle-bar is provided with interlocking knives and with a lever, one end of which presses against one side of a knife in the longitudinal direction of the bar. A spring extension held stationary allows the lever to yield upon expansion or contraction or wear of the knives. The knives are securely held in place without the use of rivets, screws, or the like. All lost motion due to expansion and contraction or wear of the knives or cutter-sections is taken up.

CHECK-ROW ATTACHMENT FOR CORN-PLANTERS.—Martin B. Bennett, Boyden, Iowa. This check-row attachment is capable of being applied to any corn-planter, and is operated from the axle of the planter. Two markers are provided at each side of the machine, one of the markers being adapted to indicate where the hills of corn are dropped, and the other to indicate whether the planter is dropping in line with the rows previously planted. Should the planter begin a deviation from the marks of the previous round, the driver can instantly correct the deviation and bring the markers to correct position.

GRAIN-BINDER.—Alexander G. McIntosh, Atalissa, Iowa. This invention is a grain-binder in which the inventor has very ingeniously adapted the ordinary reciprocal needle and rotating shuttle to the work of tying the knot in the sheaf-band. The mechanism is thrown out of gear by a modification of the Appleby clutch, and the grain is advanced to the table, where the gavel is formed by a swinging divider-arm. The gavel is then advanced to position at the needle and shuttle, constituting the knotter. Here the knot is tied and the sheaf expelled. By a rearrangement of mechanical elements, previously known, the inventor has succeeded in producing a comparatively simple and effective machine.

Electrical Apparatus.

ELECTRIC BELL.—Francis and Henry F. Keil, Bronx, New York city. The object of this invention is to provide a bell so constructed that the armature can be turned away from the electromagnet and the contact-pin when it is desired to clean or adjust the spring-contact. Simple means are provided for holding the dust-cap removably in place over the magnet and armature, as well as a method for attaching the hammer-stem to the armature.

VESSEL INDICATOR. — Arthur L. McCormick, Port Huron, Mich. To provide a means for ascertaining at any moment the draft and level of a vessel during loading or unloading, is the purpose of the invention. Upon a drum, spring actuated in one direction, a rope or other flexible connection is wound. A commutating wheel is connected with and moves with the drum. Two contact-springs bearing insulation on opposite sides make alternate contact with the commutator-wheel according to the direction of the movement. A retarding fly-fan is geared to the drum to reduce fluctuations. A double-acting step-by-step electric indicator is provided, worked in opposite directions by the electrical contacts alternately brought into action by a float.

Mechanical Devices.

CIGAR-BUNCHING MACHINE.—James H. Hoeffler, Ashland, Ohio. The machine belongs to that class in which the bunch is manipulated by an apron or belt, which is connected with a sliding table, so that as the table is moved the belt serves to roll or shape the bunch. The cigar-machine has a bunch-disposing roller, comprising a roll proper. On the roll, heads are mounted, one of which heads is loose. Flexible rods are extended between and are carried by the heads. The loose head can be locked in one of two positions.

VALVE-GEAR FOR PNEUMATIC COTTON-FEEDERS. — George W. Williams. Waco, Tex. The special object of this invention is to provide means for operating the air-blast, by which means the valve can be held in one position longer than in the other, thus adapting it to a battery of elevators formed in divisions operating alternately. In these divisions there are unequal numbers of elevator sections, whence it follows that in one division the air-blast must be applied longer than in the other.

VENDING-MACHINE. — Gustavus F. Brown, Manhattan, New York city. The invention provides a cast-metal merchandise receiving and dispensing device which dispenses the merchandise by a pulling or drawing action applied to a plunger instead of by the usual pushing action. The machine quickly responds to proper manipulation, is positive in its action, and comprises comparatively few parts, each of which can be renewed when broken or worn. A double coin-chute is provided, each section of which has independent connection with adjoining dispensing mechanism.

WRENCH.—Phineas R. Coleman, Newark, N. J. This wrench comprises pivotally connected jaws and means whereby, through the medium of a slide, the jaws can be quickly adjusted to and from each other by the use of one hand and locked in adjusted position.

FUR-CUTTING MACHINE.—John Derbohlaw, Brooklyn, New York city. This machine is particularly adapted for the use of hatters. Connected with a cutting mechanism is a movable nap or hair support arranged on the feed side to carry the hair away from the cutting mechanism. An operative connection is provided between the cutting mechanism and the hair-support, so that both will move in unison. The machine not only cuts the fur but also preserves all the hair intact, so that it will be available for the manufacture of felt and the like. As the fur is fed slowly, the hair is brushed back and the rapidly-reciprocating knives cut the fur alternately without injuring the hair.

CONSECUTIVE-NUMBERING MACHINE. — Oswald G. Bartusch, Brooklyn, New York city. In numbering machines having movable cipher-sections it was hitherto necessary when printing numbers in the cipher-scale for the pressman to set the cipher-section of all the numbering-wheels except the units-wheel in a non-printing position by hand before starting the press, as otherwise the numbering would start with "0001" instead of 1. When printing the numbers in the reverse scale the pressman had to move the cipher-sections successively into a non-printing position. It was necessary to stop the press for all these operations. With this improvement, the character-numbers without the addition of superfluous ciphers can be printed in both ascending and descending scales, without stopping the press for making the ciphers disappear at the proper moment.

Miscellaneous Inventions.

FLY-TRAP.—Charles E. Varnum, Vinland, Kans. The invention provides a very ingenious construction through which cows and other animals can pass and by which the flies on the cows are brushed off into traps which are arranged to be removed and replaced. The apparatus is portable or fixed.

POCKET-KNIFE.—Mark L. Heath, Jasper, Colo. The object of the invention is to provide a pocket-knife with means for securely locking the blades in open or closed position. A bolt is mounted to slide longitudinally in the knife-casing and adapted to engage the fulcrum end of the blade and lock the blade either in open or in closed position. An abutment for the bolt is mounted to move at an angle to the bolt and is adapted to engage and to lock it against return movement.

RECEPTACLE OR CAN.—Joseph T. Mills, Brooklyn, New York city. The can or receptacle is provided with cushions at its sides and bottom, so arranged that the receptacle can be subjected to hard usage without injury. By using cushioned frames or supports, ash-cans, and milk-cans can be handled as one piece with their frames.

RAZOR GUARD.—Terence F. Curley, 6 Warren St., New York city. The guard comprises a spring clamping-frame for removable connection with the razor-blade, on which frame a guard-bar is mounted to slide. A screw is mounted to turn in the frame and screw in the guard-bar, to move the latter across the face of the blade. The device is simple and durable. The frame, and with it the guard-bar, can be readily placed in position with the blade, or removed whenever it is desired to clean or sharpen the blade.

NON-REFILLABLE BOTTLE. — James A. Higgs, Bearspring, Tenn. The inventor has endeavored to provide a bottle which cannot be refilled. A valve is inserted in a peculiar manner in the neck of the bottle so that it cannot be removed. The valve is designed to prevent the refilling of a bottle, and yet, to permit the outflow of liquid. All parts are made of glass.

INVOICE-SHEET.—Charles Lohrman, Brooklyn, New York city. An invoice-sheet is provided by this invention which, when used with a carbon-sheet or other duplicating medium, a tag and receipt can be written and an envelop addressed at the same time. The invoice-sheet is especially adapted for use in connection with a manifolding-machine for which a patent has been applied by the inventor.

DISINFECTING DEVICE.—Lewis F. Longmore, Lowell, Mass. The invention is an improvement in that class of disinfecting bodies which are adapted to contain a disinfectant and to emit it in the form of a vapor and which are used to protect fowls from vermin. The invention provides a simple device of this nature in the form of a nest-egg. The device contains an absorbent designed to hold the disinfectant.

VEHICLE-SEAT.—James Burns, Cincinnati, Ohio. Improvements in the structure of vehicle-bodies, including the bodies of automobiles have been devised, the improvements relating specifically to a new arrangement of seat devices. The arrangement is especially intended for use in connection with a running-gear devised by the same inventor. Ratchet-plates are attached to the side walls of the body, with which ratchet-plates studs attached to a seat coact, in order to hold the seat in any desired position.

SPECTACLE OR EYEGLASS MOUNTING.—Myron C. Thomas, Waverly, N. Y. This invention provides various improvements in spectacle and eyeglass mountings, whereby the lenses are securely held in place in the frame, and a fine neat appearance is given to the article.

CAP.—Samuel M. Blumenfield, Manhattan, New York city. The cap is designed for the use of bicycle-riders and is arranged to permit a thorough circulation of air to keep the head and forehead cool. While possessing the desired stiffness to maintain its proper shape, it is so pliable that it readily conforms to the shape of the head of the wearer. It can be folded so as to be carried in the pocket.

WAISTBAND. — Louis Zazeela. Brooklyn, New York city. The buttonholes, in this waistband, when cut, need not be worked at their edges as usual, because they are reinforced and protected by strips of a stouter material than that of the band, each reinforcing or protecting strip having a buttonhole cut therein which registers with a buttonhole in the band. The invention provides especially for the protection of buttonholes in what is known as "pocketing" goods.

COMPOUND FOR COATING INCANDESCENT MANTLES.—Albert S. Newby, Chanute, Kans. The coating is composed of ether, alcohol, gun-cotton, and glycerin. It possesses the advantage over coatings at present in use of not distorting the mantle when drying, of strengthening the mantle by toughening the ash, and increasing the light-giving power 25 per cent.

Designs.

PULLEY-CASE. — Henry A. Frost, Manhattan, New York city. The cheek-pieces are flat, with convex front faces, and are provided with interlocking members at top and bottom. At the rear end the cheek-pieces are connected by a loop.

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.

Business and Personal.

Notes & Queries

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.

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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.

(7857) W. H. M. writes: I take the liberty to ask you if you can favor me with the receipt to make elastic mucilage cement, this comes in square sticks about 2½ inches long. A. Fine pale glue 1 pound, dissolve over a water bath in sufficient water, add brown sugar ¼ pound, continue the heat until the mixture becomes homogenous; pour on a slab of slate or marble, and when cold cut into squares.

(7858) S. D. P. asks if there is any material in liquid form, that remains liquid at atmospheric pressure and temperature, that is magnetic? A. We do not know any such liquid as you describe. The only magnetic substance in the liquid form is liquid oxygen. The temperature of this is nearly 300° below zero.

(7859) J. B. asks: 1. Will you please let me know the price of the Chemiker Kalender? A. We are not able to give you the price of this book. 2. Do you know of any book of tables in English giving recently discovered physical data and constants, such as boiling points, specific gravity of gases, thermo-chemical data, data pertaining to the liquefaction of gases, in fact a modern pocket book of chemical physics? Will you please send me your book catalogue? A. The Smithsonian Physical Tables are the most complete of any in English upon the topics pertaining to gases, etc., for which you ask information. 3. A New York paper describes a combination process of Prof. Pictet and certain New York inventors for separating the gases of the atmosphere. Will you please describe this combination process cleary in the Scientific American? A. An article concerning the method of separating the gases of the atmosphere, as devised by Pictet, was published in the Scientific American of March 31, 1900.

(7860) O. M. S. asks: What is the best and easiest way to make an induction coil for six one quart cells bichromate battery and what is the best size and how much of insulated copper wire? A. You can run a very large coil with even four cells of bichromate battery, one giving an eight or ten inch spark. You will find in our Scientific American Supplement, No. 160, a description of a coil giving a spark of 1½ inches, and in Supplement, No. 1124, a coil of 6 inch spark. Price of these papers, ten cents each.

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