desired number of plaits in a piece of material; and any kind of ornamental stitching can be placed between the

HOLDER FOR PICTURES, STATIONERY, OR OTHER ARTICLES. - WILLIAM H. H. DICKINSON, Missoula, Mont. This holder is a combination of clamping-bars, and a screw having an orifice therein through which the clamping-bars are passed. A bodybar holds the screw in place, the screw being moved to engage the clamping-bars and hold them in contact with the body-bar. The intention of the device is to hold for use or display, pictures, books, stationery, crockery, and other articles. It is adjustable to objects of various sizes and can be readily handled and adapted to take any needed angle relatively to its support.

The inventor has devised a method for fixing a handle to a pick so as to keep the pick or point from working tively beyond the faces of the plate. The lower end are made entirely of metal, thus obviating the tendency to looseness, a defect which prevails where wedges or | blade is driven into the tip to secure it. other tightenings engage wooden surfaces. The clamping-devices consist of two members, one of which fits over the handle, the other of which receives the pick. Both members are formed with mating-slots through which a pin is passed and held in place by a wedge. The two members, when thus keyed and wedged together, firmly clamp the pick to the handle.

VALVE FOR PNEUMATIC TIRES OF BICYCLES. -Franz Richter, Cologne, Germany. The construction of the valve is simple. The essential part consists of an elastic flat tube carried in a suitable manner by the valve-box connected with the pneumatic tire, This tube has an elliptically-shaped hole narrower at the bottom than at the top and not lying in the middle of the tube, so that a narrower slit with two adjacent lips of vice versa. The buckles comprise separable body-memdifferent sizes is formed. The lower slit permits the air bers furnished with guides which receive the connectto enter; but when the pump is stopped, back-pressure of the air in the tire presses the smaller lip against the broader, so that no air can escape.

BROOM. - Homer W. Hodge, Atlanta, Ga. This broom is designed for use in cotton and woolen factories and around machinery. With this end in view, the broom is made with metallic shields arranged in a manner to strengthen the broom and protect it from damaging contact with machine-frames.

FOLDING BED.-LEWIS B. JEFFCOTT, Manhattan, New York city. The bed proper has a section pivoted to the bed-casing at one end. To this section an end flap ends at the lower edge of the waist-band, which section is hinged, extending into the casing. The latter leaves the flaps free of the corset. The flap can be resection has cam-faces, which are engaged by rollers in leased without disturbing the waist-band. The waistthe casing when the bed is folded. The weight of the bed holds the several sections in an innermost folded position, as the pivot is located at the lower, outermost corner of the bed. Hence no springs, weights, or other devices are necessary to hold the bed in a folded position within the casing.

COCK .- John Morrison, Dubuque, Iowa. The invention provides a mechanism for permitting the adjustment of the plugs of stop and waste cocks, so that the plug may be rendered right or left handed in operation, according to the desire of the user or to the position of the cock. The essence of the invention is to be found in a novel arrangement of cap and casing, whereby the plug is always prevented from describing an angle greater

WIRE-GRIP.-HARRY A. Mossman, Manderson, S. D. The device is to be used for gripping and stretchvergent cheek-plates are mounted. Against the cheekplates jaws are movable. Guide-plates and a stop-plate are also provided. The jaws are moved forward; and the inclined cheek-plates cause the jaws to be moved toward each other. Then by means of a suitable stretching device drawing longitudinally upon the gripper, the wire may be stretched. The greater the pull on the device, the greater will be the clamping effect of the jaws upon the wire.

ENVELOP .- HENRY TRENCHARD, JR., Manhattan, New York city. In "tension-envelops" of the type in which a cord is secured to the back of the envelop by means of a tubular rivet, dust and dirt sometimes enter and thus soil the contents of the envelop. Moreover the exposed inner end of the rivet is apt to scratch the contents. To obviate these difficulties, the inventor employs a cap-piece in connection with an inner washer to cover the inner end of the rivet.

ORNAMENTAL OBJECT. — EMILE BICK and CHARLES II. HAHN, 1417 State Street, New Haven, Conn. The principal object of the invention is to ornament articles in imitation of tree-bark, with knots projecting unduly strained. from the surface. This effect is secured by covering the object with papier-mâché while in a plastic state and embedding in the papier-mâché plugs of wood which project and are also covered with papier-mâché.

WITH GAS. -- EDWIN C. WORNS, Manhattan, New York city. There are one or more receivers for the water to be impregnated. The gas is taken from one or more "bottles" by pipes to the water-receivers, and the more "bottles" by pipes to the water-receivers, and the water is then charged with the gas. The aerated or impregnated waters are to be dispensed from the receivers by pipes. A chamber containing gravel is interposed between the dispensing pipes; and the water is caused to pass through this chamber, the gravel therein serving to break the water into separate globules or drops.

PIPE-COUPLING. - CARL EIBEE, Brooklyn, New York city. The mating sections in this apparatus can be quickly locked together and made water or fluid proof. They can be readily separated under all weather conditions. These sections have a transverse tongue-and- PICTURE-FRAME.-WILLIAM H. HOLTZ, Brooklyn, grooved connection. The part provided with a tongue New York city. The design consists of a Viking ship, has an offset bottom surface adapted for use when the seated in the stern of which is a cupid holding a torchsections are to be uncoupled, the other has offset faces In the sail is an opening to receive the picture. Ornaadapted to be engaged by a clamping device and a latch between the two sections.

BADGE.-Benjamin Harris, Manhattan, New York | GAS BURNER.-Lewis S. Brown, Columbus, Ohio. city. This article has the ribbon-supporting rod pivoted. The body of the burner is annular and is provided with at one end of the badge. A fastening-pin is parallel with a removable flanged centerpiece. The construction is the rod and pivoted to the badge between the pivot of such that the interior of the burner can be readily the rod and the opposite end of the badge. There is a connection between the rod and the pin. The end portions of a front plate are turned back behind the back

DEVICE FOR MOISTENING AND SEALING EN VELOPS.—CHARLES L. Vose, Westerly, Rhode Island. The device comprises essentially a combined water-reservoir and handle, the one end being provided with a sponge and the other with a roller. After the gummed surface has been moistened by the sponge, it is evenly and squarely sealed by means of the roller. The entire method is so simple and so cleanly that the device should do away with the old objectionable method of sealing

BILLIARD-CUE-TIP FASTENER.-WILLIAM HESS, Manhattan, New York city. The invention provides a fastener for the tips of cues, which will be practically indestructible and will permit a new one to be applied whenever the old one becomes unfit for use. The fast-PICK.-WILLIAM PERRY BEVINGTON. Escondido, Cal. ener comprises a plate and a blade fixed rigidly in the center thereof, with its end portions extending respecloose. To help secure this object, the clamping parts part of the blade is adapted to enter the cue-stick to hold the plate in place. The upper end portion of the

> THILL-COUPLING. - RICHARD ECCLES, Auburn, N. Y. In this invention the shaft-shackle has the eve adjustable to any size of pivot so as to permit quick shifting and prevent the accidental dropping off of the eye from the pivot. The shaft-strap has an eye at one end, which eye has a hinged section. A bolt is hinged to the strap and extends through the hinged section of the eye. A nut on the bolt is adapted to be seated on the hinged eye section. One arm of the nut engages the eye portion of the hinged section, the other, the strap.

> COMBINATION PULLEY AND SASH BUCKLE. -Julius Brower, Manhattan, New York city. The object of this invention is readily to permit the change of the device from a pulley-buckle to a sash-buckle, or ing straps when the buckle is used as a pulley-buckle. Clasp devices unite the body-members when the buckle is used with a sash. The clasp and guide being movable, one can be adjusted out of the way of the other, and vice versa.

> APPAREL-DRAWERS. - JOSEPH R. WHITE, St. Josephs, Mo. This garment has a body and a waistband, the latter lying closely around the waist, with its upper portion beneath the corset. The body of the drawers is formed at each side with approximating vertical slits producing a rear flap. The upper edge of this band of the garment under the corset is thus capable of being worn without interfering with the unrestricted use of the drawers.

> TOY .- THALEON BLAKE. Philadelphia. Penn. The toy comprises a barrel which carries a picture. A wheel mounted therein has a non-continuous web which exposes the picture as the wheel turns. To provide for rapid revolutions, there are means for assisting the application of a blast of air to the wings carried by the wheel. The picture appears when the barrel is turned and is invisible when the barrel is at rest.

> PAPER BOX.-Joseph T. Craw, Jersey City, N. J. This device provides a slide-box for tacks or other small and so folds and connects certain members of the piece and spread, it can be quickly restored to its position within the tube.

> APPAREL-BELT.-AMAND WIGHARD, Jersey City, N. J. The belt contains two main sections, the rear one having loops at its end through which the sections slide. There are clips on the rear ends of the sections with an elastic attached to the clips and also to the rear section. A adapted mainly to waist-bands for women's wear. It yields lengthwise, thus securing a snug and easy fit.

> WINDMILL-WHEEL. - JOHN E. ALBERS, Wisner, Neb. The wings of this apparatus can be readily set at any angle, according to the force of the wind. For a strong wind, a weight is shifted in toward the fulcrum of a lever. For a light one, the operator moves the weight outward on the lever. This insures a uniform running in light or heavy winds, and without requiring the turning of the wheel out of the course in which the wind is blowing. By this arrangement the wind-wheel is never

HORSE-CHECK.-Robert T. Geer, 178 West 94th Street, Manhattan, New York city. This simple horse-check comprises practically two parts, a bracketstrap and a check-rein, so arranged that, a pull upon the APPARATUS FOR IMPREGNATING WATER check-rein will cause the bracket-strap to bring pressure upon the glands of the neck which lie just back of the iaw-bones and constitute the most sensitive part of a horse's neck. So efficient is the device that a horse the animal or harness. The device is now being manufactured.

Designs.

SHOE. - JAMES H. SPARKS, Chicago, Ill. The fastening line is extended in a compound curve across the in- AND EACH BEARING THAT DATE. step, with the two ends terminating at opposite sides of the front center of the shoe.

ments are used to heighten the artistic effect of the whole.

cleaned.

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(7958) W. E. S. asks: 1. Which system of dwelling house heating is most desirable, reliable and healthful: steam, hot water or air? A. Each of the three systems named are desirable, reliable and healthful if properly installed on sanitary lines. All three systems are largely in use and each is selected to meet the tastes of house owners or first economy of erection. The hot water circulating system is probably the highest in first cost, cheap to operate, and a most convenient sys tem to regulate in moderate weather. Steam is best suited to a cold climate where an active element of heat is required. The hot air furnace is so much a universal heating agent that but little can be said against its usefulness and convenience in small and medium-sized houses. With any of these systems used in modern dwellings ample ventilation is had from open fireplaces and windows. Where there are no fireplaces ventilating registers near ceiling and floor with flues to the roof articles. It is constructed from a single piece of material, are in order. 2. How should ventilation be provided if water or steam is used? Would it be sufficient to put m that a tube and a sliding-tray are obtained. The tray is main hall on first floor of two-story house, for ventilacapable of entire withdrawal from the tube and then tion, seventy-five square feet of heating surface boxed ing fence-wires. On opposite edges of the stock conspreads apart, so that the contents are made accessible to in and connected to fresh-air flue of one-half square foot inspection. When the tray is withdrawn from the tube area? The house contains about 19,000 cubic feet of space and is occupied by six persons, use electric light and also a few kerosene lamps, say one for six hours in twenty-four. A. Artificial ventilation by a radiator in a flue closure is not needed, except in buildings of complex structure. 3. Where would be the best place for foul-air flue, and what size? If at bottom of room, how will current outside be kept from entering? A. Foul ribbon or tape is connected with the clips and to the rear | air flues, if properly provided above the roof, will seldom section, being between the elastic and this section. It is draw down when the house is heated. Summer drafts may be occasionally downward for the same cause as with cold chimneys. Heated rooms will always cause an up-draught in a ventilating flue, 4. Can you give rule for finding size of single and double belts for transmitting power and also size of shaft, where speed and power is known? A. The rules for belting are somewhat complicated by the angle of contact, tension, quality and kind of belting used. The rules for shafts and belts are fully set forth in tabulated form and conditions, in Kent's "Mechanical Engineer's Pocket Book," which we can furnish for \$5 by mail. A general rule for single leather belts is to allow 144 square feet of belt passing a given point per minute to equal one horse power. A double belt is about 40 per cent greater in power than a single belt of same width, but must have greater tension. The rules for shafting also vary very much with the kind of metal as iron, cold-rolled iron, steel and the conditions of use; which are fully set forth in formulas and tables in Kent's pocket book.

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57.263 57,291 57,440 57.381	Grains changer, J. P. A dams	657,208 657,377 657,284 657,239
7 334	Grater, E. Crupe. Gun, pneumatic, E. M. Goldsmith. Hammer, power, L. D. Howard.	657,191 657,344 657,114
57,287 57,353 57,354	Grater E. Crupe. Grater, E. Crupe. Gun, pneumatic, E. M. Goldsmith. Hammer, power, L. D. Howard. Handle bar, adjustable, E. M. Landis. Harvester, corn, Farrall & Maul	657,215 M. 657,229
57,413 57,201	Masp fastener, N. Milam. Hat fastener, E. Dashwood. Heat into work, apparatus for converting, Burger. Holst, fluid pressure, N. A. Christensen.	657,434 657,337 F.
57,469 57,279 57,106 57,498	Burger. Hoist, fluid pressure, N. A. Christensen. Horseshoe, adjustable nailless, H. R. Fenley. Horseshoe, spring tread, • W. Siebenhaar	657,332 657,405 657,298
7,38 6 (57 ,346	(Continued on page 174)	