

or rope such as 18 attached to the upper end of said lever and passed over suitable rollers, and also attached to the clapper 21 of the gong 32 for sounding an alarm, and a system of levers arranged to one side of the track-rails for operating or rotating suitable shafts such as 40, substantially as described.

No. 38,269. Valve Gear for Engines. (Renvoi de mouvement le tiron pour les machines à vapeur.)

The Woolf Valve Gear Company, assignee of Ellis J. Woolf and John Peebles, all of Minneapolis, Minnesota, U.S.A., 12th February, 1892; 5 years.

Claim.—1st. In a valve gear, the combination with an eccentric or crank of a rigid arm actuated by the eccentric or crank, a guide for said arm constraining it to move in a definite path and a rod for driving the valve attached to said arm at a point offset from the centre line of the arm motion, substantially as described. 2nd. In a valve gear, the combination with an eccentric or crank, of a rigid arm actuated by the eccentric or crank, a pivoted guide for said arm constraining it to move in a definite path, variable at will, and a rod for driving the valve attached to said arm at a point offset from the centre line of the arm motion, substantially as described. 3rd. In a locomotive, the combination with the driving axle, and its eccentric, of a carrier boxed on the axle, a guide pivotally mounted on said carriers, an eccentric strap having an extended arm pivotally mounted in said guide, and a rod for driving the valve attached to said arm at a point offset from the centre line of the arms motion, substantially as described. 4th. In a valve gear, the combination with an eccentric or crank, of a rigid arm actuated by the eccentric or crank, a guide for said arm constraining it to move in a definite path, an eccentric rod attached at one end to said rigid arm at a point offset from the centre line of the arm motion, and a rock shaft having a pair of rocker arms connected respectively one to the valve rod and the other to said eccentric rod at or about right angles when the valve is in mid position, substantially as described. 5th. In a locomotive, an automatically adjustable support for the point of suspension, of a valve gear consisting of a carrier boxed on the driving axle and a fixed guide for the carrier, rigidly secured to the main frame, or such form as to constrain the point of suspension to move approximately on the arc of a circle, when the axle rises and falls with reference to the frame, substantially as described. 6th. In a locomotive, an automatically adjustable support for the point of suspension, of a valve gear consisting of a carrier boxed on the driving axle, a fixed guide for the carrier rigidly secured to the main frame, and anti-friction rollers between their bearing surfaces, the said guide being of such form as to constrain the point of suspension to move approximately on the arc of a circle, when the axle rises or falls with reference to the frame, substantially as described. 7th. In a locomotive, an automatically adjustable support for the point of suspension of a valve gear, consisting of a carrier boxed on the driving axle having a vertical slot and anti-friction rollers on the opposite sides of the slot, and a guide pin fixed to the main frame at an oblique angle to the vertical plane and working in said slot against said rollers, substantially as described. 8th. In a locomotive, an automatically adjustable support for the point of suspension of a valve gear, consisting of a carrier boxed on the main driving axle and provided with a vertical slot, and a guide pin fixed to the main frame at an oblique angle to the vertical plane and working in said slot, substantially as described. 9th. In a locomotive, the combination with the driving axle of an eccentric thereon, an eccentric strap having an extended arm, a carrier boxed on the axle, a guide for the outer end of said arm pivotally mounted in said carrier, a rod for driving the valve attached to said arm at a point offset from the center line of its motion, and a fixed guide for said carrier rigidly secured to the main frame of such form as to constrain the point of suspension, to move approximately on the arc of a circle when the axle rises and falls, substantially as described. 10th. In a valve gear, the combination with an eccentric or crank, of a pivoted guide, a roller movable in said guide, a rigid arm actuated by the eccentric or crank, and having a rigid pivot pin loosely mounted in said roller and a rod for driving the valve attached to said arm at a point offset from the center line motion, substantially as described. 11th. In a locomotive, the combination with the driving axle and its eccentric, of a carrier boxed on the axle, a guide pivotally mounted on said carrier, a roller movable in said guide, an eccentric strap having an extended arm pivotally mounted in said roller, a fixed guide for said carrier rigidly attached to the main frame at an oblique angle to the vertical plane, an eccentric rod attached to said eccentric arm at a point offset from the center line of its motion, and a rocker arm on the main frame having a pair of rocker arms connected respectively one to the valve rod and the other to said eccentric rod at or about right angles when the valve is in mid position, substantially as described.

No. 38,270. Cove. (Cintre.)

Charles F. Baker and John H. Randall, assignees of George S. Mayhew, all of Minneapolis, Minnesota, U.S.A., 12th February, 1892; 5 years.

Claim.—1st. The combination in a cove of thick sheets of paper board, with the parallel wood strips arranged between the same, the edge strips being wedge-shaped, and the whole cemented together, substantially as and for the purpose specified. 2nd. A cove having

a main rigid curved portion and a sheet of thick comparatively rigid paper board, wider than the same combined therewith, substantially as described. 3rd. A cove consisting of a curved board of composition material having a face sheet of thick elastic comparatively rigid paper board forming a part of the same, said sheet being wider than the said curved board, whereby the extension edges are formed, the same being adapted to spring firmly into contact with the wall or ceiling when the cove is placed in position, substantially as described. 4th. The combination in a curve with the two sheets of thick, heavy paper or other pulp board, of parallel wooden strips or slats arranged between the same, the edge strips having a wedge-shape and the whole firmly and rigidly cemented together, the outer or face sheet of said paper being wider than the other, and the edges thereof extending or projecting beyond the same, substantially as and for the purpose specified. 5th. The combination in a cove of the sheets of thick paper with the rectangular and wedge-shaped strips 4 and 4', respectively arranged and cemented between said sheets, the outer sheet being wider than the other and extending out and shaved to sharp edges adapted to make fine joints with the wall and ceiling, substantially as described.

No. 38,271. Process of Embossing Paper, Cardboard, &c. Procédé pour le gaufrage du papier, carton, &c.)

Kitchell Embossing Company, assignee of Hudson Mindell Kitchell, all of Bayonne City, New Jersey, U.S.A., 12th February, 1892; 5 years.

Claim.—1st. The within described process of embossing cardboard and the like, which consists in spreading upon a flat, flexible surface a plastic substance, then forming the desired design therein, and then transferring the design to the article to be ornamented. 2nd. The method, substantially as hereinbefore set forth, consisting of the following operations, viz.: First, covering a hard, flat, flexible blank with a coat of plastic material; second, engraving the said plastic coat while in a soft or hard condition. 3rd. The within described process of embossing cardboard and the like, which consists in covering a suitable backing with a coat of plastic material, then engraving a design in the plastic coat, hardening and smoothing the plastic material, and then transferring the design to the paper or other article to be ornamented.

No. 38,272. Fastener for Shoe Ties.

(Attache de chaussures.)

John Benton Craig, St. Louis, Missouri, U.S.A., 12th February, 1892; 5 years.

Claim.—The improved shoe tie fastener herein described and shown, consisting of a single blank folded transversely on itself, the upper fold provided at one end with an opening b^5 to receive a fastening rivet, and near said end with an opening b^2 , having converging walls b^3 , and the lower fold provided with a longitudinal upset b^4 , having an inclined end b^1 , and a bottom parallel to the face of the blank and coinciding with the opening b^2 when the blank is folded, and a rivet inserted through the opening b^5 into the shoe.

No. 38,273. Trap for Animals. (Piège.)

Chauncey Burdette Trumble, Groton, New York, U. S. A., 12th February, 1892; 5 years.

Claim.—1st. A trap comprising a pan-jaw and a lever-jaw pivoted upon posts upon a base, a trigger mounted upon the base and engaging with the lever-jaw and the pan-jaw, a U shaped spring, the extremities of which are provided with eyes fitting over the post upon which the lever is mounted, said spring adapted to throw the lever as described. 2nd. A trap comprising a base piece provided with upright teeth, three vertical posts on said base piece, a slotted pan mounted on one of said posts and provided with a side lug, a U shaped spring having eyes fitting over the intermediate posts, a bell-crank lever fulcrumed on the intermediate posts, said lever being provided with a lug and a trigger mounted on the three posts, adapted to rest above the lug of the lever, and to engage the lug on the pan, as described.

No. 38,274. Sharpener for Bush Hammers.

(Appareil pour aiguiser les bouchardes.)

Louis Mayer, Mankato, Minnesota, U. S. A., 12th February, 1892; 5 years.

Claim.—1st. In a machine of the class described, the combination with the frame having a horizontal extension, a shaft journaled in said extension, and a saw on said shaft, of a vertically-movable table in the frame travelling past said saw, a transversely-movable carriage on the table, and clamping devices on the carriage, as and for the purpose set forth. 2nd. In a machine of the class described, the combination with the rotating saw, the frame, a vertically-movable table in the latter, and a laterally-movable carriage on said table, of studs on said carriage arranged in pairs, one of the front pair having a hooked upper end and the other being swiveled in the carriage, an arm pivoted to the upper end of the swiveled stud adapted to engage the hooked stud, and a lever having an eccentric head pivoted to said arm, as and for the purpose set forth. 3rd. In a machine of the class described, the combination with the frame, a vertically-movable table therein, and a laterally-movable carriage