

and held therein rotatively by the washer C¹ and lock nuts C¹¹, substantially as set forth. 3rd. A cutting tool for stone dressing machines, consisting of a head A having a central eye a, and means for securing it upon a rotary spindle, said head perforated by a series of journal bearings b disposed circularly and equidistantly around the eye a, and passing longitudinally through said head in a conical and laterally slanting direction, inclining from the larger circle of said bearings towards the smaller circle in the direction opposite to that in which the head is intended to rotate, said journal bearings being each provided with a facing at each end of the head at a right angle to the bore, and adapted to receive and hold rotatively the stem c¹¹ of a conical cutting tool C, substantially as set forth.

No. 34,616. Lightning Rod. (*Paratonnerre*.)

Théodore Lefebvre dit Boulanger, Québec, Qué., 3rd July, 1890; 5 years.

Résumé.—1o. La combinaison de la demi-sphère avec la flèche et que forme un tout, tel que ci-dessus décrit. 2o. La combinaison de la seconde demi-sphère dans laquelle sont introduits les torons du câble et qui doit se tarauder et s'ajuster à la première demi-sphère, tel que ci-dessus décrit et pour les fins indiquées.

No. 34,617. Machinery for Forming Blank Bars and afterwards to be bent into, and used for Horse and Mule Shoes. (*Machine à faire les barres en ébauche, puis les plier et les employer pour des fers à cheval et à mule.*)

John D. Billings, New York, N. Y., George A. Loring, Ingham, George H. Washburn and Irving E. Williams, Boston, Mass., U.S., 4th July, 1890; 5 years.

Claim.—1st. Consisting of a movable die-plate D, shown in Fig. 9, to take the place of a roller, for the purpose and substantially as described. 2nd. The movable die-plate D, with the raised elevations a, the webs I, I, and guide plate j, substantially and for the purpose described. 3rd. The movable die-plate D, raised elevations a, the webs I, I, and guide plate j, rack E and pinion F, the roller K upon which the die-plate D moves, substantially as and for the purpose described. 4th. The movable die-plate D, raised elevations a, webs I, I, and guide plate j, rack E and pinion F, the roller K, the shaft G and pinions H and I, the frame J which supports the guide plate j and the driving pulley L, for the purpose substantially as described. 5th. The movable die-plate D, raised elevations a, webs I, I, and guide plate j, rack E and pinion F, and roller K, with the shaft G and pinions H and I, the frame J which supports the guide plate j, the driving pulley L, housings B and the die-grooved roller C, the annular grooves c through which the bars pass, the clutch M and gear N, also gear O through which motion is transmitted from gear N, for the purpose substantially as described. 6th. The die-grooved roller C and annular grooves c and which contains depressions c¹ and c², also projections c¹ and c², also the housings B and the movable die-plate D, as shown in Fig. 1, the clutch M with the gear S, which transmits a quick reverse motion to the gear T, and also gears T and U and the roller K, the guide plate j and frame J, for the purpose and substantially as described. 7th. The die-grooved roller C with annular grooves c in which are depressions and projections for shaping the blank bars, the movable die-plate D with webs I, I, guide plate j, driving pulley L, the clutch M and roller K, the shaft G and pinions H and I, the frame J, the housings B, together with gears N and O, for the purpose substantially as described. 8th. The movable die-plate D with the raised elevations a with webs I, I, guide plate j, in combination with die-grooved roller C with annular grooves c in roller, and depressions c¹ and c² and projections c¹ and c², for the purpose and substantially as described.

No. 34,618. Combined Mop and Wringer.

(*Torchon et essoreuse combinés.*)

Caroline C. Rolls, (assignee of Edwin C. Rolls,) Chatham, Ont., 4th July, 1890; 5 years.

Claim.—1st. The combination, with a handle made tubular a required distance, and provided with a frame supporting a clamping device at its lower end, of a rotatable and reciprocatory spindle engaged in the handle, said spindle provided with a clamping device, substantially as set forth. 2nd. The combination, with a handle made tubular a required distance, and provided with a frame supporting a clamping device at its lower end, of a spindle having a rotatable and reciprocatory engagement in said handle, and gear for rotating said spindle, said spindle provided with a clamping device, substantially as set forth. 3rd. The combination with a handle made tubular a required distance, and provided with a frame supporting a clamping device at its lower end, of a spindle having a rotatable and reciprocatory engagement in said handle, gear having a fixed engagement with the handle for rotating the spindle, said spindle being provided with a clamping device at its lower end, substantially as set forth. 4th. The combination, with a handle made tubular a required distance, and provided with a handle made tubular a required distance, and provided with a frame supporting a clamping device at its lower end, of a spindle entering said handle and provided with a clamping device at its lower end, a pinion journaled into the handle, a gear meshing with said pinion and journaled in the handle, said spindle made angular in cross section and passing through a corresponding aperture in said pinion, substantially as set forth. 5th. The combination, with a handle made tubular a required distance, and provided with a frame supporting a clamping device at its lower end, of a spring lip engaged with said clamping device, a spindle having a rotatable and reciprocatory engagement in said handle, and mechanism to rotate the spindle, said spindle, provided with a clamping device, substantially as set forth. 6th. The combination, with a handle provided with a frame supporting a clamping device at its lower end, of a rotatable and re-

ciprocatory spindle, and mechanism having a fixed engagement for rotating said spindle, said spindle provided with a clamping device, substantially as set forth. 7th. The combination, with a handle provided with a frame supporting a clamping device at its lower end, of a rotatable and reciprocatory spindle, mechanism for rotating said spindle, and a spring bearing on said spindle, substantially as and for the purposes described. 8th. The combination, with a handle provided with a frame supporting a clamping device at its lower end, of a brush holder engaged with said clamping device, a rotatable and reciprocatory spindle provided with a clamping device, and mechanism for rotating said spindle, substantially as set forth.

No. 34,619. Vessel or Receptacle for Holding, Measuring and Discharging Liquids. (*Vaisseau ou réceptacle pour contenir, mesurer et décanter les liquides.*)

Jane Parish, Belgrave, Leicester, Eng., 5th July, 1890; 5 years.

Claim.—The employment in vessels or receptacles herein described, of holding, measuring and discharging liquids, of transparent eyes D encased in a metal case or cup A, and arranged in the manner substantially as described.

No. 34,620. Musical Box. (*Boîte musicale.*)

Carl A. Roepke, Manchester, Eng., 5th July, 1890; 5 years.

Claim.—1st. In musical boxes of the character indicated, the lever c, c, combined with the draw rod f, f, and secondary lever d, d, directly operated by the pressure of the edges of the perforations in a travelling sheet, giving a compound motion to the striking end or point, and of the draw-rod f, f, for the purpose and in manner substantially as herein shown and described. 2nd. In musical boxes of the character indicated, the lever c, c, combined with the secondary lever d, d, having therein a withdrawable striking end or point directly operated by the pressure of the edges of the perforations in a travelling sheet, giving a compound motion to such end or point, for the purpose and in manner substantially as herein shown and described.

No. 34,621. Mud and Sediment Collector for Steam Boilers. (*Collecteur de boue et de sédiment dans les chaudières à vapeur.*)

James Gourlay, Toronto, Ont., 5th July, 1890; 5 years.

Claim.—A tank A, longitudinally divided by a partition B, one or more perforated partitions C, being arranged on one side of the partition B, and one or more perforated partitions G, on the other side of the partition B, the said partitions being so arranged that the water which enters at f must pass through all the perforated partitions before reaching the boiler E, a blow-pipe H, being arranged at the bottom of the tank A, substantially as and for the purpose specified.

No. 34,622. Harvester. (*Moissonneuse.*)

Earl G. Watrous, Hoosick Falls, N. Y., U.S., 5th July, 1890; 5 years.

Claim.—1st. The combination, in a harvester of the main frame, the platform frame and the pole frame pivoted respectively on rear and front thereof, a lever on the main frame, a link connecting the lever and platform frame, a locking device connecting the lever to the main frame, a second link connected to the pole frame, and a locking device connecting the second link and the lever, substantially as and for the purpose specified. 2nd. The combination with the main frame rocking on the axle of the driving wheel, the platform frame pivoted thereto in rear thereof, of a lever mounted on the main frame, a segmental rack mounted concentrically with the lever, a link connecting the pole frame and the segmental rack, a link connecting the platform frame and the lever, a detent mounted on the lever to engage the segmental rack, and a second detent on the main frame to lock the segmental rack in a fixed position with regard to the main frame. 3rd. The combination of the main frame rocking on the axle of the driving wheel, the tongue frame pivoted thereto in front thereof, the platform frame pivoted thereto in rear thereof, a rocking lever mounted on the main frame, a segment pivoted concentrically with the axis of movement of the lever, two segmental racks on the segment, a detent mounted on the lever to engage with one segmental rack to lock the latter fast with the lever, a detent on the main frame to engage the other segmental rack, a link connected with the tongue frame and the segment, a second link connected to the lever and the platform frame, and means to disengage the detents from the racks, whereby the lever is adapted to both tilt the platform frame on its pivotal connection with the main frame, and to rock the latter together with the platform frame on the axle of the driving wheel, substantially as and for the purpose specified. 4th. The combination of the main frame rocking on the axle of the driving wheel, the tongue frame pivoted thereunto in front thereof, and the platform frame pivoted thereto in rear thereof, a rocking lever on the main frame, a segment pivoted concentrically with the axis of movement of the lever, a detent on the lever taking into the rack in the segment, a detent on the main frame taking into a second rack on the segment, a spring secured to the lever at one end and to the segment at the other, a link connected to the segment and the tongue frame, a second link connected to the platform frame and to the lever, and means to disengage the detents from the racks, whereby the spring assists in tilting the platform frame on its pivotal connections with the main frame, and does not interfere with the rocking of the machine on the axle, substantially as specified. 5th. The combination of the main frame rocking on the axle of the driving wheel, the platform frame pivoted thereto in rear thereof, and the tongue frame pivoted thereto in front thereof, a lever pivoted on the main frame, a segment pivoted concentrically