

on the lever K, and the bell-crank lever M pivoted to the hanger L and connected to the lever K by the rod R, the said levers K and M engaging at their outer ends with racks S and guards T, all constructed and arranged substantially in the manner shown and described and for the purpose specified.

**No. 27,184. Windmill.** (*Moulin à vent.*)

Alpheus A. Kinney, Ravenna, Neb., U.S., 18th July, 1887; 5 years.

*Claim.*—1st. In a windmill, the combination of a frame and two sets of vanes, the front set being at right angles to the face of the wheel, and the rear set being at an angle to the front set and having their front edges in a line with the rear edges of the front set. 2nd. In a windmill, the combination of radiating arms upon the wheel-shaft, wheel sections of vanes secured to cross-bars provided with trunnions at their ends, pivoted in lips upon the arms, a sliding adjustable sleeve upon the wheel shaft, blocks pivoted at their ends between the inner ends of the radiating arms, and having rods sliding in perforations in the middle of the blocks, and pivoted to the sleeve with their inner ends, and arms pivoted with their inner ends to the outer ends of the rods, and with their outer ends to the outer portions of the wheel sections, as and for the purpose shown and set forth. 3rd. In a windmill having a downwardly-projecting sleeve journaled in the supporting frame and formed with a vertical slot in its side, the combination of a governing rod having a headed bolt projecting through and sliding in the slot, a collar upon the sleeve and having a groove in its inner side for the head of the bolt, and a handle for sliding it up and down upon the sleeve, as and for the purpose shown and set forth.

**No. 27,185. Alarm for Doors, etc.**

(*Timbre pour portes, etc.*)

Nahum J. Busby, Maplewood, Mass., U.S., 18th July, 1887; 5 years.

*Claim.*—1st. In a door-alarm, the combination of an ordinary bell-striking mechanism having the usual main-spring and arbor therefor, and a take-up spring secured near such arbor, and the bell-pull wire secured to such take-up spring, with an intermediate connection connecting said take-up spring with said arbor, whereby when the wire is pulled out the main-spring is partially wound, as described. 2nd. The combination, with the frame G and the main take-up spring and its shaft arranged in such frame, as described, and with the bell-hammer operative main-spring and train also arranged in said frame, and the intermediate connection connecting the main-spring arbor and the main take-up spring, of the auxiliary take-up spring applied to the main take-up shaft and to the said frame, substantially as set forth. 3rd. The combination, with the bell, its hammer and the operating train, of the latter consisting of the main-spring, its arbor, the ratchet wheel fixed and the gear revoluble on such arbor, the pawl and its spring applied to such gear, the lantern-pinion and its shaft, and the pallets and their shaft, of the arm fixed on the said arbor, the actuating-wire, the take-up spring, and the link or rod connecting the latter with the said arm, all being substantially and to operate as represented.

**No. 27,186. Tube Cleaner.** (*Nettoyeur de tuyau*)

George Wishart, Montreal, Que., 18th July, 1887; 5 years.

*Claim.*—1st. The combination, with the flexible tube B connected to boiler, of branch A and head C with stopped end E and shallow spiral passages Et, all substantially as herein set forth and for the purposes described. 2nd. The combination, with the branch A, of the head D, with hood D<sub>1</sub> and pipe D<sub>2</sub>, and outlets from same, all as herein set forth and for the purposes described. 3rd. In combination, with the branch A, the head C formed of head proper D, with hood D<sub>1</sub> and pipe D<sub>2</sub>, and the stopper E with spiral recessed outlets Et, Et, all substantially as herein described and for the purposes set forth.

**No. 27,187. Compound for Making Bricks, etc.** (*Composé pour faire les briques, etc.*)

James P. Perkins Pullman, Ill., U.S., 18th July, 1887; 5 years.

*Claim.*—The within-described compound for the manufacture of bricks and other burned products of clay, consisting of a moist mixture of clay and paraffine distillate, otherwise known as "intermediate oil," substantially as and for the purposes set forth.

**No. 27,188. Gate Latch.** (*Loquet de barrière.*)

Theodore Martin, Wallaceburg, Ont., 18th July, 1887; 5 years.

*Claim.*—1st. In a gate latch of the kind described, the combination of a latch slidingly secured to the gate frame, a spring carrying the said latch and adjustable connection between the latch and spring, substantially as described. 2nd. In a gate latch, the combination of the latch B, slidingly secured to the gate, the spring bar A, secured upon the inside of the frame of the gate, and adjustable connection between the free end of the spring and the rear end of the latch, substantially as described. 3rd. In a gate latch, the combination of the sliding latch B, having adjusting notches d, e, f, the spring A notched upon its free end to adjustably engage therewith, and a rocking plate removably attached to the gate above the latch, substantially as described.

**No. 27,189. Machinery for the Manufacture and Application of Angle Clamps for Uniting the Corners of Cardboard and other Boxes.** (*Machine de fabrication et d'application des serre-joints pour assujétir les angles des boîtes de carton et autres.*)

Henry Campbell, London, Eng., 18th July, 1887; 5 years.

*Claim.*—1st. The improved machinery for the manufacture and application of angle clamps for uniting the corners of cardboard and other boxes, consisting of mechanism for cutting out or shaping the claws on the edges of a strip of metal, for bending the said strip of metal longitudinally, and the claws at the edges thereof inwards, for feeding or drawing forward the strip of metal a distance equal to the length of a finished angle clamp, for shearing off the angle clamps to length, and for applying the finished angle clamps to the corners of boxes, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawings hereto annexed. 2nd. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for cutting out or shaping the claws on the edges of a strip of metal, for bending the said strip of metal longitudinally, and the claws at the edges thereof inwards, for feeding or drawing forward the strip of metal a distance equal to the length of a finished angle clamp, and for shearing off the angle clamps to length, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawings hereto annexed. 3rd. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for cutting out or shaping the claws on the edges of a strip of metal, for bending the said strip longitudinally and the claws at the edges thereof inwards, and for feeding or drawing forward the strip of metal, all arranged, combined and operating substantially as hereinbefore described. 4th. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for bending or shaping to the desired form, a strip of metal previously cut out with claws on its edges for feeding or drawing forward the strip of metal a distance equal to the length of finished angle clamp, for shearing off the angle clamp to length, and for applying the finished angle clamp to the corners of boxes, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawing hereto annexed. 5th. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for bending or shaping a strip of metal previously cut out with claws on its edges, for feeding or drawing forward the strip of metal a distance equal to the length of a finished angle clamp, and for shearing off the angle clamps to length, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawings hereto annexed. 6th. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for feeding or drawing forward a strip of metal previously cut out with claws on its edges, and bent or shaped to the desired form a distance equal to the length of a finished angle clamp, for shearing off the angle clamps to length, and for applying the finished angle clamps to the corners of boxes, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawings hereto annexed. 7th. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for feeding or drawing forward a strip of metal previously cut out with claws on its edges and bent or shaped to the desired form a distance equal to the length of a finished angle clamp, and for shearing off the angle clamps to length, all arranged, combined and operating substantially as hereinbefore described and illustrated in the drawings hereto annexed. 8th. In machinery for the manufacture of angle clamps for uniting the corners of cardboard and other boxes, mechanism for feeding or drawing forward the strip of metal consisting of grasping devices carried by a reciprocating sliding carriage, and a lever operated by suitable cams and springs, so as to effect both the reciprocating motion of the carriage and the closing and opening motions of the grasping jaw, as hereinbefore described and illustrated in the drawings hereto annexed. 9th. In machinery or apparatus for applying angle clamps to the corners of cardboard and other boxes, the mechanism for pressing the claws of the clamps into the corners of the boxes, consisting of a pair of jaw, arranged and operating as hereinbefore described and illustrated in the drawings hereto annexed.

**No. 27,190. Thermostat.** (*Thermostat.*)

Lawson B. Stone, Marblehead, Mass., U. S., 18th July, 1887; 5 years.

*Claim.*—1st. In combination with the case and the Bourdon spring, the unnumbered end of which forms one terminal of an electric circuit, the spring-actuated insulated terminal adjustable with respect to said Bourdon spring, whereby the thermal degree of alarm may be regulated, substantially as stated. 2nd. The combination, with the thermostat, substantially as herein described, of the oil-cup and its feed-duct, the latter serving by convection of heat to operate a Bourdon spring united therewith, all co-operating as stated. 3rd. In combination with post E and case C, the Bourdon spring c attached to said post, a spring f attached to said case, a contact e carried by the latter spring and an adjusting screw e' acting against spring f, substantially as set forth. 3th. A Bourdon spring c, an adjustable terminal e opposed thereto, an insulating sleeve surrounding said terminal, a spring to which said sleeve is attached, and an adjusting screw acting against the latter spring to adjust the terminal, substantially as set forth.

**No. 27,191. Art or Process of Blowing Glass.** (*Manière de souffler le verre.*)

Richard E. Donovan, Francis Hazlett and James Johnston, Dublin, Ireland, 18th July, 1887; 5 years.

*Claim.*—1st. In apparatus for blowing glass, the combination formed by the chamber a, the pipe or tube b, piston c and hollow rod or plunger d, with the tubular cap f for providing for the free ingress and egress of air, and for the repetition of the stroke of the piston, in the manner substantially as herein specified and set forth. 2nd. In apparatus for blowing glass, the combination formed by the chamber a, the pipe or tube b, the piston c and the solid piston rod d, with the arrangement for allowing the free ingress and egress of air, in the manner substantially as illustrated in Fig. 4 of accompanying drawings.