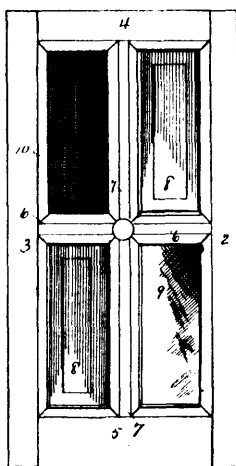


coils being located directly above and engageable with the respective clamping coils intermediately of their ends, whereby the clamping coils are re-enforced by the spring-coils in the clamping operation, substantially as described.

No. 60,157. Door. (Porte.)

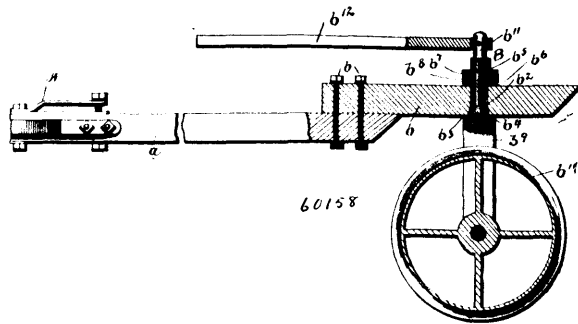


60157

James Martin and Charles J. Deitch, both of Elkhart, Indiana, U.S.A., 1st June, 1898; 6 years. (Filed 3rd May, 1898.)

Claim.—1st. A door provided with a series of interchangeable panels, in combination with a turn-button having projecting wings disposed angularly to the axis of the button, said turn-button being placed at the crossing of the rail and munnion and said flanges operating in grooves in said rail and munnion and also in the contiguous corners of the panels, for removably securing said panels in said door, as and for the purpose set forth. 2nd. A door, comprising the side, top and bottom rails and the intersecting munnion and lock-rails, in combination with the thumb-button 12, having a shank 13, provided with a series of inclined flanges or wings 14, and the interchangeable panels provided with the engaging studs 11, substantially as shown and described.

No. 60,158. Wheel Scraper. (Grattoir pour roues.)



60158

Thomas H. Stedman and Joseph Gaudaur, both of Calgary, assignees of William Maloney, of Calgary, aforesaid, all of the North-West Territories of Canada, 1st June, 1898; 6 years. (Filed 3rd March, 1898.)

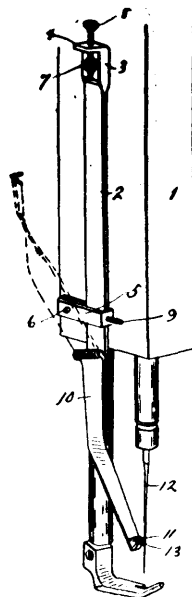
Claim.—1st. The combination with a carrier, having a bar extending forwardly therefrom, of means pivotally secured to said bar for supporting the front end of said bar, said means being provided with a draught attaching device, and means for reversing the direction of traction, substantially as described. 2nd. A tongue support, comprising a guide wheel pivotally connected to a tongue, a double tree mounted on the mounting of said guide wheel, and a handle for reversing the direction of traction of said guide wheel, substantially as described.

No. 60,159. Needle Threader. (Enfile aiguille.)

Willard A. Northup, Harvard, and Arthur H. Bevridge, Belvidere, both of Illinois, U.S.A., 1st June, 1898; 6 years. (Filed 8th January, 1898.)

Claim.—A needle threader, consisting of a bar 2 having a slotted head 3 at its upper end, a flange projecting from said head, a screw

extending through said flange, the two-part clip adapted to be secured to the head of the sewing-machine, the adjusting screw in the head

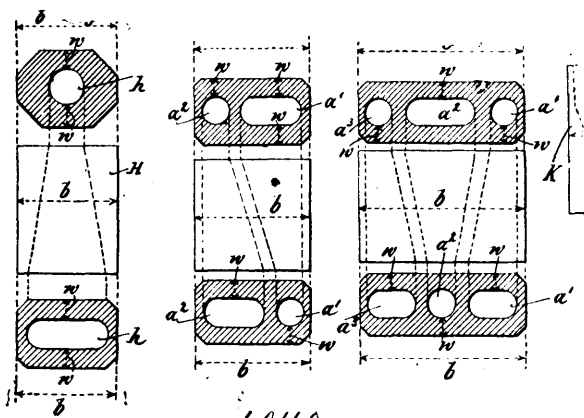


60159

of said clip, the bent arms hinged at an angle to said bar 2, and the open guide piece secured to the lower extremity of said arm, substantially as and for the purpose set forth.

No. 60,160. Pipe-Making Apparatus.

(Appareil à faire des tuyaux.)



60160

Bruno Hiedemann, 29 Hohenzollern Ring, Cologne, assignee of Adolph Husener, Duisburg, German Empire, 1st June, 1898; 6 years. (Filed 12th September, 1896.)

Claim.—1st. The herein described process of producing tapered tubes with walls of uniformly varying thickness or diameter, consisting in forming hollow ingots with walls of uniformly varying thickness, then rolling said ingots into a long double or hollow strip, and then expanding said strip into the tube or pipe, whereby an exteriorly tapered tube is formed, substantially as and for the purpose described. 2nd. The herein described process of manufacturing conical tubes, etc., consisting in forming an ingot with an interiorly tapered bore, then rolling out said ingot into a long flat double strip having a uniform exterior diameter or width and a tapered exterior, then cutting off surplus metal from the sides of the strip so as to make its exterior contour conform to its interior, and then expanding said strip, forming a hollow conical tube, etc., all substantially as and for the purpose set forth. 3rd. An expanding mandrel for tubes, etc., consisting of a conical plug *e* and means for supporting it, with the mandrel composed of parts *c* working on and over said plug, substantially as and for the purpose described. 4th. The combination with the rod *d* and conical grooved plug *e*, with the mandrel composed of parts *c* fitted in the grooves of plug *e*, and means for adjusting parts *c* on the plug, all substantially as and for the purpose set forth.