No. 26,635. Brush. (*Pinceau.*)

James F. Bartlett, Cleveland, Ohio, U.S., 6th May, 1887; 5 years.

Claim.—1st. The bottom piece B, provided with tapering opening in one face thereof, substantially as described. 2nd. A bottom piece having a tapering opening countersunk in one face, and provided with an encircling band having a short projecting rim, as and for the purpose set forth. 3rd. The combination, with a wedge-tapering plug or bell, of a band encircling and permanently holding a bottom piece or seat, provided with an opening countersunk from within and of a shape suitable to receive the body of the wedge plug or bell, substantially as and for the purpose set forth. 4th. A brush, made of a band A, encircling and holding a bottom piece B, inserted in such a manner as to leave a projecting rim on said band and provided with a tapering excavation from within, a wedge or plug capable of entering bodily into the excavation, and suitable bristles having their upper ends against the bottom piece and interposed between the plug and the band. 5th. In combination with a band encircling a bottom piece or seat, provided with an opening countersunk within and of suitable shape, a wedge plug or bell adapted to enter the opening and provided with a shank, and a handle fitting upon the shank, arranged and operating as described.

No. 26,636. Traction Engine.

(*Machine Locomotive.*)

Samuel E. Jarvis, Lansing, Mich., U.S., 6th May, 1887; 5 years.

Claim.—1st. In a traction engine, the combination of the front support of the boiler having a ball and socket pivot with the front axle of the brace rods H, H, pivotally connected to said front support, of the hangers M secured to the boiler, between its front and rear supports, and having the rear ends of the brace rods H, H, adjustably connected thereto, of the braces K, K, secured at one end to the brackets M, and of the rear supports of the boiler terminating in boxes in which the rear axle is journalled, and to which the rear ends of the braces K and the front ends of the draw-bar are connected, all arranged substantially as described. 2nd. In a traction engine, a front support consisting of a saddle stationarily secured to the underside of the boiler, and of an adjustable part forming a ball and socket pivot with the front axle, substantially as described. 3rd. In a traction engine, a front support consisting of a saddle stationarily secured to the boiler, and having two downwardly projecting flanges, and of two boxes radially adjustably secured thereto, said boxes forming the journals for a sprocket-wheel, to which motion is conveyed by means of a chain, substantially as described. 4th. In a traction engine, in combination, the front saddle F having downwardly projecting flanges *d*, the adjustable boxes G having upwardly projecting flanges *c*, the bolts *e*, *e*¹, adjustably securing the parts together, the sprocket-wheel *f* journalled in the boxes G, the ears *g*¹ on the boxes G, the brace rods H and the hangers M, all arranged substantially as described. 5th. In a traction engine, the sliding boxes N, in which the counter-shaft O is journalled, which transmits the tractive power by means of chains and sprocket wheels, substantially as described, in combination with the braces K which run parallel to each other and form longitudinal supports upon which the sliding boxes N are sleeved and adjustably secured thereon, all arranged substantially as and for the purpose described. 6th. In a traction engine, the combination of the braces K arranged parallel to each other and forming a longitudinal support for the sliding boxes N, of the brackets M having the inner ends of the braces K secured thereto, vertically adjustable, of the sliding box N, adjustably sleeved upon said braces K, and of the counter-shaft O which transmits the tractive power from the crank-shaft by means of sprocket wheels and chains, all arranged for the purpose of forming proper means for adjusting the drive chains, substantially as described. 7th. In a traction engine, the combination of the saddle J, upon which the rear end of the boiler is supported upon the rear axle of the boxes J¹ in which the rear axles are journalled, of the shoulders *h* upon the lower side of said boxes, of the draw-bar L provided with hooked inner ends engaging with the aforesaid shoulders, and of the system of brace-rods K¹, connecting the rear supports, of the boiler with the front support on the same general plane, all substantially as and for the purposes described. 8th. In a traction engine, a ball-shaped epicyclic train of gear forming, one member of a ball and socket pivot of the front axle, substantially as described. 9th. The combination, with the front axle, of a ball-shaped epicyclic train or gear in the centre of a front axle of a sprocket-wheel, having a central ball-socket, of the pin Q engaging into a segmental recess in the ball-socket of the hollow shafts *u*, and of the front wheel engaging with the outer ends of the hollow shafts, substantially as described. 10th. The combination, with the front axle having a recessed ball formed thereon, of an epicyclic train of gear concealed within the recesses of said ball and completing its ball form, of a sprocket-wheel journalled in the front support and having a central ball socket, of the pin Q engaging into a segmental recess in said ball socket, and of the hollow shafts *u* which transmit the motion from the epicyclic train to the front wheels, all arranged substantially as described. 11th. The combination of the front axle and front wheels, with the hollow shafts *u*, said hollow shafts being provided upon their inner ends with gear wheels forming part of a ball-faced epicyclic train of gear arranged to transmit motion and forming the ball of a ball and socket pivot, substantially as described.

No. 26,637. Windmill. (*Moulin à Vent.*)

George J. Bentley, San Jose, Cal., U.S., 6th May, 1837; 5 years.

Claim.—1st. The wind mill frame, comprising the posts converging from the bottom toward the top, having a central vertical guiding sleeve secured in the top, an annular step supported between the posts at some distance below the top, a tubular post passing through the upper guiding sleeve, and having its lower end supported to turn in the channel of the step at the bottom, and having the horizontal crank-wheel shaft supported in the boxes upon a frame, which is fixed to this tubular shaft, the crank being connected with an arm projecting to one side, and secured to the upper end of a vertically-moving plunger-rod, which extends down through the tubular post C and is guided thereby, substantially as described. 2nd. The wind-mill, having the fan-wheel secured to a horizontal crank-shaft, which is supported in journal-boxes at one side of a vertical tubular post, which revolves within a guiding sleeve, and a supporting step, as shown, a tail vane hinged to this vertical post, so as to swing from a position, parallel with the wheel to a position in line with the wheel-axle, said tail vane having a chain or rope attached to it passing around a pulley upon an arm projecting from the frame of the central post, and thence over a guiding pulley to the interior post, and the hollow plunger rod extending down toward the ground and having a weight attached to its lower end, substantially as described. 3rd. The vertical turning-post, having the hollow plunger-rod extending down through its centre, an arm extending outward from the top of the plunger-rod and connected with a crank-shaft wheel by a rod or pitman, said crank-shaft extending across a frame extending from the turning-post, and at one side of the post a tail-vane, pivoted so as to swing through an arc of ninety degrees, and having the balance-weight and chain connecting the weight with a weighted latch-lever, which is fulcrumed in the tail-vane, and a projecting arm from one side of the wheel-supporting frame, with which this latch-lever may engage to hold the wheel out of the wind when desired, substantially as described. 4th. The wind-wheel, composed of the flat fans secured to radial arms, which project from the wheel-hub and are secured to the same by bolts, while the outer ends of the fans are united by the connecting-braces, as shown, substantially as described.

No. 26,638. Manufacture of Upholsterer's Furniture. (*Fabrication des Effets de Tapissier.*)

Sarah Clark (assignee of Henry B. Clark), Toronto, Ont., 6th May, 1887; 5 years.

Claim.—1st. The rail R, having a bevelled groove *f*, in combination with the cord B and the springs F which are attached to the webbing, substantially as described. 2nd. The rail R, in combination with the strip C, which forms a pliable bearing, over which the outer covering D is stretched after the seat has been packed, substantially as described. 3rd. The rail R, provided with a strip *n*, in combination with the cord B and the springs F, which are attached to the webbing E, substantially as described. 4th. The rail R, in combination with the roll *n*, which forms a pliable bearing, over which the outer covering D is stretched after the seat has been packed, substantially as described. 5th. The combination of the rail R, having a bevelled groove *f*, whereon the cord B which stays the springs F and H, the covering for said springs are fastened, and the webbing E to which the springs are attached, the rail R being adapted to retain in position the strip C, which forms a pliable bearing over which the outer covering D is stretched after the seat has been stuffed or packed, substantially as specified. 6th. The combination of the rail R, having a strip *n* whereon the cord B, which stays the springs F and on which H the covering for said springs are fastened, and the webbing E to which the springs are attached, the rail R being adapted to retain in position the strip C, so as to afford a pliable bearing at the uppermost outer edge of said rail, over which the outer covering D is stretched, after the seat has been stuffed or packed, substantially as specified. 7th. The combination of the rail R, having a bevelled groove *f* whereon the cord B and the covering H are fastened, the webbing E to which the springs F are attached, and the rail R adapted to retain in position the roll *w*, which forms a pliable bearing, over which the outer covering D is stretched after the seat has been stuffed, substantially as specified. 8th. The combination of the rail R, having a strip *n*, whereon the cord B and the covering H are fastened, the webbing E to which the springs F are attached, and the rail R adapted to retain in position the roll *w*, which forms a pliable bearing over which the outer covering D is stretched after the seat has been stuffed, substantially as specified. 9th. A rail, so shaped as to be adapted to hold in position an edging which forms a pliable bearing, over which the outer covering is stretched after the seat has been packed, the place of attachment of the cords which stay the springs and of the casing for said springs being located in the inner sides of said rail, at such a distance above the webbing which carries the springs, so as to enable the shortening to the fullest extent practicable of the stay cords, which hold the springs in place, as well as of the spring covering, substantially as described and for the purpose specified. 10th. In the back of an upholstered piece of furniture, a wooden strip attached to the inner sides of the back frame, in combination with an edging forming a pliable bearing, over which the outer covering is stretched after the back has been packed, the place of attachment of the cords which stay the springs being located on the inner sides of said wooden strip, at such a distance from the back covering which carries the springs as to permit of the shortening to the fullest extent practicable of the stay cords which hold the springs in place, substantailly as specified.

No. 26,639. Plate applicable for the Manufacture of Cases or Packages for Canning or Preserving Articles of Food. (*Feuille propre à la fabrication des boîtes ou paquets à conserves alimentaires.*)

William Powell, Liverpool, Eng., 6th May, 1887; 5 years.

Claim.—The manufacture and use of plate for the making of cans, packages, and the like, having a base of tin plate, sheet iron, or other tough metal, and a coating thereon of papier maché, paper, or other similar material.

No. 26,640. Buckle. (*Boucle.*)

George F. Atwood and Charles S. L. Leach, Swanton, Vt., U. S., 6th May, 1887; 5 years.

Claim.—A buckle comprising an integral frame with middle attaching-bar, and also having the inner edge of one of the outer cross-bars provided with rearwardly-projecting spurs or teeth, the outer