

die inserted horizontally therein and provided with an adjustable die point, as described, of a stationary die passing diagonally through said head, and a screw-bolt having a threaded engagement with the stationary die, whereby the same may be properly adjusted with reference to the companion or roller die, substantially as and for the purpose set forth. 4th. In a saw swage, the combination, with the frame, of the vertical guides bolted thereto, a cross head moving between said guides and provided with a seat rest for a saw, the saw clamping bars secured to and moving with the cross-head, a cross-bar having bevelled shoulders on the underside, as described, and arranged between said guides below the cross head, the plate *a* bolted to the cross-bar, the slide bar *E* engaging with the underside of the cross-bar, and having bevelled shoulders, the connecting rod *D*₂, the crank-wheel *B*₄ and the counter-shaft upon which the same is mounted, whereby a vertical movement is transmitted to the cross-head, and the saw raised to bring the teeth in position to be operated upon by the swaging dies once in each revolution of the crank-wheel, substantially as set forth. 5th. In a saw swage, the combination, with the head-block, of the saw clamping bars having bevelled upper ends, the spring jaws rigidly secured at one end, the opposite bevelled ends bearing loosely against the outer bevelled surfaces of the clamping bars, and the adjusting screws inserted through the head-block and having contact with said jaws, substantially as and for the purpose set forth. 6th. In a saw swage, the combination, with the cross-head *C*₂, and the cross-bar *C*₆, of the adjusting screw-bolts *b*₁, *b*₂, inserted in the underside of said cross-head and adapted to rest on the upwardly projecting flange *a*₅, forming a part of said cross-bar, substantially as and for the purpose set forth. 7th. In a saw swage, the combination, with the frame, of the cross-head, the cross-bar *C*₆, the vertical screw-shaft *F*, the pinion wheel *d*, the horizontal shaft *F*₁ and the pinion *d*₁, whereby the saw may be raised by hand for the purpose of securing the proper adjustment of the same relative to the swaging dies, substantially as set forth. 8th. In a saw swage, the combination of the feed lever *H*, the bell-crank lever *H*₁, the eccentric strap *B*₃, the link *d*₄ and the feed-finger *H*₂, whereby the saw teeth are automatically presented to the swaging dies in regular order of succession, substantially as set forth. 9th. In a saw swage, the combination of the feed-lever, a feed finger pivoted to the upper end of said lever, a bell crank and the gage bolts *h*, *h*₁, substantially as and for the purpose set forth.

No. 30,117. Snow Plough. (*Charrue à neige*.)

Thomas Y. Woolford, Augusta, W. V. U. S., 6th November, 1888; 5 years.

Claim.—1st. The combination, with the car and the revolving snow wheel, arranged transversely, and having laterally and forwardly curved peripheral cutters, of automatic clearers which are pivoted in rear of the wheel and have their front ends bent or turned down to adapt them to enter and work in the space between said cutters, substantially as shown and described. 2nd. The combination, with the car and the snow wheel arranged transversely in front of the same, of the two clearers pivoted in rear of the wheel and having heads and a spring for holding them, normally retracted and in working contact with the circumferential middle flanges and lateral cutters of the wheel, as shown and described. 3rd. The combination, with the snow wheel, having a central chain wheel secured to it, of a wedge shaped divider and shield arranged in front and expanded to cover and protect the said chain wheel, as shown and described. 4th. The combination of the vertical wedge-shaped divider and shield with the snow wheel arranged transversely, and the chain wheel mounted on the same shaft, and peripheral flanges attached to said wheel located alongside the chain wheel, as shown and described.

No. 30,118. Sash Cord Fastener.

(*Accroche-corde de croisée*.)

Joseph L. Bohannon, Frankfort, Ky., U. S., 6th November, 1888; 5 years.

Claim.—1st. In a sash cord holder, the socket having a notch in its upper side and the slide or plate fitting over the outer end of socket, substantially as specified. 2nd. In a sash cord holder, the socket provided with a notch *D* and having a head on its outer end provided with a dovetailed groove and the dovetailed slide or plate fitting in the said groove, substantially as specified.

No. 30,119. Secondary Battery.

(*Batterie secondaire*.)

Charles B. Askew and James K. Pumpelly, Chicago, Ill., U. S., 6th November, 1888; 5 years.

Claim.—1st. The combination, with a plate of a secondary battery carrying the active material, of a supporting plate of porous material, one side of which conforms to the shape of the metal plate and the other side of which is provided with separating ribs, substantially as described. 2nd. The combination, with the plates of a secondary battery, of the supporting plates, one side of each of which plates conforms to the shape of the metal plate and the adjacent sides of the supporting plates being provided with longitudinal ribs integral with the body of the plates, whereby the active material may be securely held in position and free circulation of fluid allowed, whether the plates be upright or horizontal, substantially as described.

No. 30,120. Baking Pan. (*Tourtière*.)

Bettie H. Bicknell, London, Tenn., U. S., 6th November, 1888; 5 years.

Claim.—1st. As a new and improved article of manufacture, the herein described cover for baking pans, having an open top, and provided with an endless water chamber, or receptacle, substantially as and for the purposes specified. 2nd. The improved cover herein described, consisting of the inverted pan, and the outer band or box upon at its upper end, and united at its lower end to the lower end of the inverted pan, substantially as set forth. 3rd. An improved

cover, consisting of an inverted pan, and an outer band or box united at its lower end to the inverted pan, and separated above such point from the sides of the pan, forming an intermediate water chamber, or receptacle, substantially as set forth.

No. 30,121. Lithographing by means of Sand Blast. (*Lithographie au jet de sable*.)

Joseph L. Mills, London, Eng., 6th November, 1888; 5 years.

Claim.—The process and means of lithographing, particularly described in the foregoing specification, substantially as and for the purposes therein mentioned.

No. 30,122. Fanning Mill. (*Tarareur*.)

Heinrich Sommerfeld, Canton, Kan., U. S., 6th November, 1888; 5 years.

Claim.—1st. A fanning-mill having sieves *H* and *I*, connected to opposite arms of the pivoted T crank *F*, in combination with the rod *E*, connected at one end to the T crank *F*, and at its other end to the revolving crank *A*, substantially as and for the purpose specified. 2nd. In a fanning mill, the slanting sieve *I*, connected to the pivoted T crank *F*, the partition *K* which separates the sieve *I* from the portion of the chamber slanting towards the spout *L*, the upper sieve *H* connected to the pivoted crank *F*, in combination with the rod *E* connected at one end to the crank *A*, and at its other end to the bell-crank *F*, substantially as and for the purpose specified.

No. 30,123. Combined Cradle and Rocking Chair. (*Berceau fauteuil à bascule*.)

William Earl and Rudolph Fraenzel, Look Haven, Penn., U. S., 6th November, 1888; 5 years.

Claim.—The combination of the cradle-frame, the chair-frame movable into and out of the cradle-frame, and the chair-seat pivotally supported on the chair-frame, whereby it may be turned for use at right angles to the cradle-frame, or may, when not in use, be adjusted into line with and telescoped in said cradle-frame, substantially as set forth.

No. 30,124. Ventilator. (*Ventilateur*.)

George A. Prichard and Eugène Mignault, New York, N. Y., U. S., 6th November, 1888; 5 years.

Claim.—1st. In a ventilator of the character herein set forth, the power fan and exhaust fan mounted on the same shaft in a shell divided into two compartments, said shell being provided on its exterior with the open projecting funnels turned in opposite directions, for collecting and directing air currents, and having separate inlet openings and separate discharge openings, or outlets, the parts being combined and arranged substantially as shown. 2nd. In a ventilator of the character herein set forth, the combination with the shell containing the power fan and exhaust fan, of the exterior projecting funnels turned in opposite directions, and the perforated hood and inclined flanges, substantially as shown and described. 3rd. In a ventilator of the character herein set forth, the combination with the shell having the projecting funnels turned in opposite directions, and the hood and inclined flanges, of the vertical shaft, the two fans located in separate compartments of the main shell, the said fans being keyed to the shaft and reversible thereon, substantially as and for the purpose set forth.

No. 30,125. Art of Governing or Regulating Revolving Machines. (*Art de gouverner ou régler les machines tournantes*.)

François Van Rysollborgho, Brussels, Belgium, 6th November, 1888; 5 years.

Claim.—1st. The method, substantially as hereinbefore described, of regulating the speed of motors, which consists in varying the motive power, or the resistance to the motive power, substantially in accordance with the position of an object moving in a parabolic curve. 2nd. A speed governor for motors, having a moving body in continuous operative connection with the motor, moving in the path of a parabola and changing its position in accordance with the speed of the motor, substantially as described. 3rd. A speed governor, consisting essentially of a rotating parabolic track, a freely moving runner upon the track, and a source of power for the motor under the continuous control of the runners, substantially as described. 4th. In a speed governor for motors, the combination of a parabolic track actuated by the motor to rotate about its vertical axis, with a freely moving runner upon the track, and a source of electrical energy controlling the operation of the motor and under the continuous control of the runner, substantially as described. 5th. In a speed governor for motors, the combination of a parabolic track actuated by the motor to rotate about its vertical axis, with a freely moving runner upon the track, a source of electrical energy controlling the operation of the motor, and an electric circuit of variable resistance composed in part of the track charged by the source of electrical energy, and under the continuous control of the runner, substantially as described. 6th. In a speed governor for electric motors, the combination of a parabolic track constituting a continuous resistance in the circuit of the motor, and rotated by the latter about a vertical axis with freely movable runners upon the track for completing and maintaining the circuit, whereby the resistance of the motor circuit and the speed of the motor are under the continuous control of the runners, substantially as described. 7th. In a speed governor for electric motors, the combination of a parabolic track composed of two parallel parabolas of relatively poor conducting material rotated about a vertical axis by the motor, and included in the circuit of the latter with free metallic runners, one upon each branch of the track and each in contact with the two parabolas, substantially as described.