

several bars are automatically returned from a collapsed to an extended adjustment, substantially as set forth. 5th. The bustle, consisting essentially of the side strips and their suitable coverings, the series of horizontal spring bars having their ends laced to the side strips, the diagonal spring bar at the top and the spacing bar and springs at the bottom, substantially as set forth.

No. 25,683. Device for Centering Hubs, etc.

(*Centreur pour Moyeux de Roues, etc.*)

Benjamin Wing, Wassalborough, Me., U. S., 8th January, 1887; 5 years.

Claim.—1st. The combination, in a hub block centering-machine, of a jaw A having two sets of oppositely diverging fingers a , having spaces or recesses a_1 between them, arranged so that the fingers of one jaw come opposite and in operation enter the recesses of the other, all substantially as and for the purposes described. 2nd. The combination in a hub block centering machine, of the jaw A having the diverging fingers a and the spaces or recesses a_1 between them and the jaw A¹, having the diverging fingers a and the spaces or recesses a_1 between them, the block B supporting the jaw A¹, and devices for imparting horizontal movements to said blocks toward and from each other, all substantially as and for the purposes described. 3rd. The combination, in a block-centering machine, of the jaws A, A¹ having the diverging fingers a and spaces or recesses a_1 shaped and arranged in relation to each other, as specified, the block B having a rack b , the pinion b_1 and the sliding block C, connected with the block D, whereby upon the movement of the pinion b_1 the blocks B, B¹ are moved simultaneously toward or away from each other, substantially as described. 4th. The combination of the jaws A, A¹, having recessed diverging centering surfaces of the character specified, their supporting blocks B, B¹ having horizontal sliding movements toward any way from each other, and a locking device for locking the two blocks in any desired position, all substantially as and for the purposes described. 5th. The combination of the bed F, having the sliding carriage E and supporting the blocks C, B, B¹ and the jaws A, A¹ having centering surfaces oppositely arranged to each other and provided with recesses, whereby they may overlap, and a pinion for providing the said jaws through the said blocks C, B, B¹, with opening and closing movements in relation to each other upon the carriage E, all substantially as specified.

No. 25,684. Machine for Making and Stuffing Mattresses. (*Machine à Fabriquer les Matelas.*)

Daniel H. McGeough, Peterboro, Ont., 8th January, 1887; 5 years.

Claim.—A machine formed by the combination of the frames A and E, form B, levers C, C and cross-bars D, D, substantially as and for the purpose hereinbefore set forth.

No. 25,685. Spring Car Bumper.

(*Tampon de Choc de Char à Ressort.*)

The Cowell Platform and Coupling Company (assignee of Newell P. Cowell), Cleveland, Ohio, U.S., 8th January, 1887; 5 years.

Claim.—1st. The combination with a spring car-bumper, a follower plate forming the rear seat for the bumper-spring, a knuckle joint arranged to actuate the follower-plate to control the tension of the bumper-spring and the movement of the bumper of a draw-bar incline and suitable connecting mechanism whereby the knuckle-joint is automatically operated by the movement of the draw-bar, substantially as set forth. 2nd. In a spring car-bumper, a knuckle-joint arranged to regulate the tension of the bumper-spring, and a pivoted cam or block arranged between the knuckle-joint and draw-bar, the latter having a suitable projection for automatically actuating the tension mechanism of the movement of the draw-bar, substantially as set forth. 3rd. The combination, with a spring-actuated bumper stem, of a bumper-plate hinged to said stem, and embracing or overlapping the platform sill, substantially as set forth.

No. 25,686. Malt Growing, Germinating and Drying Apparatus and Process Thereof. (*Appareil et Procédé de Production, Germination et Dessiccation du Malt.*)

John W. Free (co-Inventor with James O. Brown), Boston, Mass., U.S., 8th January, 1887; 5 years.

Claim.—1st. The improved malt-drying apparatus, containing in combination a casing divided into superposed chambers by the perforated floors or diaphragms pierced at the centre, as shown at m_2 , and having this central hole surrounded by the wall M, the said diaphragms or floors and their central wall m_3 , and the lifting and separating plate N having an edge parallel with each diaphragm or floor, and rising gradually back from the line and then ending abruptly, substantially as described, in each chamber, in combination with an air injection pipe located beneath the said plate, substantially as and for the purposes described. 2nd. The revolving share-shaped blade N, broad at its outer edge and nearly triangular in plan, its forward edge n_1 and upper surface n_2 being in substantially parallel planes, said upper surface being of a substantially rectangular form, and provided with backwardly-projecting teeth n_3 , while the forward part of the blade between the upper surface and the front edge is of a slope, lessening in steepness from centre to circumference, whereby the malt is evenly distributed over the floor of the chamber, when said share-shaped blade is revolved therein, and the entanglement of the rootlets broken up, substantially as described. 3rd. The combination with a chamber of the revolving plate N and the revolving perforated pipe within said chamber and beneath the rear part of said plate, substantially as described. 4th. The combination within a casing of a series of superposed chambers formed by diaphragms inclined downward from centre to circumference, and perforated, as described, and each having a central wall around a central hole with a share-shaped blade, as described, and a perfor-

ated pipe arranged beneath the rear of said blade in each of said chambers, said blade and pipes being revolved within said casing by a common shaft, substantially as described. 5th. The combination of the elevated soaking vats E with the couching floor F, above which they are elevated and with the grain bins A, A¹, substantially as described. 6th. The combination of the receiving elevator pocket c , with the malt-chamber A² and the grain chambers A, A¹, by means of separate shutles to each chamber, substantially as described. 7th. The combination of the elevator pocket c_4 with its two collecting shutles d , by which it receives grain from a car, and h_3 , by which it receives malt from the chamber H, substantially as described. 8th. The combination of the chamber H, with the couching floor F and with the furnace room G, substantially as described. 9th. The combination of the chamber H, with the ice chamber I and the circulating pipes i_1 and J, substantially as described. 10th. The combination of the chamber H, with the two sources of heat, one furnishing a moderate and moist heat G, and the other furnishing a higher and drier heat G¹, substantially as described. 11th. The combination of the water pipe w_1 , with the revolving shaft K and chamber H, substantially as described. 12th. The combination, in one apparatus of a single elevator, with two supply shutles k_3, k_4 , delivering into one pocket c_1 , and with one pocket c_3 delivering into two or more delivery shutles c_1, c_2, c_3 , which delivery shutles are on the highest level of the apparatus, with a series of elevated soaking tubs E upon the middle floors of the apparatus, and with the couching floor beneath said elevated soaking tubs E, or other portions of the same, or other floors, and with a sprouting or drying chamber H, having combined therewith appropriate sources of supply for hot and cold air, and proper means for the circulation thereof through the chamber, and with a revolving stirrind blade k , substantially as described. 13th. The revolving stirring blade k placed upon an incline to the floor of the chamber H, and formed with teeth upon its back and upper edge, which teeth are curved upwards and forwards from the general slope of said blade k with the said chamber H, having a perforated floor, substantially as and for the purposes described. 14th. The combination of the elevator C with an exhaust blower for cleansing the malt from rootlets, dust, etc., as it is fed to the chamber A², substantially as described.

No. 25,687. Snow Plough. (*Chasse-Neige.*)

Eugene Bastian, Clayton, and Charles G. Emery, Brooklyn, N. Y., U.S., 8th January, 1887; 5 years.

Claim.—1st. In a snow plough, the combination, with a hood by which the snow is taken up from the roadway, of a cutter revolving in advance of said hood to break up the impacted drifts, and beaters rotating within the hood to agitate and thoroughly break up the snow, substantially as described. 2nd. In a snow plough, the combination, with a hood having an open throat by which the snow is taken up from the roadway, of a cutter rotating in advance of said hood, beaters rotating within the latter, and a fan located in rear of the open throat of the hood, and creating an air current through the same, substantially as described. 3rd. In a snow plough, having a hood by which the snow is taken up, the combination, with a shaft carrying a cutter revolving in advance of said hood, of beaters revolving within the latter, and a fan revolving in rear of the open throat of the hood, the beaters and fan having movement independent of, and at greater speed than the cutter, substantially as described. 4th. In a snow removing device, the combination, with a hood having a contracted throat, of a fan arranged in a chamber in the rear thereof, whose blades extend transversely beyond the said contracted throat, substantially and for the purposes described. 5th. In a snow plough, the combination, with a hood adapted to take up the snow from the roadway, of extensible wings mounted upon the lateral walls of the hood, and means for advancing said wings beyond the open mouth of the latter, substantially as described. 6th. In a snow plough, the combination, with a hood adapted to take up the snow from the roadway, of extensible wings mounted upon the side walls of said hood, racks attached to said wings, and gears meshing with the said racks and extending above the hood, whereby the wings may be extended and retracted, substantially as described. 7th. In a snow plough, the combination, with a hood adapted to take up the snow from the roadway, of a central longitudinal shaft carrying a cutter having arms, which rotate in advance of the hood and are set at an angle to the plane of rotation, a sleeve mounted upon said shaft, carrying beaters which revolve within the hood, and a fan located in rear of the open throat of the hood and carried by said sleeve, the shaft and sleeve being driven by independent mechanism and at different speeds, substantially as described. 8th. In a snow plough, the combination, with a hood having a central longitudinal shaft carrying a cutter revolving in advance of the open mouth of the hood, of a sleeve arranged upon the shaft, and carrying beaters revolving in the hood, and a fan revolving behind the open throat of the hood, shafts carrying a large and a small gear meshing respectively with a small pinion on the sleeve, and a large pinion on the shaft, and means for giving to each of said shafts independent movements, substantially as described.

No. 25,688. Railway Rail Joint.

(*Joint de Rail de Chemin de Fer.*)

John Siegel, Montreal Que., 11th January, 1887; 5 years.

Claim.—1st. A railway rail joint formed by bevelling the head and web of each rail end, so as to overlap each other laterally, and cutting off a piece of the rail foot squares, so as to undercut the web, the rail end connected by two fish-plates, one having a foot corresponding to and replacing the piece cut from the foot of each rail, said foot extending on the outer side of the plate, and the latter having an extra thickness for a length extending over and beyond said foot, the other fish-plate provided with projections to cover the joints in the rail foot, said fish-plates bolted through the web of the rails in the usual manner, substantially as shown and described. 2nd. The combination of the rail ends R, the bevel joint A extending through head and web of the rails, and causing them to overlap laterally, the square back-set ends A¹ of the rails, the fish-plate F, extra thickness f , foot f_1, f_{11} and shoulder f_{111} , on said fish-plate,