Claim.—1st. The rollers L L^1 L^2 disposed symmetrically below the main roller and the waved rollers, the rollers L being placed centrally and centred in the frame ends, and the rollers L^1 L^2 being placed outside the frame and centered in cross pieces M secured to the frame ends, in combination with the main roller G provided with crank, the waved rollers K K^1 K2, the frame ends B connected by cap C, bars C^1, and slats D and provided with covers or guards I, casing in the springs upon the bearings of the main roller, 2nd. The rollers L^1 L^2 centred in the cross pieces M, in combination with the frame ends B. 3rd. The guards or covers I in combination with the frame ends B, all substantially as described, and for the purpose set forth.

No 17,184. Improvements in Car-Couplings.

(*Perfectionnements aux accouplages des chars.*)

Joseph P. B. Rarey and Daniel Rarey, Kokomo, Ind., U.S., 9th July, 1883 ; 5 years.

Claim.—1st. The combination of the draw-head A having the coupling pin B, with the mechanism for operating the same, consisting of the bent rod D slotted at its lower end, rock-shaft F having bent end F^1 inserted through the slotted end of rod D, sliding rod I and crank J having bent arm K engaging the bent end F^1 of rock-shaft F, all constructed and combined to operate substantially as set forth. 2nd. The combination of the mechanism consisting of the bent rod D slotted at its lower end, rock-shaft F bent at its free end F_1, sliding rod I, crank J having bent arm K, with the sliding bumper L M, pitman Q, crank O and handle P, substantially as and for the purpose shown and set forth.

No. 17,185. Lubricator. (*Graisseur.*)

James Allen, Toronto, Ont., 9th July, 1883 ; 5 years.

Claim.—A piston pump set within an oil reservoir and provided with a discharge pipe leading to the cylinder or steam chest of an engine, in combination with a pitman or rod connected to the cross head or some other moving part of the engine, and arranged to impart the desired reciprocating movement to the piston of the pump in order to draw from the oil reservoir and force into the cylinder of the engine a supply of oil in proportion to the speed of the engine, substantially as and for the purpose specified.

No. 17,186. Combined Rotary Harrow, Stalk-Cutter and Roller. (*Herse rotatoire, coupe-tige et rouleau combinés.*)

James Barker, Emory, Texas, U. S., 9th July, 1883 ; 10 years.

Claim.—1st. A combined rotary harrow and stalk-cutter made up of a harrow A having beam D and arranged to rotate as described, bifurcated draft bar F, bifurcated reach F1 and revolving stalk-cutter B, all arranged to operate substantially in the manner and for the purpose described. 2nd. The combination of the rotary harrow A, consisting of a ring *a* having track a^1, radial toothed arms *b*, recessed hub *c*, cross-beam D having wheel E and king-bolt *d*, and the bifurcated draft-bar F with the revolving stalk-cutter B, consisting of the heads *f* having knives *e* and journals e^1, and the bifurcated reach F^1 having the seat S attached between its forks, substantially as shown and described. 3rd. The combination, with the rotary harrow A having cross-bar D provided with wheel E, king-bolt *d* and bifurcated draft-bar F, of the revolving stalk-cutter B consisting of the heads *f* having bearing e^1 and knives *e*, and the bifurcated reach F^1 having seat S attached between its forks, substantially as set forth.

No. 17,187. Improvements in Creamers.

(*Perfectionnements dans les garde-lait.*)

Albert Stuart, Port La Tour, N. S., 11th July, 1883; 5 years.

Claim.—The combination of tap E with glass indicator D, leaded bottom F and loop G, together with hinged bail handle A and cover B, the whole arranged as shown and described, and for the purpose set forth.

No. 17,188. Fence Locking Device.

(*Mode d'assujétir les clôtures.*)

Abraham C. Scarr, Maryborough, Ont., 11th July, 1883 ; 5 years.

Claim.—1st. In a fence rail lock, the endless iron wire loop B enclosing the rails A by passing under the bottom rail, close to its junction with the adjoining panel, and thence in a diagonal direction to the top of the panel being first crossed or half twisted between the top and second rails, as shown and described. 2nd. In a fence rail lock, the combination of the endless iron wire loop B strained diagonally across the panel with the key-block C, substantially as and for the purpose set forth.

No. 17,189. Improvements in Geometrical Blocks. (*Perfectionnements aux blocs géométriques.*)

Albert H. Kennedy, Rockport, Ind., U, S., 11th July, 1883 ; 5 years.

Claim.—1st. The dissected blocks or segments of a sphere, substantially as shown and described, having the channelled sections, the straps or hinges connecting them together, substantially as and for the purpose set forth. 2nd. The combination of the grooves and the embedded strap by which the parts of the several round bodies described are held together and kept in perfect line, and the whole made strong and durable, substantially as and for the purpose set forth.

No. 17,190. Improvements in Brick Machines. (*Perfectionnements aux machines à briques.*)

Lewis B. Kennedy, Keokuk, Iowa, U. S., 11th July, 1883 ; 5 years.

Claim.—1st. The combination of a belt wheel V, a swinging friction wheel V^1 and a lever W, with friction drive wheels U^1, and wheels U and T^1 arranged so that the machine can be started or stopped by means of the lever W. 2nd. The combination, with a movable brick mould, of lever G pivoted to the main frame at B and having the slide H, bearing plunger M connected by link I, and lever G^1 pivoted to the main frame at A^1 through link I^1, and having slide H^1 connected with plunger N pivoted to it, all arranged as set forth, so that the mould and series of parts with their joints will come into a direct line between pivots B B^1 at the point of greatest pressure on the brick. 3rd. The combination of lever L and slide P, bearing plunger P^1 with the catch channel in the movable brick mould bottoms N, arranged as set forth, to draw down the bottoms into the moulds after the brick are discharged. 4th. In combination with the discharger lever L, the slide L^1 movable thereon toward or from the centre pivot, so as to increase or diminish the distance of the discharger throw and of the purchase for its movement, substantially as set forth. 5th. The combination of the revolving table D, bearing brick moulds, with an annular channel bearing therefor, adapted to hold it for its lubrication. 6th. The combination of a movable table D bearing brick moulds, and plunger M to press brick therein, with a friction wheel V borne in a movable frame so as to be alternatively brought into or out of action to drive the plunger, and with lock S to hold the table in place for the descent of the plunger provided with guide bar V^{11}, substantially as set forth. 7th. Lever Q pivoted at a^4 and arranged to receive motion from a cam *x*, combined with thrust bar Q^1 and a lever Q^{11}, and with an adjustable joint to adjust the motion of mould frame D, substantially as set forth.

No. 17,191. Dynamo-Electric Machine.

(*Machine électro-dynamique.*)

Daniel A. Schuyler, New York, N.Y., U. S., 11th July, 1883 ; 15 years.

Claim.—1st. The combination, substantially as described, with four armature bobbins disposed symmetrically with relation to one another in a field formed by a positive and negative pole piece, of a commutator cylinder provided with separate plates or segments to which the same ends of the bobbing are separately connected, positive and negative collecting brushes bearing on said cylinder, and a common ring or electrical joint to which the other ends of the bobbins are connected. 2nd. An armature whose bobbins are divided into two or more independent sets of four bobbins, the bobbins in each set being disposed symmetrically with relation to one another, a commutator ring or cylinder for each set to the segments of which the free ends of each set are connected, and a common electrical joint or connection for the other ends of the set, all arranged and combined in the manner set forth. 3rd. The combination of two field pole pieces, two or more sets of armature bobbins, each set consisting of 4 bobbins symmetrically disposed with relation to one another, two or more independent commutator rings or cylinders, one for each set, to the segments of which the bobbins are separately connected, a common joint or electrical connection for one end of the bobbing in each set, and independent positive and negative collecting brushes for the cylinders, the positive brush of one cylinder being connected to the negative brush of another, all as set forth.

No. 17,192. Improvements in the Production of Insulating Materials. (*Perfectionnements dans la préparation des corps isolants.*)

John A. Fleming, Hampstead, Eng., 11th July, 1883 ; 15 years.

Claim.—1st. The preparation or production of insulating materials or articles by the employment of wood deprived of its moisture and impregnated under pressure with a mixture consisting of melted bitumen or asphalt incorporated with a substance or substances of the resin type, as set forth, and also with a substance or substances of the paraffine type, or of the anthracine type, or of both the paraffine and anthracine types, substantially as described. 2nd. The preparation or production of insulating materials or articles by the employment of wood or other vegetable fibrous material, as set forth, in finely divided condition, desiccated and saturated or impregnated with a mixture consisting of melted bitumen or asphalt, incorporated with a substance or substances of the resin type, as set forth, in conjunction or not with a substance or substances of the paraffine type, or of the anthracine type, or of both the paraffine or the anthracine types, the whole being moulded under pressure, substantially as described.

No. 17,193. Improvements in Organs, etc.

(*Perfectionnements dans les orgues, etc.*)

James B. Hamilton, Hammersmith, Eng., 11th July, 1883 ; 5 years.

Claim.—1st. Arranging the parts of a reed musical instrument in the manner and for the purpose described with reference to Figures 1 and 2. 2nd. The constrained reeds constructed as described with reference to Figures 3 4 5 6 7 and 8. 3rd. In reed musical instruments, the combination of the mouth pieces *b* following the reeds with a tube C and compartments *d*, arranged alternately as described with reference to Figure 2. 4th. In reed musical instruments, the arrangement, in combination with the reed cavities or mouth pieces, of the compartments *d* following the same and arranged alternately as described with reference to Figure 9. 5th. The alternating arrangement of mouths or exit chambers for the sound, as illustrated in Figure 11. 6th. The "parallel" pallet carrying bar and pallets arranged and operating as described with reference to Figures 2 and 10. 7th. In reed musical instruments making the pallet board a^2 and chest G in one part, and the divisions B C and D (or such of them as are used) in another part, the two parts being hinged and locked together, as described with reference to Figure 2. 8th. The employment, in reed instruments having a percussion action, of the lever I for both opening the pallets and actuating the percussion, as described with reference to Figure 9. 9th. In reed instruments, the projection f^5 in combination with a pallet operated as described and illustrated in Figure 2. 10th. In reed musical instruments, the combination of pallets preceding the reed with cavities *b* and stop slides following the reeds as described.

No. 17,194. Improvement in Bed Bottoms. (*Perfectionnements aux somniers élastiques.*)

William L. Phillips, Brooklyn, N. Y., U. S., 11th July, 1883 ; 15 years.