

different points upon the sides of the cylinder, one end of each arm being pivoted to some stationary part, and the other end pivoted directly or indirectly to the shaft, in combination with appropriate devices to supply steam or other motive power successively to the different variable chambers thus formed by the jointed arms and the sides of the cylinder. 2nd. A rotary engine or motor consisting of a series (two or more) of jointed arms contained within a closed cylinder, and dividing such cylinder into variable chambers pivoted together at their inner ends upon a stationary pivot, which is affixed to the machine eccentrically as to the shaft, and at the outer ends pivoted at different points upon the sides of the cylinder being affixed to the shaft and turning with it, substantially as described, in combination with appropriate devices to supply steam or other motive power successively to the different variable chambers formed by the jointed arms and the sides of the cylinder. 3rd. A rotary engine or motor consisting of two jointed arms contained within a closed cylinder or chamber, and dividing such cylinder into variable chambers, pivoted together at their inner ends upon a pivot attached eccentrically to the shaft, and at their outer ends pivoted at stationary pivots placed at different points upon the sides of the cylinder, in combination with appropriate devices to supply steam or other motive power successively to the different variable chambers formed by the jointed arms. 4th. The three-armed machine shown in the drawings consisting of the combination of the inner cylinder E, the outer cylinder B and the cap C, the inner cylinder having 3 jointed arms pivoted at their outer ends at different points upon the sides of the cylinder, and at their inner ends pivoted together upon a stationary bar *r* affixed to the cap C, and having openings *e* into the chambers formed by the arms, the outer cylinder having cavities J and J1 and partitions *r* and *r*1 to supply and exhaust the steam or other motive power, substantially as described. 5th. In a rotary engine or motor consisting of one cylinder rotating within another by means of the pressure of steam or other power exerted within the inner cylinder the combination of the inner cylinder with its ports to admit the steam or other power, and the outer cylinder with a chamber or steam chest lying behind the disc of the inner cylinder, substantially as and for the purpose described. 6th. In a rotary steam engine having an inner revolving cylinder, and an outer cylinder with steam chest J1 as described, the partition *r*1 arranged between the partitions *r* and *r*1, substantially as and for the purpose described. 7th. A rotary engine or motor operated by jointed arms as described, so arranged that the pivotal point of the inner ends of the arms is one third of the way across the circle, which runs through the pivotal points of their outer ends upon its diameter, substantially as and for the purpose described. 8th. In a rotary engine or motor operated by jointed arms as described, a jointed arm which is just a little longer than the distance between its two ends when furthest extended, substantially as and for the purpose described. 9th. In a rotary engine or motor operated by jointed arms as described, a jointed arm consisting of two equal legs or parts, substantially as and for the purpose described. 10th. In a rotary engine or motor as described, the jointed arms provided at one or more of their pivotal points with corresponding ribs and grooves, substantially as and for the purpose described. 11th. In a rotary steam engine operated by jointed arms as described, the cylinder or chamber which contains the arms with the spaces in it which are not touched by the arms filled up, substantially as and for the purpose described.

No. 26,353. Hanger for Sliding Doors or Windows. (*Coulisse de porte ou de croisée.*)

Reuben Clark and William F. Monro, Toronto, Ont., 1st April, 1887; 5 years.

Claim.—1st. A door-hanger composed of bars A, B pivoted together at a one end of one of the bars being pivoted to the door-frame, and the opposite end of the other bar being adjustably connected to the door-frame, in combination with the door D connected by a pivot to one of the bars, and to the other bar by a connection which will permit the vertical adjustment of the said bars, substantially as and for the purpose specified. 2nd. A door D supported by the bars A, B arranged as specified, in combination with the rod I, substantially as and for the purpose specified.

No. 26,354. Combined Press and Double-Seaming Machine for Tinners in the Manufacture of Tinware. (*Presse et machine à ourlet double pour la ferblanterie.*)

Henry Pattison, John A. McRoberts and Henry Crawford, St. John, N.B., 1st April, 1887; 5 years.

Claim.—1st. In a machine of the character described, the combination of a vertically arranged shaft, a horizontally arranged disk mounted on said shaft, a horizontally arranged shaft, a vertically arranged die mounted on said horizontal and adapted to engage said disk, a crank or means for rotating the die, a treadle mechanism or means for causing the die to press on the disk, and a spring or means for keeping the pan or other vessel elevated from the disk while being double-seamed, substantially as described. 2nd. In a machine of the character described, the combination of the die *t* provided with the double-seaming edge or shoulder 14, the shafts D, E and disk K, said disk being recessed on its upper side for receiving a die or dies on the shafts D, and provided with the double-seaming edge 17, substantially as set forth. 3rd. In a machine of the character described, the die *t*, provided with the shoulder 14 and annular flange 15, in combination with the disk K, provided with the annular groove or rebate 16 and double-seaming edge 17, substantially as described. 4th. In a machine of the character described, the spring Q, in combination with the shaft H, disk K, shaft D and a die adapted to operate in conjunction with said disk, substantially as set forth. 5th. In a machine of the character described, the combination of the shaft D carrying a vertical die or dies, and the shaft H mounted in the standard E and carrying the disk K, said disk being provided with a double-seaming edge 17, and recessed on its upper side to re-

ceive a die or dies on the shaft D, and said standard adjustable to enable the disk to be moved laterally into position for use with the die or dies on the shaft D, and thereby convert the machine from a press into a double-seamer and *vice versa*, substantially as described.

No. 26,355. Car-Coupling. (*Attelage de chars.*)

Robert H. Dowling, Charles H. Follett and Charles Follett, Newark, Ohio, U.S., 1st April, 1887; 5 years.

Claim.—1st. In a car-coupling, a draw-head having a hook or claw, a movable S-shaped jaw, and a pin or key for locking and releasing said claw, substantially as specified. 2nd. In a car-coupling, the combination, with the stem of the draw-head having the arc-shaped recess, the arc-shaped shoulder and the integral hook or claw having a portion of a key seat in its inner circle, of the S-shaped movable jaw having a key seat in the longer arc of its inner end, and the key for locking said movable jaw, substantially as specified. 3rd. The combination with the draw-head stem having the arc-shaped shoulder, the arc-shaped recess and the integral recessed guide hook of the S-shaped movable jaw having a key-seat in the longer arc of its inner end, substantially as specified. 4th. The combination, with the draw-head stem having the arc-shaped recess, the arc-shaped shoulders and the integral recessed guide hook, of the S-shaped movable jaw having the key-seat in the longer arc of the inner end, and the pin-hole in its outer end, and the key for locking said movable jaw, substantially as specified. 5th. The combination, with the draw-head provided with the split depending fulcrum of the curved lever, provided with a seat in its lower end and the coupling pin pivoted in said seat and extending up into the draw-head, substantially as specified. 6th. The combination, with the draw-head provided with the split depending fulcrum of the curved lever provided with a seat in its lower end, and the coupling pin having the upper larger and lower smaller portions or diameters pivoted in said seat and extending up into the draw-head, substantially as specified.

No. 26,356. Sleigh. (*Traineau.*)

William M. Hoag, (assignee of Elijah A. Ovenshire), Lansing, Mich., U.S., 1st April, 1887; 5 years.

Claim.—1st. The combination, with a sleigh runner, of a knee and an axle having a rotatable engagement with said knee, substantially as described. 2nd. The combination, with a sleigh runner, of a knee having a rotatable axle engaged therewith, said axle connected with a bolster, substantially as described. 3rd. The combination, with a sleigh runner, of a knee, an axle having a rotatable engagement with said knee, and a bolster engaged with said axle by an intervening bolt, substantially as described. 4th. The combination, with a sleigh runner, of a knee, an axle having a rotatable engagement therewith, and a bolster engaged with said axle by a bolt movably engaged with said axle, substantially as described. 5th. A metallic sleigh knee constructed to engage a runner at its base, said knee recessed at the top between its inner and outer extremities, said extremities perforated to receive an axle, substantially as described. 6th. The combination, with a sleigh runner, of a knee, an axle having a rotatable engagement therewith, a bolster engaged with said axle with an intervening bolster plate, substantially as described. 7th. The combination, with a sleigh runner, of a knee recessed at the top, an axle rotatably engaged with said knee, a bolster plate engaged in said recess, a bolster located above said plate, and a connecting bolt engaging said axle plate and bolster, substantially as described. 8th. The combination, with a sleigh knee, of an axle rotatably engaged therewith, a sand plate and sand board engaged with said axle, substantially as and in the manner described. 9th. The combination, with a pair of sleigh knees, of an axle rotatably engaged therewith, sand board plates and sand board engaged with each end of said axle, and a bolster mounted on said sand board and connected with the axle by a ring bolt, substantially as and in the manner described. 10th. The combination with a sleigh runner, of a metallic knee and a brace J engaged with the ends of the runner, and with said knee in the manner described, and forming a rave or finger, substantially as described. 11th. The combination, with a pair of knees engaged with sleigh runners, of an axle rotatably engaged with said knee, the construction being such that the bolster may keep a horizontal position when said runners are tilted, substantially as described. 12th. The combination, with a sleigh knee recessed at the top of an axle rotatably engaged therewith, a plate located in said recess and engaged upon said axle, substantially as described. 13th. The combination, with a sleigh knee recessed at its top of an axle rotatably engaged therewith, and a bolster rotatably engaged upon said axle, substantially as described. 14th. The combination, with a sleigh knee, of an axle rotatably engaged therewith, a sand board and bolster rotatable engaged upon said axle, substantially as described.

No. 26,357. Churn. (*Baratte.*)

Samuel McDonald and Duncan D. McDougald, Alexandria, Ont., 1st April, 1887; 5 years.

Claim.—1st. In a churn having an upright cylindrical barrel, a revolving dasher journaled in the frame C having the arms *a* fixed in the spindle B, and connected with the three-sided sleeve *d*, oil cup *e* and pinion *f*, substantially as shown and described. 2nd. In an upright cylindrical churn, the above described fence having the bars *b* and stiles *e* placed in the barrel beside the frame C, so that the arms of the revolving dasher will swing between the bars of the fence, substantially as described and for the purpose set forth.

No. 26,358. Paper File. (*Etui à papier.*)

Lovasso Field, Rochester, N. Y., (assignee of John C. Lang, Washington, D.C.), U.S., 1st April, 1887; 5 years.

Claim.—1st. In a paper-file, the box or receptacle having a guide or base *d*, in combination with a sliding and backwardly-tipping standard, having the follower-bard attached, and having rearward arms or projections and a lever acting between said projections and the base to maintain the standard in the required position. 2nd. In