## No. 27,320. Oil Can. (*Bidon à huile.*)

William W. Hill and Ore M. Fergeusen, Codillac, Mich., U. S., 1st August, 1887; 5 years.

*Claim.*—The combination of the oil-can, having the discharge nozzle C, the valve seat, sleeve E located in the said nozzle, the air-tube F extending downward in the can on the side opposite the point of the nozzle, and reaching nearly to the bottom of the can, the operating rod H bent to form a vertical outer arm exending through the bore of tube F, and of less diameter than said bore, and the inner arms extending upward into the nozzle and provided with the valve I to fit in the valve-seat, the cap or button K on the upper end of the outer arm of the operating-rod, and the spring *h* for the cap or button, substantially as described.

## No. 27,321. Combined Land Roller and Seeder. (*Rouleau-semoir.*)

Jay S. Corbin, Gouverneur, N.Y., U.S., 2nd August, 1887; 5 years.

*Claim.*—1st. The combination of the box-frame A, A1, tongue C, strut D, bracket D11, bearings E, axle F, drum G, hubs *g*, spokes *g1*, felloes *g11*, nuts *g111*, rollers H, bracket H1, seed box I, blocks *i1*, tube I1, slots *i1*, shaft I11, slots *i11*, pulley J, lever K and rod *k*. 2nd. The combination of the box A, A1, tongue C, mortises and wedges *c*, bearings E, axle F, drums G and expansive heads *g*, *g1*, *g11*, *g111*. 3rd. The combination, with a main frame, of elastic down-hangers provided with bearings adapted to receive the axle of the roller. 4th. The combination of a drum, a box having sides, a bottom and end pieces having downward elastic extensions, which are provided with bearings for the drum. 5th. The combination of the frame A, A1, tongue C, mortise and wedges *c*, bracket D11, strut D1 and seat D. 6th. The combination of the sheet cylinders G, felloes *g11*, nuts *g111*, spokes *g1* and hubs *g*. 7th. The combination of the box A, A1, bearings E, axle F, roller section G, bracket H1 and pulleys H. 8th. The combination of the box A, A1, tongue C, box I, blocks *i*, tube I1, slots *i1*, shaft I11, slots *i11*, pulley J, lever K and rod *k*. 9th. The combination of the frame A, A1, tongue C, box I, blocks *i*, tube I1, slots *i1*, shaft I11, slots *i11*, pulley J, lever K and rod *k*. 10th. The combination of the box I, blocks *i*, tube I1, slots *i1*, shaft I11 and slotts *i11*. 11th. The combination of the box I, tube I1 and shaft I11. 12th. The combination of the tube I1, slots *i11*, shaft I11 and slots *i11*. 13th. A combined land roller and seeder, composed of a stone or weight box performing the functions of a frame, in which the roller axle is flexibly journalled, sheet metal drums having expansive heads forming the roller, detachable tongue wedged into the weight-box and carrying seat detachably, a seeder-box pivotally attached to the tongue, controlled by flexible lever, and the seeding mechanism composed of a slotted rotary shaft in a slotted stationary tube. 14th. A land roller composed of a stone or weight box, having the roller axle journalled to its downward extending flexible ends, a roller composed of sheet metal drums, having expansive heads, friction rollers upon the roller sections, detachable tongue wedged to the weight box and carrying seat detachably. 15th. A roller section, consisting of a sheet metal cylinder, and expansive head composed of a hub having spokes which have their outer ends threaded and provided with nuts, felloes having their inner edges straight and overlapping the end of the next, and having projections to keep their position on the sheet metal. 16th. In a land roller, the combination of a main frame, downward projecting hangers, an axle mounted at its ends in the hangers, hubs mounted on the shafts, spokes, felloes mounted on the spokes, a sheet metal enclosing cylinder surrounding the felloes, and means for adjusting the felloes outward upon the spokes. 17th. In a land roller, the combination of the main frame and axle mounted in the same, a series of hubs mounted loosely upon the axle, spokes projecting outward from the hubs outward, adjustable felloes at the outer ends of the spokes, and a sheet metal drum or drums supported upon the felloes and connecting the series of hubs. 18th. In a land roller, the combination of a main frame, an axle, a drum and a friction roller located externally to said drum to prevent the axle from undue springing. 19th. In a combined land roller and seeder, a drum or cylinder, a seeding mechanism provided with a wheel to travel upon the external surface of the drum, and means for holding said wheel in or out of contact with said drum. 20th. In a seeder, the combination of a slotted tube, a slotted shaft within a tube, and means for rotating the shaft. 21st. In a seeder, a slotted tube, a slotted shaft rotating in said tube and capable of being moved endwise therein to vary the quantity of seed discharged. 22nd. The combination of a seed-box, a slotted tube fixed therein, a slotted shaft within the tube, washers mounted upon the shaft, and a forked removable bracket between the washers, all substantially as shown and described and for the purpose set forth.

## No. 27,322. Barbed Wire. (*Fil de fer barbelé.*)

Julius Schmidt. Hagen, Germany, 2nd August, 1887; 5 years.

*Claim.*—1st. A barbed wire, produced from wire having one or more ribs, the barbs or teeth produced by indentations pressed edgewise into the rib or ribs by serrated rolls, and the displaced materials forced wholly or partly into the projecting or remaining barb or tooth so formed, substantially as set forth. 2nd. A barbed wire, produced from a wire having one or more ribs, the barbs or teeth formed by incisions in the rib or ribs made by obliquely serrated rolls, and the corners of such teeth forced laterally and in opposite directions, substantially as set forth.

## No. 27,323. Type Writing Machine. (*Graphotype.*)

Eugene Fitch, Des Moines, Iowa, U.S., 2nd August, 1887; 5 years.

*Claim.*—1st. In combination, a series of type-carrying arms arranged in one frame, having a common axis of rotation, and provided with hinged joints between their axis and their ends, the successive arm from the centre to the end arms having an increasing lateral bend, substantially as set forth. 2nd. A series of type-arms, composed of two pieces laterally hinged together, the parts so hinged being placed and held in juxtaposition on a shaft passing through one of the sets of pieces, the sides of the laterally moving arms or parts to which the type are attached, acting as guides to cause an operated arm to resume its normal position in the common plane, substantially as set forth. 3rd. In combination, a series of laterally hinged type arms, arranged in an upwardly inclined plane, and pivoted in juxtaposition on a common shaft, and type secured to their free ends, an impression platen or roller located in front of the type arms, directing guides located in front of the type arms, to cause the type to strike in position or impression, and a stop bar provided with guide pins between which the type arms are held in one plane, and from which the type arms are entirely clear before they come in contact with the directing guides, substantially as set forth. 4th. In combination, a series of arms carrying type at their ends, having a common axis of rotation, and provided with hinge joints between their axis and their ends, a series of bars provided with keys or finger pieces, and held on one shaft, and links connecting the rear ends of the key bars to the pivoted parts of the type arms, substantially as set forth. 5th. In combination, a series of arms carrying type at their ends, having a common axis of rotation, and provided with hinge joints between their axis and their ends, a series of bars provided with keys or finger pieces and held on one shaft, links connecting the rear ends of the key bars to the pivoted parts of the type arms, and a series of connecting springs for raising and holding the type in normal position, substantially as set forth. 6th. The combination, with a series of type arms pivoted on a common shaft, a number of type secured to their free ends and an impression platen or roller, of movable bearings constructed and operated to move the common shaft on which the type arms are pivoted, so as to cause all the type to strike on one line, substantially as set forth. 7th. In a type writing machine, in combination, a series of arms pivoted on a common horizontal shaft, and provided with type on their free ends, arranged and operated to cause the type to strike face down on the upper exposed surface of the paper, directing guides located in front of the arms inclined downwardly towards the centre with their ends arranged vertically parallel, between which the type arms pass, and an ink roller held in a pivoted frame and located in front of the vertical parallel ends of the directing guides, so as to be struck by a descending type and be moved out of the path of the same, substantially as set forth. 8th. In a type writing machine, in combination, a series of arms pivoted on a common horizontal shaft and provided with type on their free ends, arranged and operated to cause the type to strike face down on the upper exposed surface of the paper, directing guides located in front of the arms inclined downwardly toward the centre, with their ends arranged vertically parallel, between which the type arms pass, an ink roller held in a pivoted frame and located in front of the vertical ends of the directing guides, so as to be struck by a descending type and be moved out of the path of the same, and an arm or rod projecting from the pivoted ink roller frame and extending over the type arm in its path when the ink roller has been moved out of the path of the type, substantially as set forth. 9th. In combination, a series of laterally hinged type arms pivoted on a common shaft, and a number of type secured to their free ends, an impression platen or roller, movable bearings constructed and operated to move the common shaft on which the type arms are pivoted, so as to cause all the type to strike on one line, and an ink roller held in a pivoted frame in the path of the type, said roller being of such a length as to be struck by one type only, substantially as set forth. 10th. In a type-writing machine, the combination, with a platen or paper holding and feeding roller, of a cylindrical paper holder located in front of the platen or roller, pivoted to the roller frame, and held in either of two positions by means of a spring catch in one position, with its free edge in juxtaposition to the roller to guide the paper thereto, and in the other position with its free edge away from the roller, substantially as set forth. 11th. In a type-writing machine, the combination, with a platen or paper holding and feeding roller, of a cylindrical paper receiver located behind the roller, and a set of small rollers having spring bearings on or attached to the free edge of the paper receiver, and resting on the holding and feeding roller with a yielding pressure, substantially as set forth. 12th. In a type-writing machine, the combination, with a platen or paper holding and feeding roller, of a cylindrical paper receiver located behind the roller, and a set of small rollers having spring bearings on or attached to the free edge of the paper receiver, and resting on the holding and feeding roller with a yielding pressure, a roller located in the cylindrical paper receiver connected to and receiving motion from the holding and feeding roller, and rollers having bearings in the upper part of the cylindrical paper receiver in contact with the interior roller, substantially as set forth. 13th. The combination, with the space key of a ratchet wheel, of the carriage feed mechanism, the lever carrying an actuating and a detent pawl, and the frame for lifting said lever, the whole constructed and arranged substantially as described, so that when the space key is depressed to its limit, the carriage will be released and freely movable in either direction. 14th. In combination, a laterally moving paper holding and controlling frame, a shaft at right angles thereto, a pinion on the shaft working in a rack on the laterally moving frame, a ratchet wheel on the shaft, a pawl pivoted on a lever and actuating the ratchet wheel to cause the frame to feed forward, a ratchet wheel, with its teeth reversed, and a projection of the lever catching therein to limit the movement of the frame, and means for imparting an up and down movement to the lever, substantially as set forth.

## No. 27,324. Rope or Cable Coupling. (*Machine à épisser lexordage ou les cables.*)

Michael Garland, Bay City, Mich., U.S., 2nd August, 1887; 5 years.

*Claim.*—1st. In combination with the suitably divided or split end portions of the rope or cable, clamping bars or plates which have clamping surfaces arranged transversely to the direction of length of the rope or cable, and operating to grip the divided end portions of the latter, all substantially as set forth. 2nd. In combination with a rope or cable, a clamping device for splicing or connecting the ends thereof, formed or provided, as described, with projecting sprocket-like portions located at each side of the rope or cable, and arranged to engage with the toothed flanges of any rope wheel over which said cable may be run, for the purposes set forth.