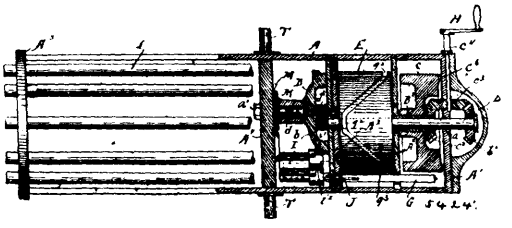
and formed of a long main section and a short foot section hinged together to fold upward but not downward, a separate and independent seat-board arranged to rest on the mattress, the suspending cords fastened to the main section of the mattress frame and to opposite ends of the seat-board, and the rigid seat-board supports fastened to the seat-board and arranged to rest upon the foot-board of the supporting frame, substantially as set forth. 3rd. The combination of the mattress frame formed of a long main section pivoted to a support and a short foot section hinged to the main section to fold upward but not downward, means for supporting the upper end of the main section, two laterally-reciprocating bolts connected with the foot section, supporting shoulders arranged to catch the reciprocating bolts when shot outward, and means for operating such bolts. 4th. In a bedstead, the combination of the supporting frame provided with an anti-friction roller on its foot-board, the mattress frame pivoted to the supporting frame, the independent seat-board arranged to rest upon the mattress and provided with the support arms arranged to rest upon the roller, and the cords fastened to the opposite ends of the seat-board and to the upper end of the mattress frame, substantially as set forth. 5th. In a bed, the combination of the supporting frame, a mattress frame pivoted to such supporting frame, an independent seat-board arranged to rest upon the mattress when in its horizontal position, means for supporting the seat-board in an approximately horizontal position when the mattress is tilted, the mattress supporting braces pivoted to the mattress and arranged to engage the supporting frame to hold the mattress in its tilted position, and the cross-bar connecting the lower ends of the braces together and arranged to extend across under the mattress frame to form a rest for the upper end of the mattress frame when in its horizontal position, substantially as set forth. 6th. A surgical bed, having in combination substantially as set forth, a pivoted mattress frame and an independent seat-board arranged to rest upon the mattress when in its horizontal position, suspending cords attached to the seat-board and to the upper end of the mattress frame, support bars fastened to the seat-board and arranged to rest upon the bedstead, preferably the foot-board of the bedstead, and a pulley support pivoted to the foot of the bedstead and adapted and arranged to carry the tension cord, 7th. In an invalid bed having a tilting mattress and an independent seat-board, with means for supporting the same, the combination of the seat-board provided with the leg rest eye, the leg rest provided with a hook to hook in such eye and arranged to rest upon the foot of the bedstead, the cord-support sustaining eyes fastened to the lower part of the foot-board, the cord-support brace pivoted to the upper part of the foot-board, the cord-support provided at itf upper end with a cord-sustaining pulley, and its lower end with the hooks arranged to hook into the cord-support eyes, and the pin for limiting the movement of the cord-support arranged in the brace to hold the cord-support, substantially as and for the purpose set forth. 8th. In an invalid bed, the seat-board provided with a hole and with the pivoted mug-clasps curved and channelled in their edges to receive the rim of the mug, substantially as set forth. 9th. The combination of the board provided with the hole, the stop fixed to the under side of the board and having one edge curved and channelled to receive the rim of the mug, and means for locking one of the pivoted latches in the closed position substantially as set forth. 10th. In an invalid bed, a bedstead, in combination with a mattress frame pivoted in the bedstead at or near the centre of its length, and a seat-board connected to the mattress frame by cords extending towards the head of the mattress frame and provided with one or more arms reaching to and resting upon the bedstead, preferably on the foot-board, to retain the seat in approximately a horizontal position when the mattress is tilted, and removable supports for the foot end of said mattress frame. 11th. A bedstead in combination with a bed bottom constructed in two sections of unequal length, removably pivoted in said bedstead at or near the centre of its length, the shorter section provided with rollers, and the longer section provided with braces to support it in an upright position when tilted, said sections hinged together to fold upward only, and so that the longer section may while continuing to rest in its pivotal bearings, be raised to an upright position, all in combination with a removable seat flexibly suspended to the head end of the mattress frame, and extending to and resting on the bedstead and arranged to hold the seat in practically a horizontal position. 12th. In an invalid bed, the combination of a bedstead, a mattress frame pivotally connected at its sides to the bedstead at or near the centre of its length, and constructed in two sections of unequal length, hinged together to fold upward only, a removable seat provided with flexible means of supporting it in, approximately, a horizontal position when the mattress is tilted, reciprocating bolts and means for extending and retracting them, mattress supporting braces, one pivoted on each side of the mattress frame, and connected together for simultaneous movement, and so as to be operated from either side of the bed. 13th. A removable seat provided with a hole and with clasps on its under side, one on each side of the opening, adapted to clasp and hold a chamber mug, said seat arranged to rest horizontally on the mattress when the mattress is in a horizontal position, in combination with a bedstead, and a bed bottom made in two sections of unequal length, hinged together to fold upward only, said bed bottom pivoted at or near its centre, in said bedstead, so as to permit the head end of said bed bottom to be raised to an upright position, and flexible means for supporting the seat in a horizontal position at the pivotal line of the mattress when the mattress is tilted. 14th. The combination of a common bedstead, a bed bottom made in sections of unequal length hinged together so as to fold upward only, said bed bottom pivoted to the side-rails of the bedstead, at or near the centre of its length, so as to permit the longer section to be raised to an upright position, reciprocating bars pivotally connected to each other and to the bed bottom, and means for extending or retracting both bars simultaneously, braces, one on each side of said bottom, and connected together so as to be operated together from either side of the bed. 15th. In an invalid bed, the combination of a bedstead, a bed bottom having two sections of unequal length hinged together so as to fold upward only, said bed bottom pivotally connected at its sides to the bedstead at or near the centre of its length, reciprocating bolts and means for extending or withdrawing them, a removable seat and means for holding it in, approximately, a horizontal position against and at the pivotal line of the mattress when the bed bottom is raised to an upright position. 16th. The combination of the pivoted sectional mattress frame and woven wire mattress thereon, the pivots of the sections of the frame being in the plane of the woven wire, a rod passed through a coil of the woven wire co-axial with said pivots, cords connecting the rod with one section of the frame and cords connecting the rod with the other section of the frame.

No. 54,247. Machine Gun. (*Mitrailleuse.*)



Lauretta Wilder, Cambridge, Massachusetts, U.S.A., (administratrix of the estate of Elihu Wilder,) 2nd December, 1896; 6 years. (Filed 26th September, 1896.)

Claim.—1st. In a machine-gun, the combination of a main or driving-shaft, a mutilated gear-wheel journalled eccentrically to said shaft, gearing connecting the shaft and wheel, rotary cartridge carriers having mutilated gears to mesh with said wheel, and gun-barrels in the arc of a circle concentric with the driving-shaft. 2nd. In a machine-gun, the combination with a series of barrels arranged circularly, plungers to charge the barrels, and means for advancing and retracting the plungers, of a series of rotary cartridge carriers each having a number of cartridge-holding recesses through which the plungers pass, and means for turning said carriers successively step by step to bring the cartridges in line with the barrels and the plungers. 3rd. In a machine-gun, the combination of a driving-shaft journalled in the gun-frame and carrying a bevel-gear at the outer end, a tubular shaft around the driving-shaft and carrying a bevel-gear in juxtarelation to that on the latter, an operating crank-shaft carrying a bevel-gear in mesh with the bevel-gears on the two shafts, charging and firing devices operatively connected with the tubular shaft, and cartridge-carriers operatively connected with the driving-shaft. 4th. In a machine-gun, the combination with a mutilated gear-wheel and means for continuously turning the same, the said wheel having smooth peripheral portions at the height of the teeth, of rotary cartridge-carriers arranged in the arc of a circle around the said wheel and each having a plurality of cog-sections for engagement with those of the wheel, and concave blank-spaces between the cog-sections for engagement of the high peripheral portions of the wheel for locking purposes, substantially as described. 5th. In a machine-gun, the combination with the gun-barrel, the rotary cartridge-receivers, and means for intermittently turning the latter, of closure for the cartridge-holding chambers of the receivers, and means for moving said closures into and out of closing position, substantially as and for the purpose described. 6th. In a machine-gun, the combination with the gun-barrels, the rotary cartridge-carriers, and means for intermittently turning the latter, of levers interposed between the carriers and the barrels, and devices connected with the carrier turning means, for vibrating said levers to close and open communication between the carriers and the barrels, substantially as and for the purpose described. 7th. In a machine-gun, the combination with the gun-barrels, the rotary cartridge-carriers having mutilated gears, and a mutilated gear-wheel arranged to engage the carrier-gears, of a set of levers interposed between the carriers and the barrels and having divergent arms at their inner ends, and cam-discs on the mutilated gear-wheel and co-acting with said levers to vibrate the same, for the purpose described. 8th. In a machine-gun, the combination of a plunger for charging the barrel, spring-tongues fastened at one end to said plunger and having catches at the opposite end adapted to take over the flange of the cartridge and bevelled on the outer side, said tongues having inner bevels extending oppositely to the catch-bevels, and fixed abutments located between the tongues and the plunger for said inner bevels to encounter when the plunger is retracted. 9th. In a machine-gun, the combination with a suitably formed feed-case or hopper, of means for feeding the cartridges therein, said means comprising a ratchet-bar, a pair of slides thereon, pawls on