No. 37,552. Sewing Machine.

(*Machine à coudre.*)

Felix Doucet, Montreal, Quebec, Canada, 7th October, 1891 ; 5 years.

Claim.—1st. The combination, of a rotary ring or case adapted to contain the lower thread and provided with hooks projecting outside of its periphery to engage the needle loop, a spreader for the needle loop, idle rolls supported in position to bear on and support the ring, and means for rotating the ring, as set forth. 2nd. The combination, of a rotary ring or case adapted to contain the lower thread, and provided with hooks projecting outside of its periphery to engage the needle loop, a spreader for the needle loop, means for rotating said ring, idle rolls bearing on the periphery of the ring, and a movable support for one or more of said rolls whereby the ring is adapted to be removed from the machine, as set forth. 3rd. The combination, of a rotary ring provided with hooks projecting outside of its periphery to engage the needle loop, a spreader for the needle loop, a shuttle removably inserted in said ring, idle rolls supported in position to bear on and support the ring, as set forth. 4th. The combination, of a non-rotating shuttle, a rotary ring surrounding said shuttle and provided with hooks projecting outside of its periphery to engage the needle loop, the positively rotated driving wheel engaged with the periphery of the ring, and idle rolls bearing on other portions of the periphery of the ring. 5th. The combination with a back gage and suitable stitch forming devices, of the feed dog formed to enter the channel in a sole, and provided with a penetrating spur and with a shoulder to limit the penetration of said spur into the between substance, and mechanism for operating said dog, as set forth. 6th. The combination with a back gage and lock stitch forming mechanism, substantially as described, of a feed dog, a hub or collar elevated above the feed dog and secured to the shank of said dog and mechanism for oscillating said hub and for moving it laterally on a support or bearing, as set forth. 7th. The combination with a back gage and lock stitch forming mechanism substantially as described, of a feed dog, a hub or collar elevated above the feed dog and secured to the shank of said dog, the toothed arm $f13$, on said hub, the reciprocating rack engaged with said arm, and the oscillating lever f^5, engaged with the hub, as set forth. 8th. The combination with a back gage and a feeding device or dog adapted to enter a channeled sole, of lock stitch forming mechanism including a rotary ring or case adapted to contain the lower thread and arranged with its axis substantially parallel with the feed movement, said ring or case being located back of the feeding device, as set forth. 9th. The combination with stitch forming mechanism, of a take up mechanism consisting of two parallel slides each having a thread engaging pulley, and mechanism for simultaneously reciprocating said slides in opposite directions, as set forth. 10th. The combination with stitch forming mechanism of the take up slides having thread engaging pulleys, and provided with rack teeth on their adjacent edges, the pinion located between said slides and engaged with the teeth thereof, and means for reciprocating one of said slides, as set forth.

No. 37,553. Saw Set. (*Tourne-gauche.*)

David E. Thompson, Vasey, Ontario, Canada, 7th October, 1891; 5 years.

Claim.—1st. In a saw set, the rod having an inclining face formed in each of the sides and inclining to correspond to the set to be imparted the saw tooth, substantially as shown and specified. 2nd. In a saw set, the combination, of the rod having an inclining face formed in each of its sides as specified, with the die tightly fitting said rod and having a notch in each side around the rod to direct the saw tooth against said inclining face on said rod, and within the die when in position, substantially as shown and specified.

No. 37,554. Car Mover. (*Levier de mise en marche.*)

Robert Waln Drinker, Kilbourn City, Wisconsin, U.S.A., 7th October, 1891 ; 5 years.

Claim.—1st. In a car mover, the combination of an upper and lower bar placed end to end in a right line in the same plane, and a rectilinear sleeve or tube having an opening in one side near the middle and provided with strong lugs or ears, a rack securely bolted and fastened to the upper side of said upper bar near its lower end, and the upper end of said lower bar being securely bolted into said sleeve or tube, the cogged segment secured between said lugs or ears by a bolt, the cogs upon the periphery of said segment being adapted to engage the rack upon said upper bar within said sleeve or tube, the lever securely bolted to said segment and by means of which said segment and said bars are actuated, the upper and lower joints or swivels, the hinge on the under side of the connecting jaws formed by the wrist, lugs, and bolt, the bifurcated foot, and the steel blades upon the inner edges of said foot, as and for the purposes set forth and described. 2nd. In a car mover, the combination of two rectilinear bars placed end to end in the same plane, and a sleeve or tube, a rack secured to the upper bar near its lower end, and the upper end of the lower bar being securely bolted into said sleeve or tube, said bars operating against each other longitudinally in the same line, said sleeve or tube having an opening on one side near the middle provided with strong lugs or ears by a securing bolt, the cogs upon the periphery of said segment being adapted to engage the rack on said upper bar within said sleeve or tube, the lever securely bolted to said segment and by means of which said segment is operated, the shoe provided with a socket embracing the lower end of said lower bar, the bifurcated foot having the spur or spindle securely fastened into said socket and forming a joint or swivel, the steel blades upon the inner edges of said bifurcated foot, the shoe provided with a socket embracing the upper end of said upper bar, the wrist provided with a spur or spindle and having a square shoulder resting upon the upper shoe, said spur or spindle being securely fastened into said socket and forming a swivel, the lugs upon the under side of the connecting jaws, said lugs and said wrist being connected by a securing bolt and forming a hinge, and the securing jaws actuated by the screw and wheel, as and for the purpose set forth and described. 3rd. In a car mover, the combination of the two rectilinear bars B^1, and B^2, placed end to end, and the sleeve or tube A, said bars operating longitudinally against each other through said sleeve in the same plane, the upper end of said lower bar B^1, being bolted and securely fastened into the lower end of said sleeve or tube, and the lower end of said bar B^1, being embraced and securely bolted into the shoe C, having a socket adapted to receive a spur or spindle from the shank of the bifurcated foot C^1, having the square shoulder c, said shoe resting upon said shoulder c, and said socket and spur or spindle forming the swivel c^1, said bifurcated foot C^1, being provided with the steel blades C^4, the lugs B, on the side of an opening in the side of said sleeve or tube, said opening adapted to receive the cogged segment D, the lever D^1, the rack d, the belt d^1, the hinge B^3, the wrist C^3, the spur c^3, the shoes C and C^2, the joint or swivels c^1, and c^4, the connecting jaws E, the screw E^1, and the wheel E^2, as and for the purposes substantially as set forth and described.

No. 37,555. Car Replacer. (*Appareil pour remettre les chars sur la voie.*)

Elisha Newcomb and Erwin B. Newcomb, both of Cumberland Mills, Maine, U.S.A., 7th October, 1891 : 5 years.

Claim.—1st. The combination of the guide piece with the lifting rail, having one end pivotally connected with said guide piece at the middle of its length, the said lifting rail being movable on its pivot to a position adjacent to either end of said guide piece, and the said guide piece projecting above the upper surface of the lifting rail, substantially as and for the purpose described. 2nd. The combination of the lifting rail adapted to be supported on the sleepers at the outside of the main rail and forming an inclined plane, which receives the tread of the wheel and raises the said wheel until its flange is brought above the top of the main rail, with the frog adapted to be supported between the rails, said frog comprising a guide piece that acts on the inner face of the wheel, and a lifting rail connected with the said guide piece, the said guide extending higher than the said lifting rail, whereby it may act upon an unflanged wheel, substantially as described. 3rd. The guide piece provided with a lateral projection at its middle point and one near each end adapted to engage with the main rail, the middle projection extending farther than the end ones, combined with a lifting rail connected with the middle projection of the said guide piece and adapted to engage with one of the end projections thereof between it and the main rail, while the other end projection is engaged with the main rail, substantially as described. 4th. The guide piece provided with a lateral projection at its middle point and one near each end adapted to engage with the main rail, combined with a lifting rail connected with the middle projection of said guide piece and adapted to engage with one of the end projections thereof, and a fastening by which said lifting rail is connected with said end projection of the guide piece, substantially as described. 5th. The guide piece and lifting rail pivotally connected at one end with the middle of said guide piece, said guide piece having transverse openings, combined with a brace having a projection that passes through one of the said openings of the guide piece and a shoulder that engages said guide piece at the side of the openings, substantially as and for the purpose described.

No. 37,556. Mill for Grinding and Amalgamating Gold and Silver Ores.

(*Moulin pour broyer et amalgamer les minerais d'or et d'argent.*)

George Fraser, Auckland, New Zealand, 7th October, 1891 ; 5 years.

Claim.—1st. In a grinding and amalgamating mill, the combination with a fixed casing having an annular grinding surface, of a revolving muller mounted to turn in the said casing and supporting loosely grinding rollers grinding one against the other, and all on the said grinding surface of the receptacle, substantially as shown and described. 2nd. In a grinding and amalgamating mill, the combination with a receptacle containing a fixed grinding ring, of a revoluble muller mounted to revolve within the said casing and provided with an annular ring, and a series of rollers held loosely on the ring of the said muller, grinding one against the other, and all on the said rings of the muller and receptacle, substantially as shown and described. 3rd. In a grinding and amalgamating mill, the combination with a receptacle containing a fixed grinding ring, of a revoluble muller mounted to revolve with the said casing and provided with an annular ring, a series of rollers held loosely on the ring of the said muller, grinding one against the other, and all on the said rings of the muller and receptacle, and means for continually removing the tailings from the said receptacle, and charging the latter with quicksilver, substantially as shown and described. 4th. In a grinding and amalgamating mill, the combination with a fixed casing and a revoluble muller, of a silent overflow, substantially as described, and arranged in the said casing, as set forth. 5th. In a grinding and amalgamating mill, a silent overflow, comprising an inner and outer shell, a hopper into which discharges the said outer shell, and an outlet pipe leading from the said hopper, substantially as shown and described. 6th. In a grinding and amalgamating mill, a silent overflow, comprising an inner and outer shell, a hopper into which discharges the said outer shell, an outlet pipe leading from the said hopper, and an inclined bottom arranged in the said hopper and leading with its lower end to the said outlet pipe, substantially as shown and described. 7th. In a grinding and amalgamating mill, a silent overflow, comprising an inner and outer shell, a hopper into which discharges the said outer shell, an outlet pipe leading from the said hopper, and a movable regulator held to the discharge of the said two shells, substantially as shown and described.

No. 37,557. Envelope for Letters.

(*Enveloppe pour lettres.*)

William Crichton, Toronto, Ontario, Canada, 7th October, 1891; 5 years.