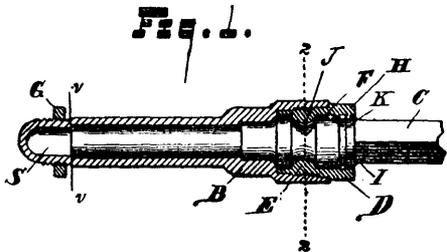


forward ends to the front bar of the frame and having sets of teeth attached to the rear bar of the sectional frames, as and for the purpose specified. 2nd. In a cultivator, the combination, with the frame, of a series of short, independent U-shaped sectional frames having attached to the rear bar of the same the forward teeth, and hinged at their forward end to the front bar of the machine within the long, independent U-shaped sectional frames, to the rear bars of which are attached the rear rows of teeth and which are hinged to the front bar, as shown and for the purpose specified. 3rd. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth, as specified, and hinged or pivoted on the pins *j*, extending through lugs *i*, of the brackets *I*, which are bolted to the front bar, of means whereby a downward pressure is exerted upon the rear bars of the sectional frames, as and for the purpose specified. 4th. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth and hinged to the front bar of the frame, as specified, of the arms *Q*, and *V*, connected by the rods *S*, and *W*, to the trunnions *t*, and *y*, in the forked ends of the arms *T*, secured on the tube *F*, and means whereby the said arms *T*, are held stationary in any position to which they may be adjusted, as and for the purpose specified. 5th. The combination, with the short and long, independent, U-shaped sectional frames, having attached to their rear bars the front and rear rows of sets of teeth and hinged to the front bar of the frame, as specified, of the arms *Q*, and *V*, connected by the rods *S*, and *W*, to the trunnions *t*, and *y*, in the forked ends of the arm *T*, and the lever *Z*, secured on the tube *F*, and co-acting with the quadrant *Y*, to adjust the position of the forked arms *T*, as and for the purpose specified. 6th. In a cultivator, and in combination with the supporting bar of the teeth, of the bracket *N*, formed in two portions *N*, and *N*¹, secured together by the bolt *P*, and designed to grasp the base of the tooth, and having a rearwardly and upwardly extending lug *n*, through which the bar extends, and is secured in position between the lug and major portion of the bracket by the bolt *O*, and lug *n*¹, as and for the purpose specified. 7th. In a cultivator, the combination, with the bracket connected to the supporting bar, as specified, and formed in two portions having retaining flanges for the base of the tooth, the recess formed between the retaining flanges and the front of the brackets being flared towards the top at the point where the teeth emerge from the bracket, as and for the purpose specified.

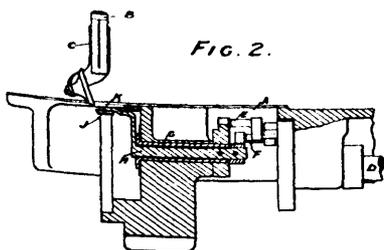
No. 42,790. Wheel Box and Axle. (Boîte de roues et essieux.)



Levi Harris, Horace B. Peck and Oscar M. Allen, senr., all of Kalamazoo, Michigan, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. The combination of a wheel box internally threaded within its inner end, an axle having a peripheral groove, a two-part nut, threaded to screw into the threaded end of the box and provided with the internal rib, substantially as set forth. 2nd. The combination of a wheel box internally threaded at its inner end, an axle having an enlarged portion provided with the two parallel circumferential grooves, and a two part nut provided with the internal rib, the inner ends of said two part nut and enlarged portion of the axle terminating at the same point, substantially as set forth. 3rd. The combination of a wheel box internally threaded at its inner end, an axle having a circumferential groove, and a two part nut provided with the internal rib and having an exterior threaded portion of a width corresponding to the width of said rib, substantially as set forth.

No. 42,791. Driving Mechanism for Rotary Hooks of Sewing Machines. (Mécanisme de commande pour crochets rotatoires de machine à coudre.)

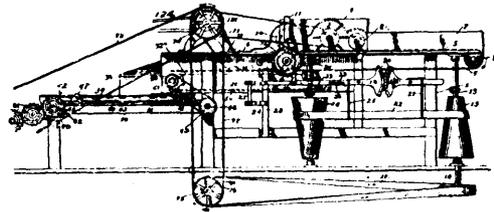


Harry Moore, Wellingtonborough, Northampton, England, 1st May, 1893; 6 years.

Claim.—Driving mechanism for rotary hooks of sewing machines consisting of two drivers controlled from the main driving shaft of the sewing machine by

double links to engage alternately with two driving abutments upon the rotary hook, substantially as and for the purpose set forth.

No. 42,792. Cigarette Machine. (Machine à cigarettes.)



Samuel Hill Thompson and Euclid Monroe Cooke, both of South Boston, Virginia, U.S.A., 1st May, 1893; 6 years.

Claim.—1st. In a cigarette machine, the combination of the endless feed belt, a pressure roller, and a revolving brush arranged above and in contact with the said belt, a vertically movable roller mounted above the delivery end of the said belt, the conical pulleys connected by an endless belt, a worm mounted upon the shaft of one of said pulleys, a gear wheel mounted upon the shaft of one of the rollers carrying the feed belt and meshing with said worm, and belt shifting mechanism actuated by the vertically movable roller to regulate the speed of the feed belt, substantially as set forth. 2nd. In a cigarette machine, the combination of the feed belt, a vertically movable roller arranged above the delivery end of said feed belt and adapted to press against the tobacco passing over the latter, and mechanism for regulating the speed of the feed belt actuated by said vertically movable roller to decrease the speed when the roller is elevated, and *vice versa*, substantially as and for the purpose set forth. 3rd. In a cigarette machine, the combination of a feed belt, the vertically movable roller mounted in a suitable yoke, the cone pulleys, the belt connecting the latter, a pair of levers having fingers engaging the belt connecting said cone pulleys and provided with segmental racks meshing with each other, a lever connected pivotally and adjustably with a link which is mounted pivotally and adjustably in a slot in a suitable bracket, a connection between the said lever and the vertically movable yoke carrying the roller, and a stud adjustably connecting the free end of said lever with one of the belt shifting levers, substantially as and for the purpose herein set forth. 4th. In a cigarette machine, the horizontally arranged endless chains composed of links having grooved opposing faces provided with sharp meeting edges held in contact with each other for a portion of the length of the chains, and arranged to receive between them the tobacco from the feed belt, and to compress or compact the tobacco into a continuous rod or filler, substantially as herein set forth. 5th. In a cigarette machine, the combination with the horizontally arranged endless chains composed of grooved links, of the supporting wheels or discs, two of which are provided with sprockets to engage recesses in the rear sides of the links, the supporting table, the idlers arranged to force the chains into contact with each other, an endless band arranged under the front ends of said chains, which are spread apart, a hopper arranged to supply tobacco between the front ends of the chains, and a top plate forming a cover for the rear ends of the latter, substantially set forth. 6th. In a cigarette machine, the combination with the mechanism for forming the rod or filler and the paper supply, of the endless folding belts mounted upon slanting or inclined rollers, the upper ends of which are tilted in an outward direction, and means for drawing the paper, carrying the paper and the rod or filler between said folding belts, substantially as and for the purpose set forth. 7th. In a cigarette machine, the combination with the curved guide trough, the means for forming and feeding the rod or filler, and the paper supply, of the endless folding belts mounted upon slanting or inclined rollers, the front ends of said belts being spaced to receive the paper ribbon upon which the rod or filler of tobacco has been placed, and the rear ends of said belts being spaced at their lower edges a distance apart equal to the diameter of the cigarette, substantially as and for the purpose set forth. 8th. In a cigarette machine, the combination with the endless folding belts mounted upon slanting or inclined rollers, of the curved guide trough, and the supporting table having grooves to receive the lower edges of said belts, substantially as and for purpose herein set forth. 9th. In a cigarette machine, the combination of the endless grooved chains arranged horizontally and adapted to compress the tobacco into a continuous rod or filler, the curved trough or supporting plate arranged at the delivery ends of said chains, and adapted to guide the paper ribbon under the rod or filler as the latter issues from between the said chains to impart to the said paper ribbon a preliminary fold or curve, and the endless folding belts mounted upon slanting or inclined rollers, the rear ones of which are placed more closely together than the front ones, substantially as and for the purpose set forth. 10th. In a cigarette machine, the combination of the folding belts mounted upon slanting or inclined rollers, the rear ones of which are placed more closely together than the front ones, and a curved shield or rider supported upon suitable brackets between the rear ends of said folding belt to fold one edge of the paper ribbon over the rod or filler, substantially as set forth. 11th. In a cigarette machine, the combination of an endless supporting belt having a semi-circular groove to receive the partially finished cigarette as it issues from between the folding belts, an endless metallic band mounted upon suitable supporting pulleys, a paste box the