

spring secured upon and adapted to move with the cut-off bar, substantially as set forth. 2nd. In a nail-driving machine, the hollow case having an opening therethrough at the top to serve as a hand hold, and a hub surrounding said opening, in combination with a reel arranged within the case and adapted to turn upon the hub, substantially as set forth. 3rd. The combination with the nail-feeding, driving and severing devices, of the case having the opening at its top, and the reel arranged and adapted to turn within said case, as and for the purpose set forth. 4th. The combination, with the stationary driver, as described, of the spring-actuated cut-off bar arranged to slide in and out of the case, and bevelled backward from its lower extremity, the guide-plate against which said bar normally rests, the feed spring secured to and carried by the cut-off bar, and the detent spring whereby the nails are secured against retraction all arranged as described and for the purpose set forth. 5th. In a nail driving machine, the combination, with the nail delivery and cut-off, of the case having an opening therethrough to serve as a hand hold, the hub around said opening and the two-part separable reel arranged to turn upon the hub, substantially as and for the purpose specified. 6th. The hollow case, provided with the opening for a hand hold, the hub and the reel arranged to turn upon the latter, in combination with the stationary driver secured upon the nose of the case, the spring-actuated cut-off bar bevelled backward from its point, and the feed-spring secured to and carried by the cut-off bar, substantially as described. 7th. The combination of the case having an opening for a hand hold, and a reel arranged therein, with the stationary driver, the stationary guide plate extending up within the case from the nose thereof, the reciprocating cut-off bar arranged to slide against the guide plate, the feed spring secured to and carried by the cut-off bar, the detent spring and the spiral spring connected to the cut-off bar, and adapted to hold the same without the case, substantially as set forth. 8th. The combination, with the driver, of the spring-actuated cut-off bar, whose extremity is bevelled backward, the stationary guide-plate against which the cut-off bar lies, and whereby it is deflected during its backward movement, and the feed-spring secured to the cut-off bar, all arranged as and for the purpose specified.

No. 27,560. Box Nailing Machine.

(*Machine pour clouer les boîtes.*)

Thomas B. DeForest and H. S. DeForest, Birmingham, (Administrator of the estate of Thaddeus Fowler, Shelton), Conn., U.S., 2nd September, 1887; 5 years.

Claim.—1st. In a box-nailing machine, adapted to feed and to drive continuous or string nails, the combination, with the trough-shaped guideway through which the length of nails is led, and by means of the end whereof the end nail of said string is driven, of a cut-off bar arranged within said trough, said bar being formed broadest at its forward extremity, and normally spring-actuated without the guideway, and being adapted at its backward movement into said guideway to cut off the said nail against the end thereof, substantially as set forth. 2nd. In a box-nailing machine, as described, the combination with the main shaft extending longitudinally thereof, of a pair of grooved cams secured upon and carried by said main shaft, a pair of carriages arranged to slide in ways at either end of the frame, and having arranged thereon drivers, as described, and downward projections from said carriages engaging the said grooved cams, whereby through the rotation of the shaft said carriages and drivers are caused to advance and recede toward and away from each other, substantially as set forth. 3rd. The combination, in a box-nailing machine, with the main shaft, of a platen for the proper support of the work, a set of drivers arranged above the platen, and a cam on said main shaft adapted to engage and raise the platen and work upward toward the drivers, substantially as and for the purpose set forth. 4th. The combination, with the main shaft and the cams secured thereon, of the longitudinally movable carriages, and the driving devices, as described, mounted thereon and carried thereby, the set of top drivers mounted above the machine, and the vertically movable platen, and means for raising the same upward toward the top drivers, substantially as and for the purpose specified. 5th. In a box-nailing machine, adapted to drive and feed string nails, the combination, with the vertically movable platen and the longitudinally-movable driver carriages arranged upon either side thereof of the former for the support of the assembled shooks, the same having posts on its outside edges, and the springs adapted to press the shooks against the posts, and means, as described, for insuring its proper position upon the platen relative to the driving devices, substantially as shown and set forth. 6th. The combination, with the driving devices, and the platen grooved upon its upper surface, of the former having inside and outside supports for the shooks, a guide strip arranged to fit the groove in the platen, and a pin arranged to engage a hole in said platen, whereby the position of the box upon the platen may be accurately determined relative to the drivers, substantially as described.

No. 27,561. Automatic Signal Lantern, for Railway Trains or Vessels. (*Lanterne à signal automatique pour trains de chemin de fer et pour vaisseaux.*)

Frank Watson, Scarsdale, N.Y., U.S., 2nd September, 1887; 5 years.

Claim.—1st. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the light of a stationary target composed of plates of different coloured glass, of an opaque disk covering one-half of said target, rotating upon a central axis in front of said target while the body upon which the lamp is displayed is moving, and means, substantially as described, for releasing the disk from the axis and rotating it independently of the motive force thereon. 2nd. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the light, of a stationary circular target composed of plates of different colored glass, placed in front of said light, of a cylinder surrounding said light, and target rotating upon a central axis, means for rotating said cylinder, substantially as described, an opaque semicircular disk covering one-

half of said target and rotating upon the same axis as said cylinder, and means for causing said disk to rotate with or independent of the cylinder. 3rd. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, of a rotating hollow cylinder surrounding the light and the signal target, a central axis upon which said cylinder rotates, a semicircular opaque disk covering one-half of said target, rotating upon said axis within said cylinder, a series of notches in the front face of said cylinder, and a flat spring or arm on said disk arranged to engage with said notches, for the purposes set forth. 4th. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the light of a stationary circular target composed of plates of different colored glass placed in front of the light, a cylinder surrounding said target and light rotating upon a central axis, a semicircular disk rotating in front of said target and upon the same axis as said cylinder, a series of notches upon the front face of said cylinder, a flat spring or arm upon the face of said disk arranged to engage with said notches and cause the same to rotate with said cylinder, a series of cogs upon the periphery of said cylinder, a train of clock-work engaging therewith for communicating a rotating motion to said cylinder, and means for disengaging the same, substantially as described. 5th. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the lamp, of two stationary circular targets composed of plates of different colored glass placed on either side of the light, a cylinder surrounding said targets, and light rotating upon a central axis, a semicircular disk rotating in front of each of said targets upon the same axis as the cylinder, a series of notches upon each end of said cylinder, a flat spring or arm upon the face of each, said disks arranged to engage with said notches and cause the disks to rotate with the cylinder, a series of cogs upon the periphery of said cylinder, a train of clock-work engaging therewith for communicating a rotary motion to said cylinder, and means for disengaging the clock-work therefrom, substantially as described. 6th. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the light of a stationary circular target composed of plates of different colored glass placed in front of the light, an opaque disk rotating upon a fixed axis while the body upon which it is displayed is in motion, a train of gear-wheels connected with a revolving shaft for imparting a rotary motion to said disk, and means, substantially as described, for releasing said disk from the rotary mechanism and rotating it independently upon the axis. 7th. In an automatic signal-lantern, the combination, substantially as hereinbefore set forth, with the light, of the stationary circular target composed of plates of different colored glass, a cylinder rotating around said light and target, a central axis upon which said cylinder revolves, a semicircular disk rotating on said axis within said cylinder and in front of said target, a series of notches on the front surface of said cylinder, and a flat spring attached to the surface of said disk arranged to engage with said notches, whereby the disk is caused to rotate with said cylinder, a set of cog-wheels on the periphery of said cylinder, a driving axis or shaft on the body on which the lamp is displayed, and a train of gear-wheels engaging with said axis or shaft and with said cylinder, whereby the movement of the former is imparted to the latter.

No. 27,562. Store Service.

(*Appareil de service de magasin.*)

William R. Cole, Detroit, Mich., U.S., 2nd September, 1887; 5 years.

Claim.—1st. In a store service, the combination of a single wire track connecting two stations with the supplemental double track at each station located above such single track, and a carriage provided with wheels of two different sizes of tread, substantially as and for the purposes described. 2nd. In a store service, the combination of a single wire track connecting two stations, and a supplemental double track at each station located above such single track, with the means, as described, for vertically adjusting the plane of such double track with relation to the plane of the single track, and a carriage provided with wheels of two different sizes of tread, substantially as described. 3rd. In a store service, a carriage consisting of a frame, axes upon which are secured wheels of two different diameters, the larger running within the frame and adapted to run upon a single rail track, and the smaller running on each side of the frame and adapted to run upon a double track rail, substantially as and for the purposes described. 4th. The combination, with the main track, of the double track having outwardly and downwardly inclined ends, and the carriage provided with wheels of two different sizes of tread on the same axle, substantially as specified. 5th. A store service, comprising the tracks B and B' suitably supported, and a carriage C having axle *d*, wheels *e* and *h*, stop-blocks *k* and propelling cord, the parts being constructed, combined and operating substantially in the manner and for the purposes described.

No. 27,563. Combined Latch and Lock.

(*Loquet et serrure combinés.*)

John H. Tilden, Hamilton, and George B. Underwood, Toronto, (assignees of Moses Jobbarn, Hamilton), Ont., 2nd September, 1887; 5 years.

Claim.—1st. In a lock and latch, the combination, with the latch-bolt 4, of slide 11, shaft 13 having cam 12, tappet 5, slide 16, gravitating lever 7 and tumblers 19, whereby the tappet can be locked from the inside of the door and the bolt retracted from without by a key, as set forth. 2nd. In a latch and lock, the combination of the latch-bolt 4, tappet 5, gravitating lever 7, lock-bolt 8 and tumblers 19, whereby the projection of the lock-bolt by a key locks latch-bolt 4 by engagement with the lever, as set forth. 3rd. The combination, with the case 1 of shaft 13 having cam 13, slide 11, tappet 5, lever 7, slide 16, tumblers 18 and lock-bolt 8, the tappet can be locked from the inside of the door, the latch-bolt retracted from the inside and outside by a key, and from the inside by a thumb knob, as set forth. 4th. The combination, with the gravitating lever 7, slide 16 and bolt 8, of gravitating tumblers 19 having slots 21, 23, and opening 25, whereby the tumblers depress the lever offer resistance to the key and prevent the retraction of slide and bolt without the use of a key, as set forth.