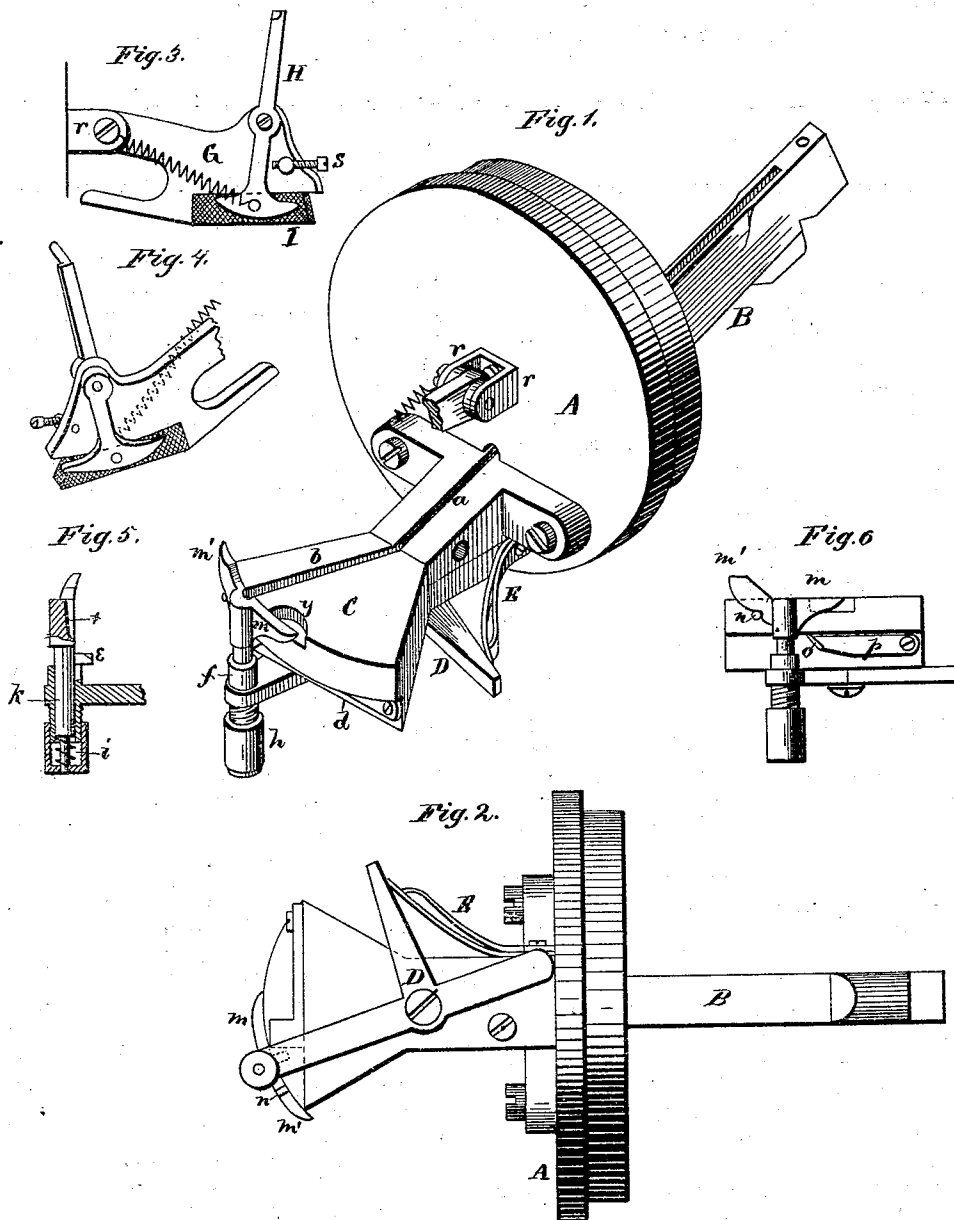


H. G. THOMPSON & B. F. BERGH.
Tacking-Machines for Boots and Shoes.

No. 153,467.

Patented July 28, 1874.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY G. THOMPSON AND BROR F. BERGH, OF MILFORD, CONNECTICUT;
SAID BERGH ASSIGNOR TO SAID THOMPSON.

IMPROVEMENT IN TACKING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **153,467**, dated July 28, 1874; application filed April 18, 1874.

To all whom it may concern:

Be it known that we, HENRY G. THOMPSON and BROR F. BERGH, of Milford, county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Tacking-Machine for Boots and Shoes, of which the following is a specification:

Our invention relates to such tack-driving machines in which the tacks are deposited in a revolving feeding-cylinder, provided with a stationary front head, and the entire feeding mechanism moved alternately to and from the hammer, and in which the tacks are fed down an incline from the interior of said cylinder to the front thereof; and the nature of our invention consists in feeding the tacks at an angle from the direct line and switching them off for presentation to the hammer, preparatory to being taken up and driven; also, in lifting or presenting the tacks to the hammer by their heads, and in the construction and arrangement of devices whereby said objects are accomplished.

In the accompanying drawing, we have only deemed it necessary to show so much of a tack-driving machine as will illustrate our invention.

Figure 1 is a perspective view of the stationary head of the revolving cylinder with the devices connected therewith, except the feed device, which is removed. Fig. 2 is a bottom view of the same. Figs. 3 and 4 show the feed device. Figs. 5 and 6 show the device by which the tacks are lifted and presented to the hammer.

A represents the stationary head for a revolving feed-cylinder of a tack-driving machine, in which the entire mechanism is moved alternately to and from the hammer. B represents the inclined bar passing through and attached to said head A, which incline is in its upper side provided with a tack-channel, *a*. At the front end of the incline B is formed a horizontal segment-platform, C, in which is a channel, *b*, leading to one side, or switching off from the channel *a* in the incline B. The front side of the segmental platform C has at the bottom a straight shoulder or offset, *d*, as shown. To the under side of the platform C is pivoted a T-shaped lever, D, the front arm

of which is formed at its end with a tube or cylinder, *f*, standing in a vertical position. On the lower end of this tube is screwed a cup, *h*, within which is placed a spring, *i*. Passing downward through the tube *f* and resting upon the spring *i* is a shaft, *k*, provided at its upper end with wings *m m'*, which are curved to correspond with the curvature of the front edge of the platform C and bear against the same. To the shaft *k* is also affixed a beveled lug, *e*, which bears against the under side of the platform at the shoulder *d*. The lever D is held in its normal position by springs E, so that a groove, *x*, on the inner side of the shaft *k* will be opposite to and form connection with the switch-channel *b*, and the upper end of the shaft and the upper edge of the wing *m* are, by the lug *e*, held flush with the upper surface of the platform—that is, this lug prevents them from rising above the same—while a pin, *n*, on the front face of the platform, acting against the under side of the wing *m'*, prevents them from being pressed down below the upper surface of the platform when in that position. On the front of the shoulder *d* is secured a spring, *p*, provided with a beveled projection on its inner free end nearest to the shaft *k*. In the front edge of the platform C is cut out a recess, *y*, which is on a line with the main channel *a*.

The feed device is substantially the same as that described in a separate application made by us for a tack-driving machine, and may be briefly described as follows: G is a plate pivoted or hung in ears *r r* on the front face of the head A, and bent or curved to correspond with the angle of the channels *a b*. H is the lever operating the leather or rubber piece I, which moves the tacks. The stroke of this lever is regulated by a set-screw, *s*.

In describing the operation of our present invention, it must be remembered that the entire mechanism is moved alternately to and from the hammer, and that the feeding device G H I is operated by said reciprocating movement to move one tack at a time from the switch-channel *b* into the groove *x* on the shaft *k*. During the forward movement of the machine one of the rear arms of the lever D is operated upon by a suitable device on

the frame of the machine, so as to be turned upon its pivot and carry the shaft *k*, with the tack in the groove *x*, toward the center opposite to the recess *y*. This movement, however, depresses the shaft *k* by the action of the beveled lug *e* upon the lug *o* of the spring *p*, and as soon as the lug *e* passes the lug *o* the spring *i* in the cup *h* raises the shaft *k* up again, which shaft thus lifts the tack by the head and presents it to the hammer. The springs *E* then throw the lever *D* back to its original position, the spring *p* yielding to allow the lug *e* to pass the lug *o*. By adjusting the cup *h* more or less elevation may be imparted to the tack, as required.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a tack-driving machine a switch-channel *b*, in combination with a feeding device for carrying the tacks away from the straight line, substantially as herein set forth.

2. In a tack-driving machine, provided with a switch-channel for tacks, an automatic

mechanism for taking the tacks from said switch-channel and lifting or presenting them to the hammer by their heads, substantially as herein set forth.

3. The vertically-moving shaft *k*, provided with the groove *x* and moving with the lever *D* on the arc of a circle, in combination with switch-channel *b* and feeding device, substantially as and for the purposes herein set forth.

4. The beveled lug *e* on the shaft *k*, in combination with the spring *p* and beveled lug *o*, for the purposes herein set forth.

5. The combination of the shaft *k*, tube *f*, spring *i*, and adjustable cup *h*, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our invention we hereunto affix our signatures this 16th day of April, 1874.

HENRY G. THOMPSON.
B. F. BERGH.

Witnesses:

FRANK L. ALLIS,
P. S. BRISTOL.