(No Model.) 3 Sheets—Sheet 1.

L. D. JUNKINS.

HAND TACKER.

No. 553,343. Patented Jan. 21, 1896.

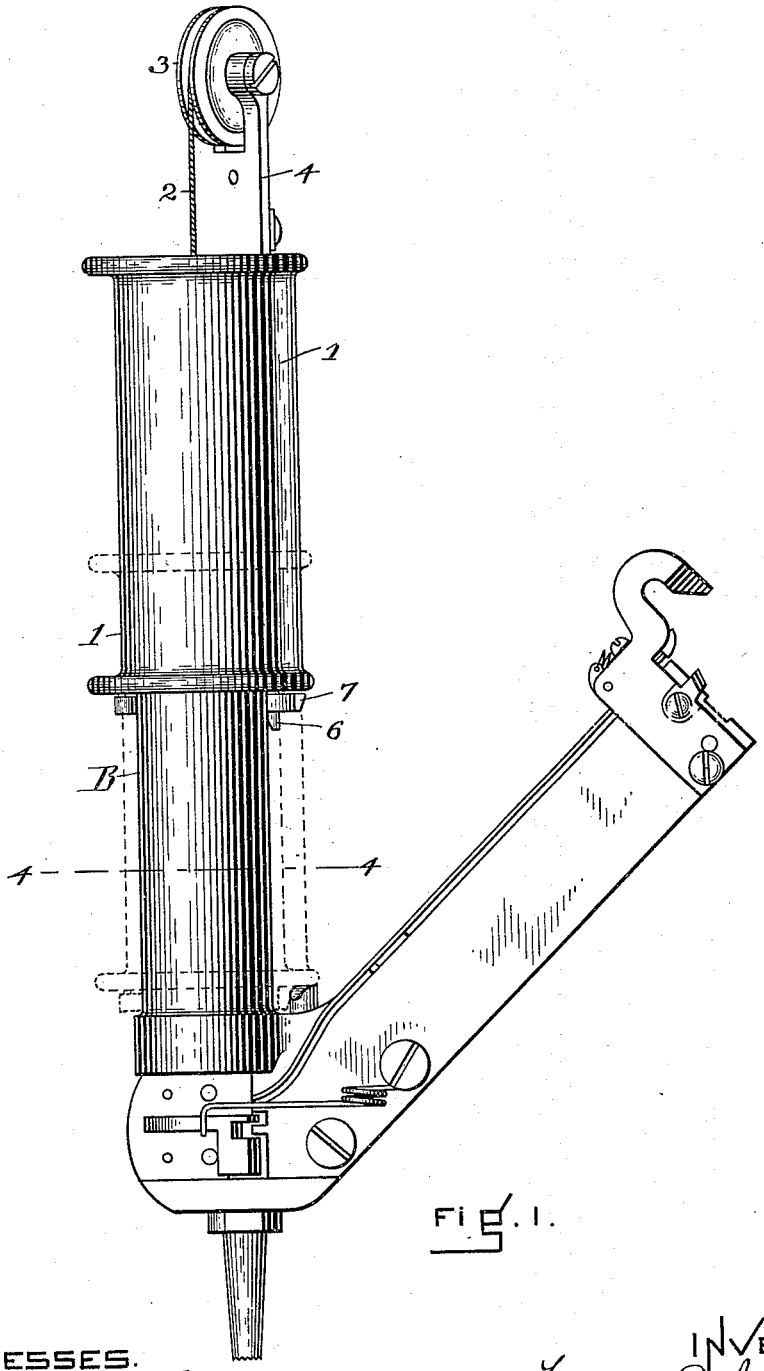

Fig. 1.

WITNESSES.
J. H. Truett
Jas. W. Robinson.

INVENTOR
Leander D. Junkins.
By John A. Hyer.
atty

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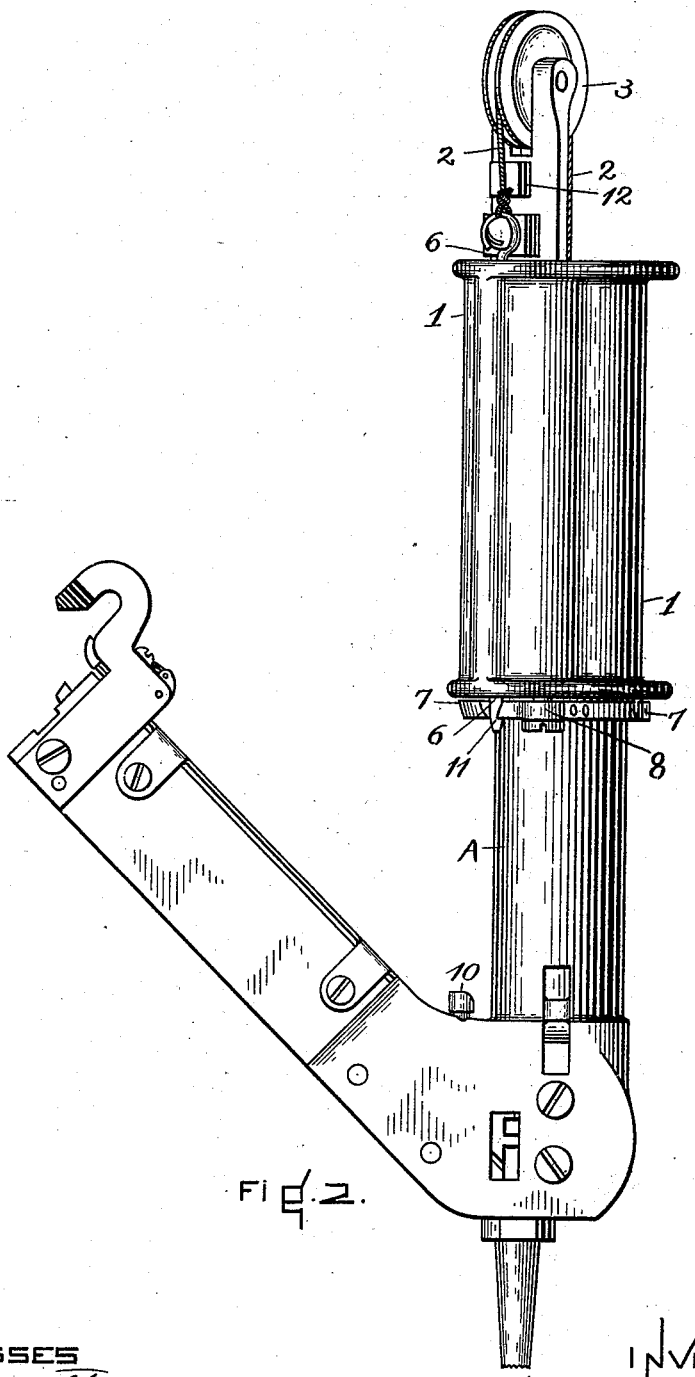

Fig. 2.

WITNESSES

J. H. Truett

Jas. W. Graham.

INVENTOR

Leander D. Junkins

By John D. Hyer

atty

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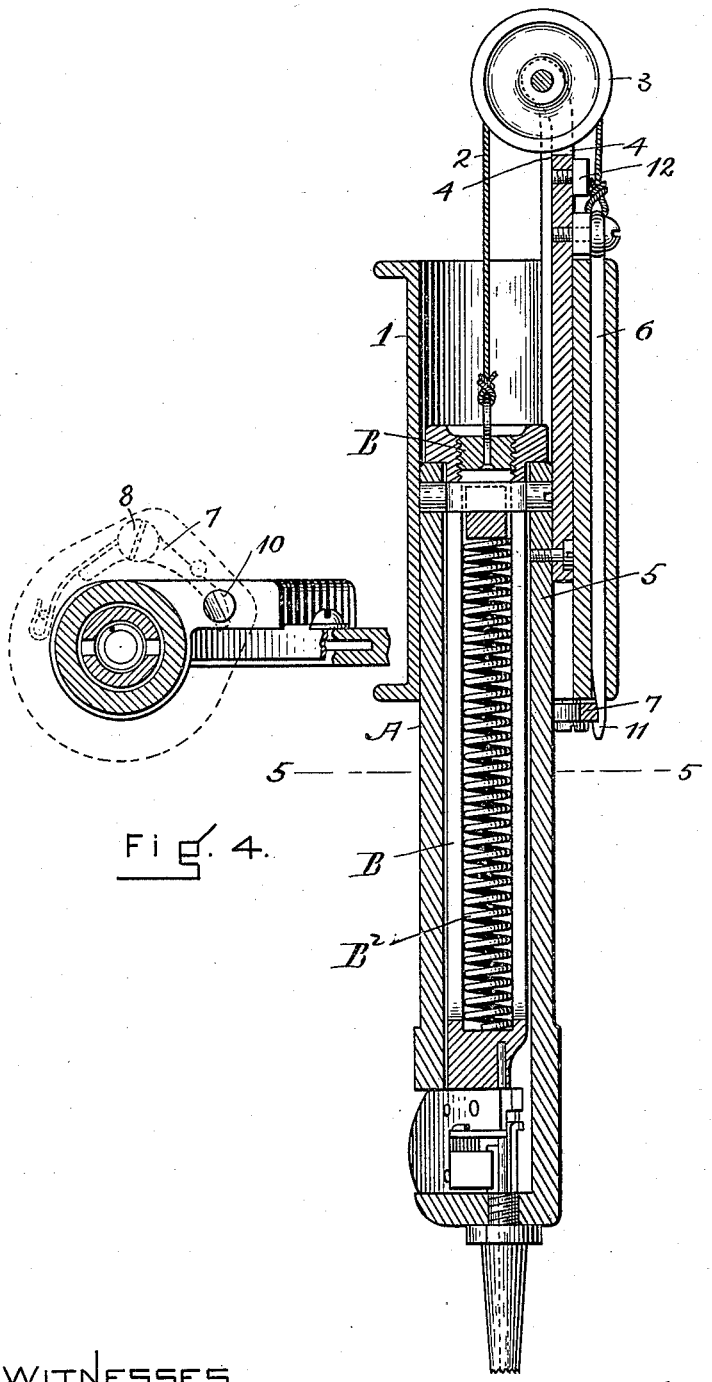

Fig. 4.

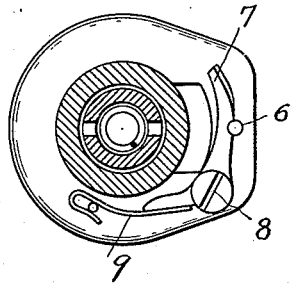

Fig. 5.

Fig. 3.

WITNESSES

J. H. Truett

Jas. W. Graham.

INVENTOR.

Leander D. Junkins.

By John D. Hyer

atty

UNITED STATES PATENT OFFICE.

LEANDER D. JUNKINS, OF SOMERVILLE, MASSACHUSETTS.

HAND-TACKER.

SPECIFICATION forming part of Letters Patent No. 553,343, dated January 21, 1896.

Application filed May 22, 1895. Serial No. 550,187. (No model.)

To all whom it may concern:

Be it known that I, LEANDER D. JUNKINS, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Hand-Tackers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements upon hand tack-driving machines, by means of which the operator is enabled to manipulate the machine and drive the tacks by the use of one hand, leaving the other hand free for any desired purpose.

Heretofore the common method of manipulating hand tack or peg driving machines has been to position the machine upon the work in the desired place by one hand, and then to operate the driving mechanism by the blow of a hammer or maul held in the other hand.

This invention is shown and described in combination with tack feeding and driving mechanism, substantially as shown and described in United States Letters Patent No. 500,225, dated June 27, 1893, granted to Crisp and Junkins for improvements in tack-driving machines, and to which reference is hereby made.

In the drawings, Figure 1 is a side elevation of a tack-driving machine, showing by full and dotted lines the motion of the hand operating mechanism. Fig. 2 is the opposite side elevation of the same, showing the hand operating mechanism at its greatest elevation. Fig. 3 is a vertical cross-section of Figs. 1 and 2, showing the connecting mechanism between the hand operating mechanism and the tack-driving plunger. Fig. 4 is a horizontal cross-section of Fig. 1, on line 4 4, as seen from above. Fig. 5 is a horizontal cross-section of Fig. 3 on line 5 5, as seen from below.

The hand operating mechanism consists of the flanged sleeve 1, which is fitted to reciprocate the desired distance upon the shell A of the tack-driving machine. This sleeve is connected to the plunger B by a suitable flexible connection 2, which passes over a grooved pulley 3, mounted upon a stand 4, which is secured to the shell A at 5. As the sleeve 1 is moved down on the shell A, the plunger B is raised by the connection 2.

The flexible connection 2, which may be either a cord or chain, is connected to the sleeve 1 by the rod 6, which passes through the sleeve parallel with the shell A, and is locked in position by the spring-lock 7, Figs. 3 and 5. The spring-lock 7 is pivoted at 8 to the under flange of the sleeve, as shown by Fig. 5, and the spring 9 acts to keep it in contact with the connecting-rod 6. The outer end of the spring-catch 7 is fitted to engage with the vertical cam 10, Figs 2 and 4, when the sleeve 1 has about reached its lowest vertical position upon the shell A. The contact of the catch 7 with the cam 10 causes the catch to be drawn from the projection 11, formed upon the rod 5, and allow the plunger B to drop. On the stand 4 there is fixed the stop 12, which limits the upward rise of the rod 6, so that when the sleeve 1 is moved fully up, and the lock 7 will engage with the catch 11, ready to raise the plunger B, then the sleeve is again moved downward. The stop 12 also limits the upward rise of the sleeve 1, as will be understood by reference to Fig. 3.

To cause the plunger B to descend with sufficient force to drive a tack after it has been raised by the action of the sleeve 1 and the rod 6 has been unlocked, the raising-spring B^2, as shown in Patent No. 500,225, is changed from a push to a pull spring, so that it will act to draw the plunger down when the spring-lock 7 is brought in contact with the cam 10.

In using these machines, the operator grasps the sleeve 1 in his hand, when the weight of the shell A and its attached parts causes the shell to assume the positions shown by the full lines of Fig. 1. He then places the tack-delivery nozzle on the work at the place where it is desired to drive a fastening. He then presses the sleeve down to the position shown by the dotted lines of Fig. 1. This causes the connection to raise the plunger B against the tension of the spring B^2, until the cam-lock 7 engages with the cam 10, when the connecting-rods 6 are released and the spring B^2 draws the plunger B forcibly down and causes it to drive the fastening.

Raising the tack-driver causes the parts to assume their normal position ready for another active operation.

A chute of any desired form is connected with the implement at one side thereof, to contain and feed the tacks or nails to be driven.

Having thus described my invention, what I desire to secure by Letters Patent of the United States is—

1. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell and connected with the plunger and a latch or locking mechanism and mechanism for automatically releasing the latch to drive a nail or tack when the sleeve is pushed down over the shell, substantially as and for the purpose described.

2. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell and connected with the plunger by a flexible connection, and a latch or locking mechanism and mechanism for automatically releasing the latch to drive a nail or tack when the sleeve is pushed down over the shell, substantially as and for the purpose described.

3. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell and connected with the plunger, a latch or locking mechanism, and a cam near the lower end of the case or shell for releasing the latch when the sleeve is pushed down over the shell thereby driving a nail or tack, substantially as and for the purpose described.

4. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell, a vertical stand or bracket carrying a sheave or pulley, a vertical rod parallel with the case, a cord or chain connected at one end to the upper end of the rod and at the other with the plunger, and a latch which is automatically released when the sleeve is pushed down over the shell, substantially as and for the purpose described.

5. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell, a vertical stand or bracket carrying a sheave or pulley, a vertical rod substantially parallel with the case, a cord or chain connected at one end to the upper end of the rod and at the other end with the plunger, a stop to arrest the upward throw of the rod, and a spring latch and mechanism for automatically releasing the same when the sleeve is pushed downward over the shell, substantially as and for the purpose described.

6. A hand tacker having a spring actuated plunger inclosed in a case or shell, a movable sleeve surrounding the shell and connected with the plunger and a catch or locking mechanism and mechanism for automatically releasing the latch when the sleeve is pushed down over the shell, in combination with a tack holding and feeding chute, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

LEANDER D. JUNKINS.

Witnesses:
FRANK G. PARKER,
WILLIAM H. PARRY.