(No Model.)

W. GODDU.

TACKER.

No. 569,152. Patented Oct. 6, 1896.

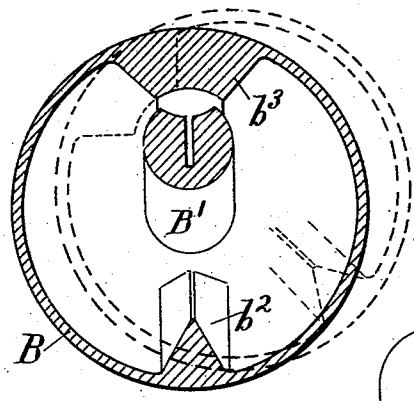

Fig. 5.

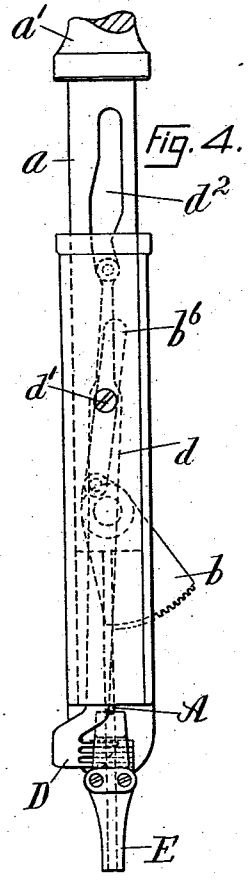

Fig. 4.

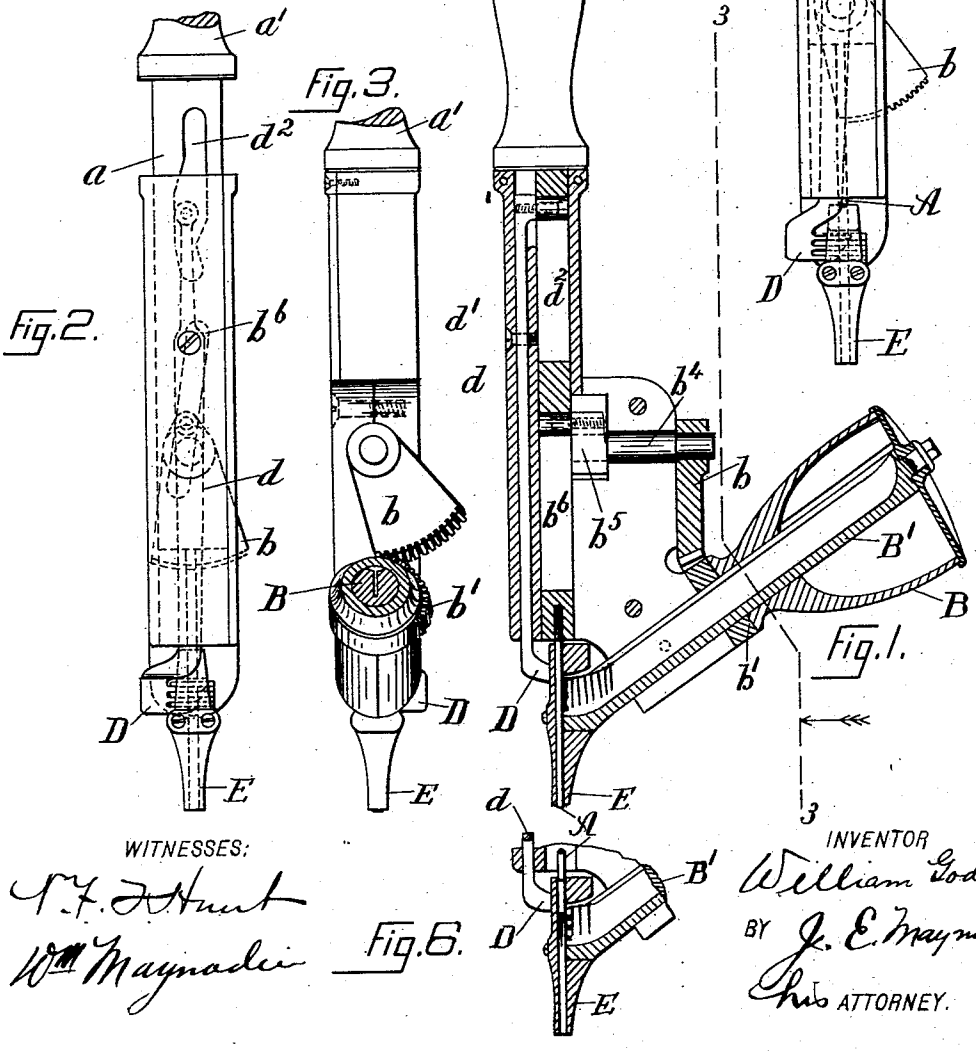

Fig. 2.

Fig. 3.

Fig. 1.

Fig. 6.

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TACKER.

SPECIFICATION forming part of Letters Patent No. 569,152, dated October 6, 1896.

Application filed August 24, 1895. Serial No. 560,447. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GODDU, of Winchester, in the county of Middlesex and State of Massachusetts, have invented an Improved Tacker, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section; Fig. 2, a rear elevation with the tack-holder removed; Fig. 3, a front elevation, partly in section, as indicated by the dotted line 3 3 of Fig. 1, illustrating my invention. Fig. 4 is like Fig. 2, but with the driver up. Fig. 5 is a section of the tack-holder and tackway. Fig. 6 is a detail in section to illustrate the operation of the tack-feeding mechanism.

I have shown my invention as a hand-tacker, that is, with the driver A fast to slide *a*, which is reciprocated by the handle *a'*; but in a power-tacker the slide *a* will be reciprocated by suitable mechanism, as will be clear without description.

The motion of slide *a* oscillates the segmental gear *b*, which meshes with the gear *b'* on the tack-holder B, which oscillates on stud B', in which is the tackway, and this combination of the tack-holder B with the tackway B', so that the tackway serves as a stud to support the tack-holder, and about which the tack-holder rotates, is one feature of my invention.

In the hand-machine shown the slide *a* is the simplest and best moving part from which to impart motion to the tack-holder, and the combination of slide *a* with the tack-holder B and tackway B' by means of the gears *b* and *b'* or other suitable connecting mechanism is a second feature of my invention. In order to drive a tack at each stroke of the driver A, the tackway B' must be kept supplied with tacks, and in order to insure that supply the tacks in the holder B must be thrown upon the upper surface of the stud B', some of the tacks entering the groove in that stud and hanging by their heads, so that they pass down that groove through the hollow stem of the tack-holder B, as will be clear from Figs. 1 and 4.

When the tack-holder B oscillates on stud B', the bore through the stem of holder B should be inclined to the geometrical axis of holder B in order that the rib b^2 on the inner surface of holder B shall move far enough to throw the tacks in holder B in such a way as to scatter them over the flattened surface of stud B'. This is the main advantage of eccentric arrangement of holder B on stud B', and this is a third feature of my invention. Another advantage of this construction is that the rib b^3 may be used to deflect the tacks thrown up by rib b^2 onto the stud B', as will be clear from the dotted lines of Fig. 5, which show the holder B at the end of one oscillation, with one surface of rib b^3 in position to deflect the tacks onto the flattened upper surface of stud B'. At the end of the other oscillation the left side of rib b^3 will so act, the rib b^3 being at that time as far to the right as it is shown to the left by the dotted lines in Fig. 5 and the rib b^2 being at that time as far to the left as it is shown to the right.

The segmental gear *b* is fast to rock-shaft b^4, and a roll on arm b^5 of rock-shaft b^4 enters the cam-groove b^6 in slide *a*, as shown in Fig. 1 and by dotted lines in Figs. 2 and 4.

The picker D is fast to lever *d*, whose fulcrum is at *d'* and which is actuated by the cam d^2 in slide *a*, the roll on the upper end of lever *d* entering that cam. When the driver A is down as far as it will go, Fig. 1, the picker D is drawn back to allow the lowermost tack to rest against the side of the driver; but as the driver is drawn up the picker is thrown forward, the thin ends of its fingers passing between the lowermost tack in the way and the tack above it, thereby pressing the lowermost tack from the way and bringing it in line with the driver as soon as the driver has been drawn up far enough to clear the head of the lowermost tack, as shown in Figs. 4 and 6. When the driver is thrown down, the picker is moved to and fro across the way and then drawn back far enough to uncover the way and permit the lowermost tack to rest against the side of the driver.

The lever *d* is prevented by friction from moving except as it is moved by the surface of the cam d^2, the surface on the left acting as the driver and its slide are moved down and the surface on the right as they are moved up.

The operation is as follows: With the holder B partially filled with loose tacks and with a row of tacks hanging by their heads in the way in stud B′ the tack-tube E is pressed against the work and the driver A raised and then driven, thus operating the picker, driving one tack, and scattering some of the tacks in the holder upon the flattened surface of the stud which forms the tackway. In case of the sticking of a tack in the lower end of the way, so as to interfere with the operation of the picker, the upper arm of the picker-lever, which is a spring, will yield, and the resistance thus offered to the action of the driver will call attention to the defect.

What I claim as my invention is—

1. In a tacker, a cylindrical stud grooved to form a tackway, combined with a tack-holder which has a stem at one end bored to receive the cylindrical stud, whereby the stud is both a tackway and a support upon which the tack-holder oscillates, substantially as described.

2. In a tacker the driver A; its slide *a* containing cam-groove b^6; rock-shaft b^4; its arm b^5 engaging cam-groove b^6 in slide *a*; segmental gear *b* fast to rock-shaft b^4; gear *b′* meshing with segmental gear *b*; and hopper B fast to gear *b′*; all combined substantially as described.

3. In a tacker a cylindrical stud grooved to form a tackway; a tack-holder which has a stem at one end bored on a slant to the axis of the holder, and serving as a journal-box for the cylindrical stud, and a rib, as b^2 to throw the tacks onto flattened surface of the stud when the tack-holder oscillates, substantially as described.

4. In a tacker a tack-holder with a stem bored on a slant to the axis of the holder, combined with a stud which is also the tackway, and with a pair of ribs, as b^2 b^3, one for throwing and the other for deflecting the tacks to the flattened surface of the stud, all substantially as described.

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Witnesses:
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