

No. 730,995.

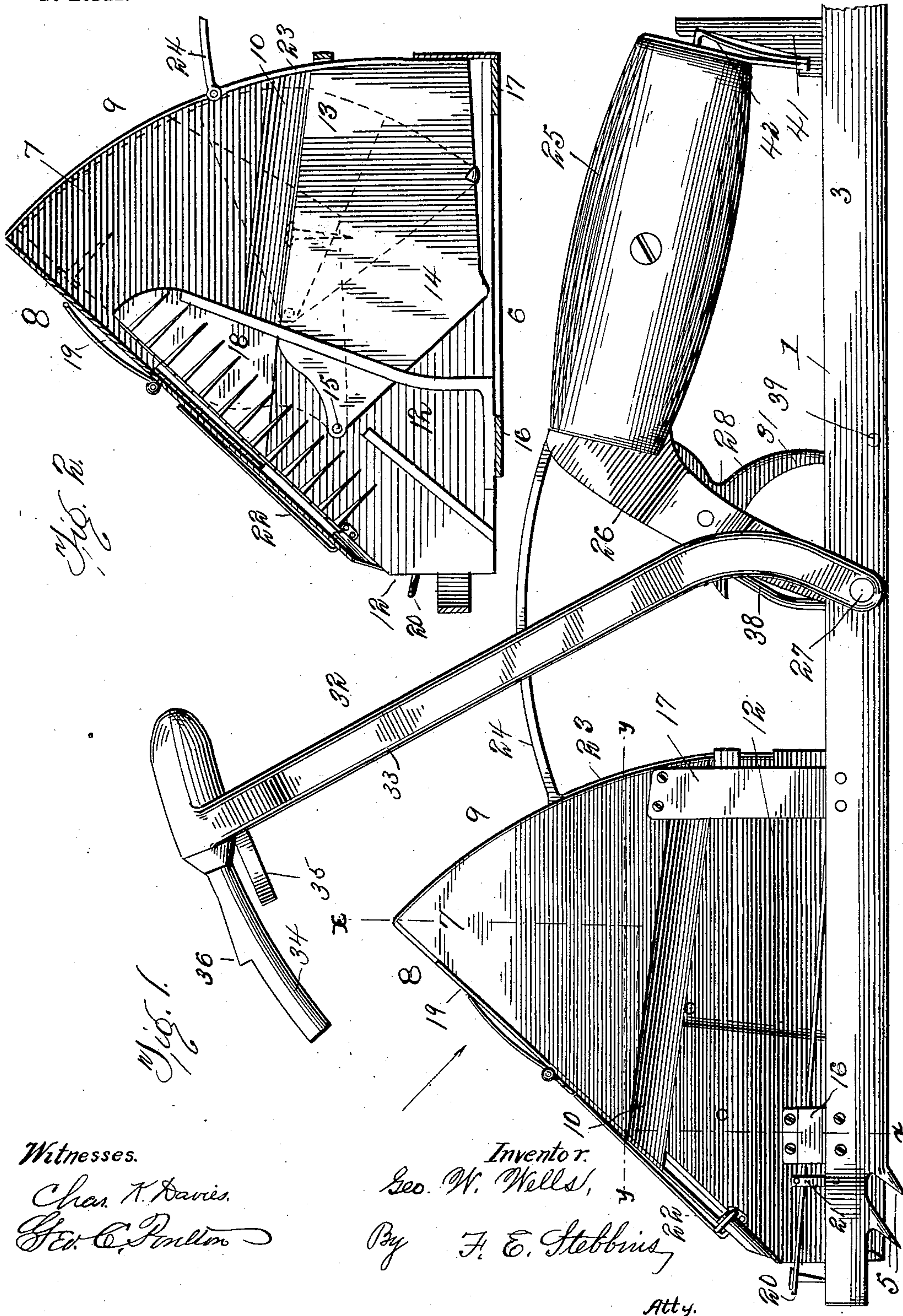
PATENTED JUNE 16, 1903.

G. W. WELLS.
TACK DRIVER.

APPLICATION FILED NOV. 15, 1901.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses.

Chas. K. Davis.
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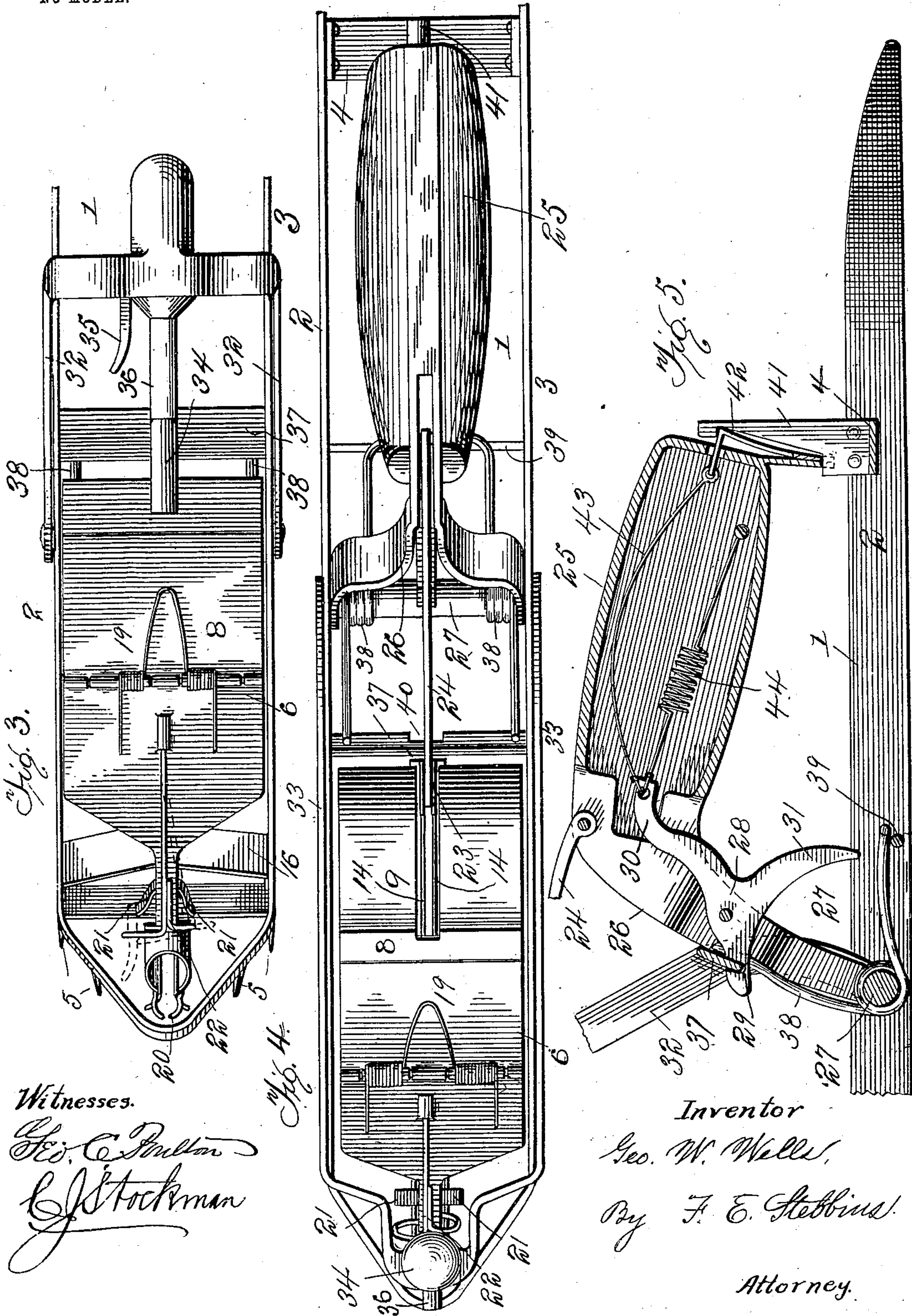
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3 SHEETS—SHEET 2.



Witnesses.

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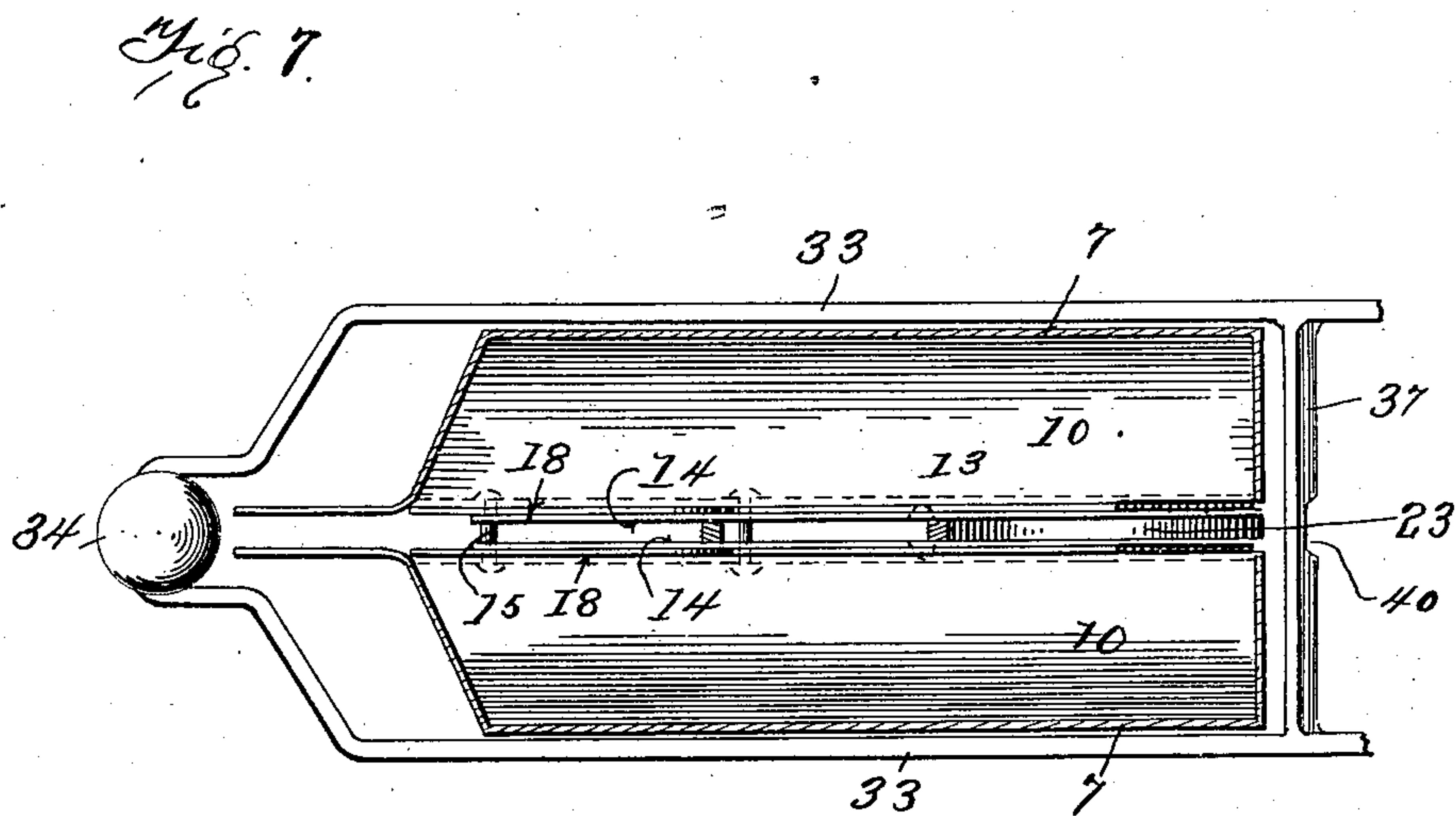
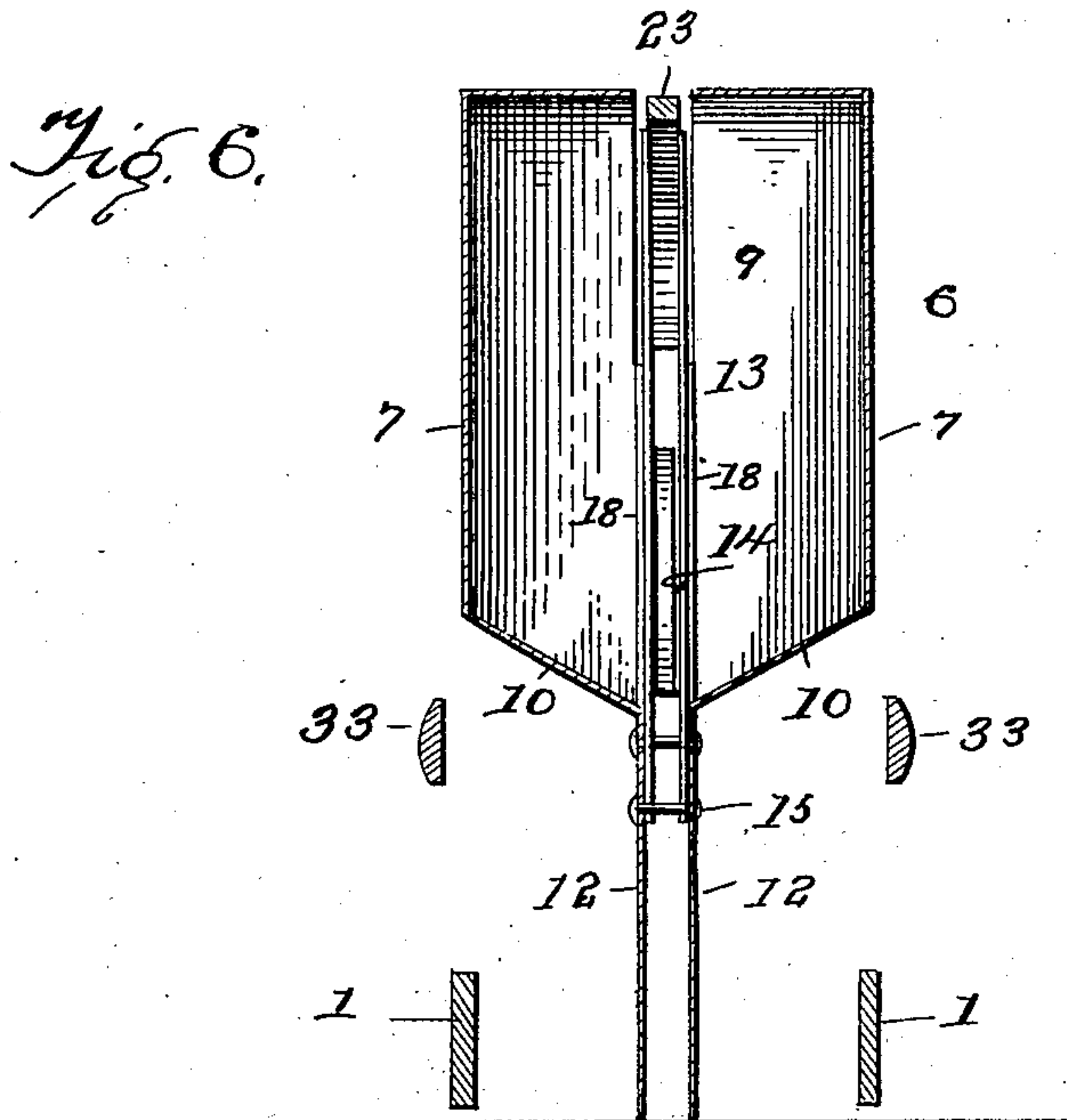
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3 SHEETS—SHEET 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. WELLS, OF AMESBURY, MASSACHUSETTS.

TACK-DRIVER.

SPECIFICATION forming part of Letters Patent No. 730,995, dated June 16, 1903.

Application filed November 15, 1901. Serial No. 82,395. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WELLS, a subject of the King of Great Britain and Ireland, residing at Amesbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Tack-Drivers, of which the following is a specification.

My invention relates to improvements in tack-driving devices, and has for its object the provision of mechanism which by an operating-handle and trigger successively feeds or discharges the tacks placed in a receptacle to a holder, from which they are driven by the continued operation of said hammer and trigger into the material to be secured in place on a floor.

The invention consists of the arrangement and combination of parts hereinafter set forth and claimed.

In the accompanying drawings, which form a part of the specification, Figure 1 represents a side view of the tack-driver embodying my invention, the hammer being shown raised or in operative position. Fig. 2 represents a central longitudinal section of the tack chamber or receptacle. Fig. 3 represents a top or plan view of the front portion of the device, the hammer being raised as in Fig. 1. Fig. 4 represents a top view of the entire device, the hammer being lowered. Fig. 5 represents a central longitudinal section of the handle and trigger with adjacent parts. Fig. 6 is a section of Fig. 1, taken on line *x x*. Fig. 7 is a section of Fig. 1, taken on line *y y*.

Similar numerals designate like parts in the different figures of the drawings.

The numeral 1 designates the main frame or base of the device, composed, as shown, of a bent bar forming the side pieces 2 and 3, which are connected at one end by the cross-piece 4. The under side of each of said pieces is serrated, forming downward-projecting teeth 5, extending below the plane of the under face of the base, so as to be adapted to take a firm hold in the material in which the tack is to be driven and in stretching the same. Firmly secured to the front portion of the base is a tack chamber or receptacle 6, into which the tacks are placed and from which they are discharged or fed to a holder.

The receptacle 6 is formed of sides 7 7, an

inclined front 8, a slotted back 9, and a bottom 10, the latter being provided with a longitudinal slot, from the sides of which extend downwardly the pieces 12 12, forming a guideway for the tack-discharging device or feeder 13, which is composed of two parallel plates 14 14, pivoted at 15 to the pieces 12 12, which at their lower edges are firmly connected to the base 1 by the straps or braces 16 and 17.

Within the receptacle 6 are two parallel guide-plates 18 18, forming practically a continuation of the pieces 12 12. The bottom of the receptacle slopes or is inclined from front to rear and also from its outer edges to the central slot, so as to direct the tacks within the same toward the said slot, so that their points will enter the same and be engaged between the discharging or feeding plates 14 14, their heads resting or being supported on the top edges of the said plates.

The top edges of the guide-plates 18 18 are in line with the top edges of the plates 14 14 when the latter are raised to their highest position, sloping from front to rear, and are a short distance from the inclined front 8, which latter is provided with a spring-closed lid or door 19, the under side of which is provided with two depending flanges which prevent the tacks from escaping from between the plates 18 18 on their way to the holder 20. The holder 20 is composed of two spring-arms, each secured at one end to one of the pieces 12 and extending forward and in front of the front ends of said pieces and having curved front ends adapted to support the tack and also to permit the head thereof, with the driving end of the hammer-head, to pass therethrough when the hammer is operated. The said holder-arms are guided and limited in their movements by the keepers 21, secured to the pieces 12 12. To regulate the passage of the tacks from between the plates 18 18 to the holder so that a single tack is presented for each downward movement of the hammer, a spring-arm 22 is provided, said arm being secured at its rear end to the front wall of the tack-receptacle and having its front end normally adapted to project across the path of the tacks while the latter are between the inclined front ends of the plates 12 12, but also adapted to be temporarily removed there-

from by a projecting arm on the hammer, as hereinafter set forth, so as to allow the tacks to fall, one by one, into the holder, and so be in position for the impact of the hammer-head.

To a strip 23, to which the plates 14 14 are rigidly secured, one end of a bar 24 is pivoted, the other end of the bar being pivoted to the handle 25 of the device. The said handle, which is hollow, has a downwardly-projecting forked portion 26, which at its lower end is mounted on a shaft 27, journaled in the sides 2 and 3 of the base. Pivoted in the portion 26 is a trigger 28, having a catch 29, a tail end 30, and a finger-piece 31. Rigidly secured to the shaft 27, which is in rear and below the receptacle 6, is the hammer 32, formed of side arms 33 and a driving-head 34, which latter is curved and extends in front of the tack-receptacle, so as to engage the tack resting in the holder.

Attached to and projecting downward from one of the side arms of the hammer is an arm 35, adapted in the downward movement of the hammer-head to press against the side of the forward end of the arm 22 and remove it from in front of the row of descending tacks between the pieces 12 12, thereby permitting the tacks in the row to slide downward, the foremost thereof coming in contact with the curved end of the hammer-head. On the front edge of the hammer-head is a projection 36, adapted to abut against the upper edge of the base, and thus limit the downward stroke of the said head.

To a cross-piece 37 on the hammer-arm is secured the ends of coil-springs 38 38, which are mounted on the shaft 21 and have ends bearing against a cross-bar 39 on the base. The said cross-piece 37 is provided with a recess 40 for the engagement of the catch 29 of the trigger therewith, so as to raise the hammer.

The rear end of the handle 25 is secured to a standard 41 on the base by means of a catch 42, which engages said standard and is connected with the tail end 30 of the trigger by means of a spring-bar 43. A contractile spring 44 connects said tail end 30 with the handle. Both the spring-bar 43 and spring 44 are located within the hollow handle for convenience of operation, as well as for protection to the same.

The manner of operating the device is as follows: The receptacle being provided with tacks and the hammer being down, as in Fig. 4, and the handle, as in Fig. 5, the trigger is operated by pressing the finger-piece 31, so as to release the catch 42 from the standard 41. The rear end of the handle is then raised, so that the bar 24, moving in the slotted back 9, raises the plates 14, with the tacks therein, to the line of the top edge of the plates 18 18 and to the front edges of the pieces 12 12, along which the tacks slide until they come in contact with the front end of the arm 22. The handle is moved forward until the catch

29 of the trigger engages the cross-piece 37, when the handle is lowered, raising the hammer against the tension of the coil-springs 38 38. As the hammer is being raised the projecting arm 35 thereof is removed from contact with the front end of the arm 22, whereby the said front end of the latter projects itself in front of the descending row of tacks, preventing any further movement of the same until the arm 22 is again removed from in front thereof. As the curved portion of the hammer-head is raised above the front portion of the pieces 14 14 the single tack which was in front of the front end of the arm 22 now drops into the holder 20 and is held there for the impact of the hammer-head on its descent. The base may now be shoved or pushed forward, the teeth 5 taking a firm hold on the carpet or other material to be secured in place, and the catch 29 is released when the tension of the coil-springs 38 38 forces the hammer-head down against the head of the tack in the holder 20, so that the said tack is driven through the front end of the holder and so into the carpet and floor. At the same time the arm 35 removes the arm 22 from in front of the row of tacks, so that another tack slides to a place below said arm, and is thereby free to drop into the holder on the raising of the hammer-head.

Having thus described my invention, what I desire to obtain and secure by Letters Patent is—

1. A tack-driving device having a base, a tack-receptacle provided with a tack-discharging device, a hammer, an arm on said hammer; means in connection with said tack-discharging device adapted to be engaged by said arm on said hammer for delivering tacks from said discharging device, a handle for operating said discharging device, a trigger on said handle, and springs for operating said hammer; said parts being combined substantially as described.

2. In a tack-driving device, a base having projecting teeth below the front portion thereof, a tack-receptacle with discharging-plates, a handle with connecting-rod for operating said plates, and a spring-actuated hammer having a cross-piece; said handle being provided with a trigger adapted to engage the said cross-piece on the hammer; said parts being combined substantially as described.

3. In a tack-driving device, a base, a tack-receptacle having a slotted back and a bottom with a central longitudinal slot having depending side pieces connected to said base, said bottom being inclined toward said slot, discharging-plate guides in said side pieces, a handle and a connecting-bar working in said slotted back for operating said discharging-plates, said parts being combined substantially as and for the purpose described.

4. In a tack-driving device, a base, a tack-receptacle, discharging-plates having guides in said receptacle, a tack-holder, means for

regulating the passage one by one of tacks from said discharging-plates to said holder, a hammer, a handle with connecting-rod for operating said discharging-plates, a trigger connected with said handle and having a catch for engaging said hammer and coil-springs for actuating said hammer when forced from said catch, said parts being combined substantially as described.

5. In a tack-driving device, a base, a tack-receptacle having a slotted bottom with depending side pieces secured to said base, discharging-plates pivoted to said side pieces and guides thereon and between parallel plates in said receptacle, a holder for tacks fed or discharged from said plates, means for controlling the delivery to said holder, a handle with connecting-rod for operating said discharging-plates, a hammer with a driving-head, a trigger on said handle with a catch for engaging said hammer for raising the same, and coil-springs for actuating said hammer when freed from said catch, said parts being combined substantially as described.

6. A base, a tack-receptacle secured thereto, discharging-plates 14, 14; guide-plates 18, 18, a holder 20, a handle for operating said discharging-plates, a catch on the handle, a hammer adapted to be raised by engagement with said catch on said handle and means for actuating said hammer on its release from said catch, said parts being combined substantially as described.

7. In a tack-driving device, a base, a tack-receptacle provided with tack-discharging plates, a handle with connecting-rod for operating said discharging-plates, a tack-holder, means for regulating the delivery from said discharging-plates to said holder, a trigger in said handle with a catch to engage said hammer for raising the same, means to actuate said hammer when released from said catch, and a shaft mounted on said base and on which said handle is pivoted, and to which said hammer is secured, said parts being combined substantially as described.

8. In a tack-driving device, a base with a standard thereon, a tack-receptacle, with a discharging device having a regulating stop-arm, a holder, a handle for actuating said discharging device, a hammer, a trigger with catch for engaging said hammer, a catch on said handle for engaging said standard, a

spring-bar connecting said last catch and trigger and a spring connecting said trigger and handle, said parts being combined substantially as described.

9. In a tack-driving device, a tack-receptacle having sides, a closed front, a slotted back, and a bottom provided with a central longitudinal slot from the sides of which depend parallel side pieces, parallel plates in said receptacle forming an upward continuation of a part of said side pieces and upper plates, and means for operating said discharging-plates, said bottom being inclined from its outer edge toward said central slot, said parts being combined substantially as described.

10. A tack-driving device having a tack-receptacle provided with tack-discharging plates, a handle with connecting-rod for operating said plates, a tack-holder, a pivoted hammer, a trigger connected with said handle and having a catch engaging said hammer, said handle being pivotally mounted and adapted to raise said discharging-plates and to engage said hammer on the forward movement of the same, said parts being combined substantially as described.

11. A tack-driving device having a base, a tack-receptacle, discharging-plates guided in said receptacle, a tack-holder to receive the delivery from said receptacle, a spring-arm normally adapted to check the delivery from said discharging-plates, a hammer with an arm to free said spring-arm from said discharging-plates, a handle for operating said discharging-plates, a trigger for engaging said arm and means for actuating said hammer when released from said trigger, said parts being combined substantially as described.

12. The combination in a tack-driving device, of a receptacle for tacks; a handle; means for delivering the tacks to be driven, said means actuated by the handle; a spring-actuated hammer; and means in connection with the handle for raising the hammer and releasing the same.

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

GEORGE W. WELLS.

Witnesses:

GEORGE N. BRIGGS,
GEO. L. BRIGGS.