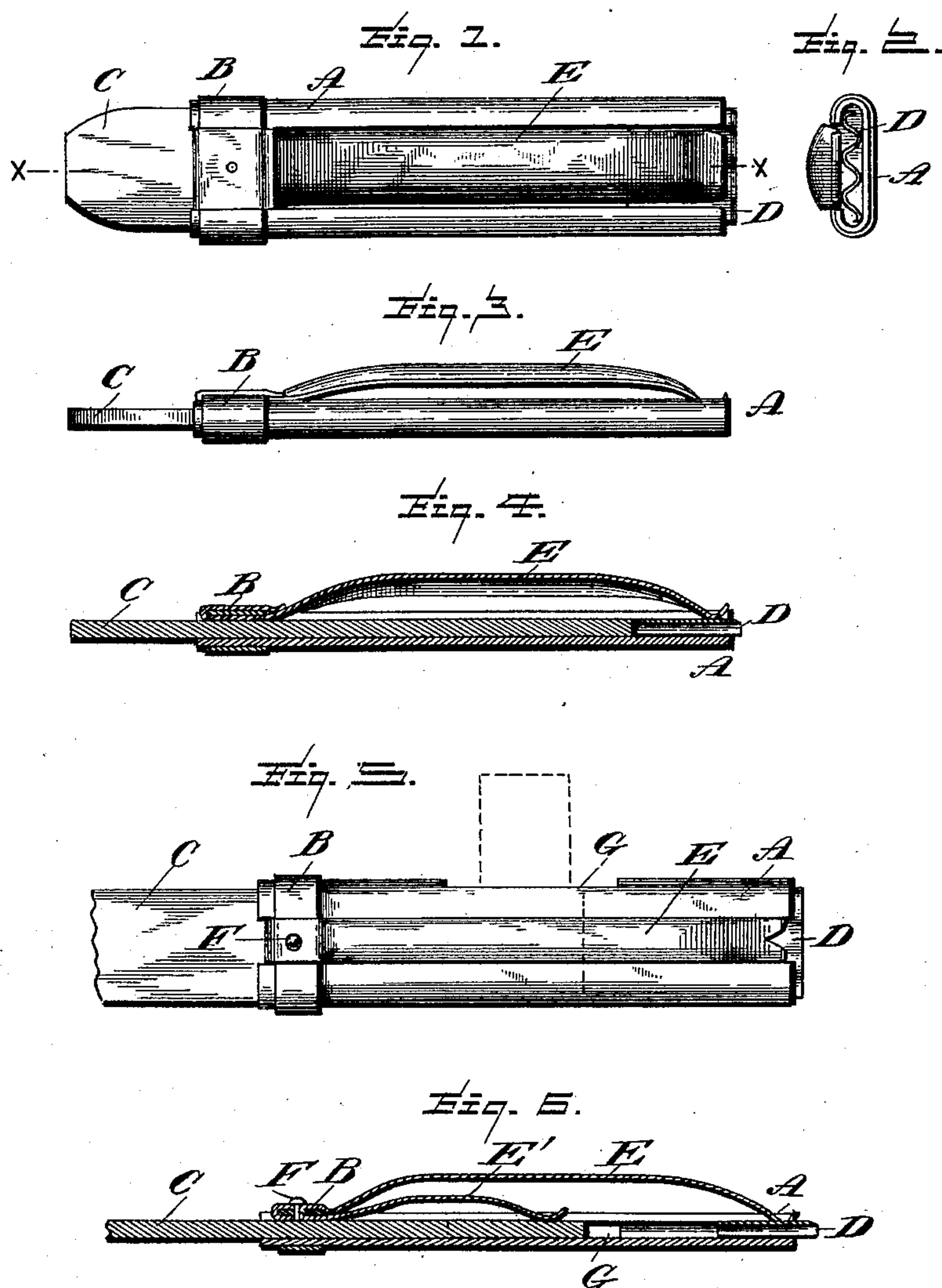


(No Model.)

F. W. STARR.
FASTENER DRIVER.

No. 428,701.

Patented May 27, 1890.



Witnesses

L. C. Hills.
W. S. Duwall.

Inventor

Ferdinand W. Starr:
E. B. Stocking
Attorney

UNITED STATES PATENT OFFICE.

FERDINAND W. STARR, OF SPRINGFIELD, OHIO.

FASTENER-DRIVER.

SPECIFICATION forming part of Letters Patent No. 428,701, dated May 27, 1890.

Application filed March 29, 1889. Renewed March 26, 1890. Serial No. 345,340. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND W. STARR, a citizen of the United States, residing at Springfield, in the county of Clark, State of Ohio, have invented certain new and useful Improvements in Fastener-Drivers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to a device for the purpose of driving conveniently certain forms of zigzag or corrugated fasteningspikes or nails, such as were patented to me January 29, 1889, No. 396,900.

The object of my invention is to provide a device which shall prevent the bending of the spikes during the operation of driving them, and by the use of which the spikes may be expeditiously driven their full length into the wood at any angle. To this end I have invented the device described in the following specification, the novel features of which are fully and particularly set forth in the claims at the end of the same.

In the drawings, Figure 1 is a top view of one form of my device, showing the end of the spike projecting from the opening at the end of the holder. Fig. 2 is an end view of my device, showing plainly the way in which the spike is held by the spring. Fig. 3 is a side view of my device. Fig. 4 is a longitudinal vertical section of my device, showing the driver on the point of pushing out the spike. Fig. 5 is a top plan of another form of my device, showing the slot in the side thereof for the introduction of the spike, and showing said spike in dotted lines on the point of insertion. Fig. 6 is a side view of the same, showing the form of the spring in holding the driver and spike, and showing the side slot.

A is the body of the holder, and said holder is provided with the strip B, which loosely surrounds the body, as shown. This body is composed, preferably, of a single blank folded at the sides, as shown, for the embracing of the spike and the driver. The strip B is simply a metal strip loosely folded around the back end of the body of the holder and serves to form an adjustable abutment and attachment for the spring, as further described. Sliding in the space between the folded-over

sides and the back of the holder is a driver C, as shown in all the figures except Fig. 2.

The spike, generally corrugated, is inserted in the end of the holder, as shown in Figs. 2, 4, 5, and 6 at D. This spike is held in place by the action of a spring E, the rear end of which is attached to the movable abutment-strip, preferably by folding the same around said strip and driving a rivet or passing a screw through the abutment and spring as, at F. As seen in the figures, this spring has an arch, preferably in both the longitudinal and transverse directions, thus strengthening the spring and forming a convenient hand-hold, the transverse arch being plainly shown in Figs. 2 and 4. This spring occupies the space between the bent-over edges of the body-blank and tends to enter into said space and press against the back of the holder, the degree of pressure being regulated in a measure by the hand. The end of the spring may be notched, as shown in Fig. 5, and this is often done where the corrugated spikes, having the grooves of the corrugations so placed as to come directly under the spring, are used. This notch then straddles one of these grooves, as shown in Fig. 5, holding the spike better in place by this arrangement. In some cases I prefer to elongate one of the ends of the spring-strip, as shown at E' in Fig. 6, and arch the same in much the same manner as the main portion of the spring is arched, the end of the elongation resting always upon the end of the driver when not in action and keeping it properly directed during this time. With this arrangement the forward end holds the spike before being driven, while the rear end holds the driver in position until it comes into use.

In my preferred form of holder there is a side slot G, (shown in Figs. 5 and 6,) for the introduction of the spike in front of the driver without raising the spring. This mode of introducing the spike is shown in Fig. 5 in dotted lines. The spike having been thus introduced in front of the driver, the device is placed over the joint into which it is desired to drive the spike and the driver depressed until the spike is thrown forward under the forward end of the spring and into contact with the wood. The hammer is then em-

ployed upon the rear end of the driver and the spike driven into the wood as far as desired. The driver C is brought back to its normal position manually.

5 The exact details shown and described above are not all of course essential to the spirit of my invention, and I do not wish to limit myself to the same, as several deviations therefrom may be suggested by any
10 mechanic.

What I claim is—

1. A holder for retaining a spike, composed of a blank bent over at its sides, combined with a strip around the rear end thereof, a
15 spring attached at one end to the strip extending lengthwise of the holder and arranged within the space between the adjacent edges of the blank, and a driver sliding in said holder, as set forth.

20 2. In a fastener-driver, a holder formed with a longitudinal slot upon its face, combined with a spring extending lengthwise of the holder, with a curved end in said slots, said spring being adjustable lengthwise of the
25 holder, and a driver sliding in said holder, as set forth.

3. A holder composed of a blank bent over at the two sides, an adjustable abutment-strip wound around said holder, and a spring

30 attached to said abutment-strip and terminating in the space between said edges of the blank, in combination with a driver sliding within said holder, substantially as described.

4. A holder composed of a blank bent over at the two sides and having a slot in one of
35 said sides, an adjustable abutment-strip wound around said holder, and a spring attached to said abutment-strip and springing into the space between said edges of the blank, in combination with a driver sliding within
40 said holder, substantially as described.

5. A holder composed of a blank bent over at the two sides and having a slot in one of
45 said sides, an abutment-strip wound around said holder, and a spring having one end embracing said abutment-strip and curved to form a convenient hand-hold and having its two ends springing into said space between the edges of the sides of said blank, in combination with a driver sliding within said
50 holder, substantially as described.

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

FERDINAND W. STARR.

Witnesses:

CHASE STEWART,
JAMES A. BROWN.