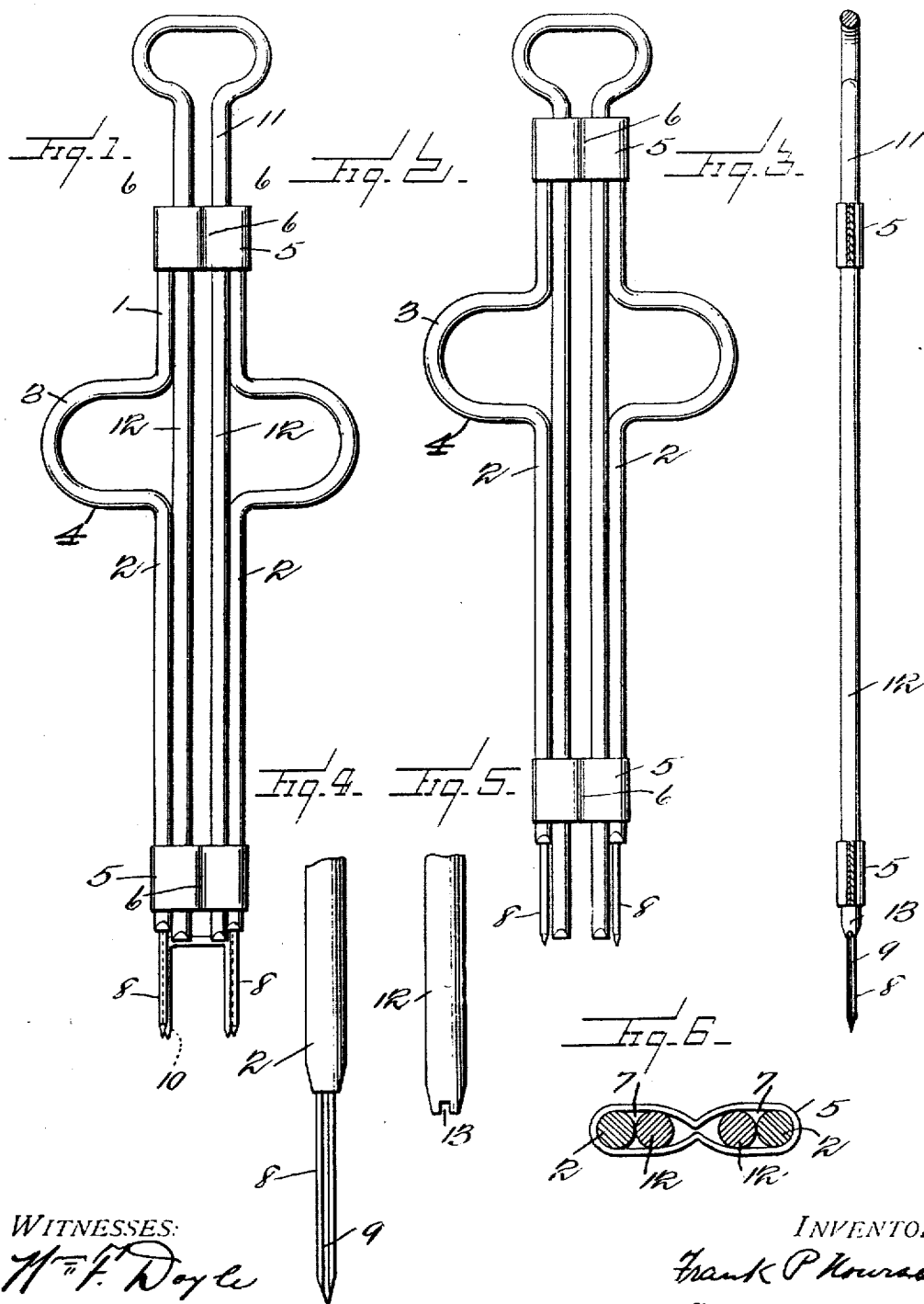


No. 770,693.

PATENTED SEPT. 20, 1904.

F. P. NOURSE.
STAPLE SETTING DEVICE.
APPLICATION FILED DEC. 17, 1903.

NO MODEL.



WITNESSES:

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FRANK P. NOURSE, OF ALEXANDRIA, INDIANA, ASSIGNOR TO SIMPLEX
BINDER CO., OF ALEXANDRIA, INDIANA.

STAPLE-SETTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 770,693, dated September 20, 1904.

Application filed December 17, 1903. Serial No. 185,558. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. NOURSE, a citizen of the United States of America, residing at Alexandria, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Staple-Setting Devices, of which the following is a specification.

This invention relates to devices for applying staples, and is particularly designed for use in connection with the magazine-binding for which I have made application for Letters Patent on the 3d day of October, 1903.

An object of the invention is to provide novel means for readily inserting the staple without marring or impairing the strength of the binding and in the provision of means for removing the staple-applying device and permitting the said staple to remain inserted through the magazine.

Furthermore, an object of the invention is to provide a device of the character noted in which a combined frame and guide is provided and in the provision of a plunger for seating the staple in place.

Finally, an object of the invention is to provide a device of the character noted which will possess advantages in points of efficiency and durability and of inexpensive construction.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts the several views, and in which—

Figure 1 is a view in elevation of a staple-applying device embodying the invention. Fig. 2 is a similar view showing the parts in another position. Fig. 3 is a central longitudinal sectional view. Fig. 4 is a view of a fragment of one of the sides. Fig. 5 is a view of a fragment of one of the legs of the plunger. Fig. 6 is a horizontal sectional view through the lever-guide frame and plunger-legs.

In the drawings, 1 denotes the frame, comprising two sides 2, each of which have outwardly-bent loops, forming the shoulders 3 and 4 above and below the loop for the purpose of forming bearing-surfaces for the hand or fingers of the operator. The two sides are connected at the ends by keepers or guides 5 in the form of bands, which encircle the ends and have their centers depressed, as at 6, in order to form ways 7 between the depressed centers and the sides of the frame. The bands are connected to the sides of the frame by brazing, soldering, or any other suitable means. Needles 8 have their ends seated in the lower ends of the sides and terminate in points which are designed to pierce the binding and the periodical or paper to be applied to the binding, and these needles have grooves or channels 9 in their inner surfaces of sufficient depth to permit the insertion of the staple 10.

The plunger 11 is slidable in the guides, and it comprises a piece of wire bent on itself to form the two legs 12, which have recesses 13 in their outer end to receive the bar of the staple. The looped end of the plunger is elliptical and enlarged to form a bearing-surface for the hand of the operator, and when the staple is being displaced from the needles and seated in the binding the fingers of the operator engage the loops on the frame while the palm of the hand of the operator is pressed on the loop of the plunger. When the needles are being pressed through the binding, the fingers of the operator engage the upper shoulder of the loop, and in withdrawing the needles of the binding the fingers are caused to engage the lower shoulders of the loop.

From the illustration and the foregoing description the operation of the device will, it is thought, be apparent, and a detail description of the operation is therefore dispensed with. It might be stated that the construction of this device might be variously modified, both in the proportions and details of construction, without departing from its scope.

Having fully described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a staple-setting device, a frame, needles seated in the end of the frame, a plunger slidable between the sides of the frame, the said needles having grooves in their sides in which the staple is seated, the said staple being engaged by the plunger, substantially as described.

2. In a staple-setting device, a frame comprising two sides and two bands connecting the sides, the said bands being shaped to form guides, a plunger slidable therein, needles forming extensions on the sides, means on the needles for holding a staple between them in the path of travel of the plunger.

3. In a staple-setting device, a frame having two sides bent to form loops with upper and lower shoulders, means for connecting the upper and lower ends of the frame and forming guides therewith, a plunger comprising a piece of metal bent on itself to form two legs which are slidable in the guides, needles seated in the

ends of the frame, said needles having grooves in their facing-surfaces for the seating of a staple in the path of travel of the plunger.

4. In a staple-setting device, a frame having two sides bent to form loops with upper and lower shoulders, bands connecting the ends of the frame-sections, the said bands being bent centrally to form ways between the bent portion and the sides of the frame, a plunger slidable in the ways and needles seated in the lower end of the frame between which the plunger slides, and means on the needles for holding a staple in the path of travel of the plunger.

In testimony whereof I affix my signature, in the presence of two witnesses, this 25th day of November, 1903.

FRANK P. NOURSE.

Witnesses:

HARRY V. OTTO,

JOHN H. ZIMMERMAN.