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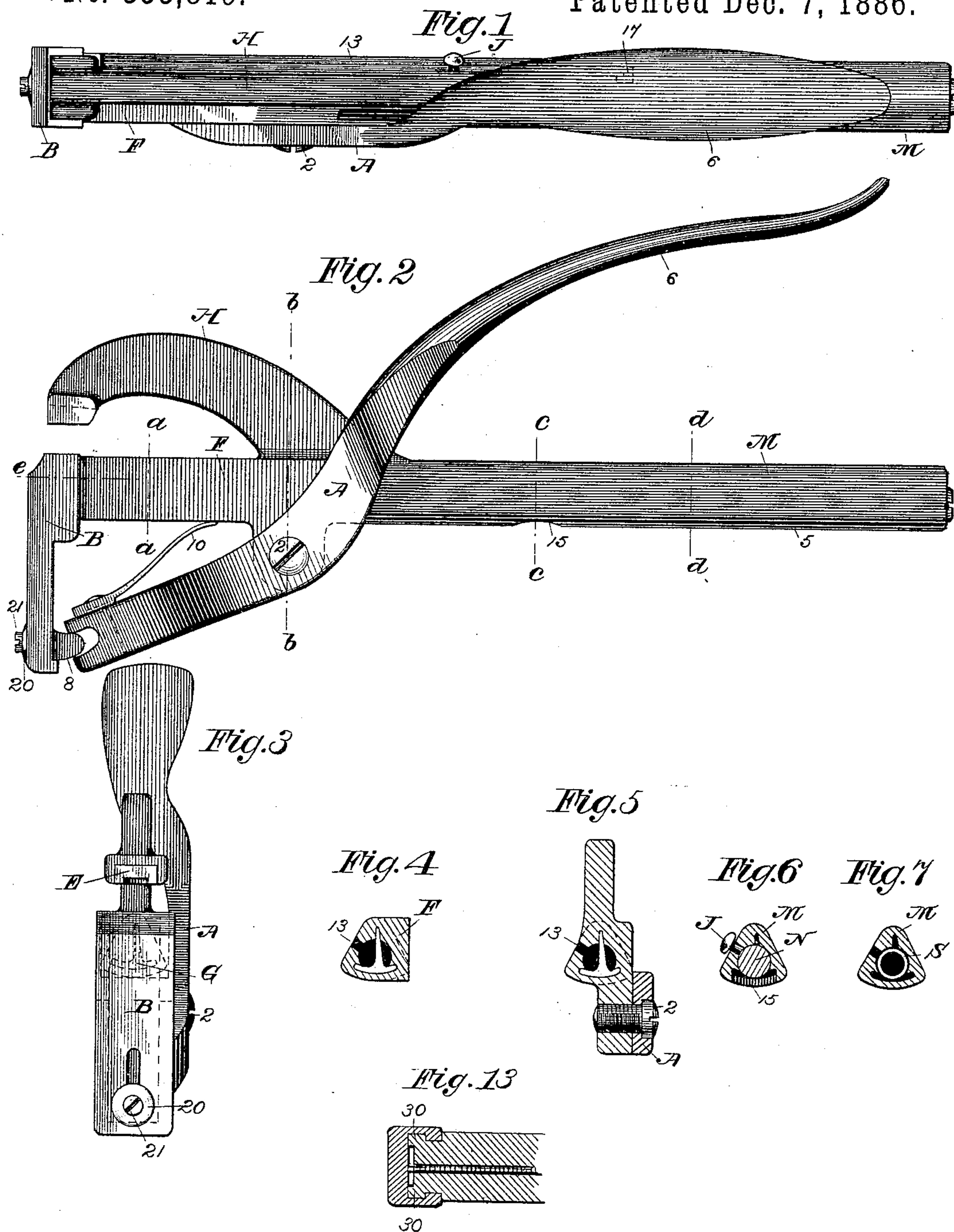
2 Sheets—Sheet 1.

F. H. RICHARDS.

BUTTON SETTING INSTRUMENT.

No. 353,819.

Patented Dec. 7, 1886.



Witnesses:

Frank H. Pierpont  
C. E. Buckland.

Inventor:

Francis H. Richards.

(No Model.)

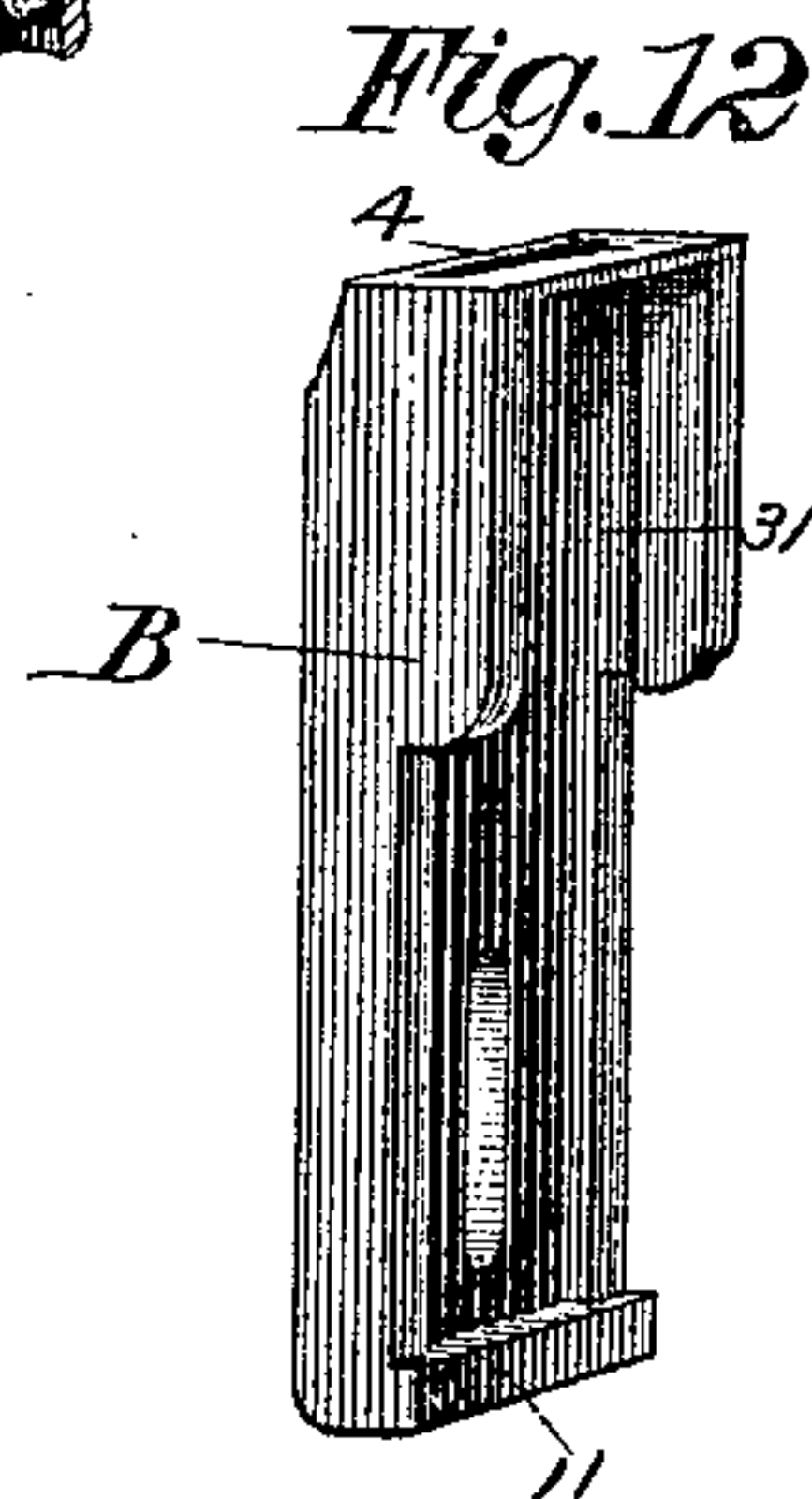
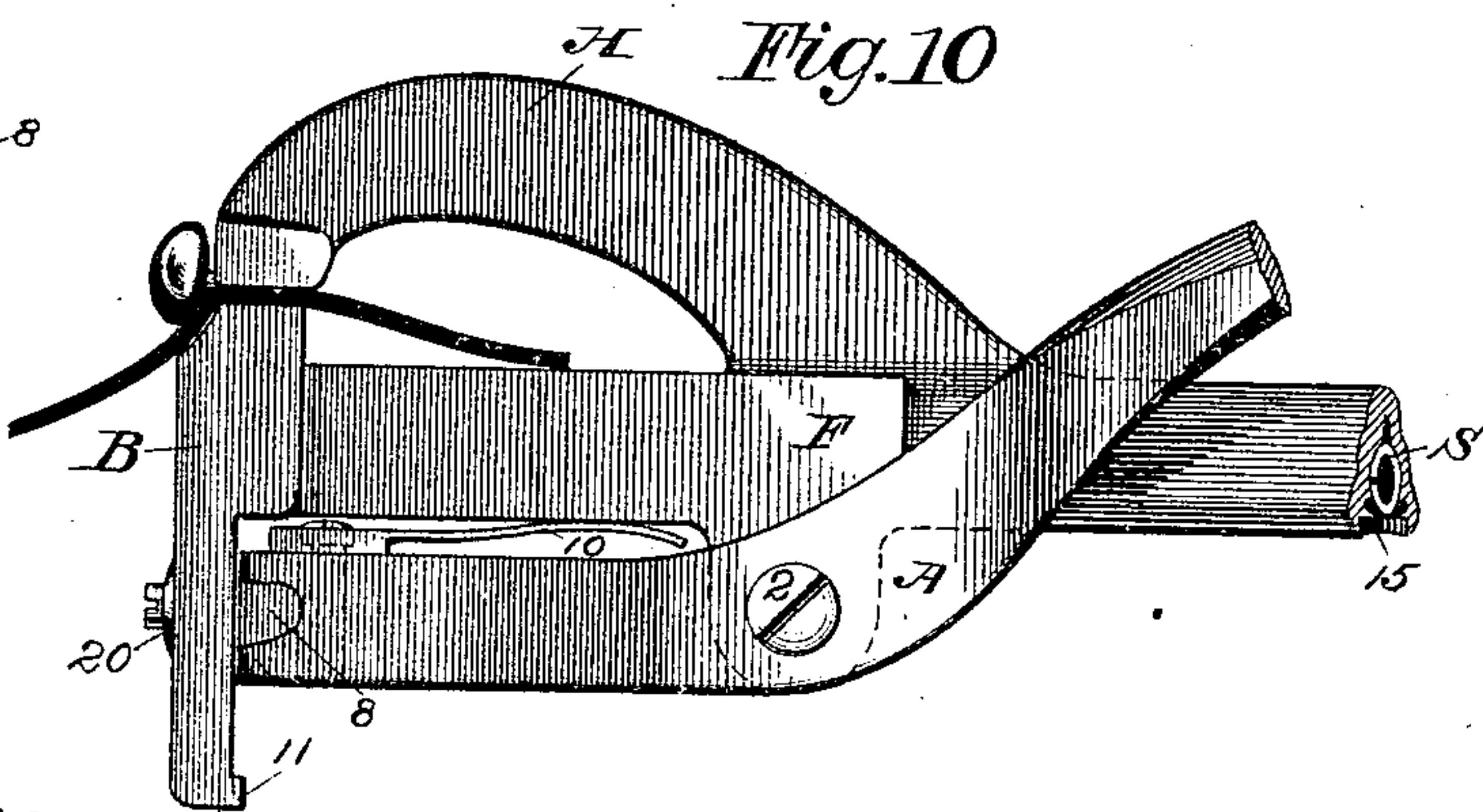
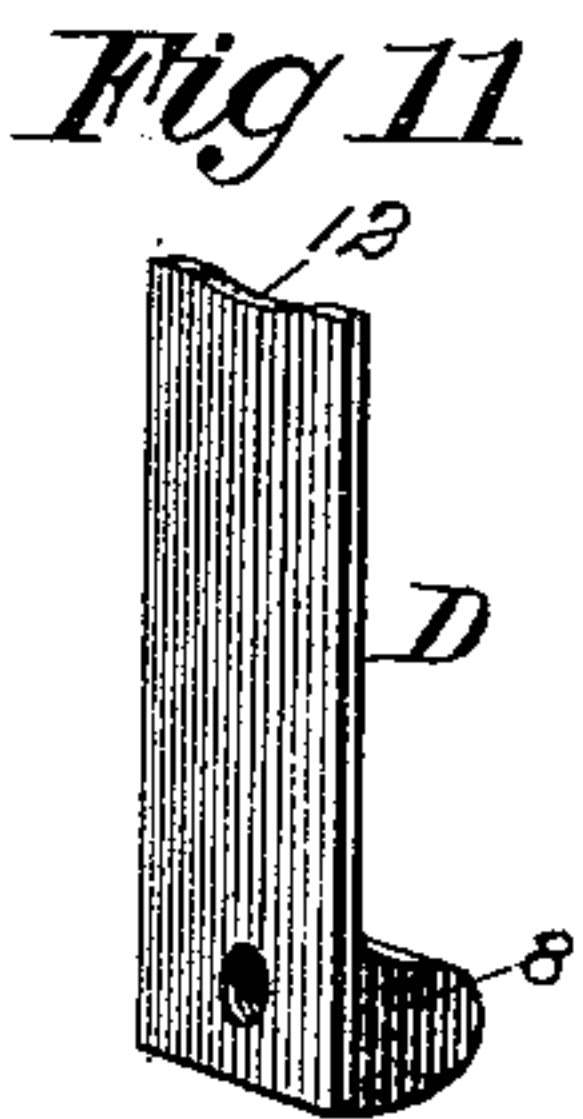
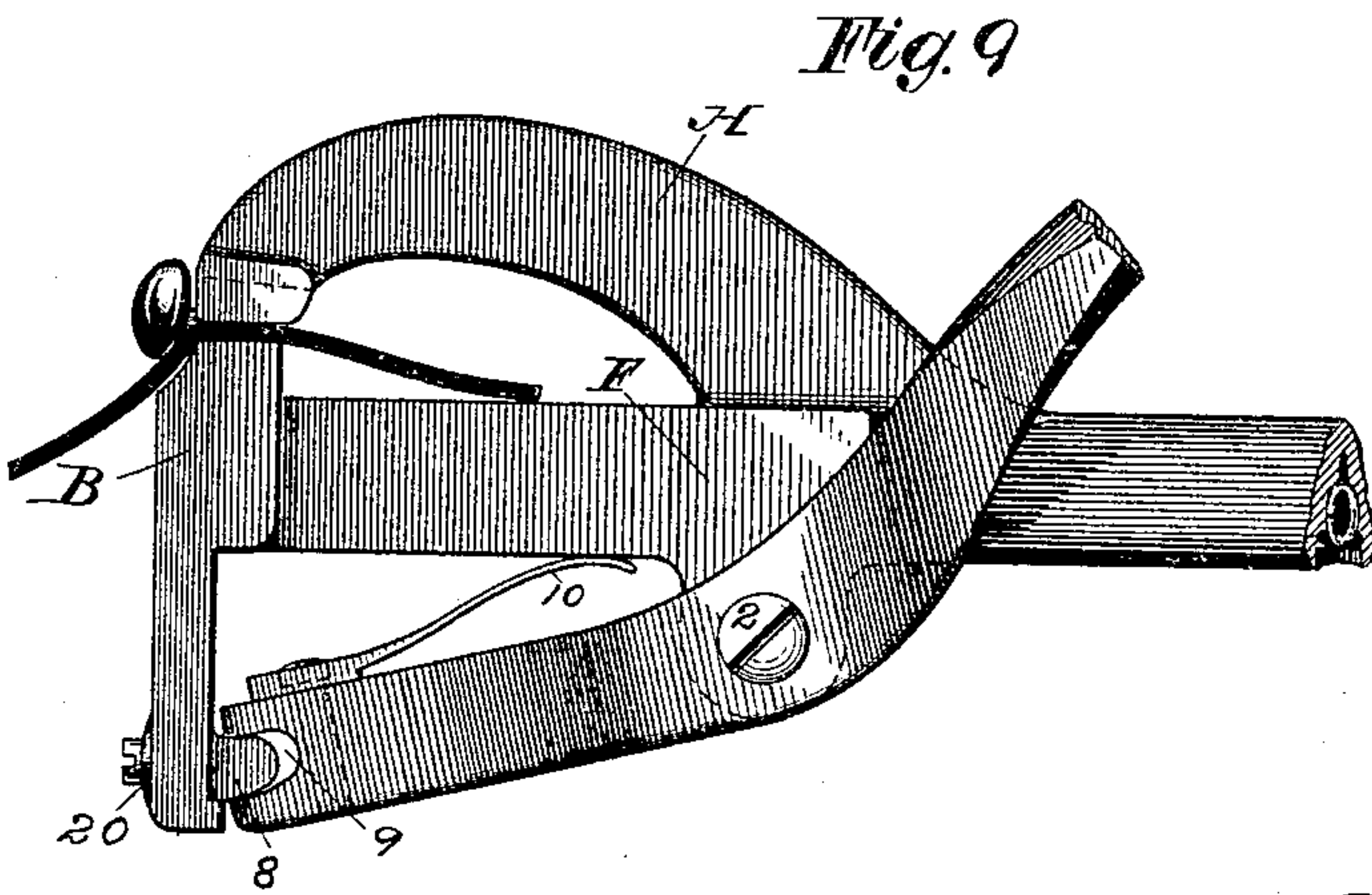
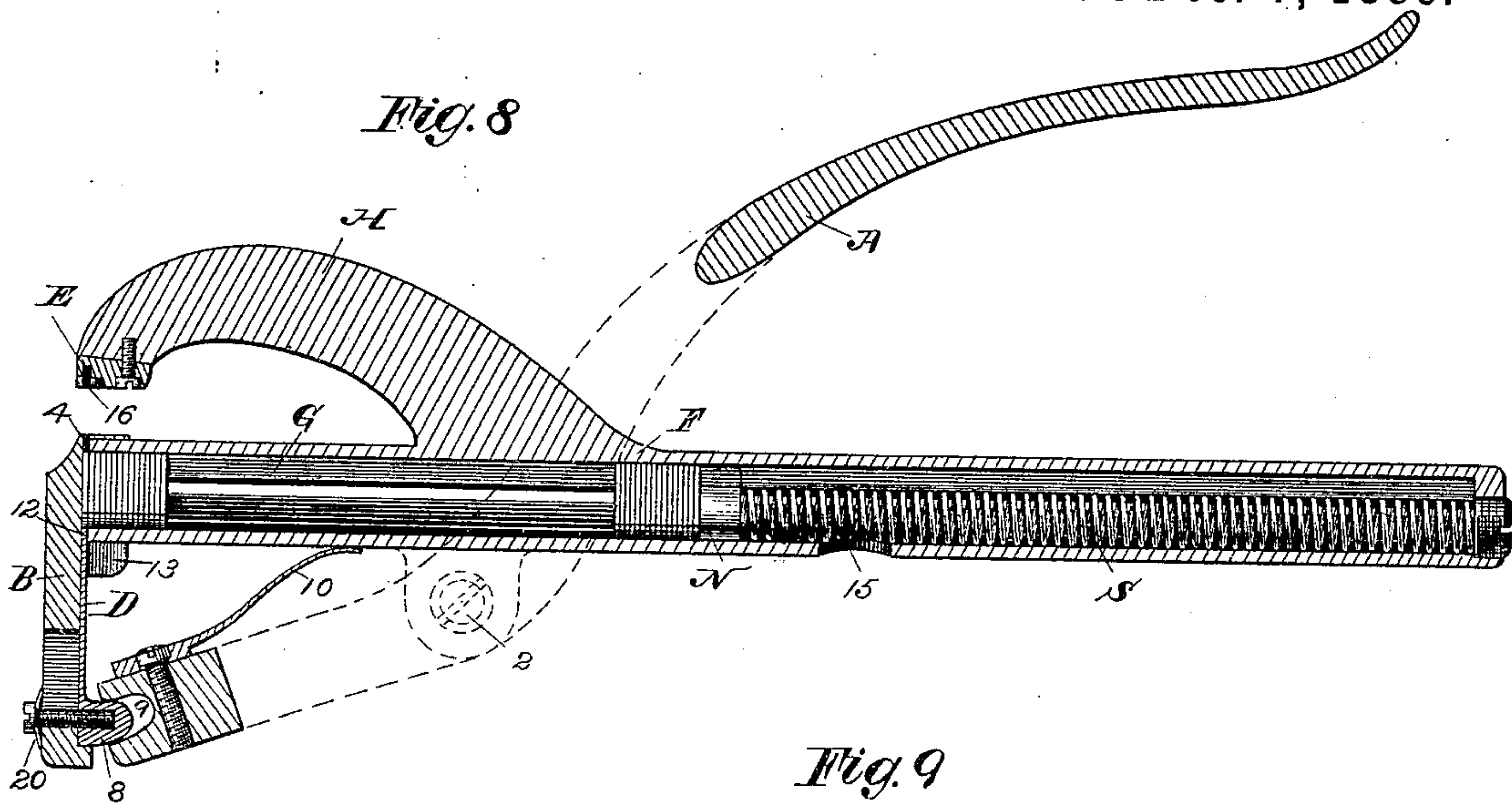
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# UNITED STATES PATENT OFFICE.

FRANCIS H. RICHARDS, OF SPRINGFIELD, MASS., ASSIGNOR TO THE AMERICAN BUTTON FASTENER COMPANY, OF NEW BRITAIN, CONN.

## BUTTON-SETTING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 353,819, dated December 7, 1886.

Application filed February 18, 1886. Serial No. 192,437. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS H. RICHARDS, a citizen of the United States, residing at Springfield, in the county of Hampden, State of Massachusetts, have invented certain new and useful Improvements in Button-Setting Instruments, of which the following is a specification.

This invention relates to hand-instruments for attaching buttons to fabrics or other goods by means of malleable pointed fasteners, the object being to provide such an instrument having a button-fastener magazine, from which the fasteners are automatically fed to the driver one at a time, as required for use.

To this end the invention consists in the combinations hereinafter described and claimed.

In the drawings accompanying and forming a part of this specification, Figure 1 is a top view of an instrument embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is an elevation of the front end, which is at the left hand in the preceding figures. Fig. 4 is a section in line *a a*, Fig. 2. Fig. 5 is a section in line *b b*, Fig. 2. Fig. 6 is a section in line *c c*, and Fig. 7 in line *d d*, Fig. 2. Fig. 8 is a vertical longitudinal section through the entire instrument, showing the parts as standing ready to begin setting a fastener. Fig. 9 is a side elevation of the forward part of the instrument, showing the first stage of the setting operation. Fig. 10 is a similar view showing the second stage of said operation. Fig. 11 is a perspective view of the driver. Fig. 12 is a perspective view of the presser-slide. Fig. 13 is a horizontal section in line *e*, Fig. 2.

Similar characters designate like parts in all the figures.

My improved button-setting instrument comprises three principal parts—a central part or frame containing the magazine and having a handle, and a pivoted member provided with a handle and operating the driver, and a presser-slide. The frame is designated by F, the pivoted member by A, and the presser-slide by B. Said frame is suitably formed to receive the pivot-screws 2, on which the member A has its bearing, and has guide 30, fitting grooves 31 of slide B. The magazine is a T-shaped groove, G, formed in the frame, and it opens at the front end into the vertical driver-channel 4, Fig. 8, the front side of which is

formed by slide B. The driver D is constructed to slide in said channel, and has one or more rack-teeth, 8, fitting into notch 9, formed in member A. A stout spring, 10, serves to throw down said member and the driver until this is stopped by hook 11, with its point 12 just below groove G. Slide B is operated from the driver by means of some friction device—as, for instance, the spring-washer 20 and screw 21—adjustably fixed in the driver, as will be fully understood by reference to Fig. 8. Frame F has a die-holding arm, H, which carries at its front end the ordinary setting-die, E, whose concave depression 16 stands directly over driver-channel 4.

The magazine-groove is supplied with the button-fasteners through an opening, 15, Figs. 2 and 8, the instrument being inverted for the purpose. A sliding follower, N, pushes the fasteners along in said groove. Said follower is thrown forward by a spring, S, contained within a tubular extension or case, M, extending rearward from frame F. This case has a slot, 13, and a common lantern-catch, 17, (shown in dotted lines in Fig. 1,) for the passage and locking of the follower-handle J. The follower being drawn back of opening 15 within the round bore of case M, it may be turned in that bore to bring handle J into engagement-catch 17, when groove G may be filled by putting into it, by hand, a few fasteners at a time. The groove being sufficiently supplied, the follower is unlocked, and the spring pushes it forward against the fasteners, and the foremost one of these into the driver-channel above driver D, ready to be set into a fabric or shoe-upper.

The operation of the instrument will be readily understood from the drawings and preceding description, being as follows: The magazine being properly loaded, and the instrument as in Fig. 2, the handles 5 and 6 of members F A are grasped by the operator, who then places under the setting-die a piece of fabric, 20, or other goods to which a button is to be attached. On now closing together the handles the member A forces up the driver, and through that the slide onto the fabric, as in Fig. 9. A button, T, is next placed, with its shank under the setting-die ready for setting. Next the handles are further closed,



forcing up the driver D and the foremost fastener, 18, Fig. 8, up through channel 4, through the fabric and the button-shank, into depression 16, which turns the fastener-point over into a hook that incloses said shank. This completes the setting operation, after which the said members are allowed to resume their first positions, and follower N forces another fastener into channel 4.

10 The general arrangement and operation of the slide, magazine, and driver-channel, the setting-die, and driver are substantially the same herein as in United States Patent No. 311,033, granted to me January 20, 1885, to which reference may be had for a more detailed account of the fastening made by means of the instrument.

20 In another application, Serial No. 191,363, filed February 9, 1886, I have described the combination, in a button-setting instrument, of a magazine and a driver which are in some respects similar to those herein described. Therefore I do not herein broadly claim the same.

25 Having thus described my invention, I claim—

1. The combination, in a hand-instrument for setting button-fasteners, of a frame having a handle and a magazine and carrying the setting-die, a driver-channel, substantially as described, driver D, and member A, operating said driver, and also having a handle, substantially as set forth. 30

2. The combination, in a hand button-setting instrument, of frame F, having the channel 4, and the slide B, provided with stop 11, driver D, member A, pivoted to frame F and operating said driver, and means, substantially as described, for operating said slide from said driver, all substantially as shown and described. 35 40

3. The combination of the frame F, containing the magazine-slide B, driver D, means for operating said driver, and a frictional connection operating said slide from the driver, substantially as shown and described. 45

FRANCIS H. RICHARDS.

Witnesses:

FRANK H. PIERPONT,  
GEO. W. DRAKE.