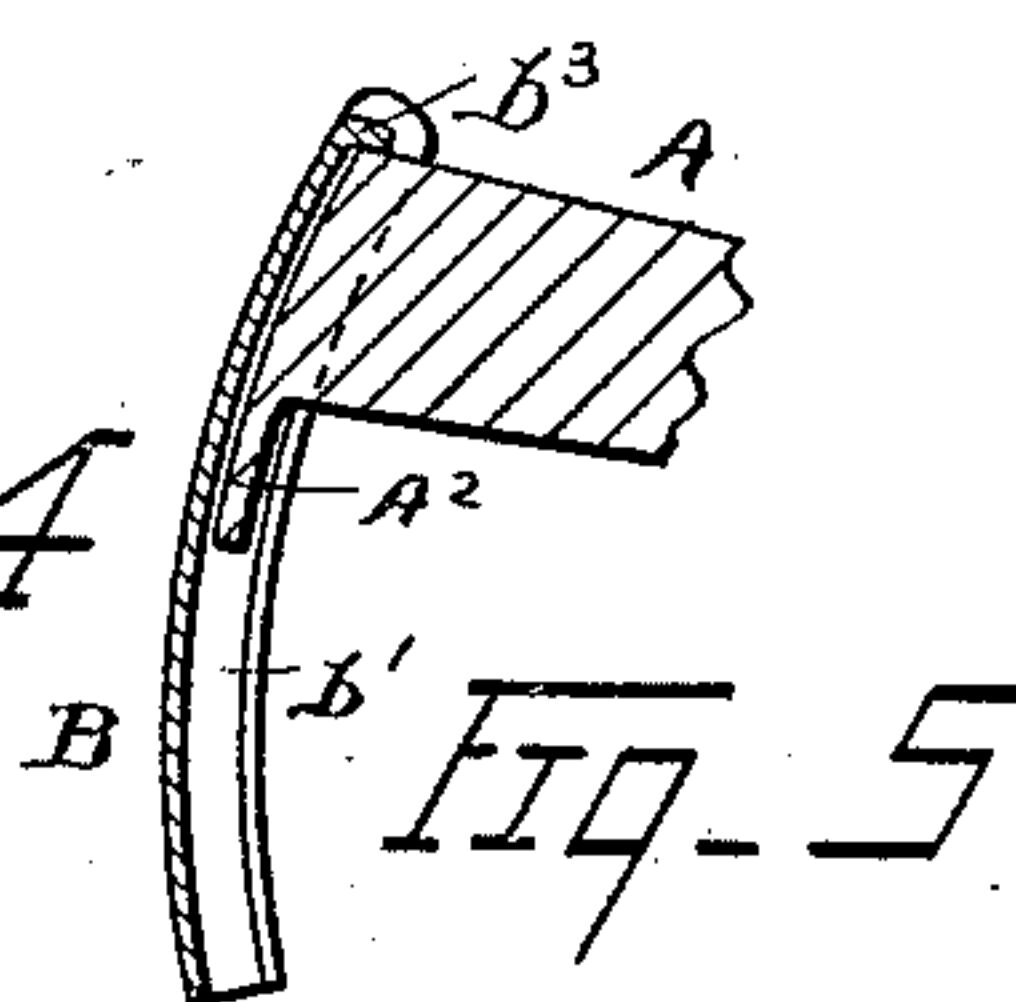
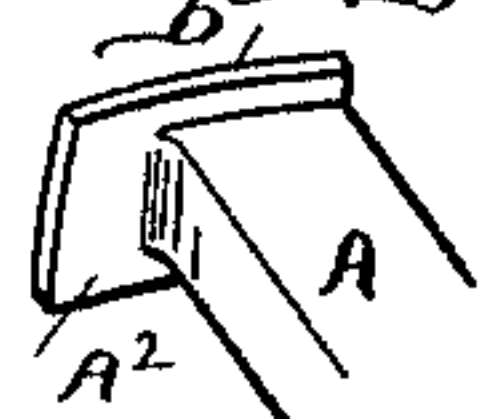
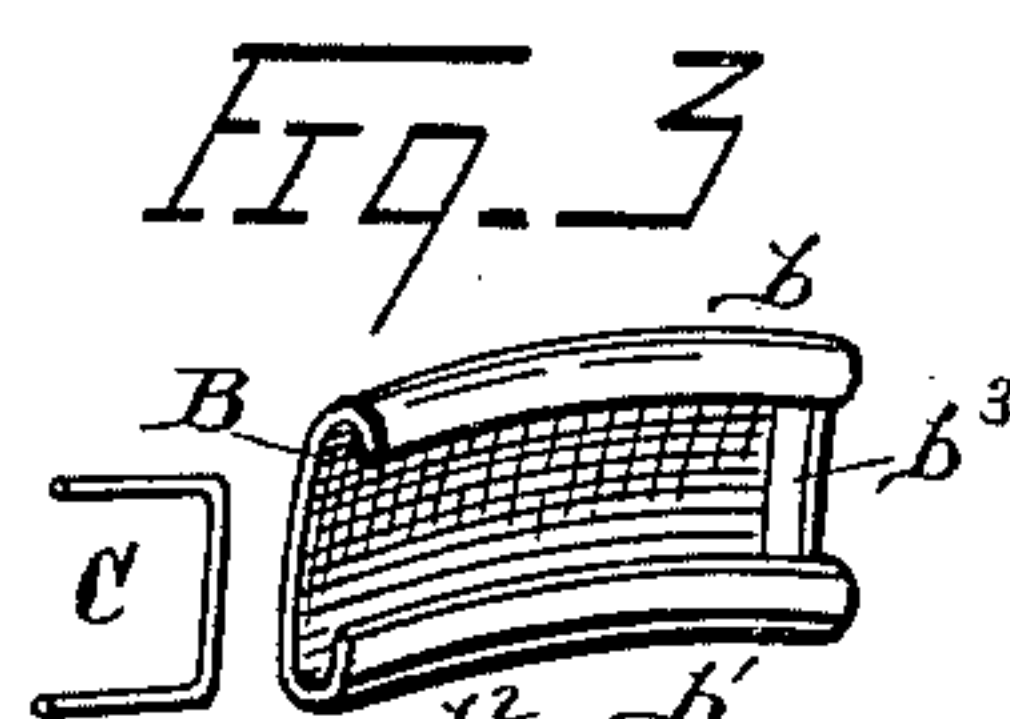
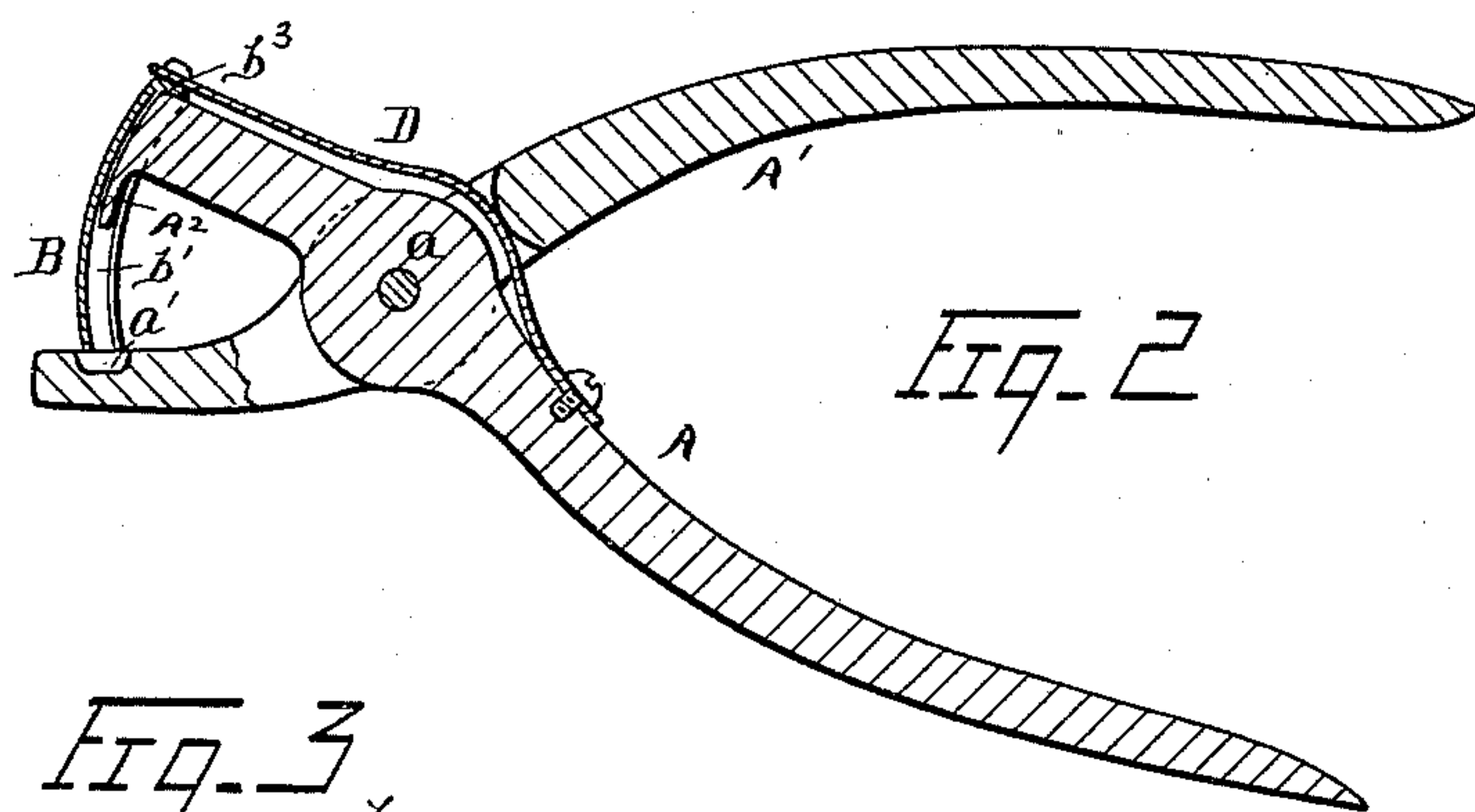
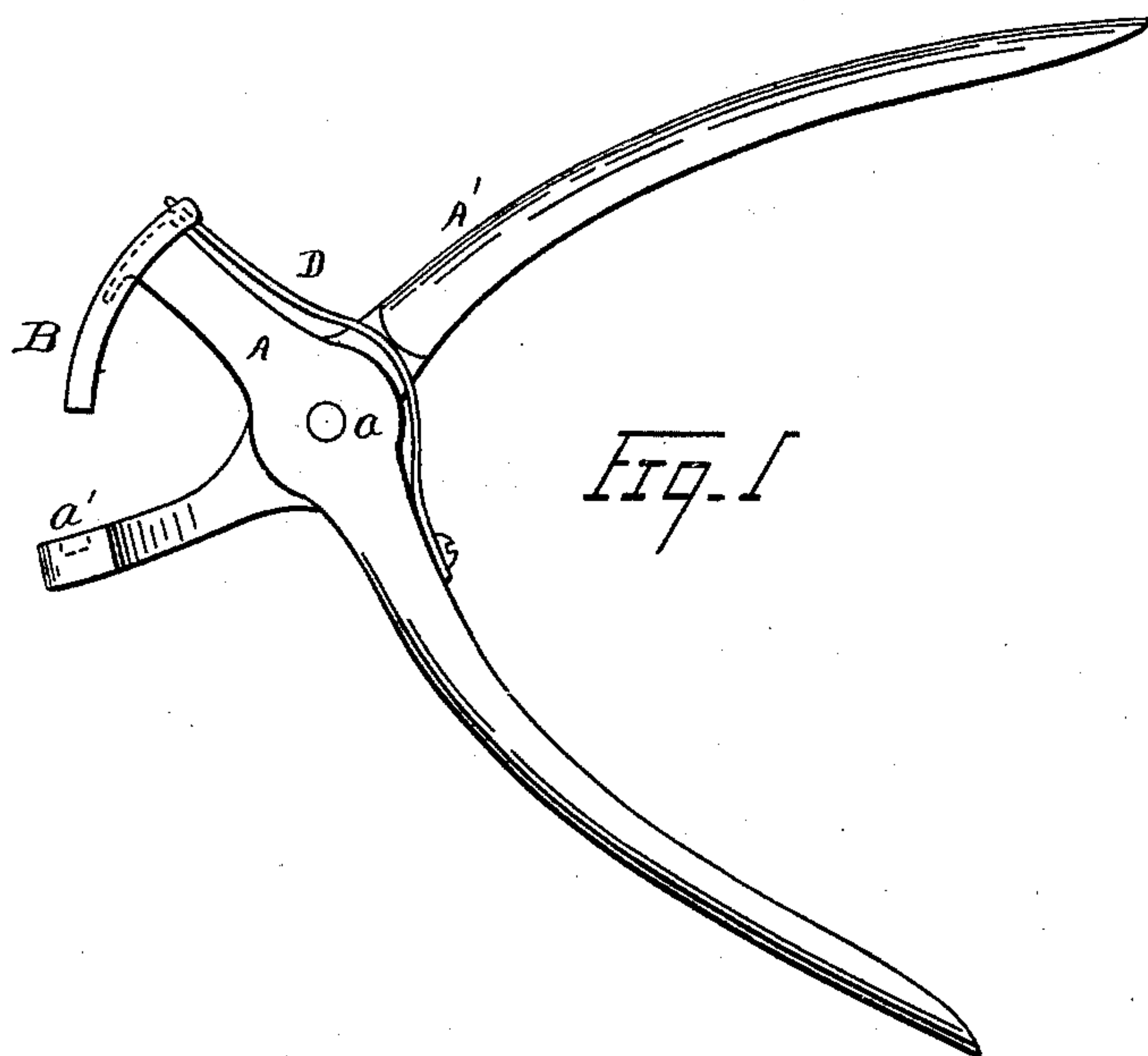


(No Model.)

H. F. WHITE.  
STAPLING IMPLEMENT.

No. 409,540.

Patented Aug. 20, 1889.



Witnesses:

John Schuman.  
Charles F. Salow.

Inventor:

Henry F. White  
by Jewell & Wright

Att'y



# UNITED STATES PATENT OFFICE.

HENRY F. WHITE, OF DETROIT, MICHIGAN.

## STAPLING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 409,540, dated August 20, 1889.

Application filed December 26, 1888. Serial No. 294,663. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY F. WHITE, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented certain new and useful Improvements in a Stapling Implement; and I declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in a stapling implement, and is designed more particularly as an improvement on Letters Patent of the United States No. 391,799, dated October 30, 1888, issued to Osro P. Johnson, assignor of his entire right, title, and interest therein to me.

My present invention has for its object greater simplicity, economy, and efficiency in the construction and operation of the device; and it consists of the construction, combination, and arrangements of parts hereinafter described, and pointed out in the claims, and more fully illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device, showing the jaws opened. Fig. 2 is a vertical longitudinal section thereof, showing the jaws closed. Fig. 3 is a separate view of the sliding head. Fig. 4 is a separate view of the end of one of the jaws provided with the driving-arm; and Fig. 5 is a section through the end of the jaw, provided with the driving-arm and the sliding head engaged thereupon.

I carry out my invention as follows: In the device embodied in the foregoing patent the driving-arm was made separable from the jaw, of a separate piece of metal, engaged upon the end of the jaw by a screw, the end of the jaw being provided with a shoulder to prevent the turning of the arm thereupon. Moreover, the sliding head was constructed with an elongated slot, which slot received the head of the screw, the screw-head limiting the movement of said sliding head upon the driving arm. I now propose to make said arm integral with the driving-jaw and to hold the sliding head in place in a simpler manner.

Accordingly, A represents the driving-jaw and A' the clinching-jaw of my improved stapling implement, having a jointed engagement at *a*. Said jaws are constructed essentially like those embodied in said patent, except as hereinafter noted. The clinching-jaw is provided with a clinching recess or groove *a'*. The driving-jaw is provided with a driving-arm A<sup>2</sup>, which in this case is made integral with the jaw, and, preferably, of a malleable casting. This does away entirely with the labor and the additional elements of making the arm of a separate piece, drilling the same to receive a screw, and recessing the arm also to engage a shoulder on the jaw, as shown in the former patent referred to. By dispensing with the screw, the shoulder, the recess, and the separable driving-arm and making said arm integral with the jaw it is evident the structure is very materially simplified and improved, and there is never any liability of the arm becoming loosened in any degree. The sliding head is shown at B, and is flanged as before, as shown at *b b'*, to engage the lateral edges of the driving-arm, and to serve, also, at the same time, as a retainer for the staple C. The lateral edges of the driving-arm may project sufficiently from the jaw—as shown, for instance, at *b<sup>2</sup>*, Fig. 4—to permit the firmer engagement of the sliding head on said arm and its free movement thereupon.

It will be observed that in dispensing with the screw heretofore used to unite the arm upon the jaw I may also dispense with the elongated slot heretofore formed in said sliding head, and this constitutes one of the features of my improvement; and instead of limiting the movement of the sliding head by the screw-head engaging with the respective extremities of said elongated slot I now simply force downward or bend over a portion of the upper extremity of the sliding head to form a flange, as shown at *b<sup>3</sup>*. This flange *b<sup>3</sup>*, it is evident, will limit the movement of the sliding head in one direction by striking against the extremity of the jaw, as shown in Figs. 2 and 5. A spring D, bearing upon the upper end of the sliding head, will sufficiently limit the movement of the sliding head also in the opposite direction, the spring



serving, moreover, to keep the said head in the normal position shown in Fig. 1, and permitting the head to yield under pressure to drive the staple home. In this manner the sliding head may be made solid. It will be observed that the said head is formed on the arc of a circle, as well as the driving-arm also of the driving-jaw.

What I claim as my invention is—

10 1. The stapling implement herein described, consisting of jaws A A', one of said jaws provided with a driving-arm A<sup>2</sup> and the other jaw with a clinching-die, a sliding head supported upon said driving-arm, and a single spring bearing on said head and operating said jaws, the movement of said head toward said die limited at a point above the said arms, substantially as set forth.

20 2. The stapling implement herein described, consisting of jaws A A', one of said jaws provided with a driving-arm, and a sliding head supported upon said arm, said head provided with a flange b<sup>3</sup> and the other jaw provided with a clinching-die, substantially as and for the purpose described.

25 3. The stapling implement herein described, consisting of jaws A A', one of said jaws provided with a driving-arm made integral therewith, a sliding head supported upon the driving-arm, said head flanged at the sides to embrace the lateral edges of the said arm and also flanged at its upper end to limit the

movement of the head in one direction, and a single spring bearing on said head and operating said jaw and the other jaw provided with a clinching-die, substantially as set forth.

4. The stapling implement herein described, consisting of jaws A A', one of said jaws provided with a driving-arm made integral therewith and having side flanges, as b<sup>2</sup>, a sliding head supported upon the driving-arm, said head flanged at the sides to embrace the side flanges of said arm and also flanged at the upper end to limit the movement of the head in one direction, a spring connected to one of said jaws and bearing on said head, and the other jaw provided with a clinching-die, substantially as set forth.

5. In a stapling implement, the combination, with jaws A A', having a jointed connection, one of said jaws provided with a driving-arm, of a sliding head engaged upon said arm, a spring bearing on the end of said head, a part of said head cut away and bent over to form a flange to limit the movement of said head in one direction, and a guide-notch for the end of said spring, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

HENRY F. WHITE.

Witnesses:

N. S. WRIGHT,

CHAS. F. SALONS.