

No. 894,470.

PATENTED JULY 28, 1908.

E. H. T. STRÖMBÄCK.
TONGS FOR FIXING EYES AND HOOKS.

APPLICATION FILED SEPT. 17, 1907.

Fig. 1.

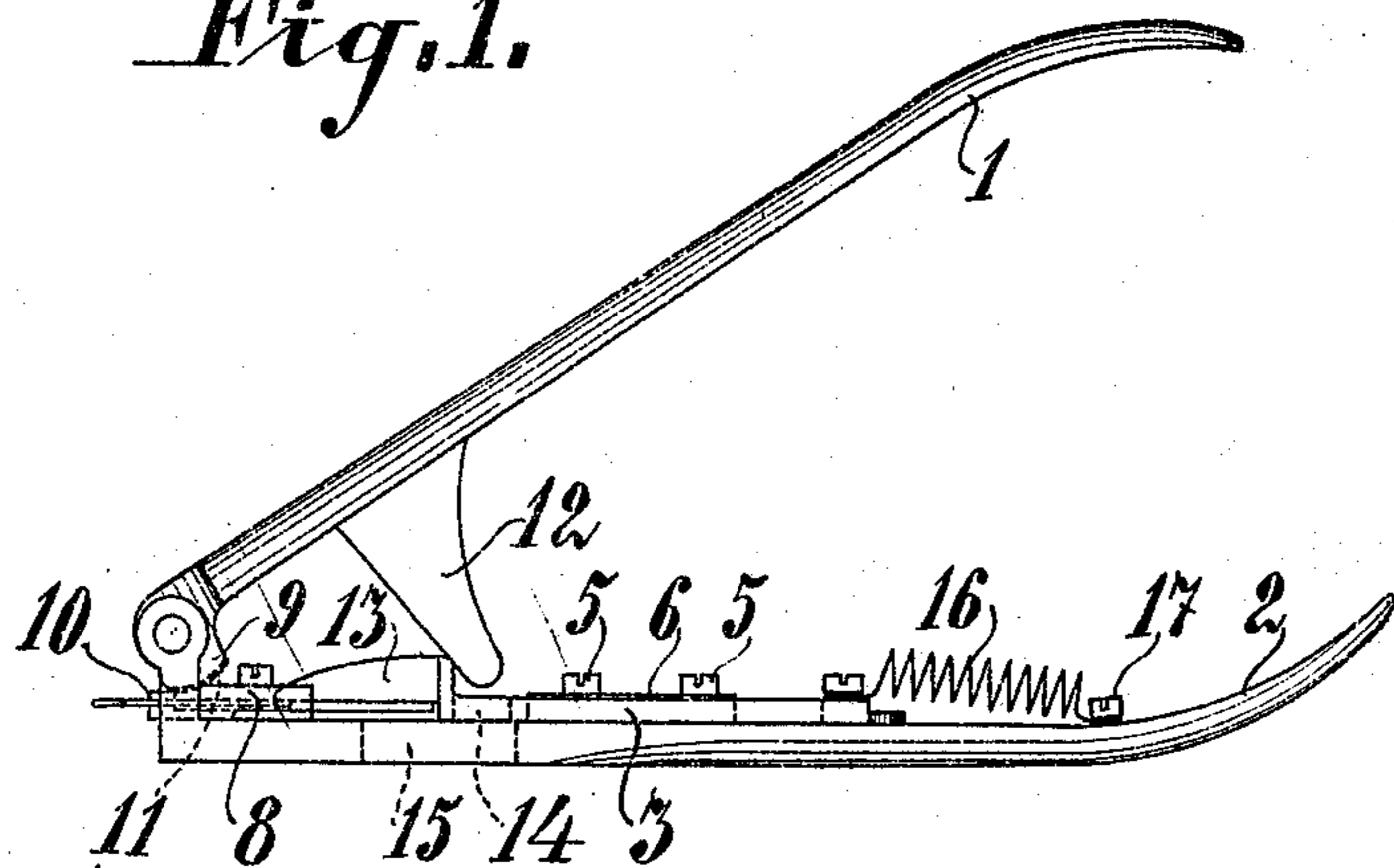


Fig. 2.

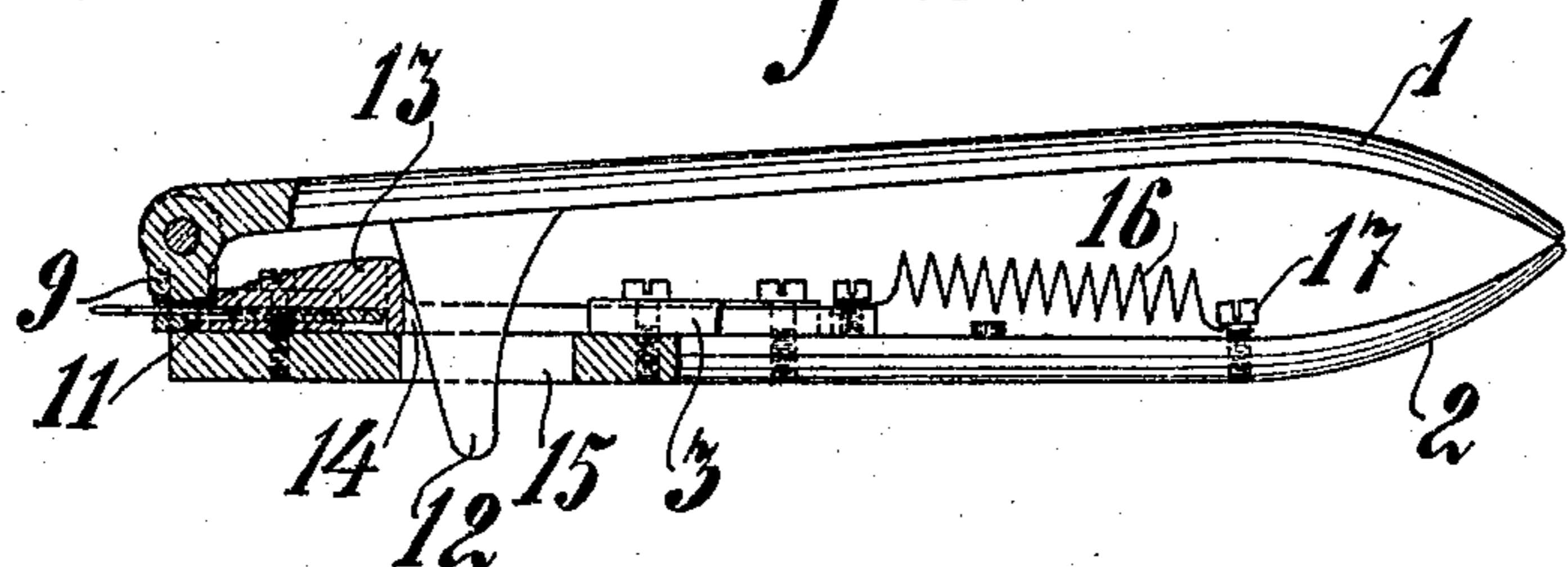


Fig. 3.

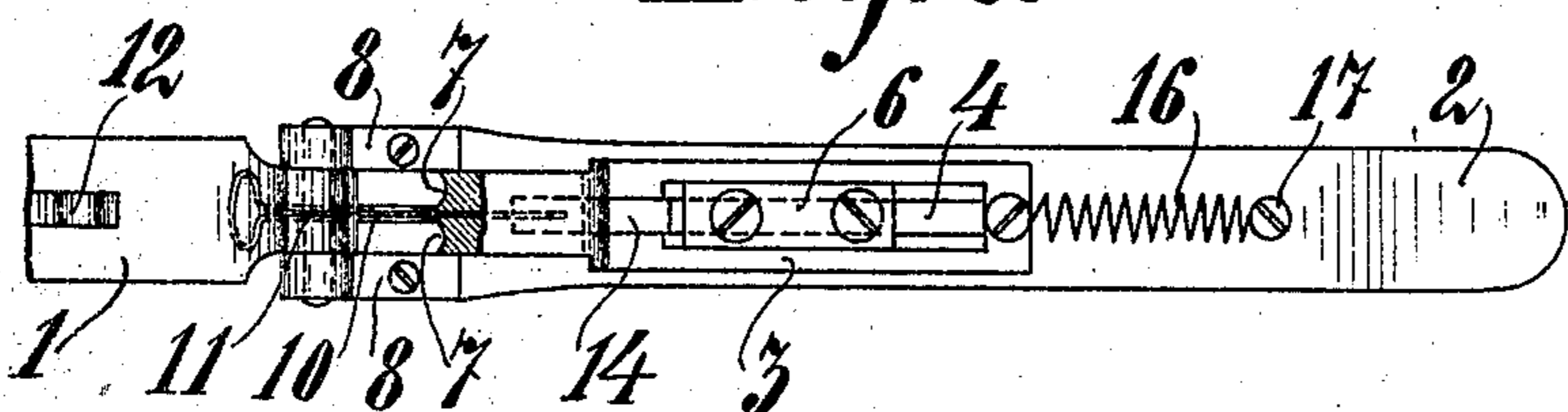


Fig. 4.

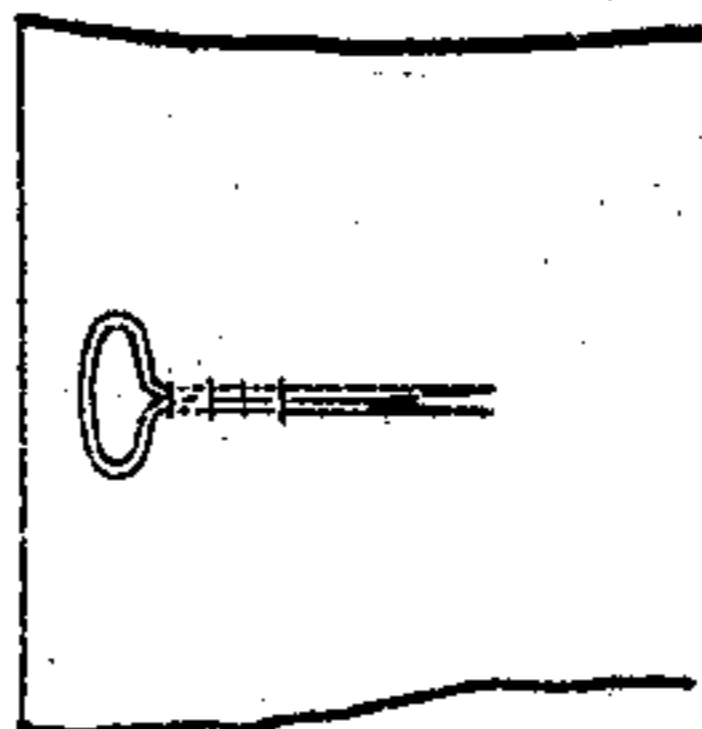
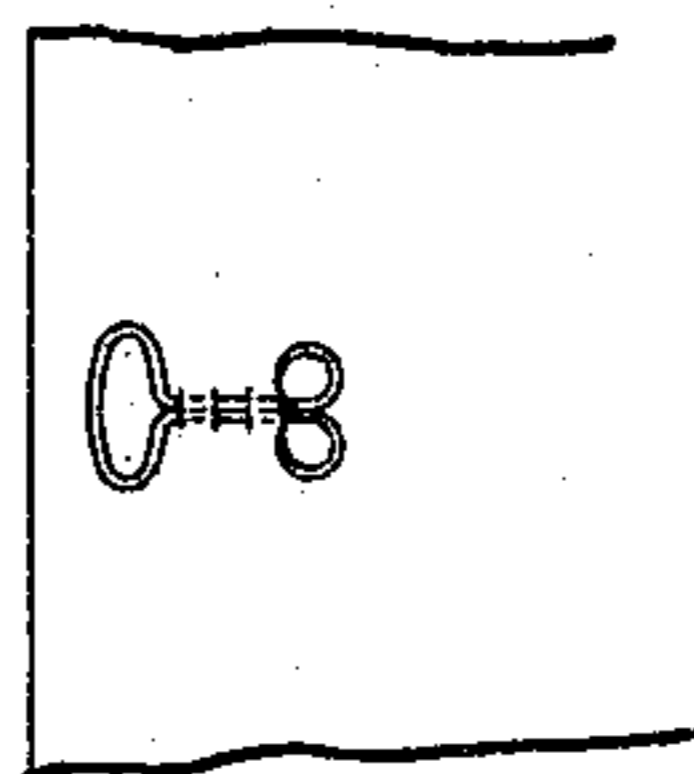


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

EMMA HELENA TERESIA STRÖMBÄCK, OF STOCKHOLM, SWEDEN.

TONGS FOR FIXING EYES AND HOOKS.

No. 894,470.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed September 17, 1907. Serial No. 393,420.

To all whom it may concern:

Be it known that I, EMMA HELENA TERESIA STRÖMBÄCK, born NYMAN, a subject of the King of Sweden, and resident of Humlegårdsgatan 22, Stockholm, in the Kingdom of Sweden, have invented certain new and useful Improvements in Tongs for Fixing Eyes and Hooks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to tongs for fixing eyes and hooks to fabric, the said eyes and hooks being provided with two parallel, straight ends adapted to be stuck through the fabric.

The object of this invention is to provide a pair of tongs for securing the eyes and hooks to the fabric by bending the ends thereof into loop form after the ends have been stuck through the fabric and for accomplishing this result in one operation.

Figure 1 in the accompanying drawing is a side view of a pair of tongs arranged in accordance with this invention. The said figure shows the tongs open. Fig. 2 shows in side view the tongs closed. Fig. 3 is a plan view, partly in section, of the tongs with the top shank swung outward. Figs. 4 and 5 show an eye inserted into a piece of fabric, the said figures showing the shape of the ends of the eye before and after the bending operation.

The tongs consist of two shanks 1 and 2 hinged to each other at their front ends. A slide 3 is movably secured on the inner side of one of the shanks, as for instance, the shank 2, said slide being guided by a piece 6 fixed to the shank 2, in the present instance by means of screws 5, and mounted in a longitudinal slot 4 in the slide, said piece 6 overlapping the edges of the slot. The said slide has two semi-circular recesses 7, Fig. 3, adapted for bending the ends of the eye or hook. The front end of the slide 3 is guided by pieces 8, fixed to the shank 2 by means of screws or the like. The ends of the eye or hook to be operated upon are inserted between the two shanks of the tongs at the hinged end, leaving the head of the eye or hook protruding therefrom, as shown in Figs. 1 and 2. The shank 1 is provided at its front or hinged end with a cam 9, which cam, when the shanks 1 and 2 are moved toward each other, presses the ends of the eye or hook against the upper surface of the shank 2 and thus holds the eye or hook firmly

in position to be operated upon, as shown in Fig. 2. The said shank 2 is provided in its center line with a longitudinal ridge or rib 10, adapted to guide the ends of the eye or hook, and the cam 9 has a groove or recess 11 corresponding to the said rib 10. To the shank 1 a cam shaped projection 12 is fixed, directed toward the shank 2. As the shanks are moved toward each other, the said projection 12 bears against the head or front end 13 of the slide 3 and enters a slot 14 in the slide and a slot 15 in the shank 2. The said projection 12 is so shaped that it moves the slide forward as the tongs are closed, Fig. 2. During this movement the ends of the eye or hook are acted upon by the surfaces 7 and bent into loop form while at the same time the ends are held by the cam 9 in the manner stated above. As the shanks of the tongs are released, the slide 3 is returned to its initial position by a spring 16 fixed to the slide and to a pin 17 screwed into the shank 2, and the cam 9 is raised from its engagement with the eye or hook so that the eye or hook may be removed from the tongs.

When the eye or the hook is to be fixed to the fabric, the ends of the same are stuck one or more times through the fabric, as shown in Fig. 4. The ends are then inserted between the cam 9 and the shank 2 and are bent to the shape shown in Fig. 5, by closing the tongs. Thus there is provided an almost instantaneous method of securing eyes and hooks to fabric in such manner that only the tearing away of the fabric itself can cause the article to be unintentionally disengaged therefrom, while by straightening or cutting off the ends of the hook or eye, it may be removed from the fabric without having substantially injured the latter. Consequently, by means of the tongs described above, the holding of the eye or hook and the bending of the ends can be effected in one manipulation.

What I claim is:

1. In tongs for fixing eyes and hooks which have two parallel, straight ends which are adapted to be stuck through the fabric, the combination of two shanks hinged to each other at their front ends, a cam on one of the shanks coöperating with the other shank for holding the said ends, inserted between the same, a slide on the latter shank provided with bending recesses, and means for moving the slide forward as the tongs are closed, substantially as described and shown in the drawing.

2. In tongs for fixing eyes and hooks which have two parallel, straight ends which are adapted to be stuck through the fabric, the combination of two shanks hinged to each
5 other at their front ends, a cam on one of the shanks coöperating with the other shank for holding the said ends, inserted between the same, a cam shaped projection on the said first-named shank, and a slide on the other
10 shank provided with bending recesses and adapted to be acted upon by the said projection when the tongs are closed, substantially as described and shown in the drawing.

3. In tongs for fixing eyes and hooks which
15 have two parallel, straight ends which are adapted to be stuck through the fabric, the combination of two shanks hinged to each

other at their front ends, a cam on one of the shanks coöperating with the other shank for holding the said ends, inserted between the
20 same, a slide on the latter shank provided with bending recesses, a guiding rib for the ends of the eye or hook, and means for moving the slide forward as the tongs are closed, substantially as described and shown in the
25 drawing.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

EMMA HELENA TERESIA STRÖMBÄCK.

Witnesses:

CARL FRIBERG,
HJALMAR ZCHERSTROM.