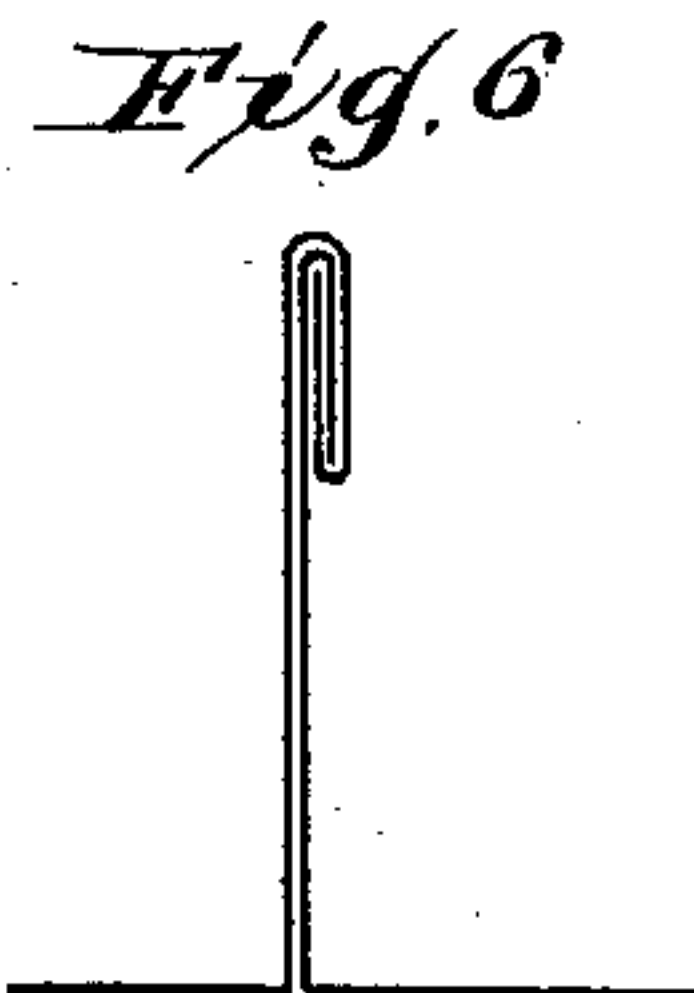
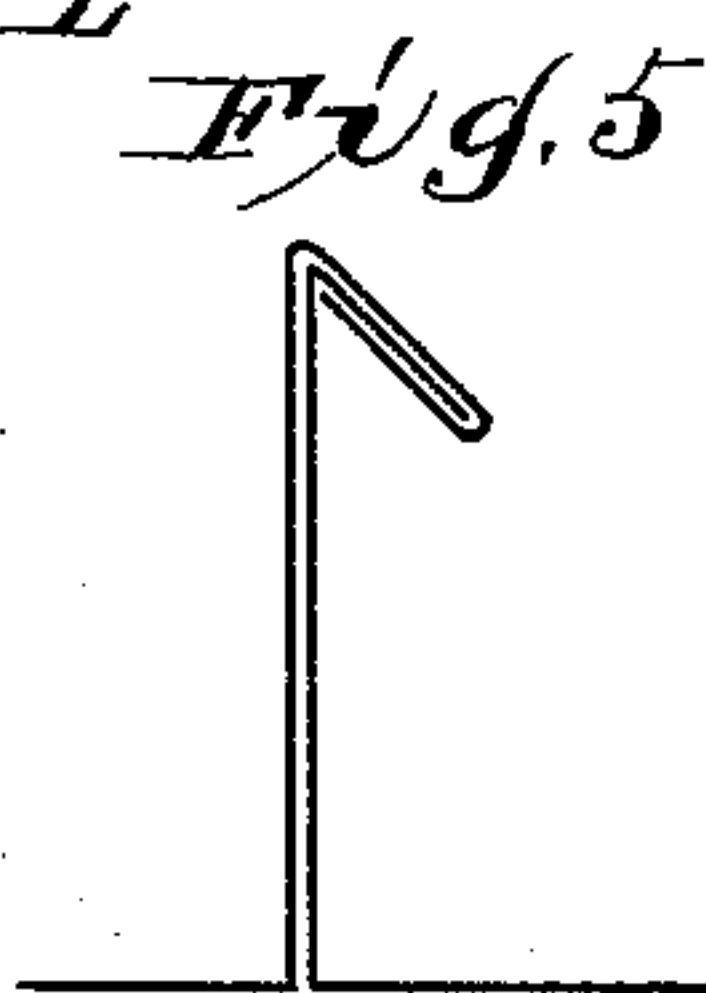
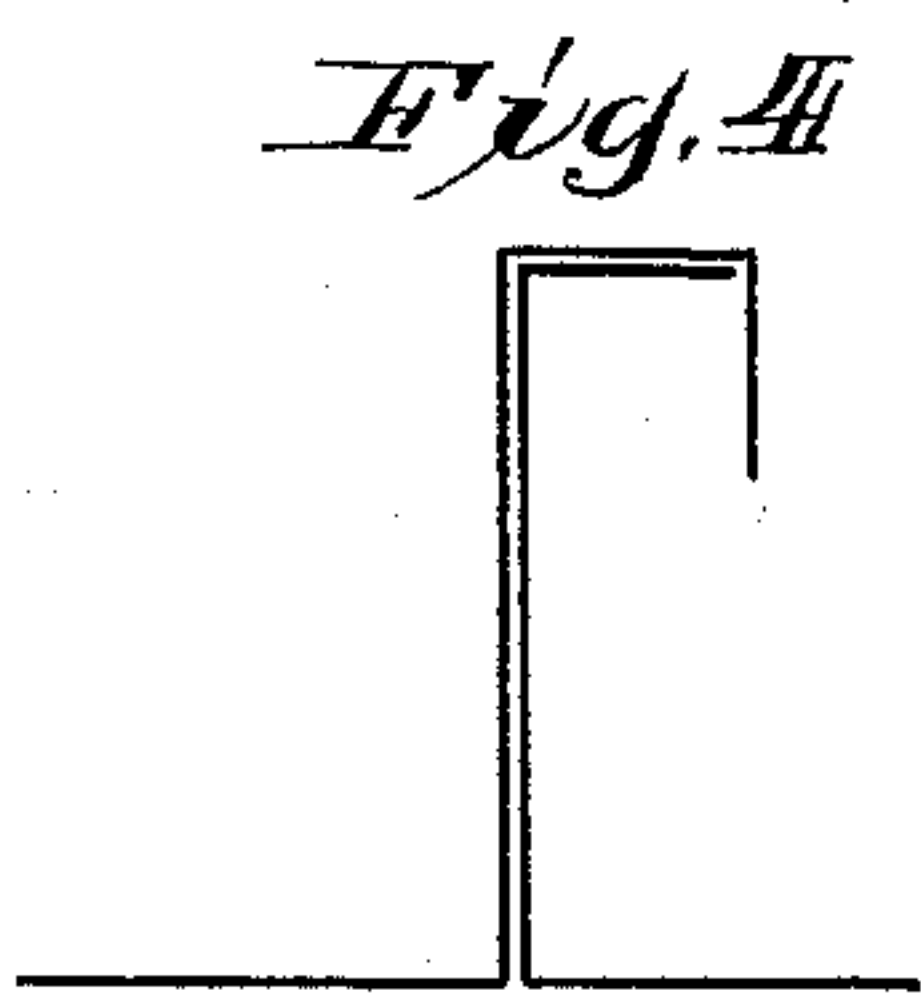
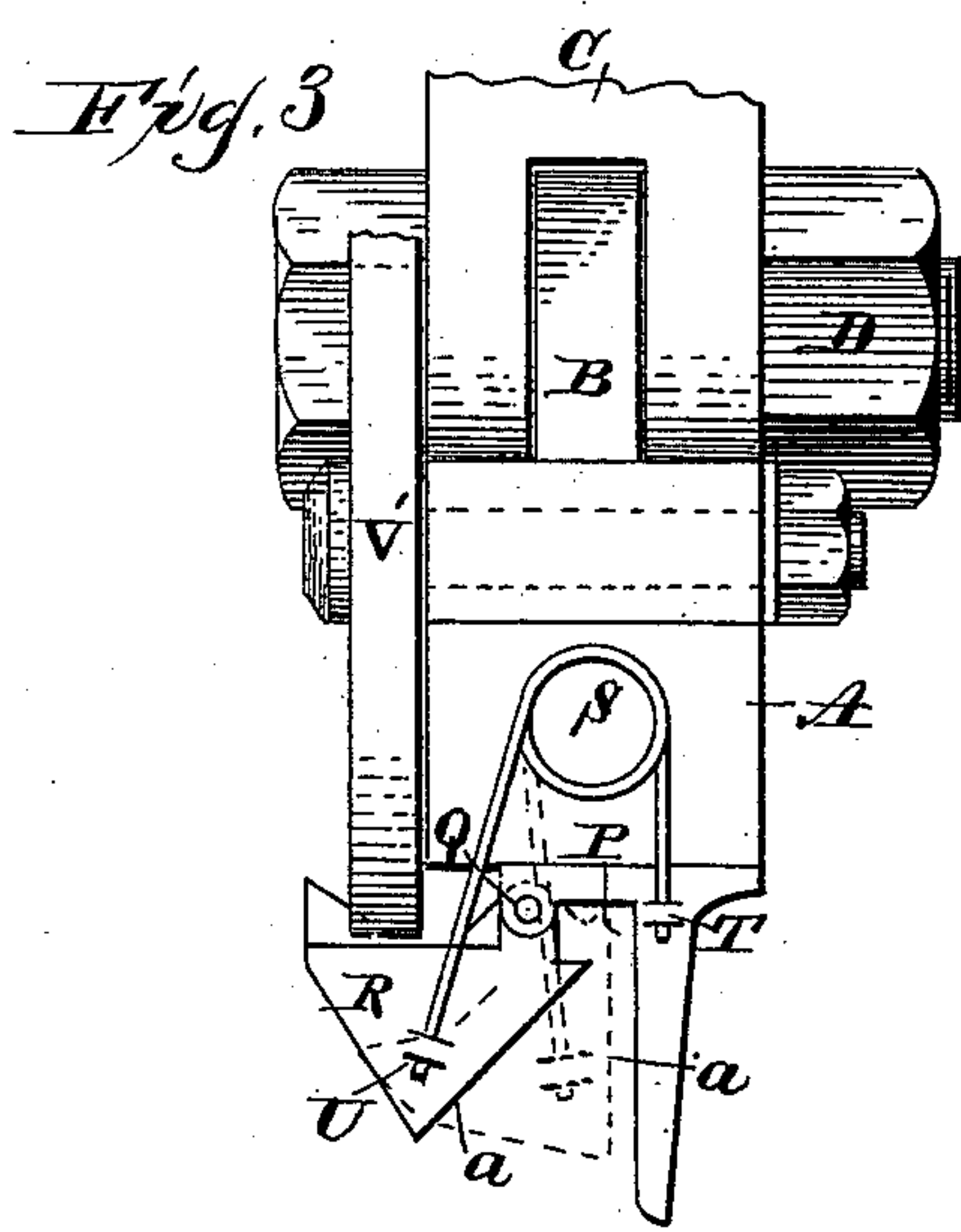
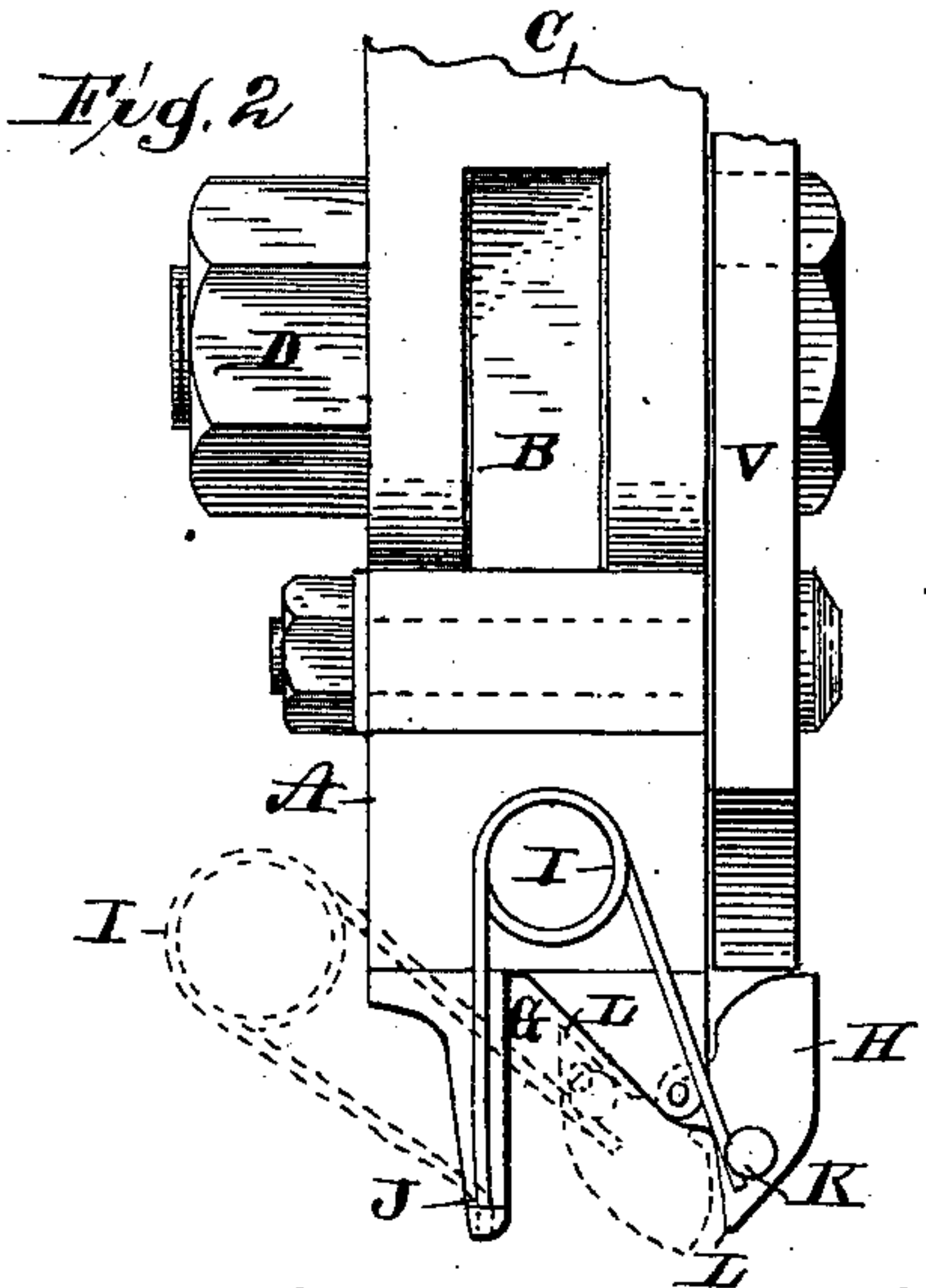
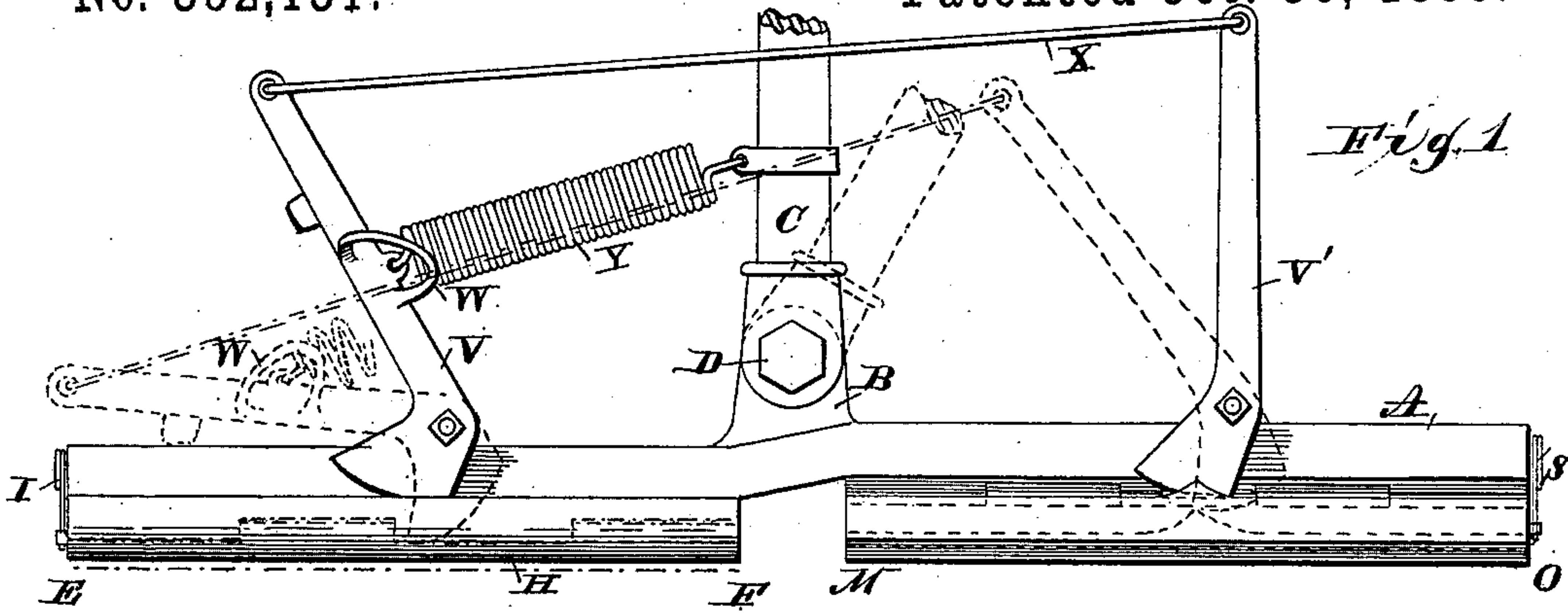


(No Model.)

W. K. PATRICK.
DOUBLE SEAMING ROOFING TOOL.

No. 392,131.

Patented Oct. 30, 1888.



WITNESSES.

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WALTER K. PATRICK, OF URBANA, OHIO.

DOUBLE-SEAMING ROOFING-TOOL.

SPECIFICATION forming part of Letters Patent No. 392,131, dated October 30, 1888.

Application filed May 7, 1888. Serial No. 273,036. (No model.)

To all whom it may concern:

Be it known that I, WALTER K. PATRICK, a citizen of the United States, residing at Urbana, in the county of Champaign and State of Ohio, have invented certain new and useful Improvements in Double-Seaming Tools for Sheet-Metal Roofing, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in seaming-tools for overlapping and compressing together the interlocked edges of strips of metallic roofing.

The object of the invention is to overlap and 15 press together the interlocked parts of the strips which form a seam by going over the edge but once, and the tool is designed to be used in connection with an improved roofing-tool, upon which I file an application for Letters 20 Patent, Serial No. 273,067, of even date herewith.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, 25 Figure 1 represents a side elevation of my improved seaming-tool; Fig. 2, an end view of the overlapping portion of the tool; Fig. 3, an end view of the compressing portion of the tool; Fig. 4, an edge view of two strips interlocked, being the product of the machine above 30 alluded to so far as concerns the angular bends of the metal; Figs. 5 and 6, similar views, the former of the product of the overlapping mechanism, and the latter of the product of the 35 compressing mechanism.

The letter A designates a stout metallic bar having a lug, B, to which is adjustably secured a handle, C, held by means of a bolt and nut, D. This admits of the handle standing vertically when the tool is inclined down the roof. 40 The lower side of the bar A, between the points E and F, is provided with an angular groove, G, as seen in Fig. 2. To the bar A, and at one side of the groove G, is hinged a jaw, H, which, 45 when in normal position, as shown in full lines in Fig. 2, stands alongside the bar A. A spring, I, is secured at one end to the bar A, as at J, and at the other, as at K, to the jaw H, with a tendency to keep the jaw in the position shown 50 in full lines. The hinge or pivotal point of the jaw is such that when it is manipulated, in a

manner presently to be described, it swings down and then passes up into the groove G. In doing this the point L of the jaw engages the vertically-depending edge of the outer or female strip and presses said edge to the position 55 shown in Fig. 5, which laps it round the end and presses it up against the under side of the inner or male strip. In doing this the inclined part of the groove G settles down upon the 60 strips and bends them to about the angle shown in Fig. 5, when the strips pass up into the groove. This I term the "overlapping operation." After this is accomplished the tool is moved along the strips until the overlapped 65 portion is within the compressing parts of the tool, while the overlapping parts begin to act upon a fresh section of strips, as I will presently explain.

The bar A, from the points M to O, is grooved 70 out, as seen at P in Fig. 3. At Q is hinged a compressing-jaw, R, which extends along the lower edge at one side of the bar A. This jaw is held normally in the position shown in full lines in Fig. 3 by means of a spring, S, secured 75 to the bar A at T, and to the jaw at R, being similar to the spring I. When the jaw R is actuated, it compresses the strips from the angular position shown in Fig. 5 to that shown in Fig. 6, thereby completing the seam. 80

I will now describe the means for actuating the jaws H and R.

The letters V and V' designate two cam-levers pivoted to the bar A at one side thereof, so that the cam or foot portions of the levers 85 come down upon the upper edges of the jaws when the levers are thrust to the positions shown in dotted lines in Fig. 1. The upper surfaces of the jaws are highest at their outer edges, so as to afford proper surfaces for the con- 90 tact of the cam-levers as the jaws move downward, and finally pass to the positions shown in dotted lines in Figs. 2 and 3, to which the levers have finally crowded them. One or both of the levers are provided with a foot-piece, 95 W, by which they are manipulated, a rod, X, serving to connect them together, so that they move in unison. A spiral or other form of spring, Y, serves to bring the levers back to normal position and allow the jaws to also re- 100 turn to normal position.

It will be observed that the face *a* of the jaw

R is at about the same angle as the inclined portion of the groove G. The object of this is to allow the overlapped strips to readily pass into the compressing part of the tool when standing at the angle shown in Fig. 5.

It will be observed from Figs. 2 and 3 that the groove G is not so deep as the groove P, and from Fig. 1 that the bar A is higher at the compressing end than at the overlapping end. The reason for this is that the groove G receives the strips when in the form shown in Fig. 4, which do not, before the overlapping takes place, pass well up into the groove, while the groove P receives the strips when in the position shown in Fig. 5, which allows them to pass well up into the groove P, thereby necessitating that the latter should be deeper than the former groove to make the tool set properly while making the seam. The rod X may be removed and either the overlapping or compressing devices of the tool actuated separately.

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

1. In a seaming-tool, the combination, with a grooved bar, an overlapping-jaw, and a compressing-jaw hinged thereto and adapted to swing up into said groove, of actuating-levers pivoted to the bar and arranged to engage said jaws and throw them into said grooves.

2. In a seaming-tool, the combination, with

a metallic bar having two grooves in the under side thereof, one groove being deeper than the other, and an overlapping-jaw and a compressing-jaw hinged to said bar, so as to swing into said grooves respectively, of springs to throw the jaws out of said grooves, and cam-levers pivoted to the bar and engaging the upper portions of said jaws, a pitman detachably connecting said levers together, a spring to return them to normal position, and a handle to manipulate the bar.

3. In a seaming-tool, the combination, with a bar constituting the body of a tool, of a handle adjustably connected to the bar, whereby it may be set in a vertical position when the bar is on an incline.

4. In a seaming-tool, the combination, with a bar having grooves of unequal depth in the under side thereof, one of said grooves having an oblique wall, of two jaws, one for overlapping and the other for compressing, the latter having an oblique wall, springs to move said jaws out of said grooves, cam-levers pivoted to the bar and adapted to engage said jaws to force them into the grooves, and a spring to return the levers to normal position.

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

WALTER K. PATRICK.

Witnesses:

JAS. H. MAHAN,

CHASE STEWART.