

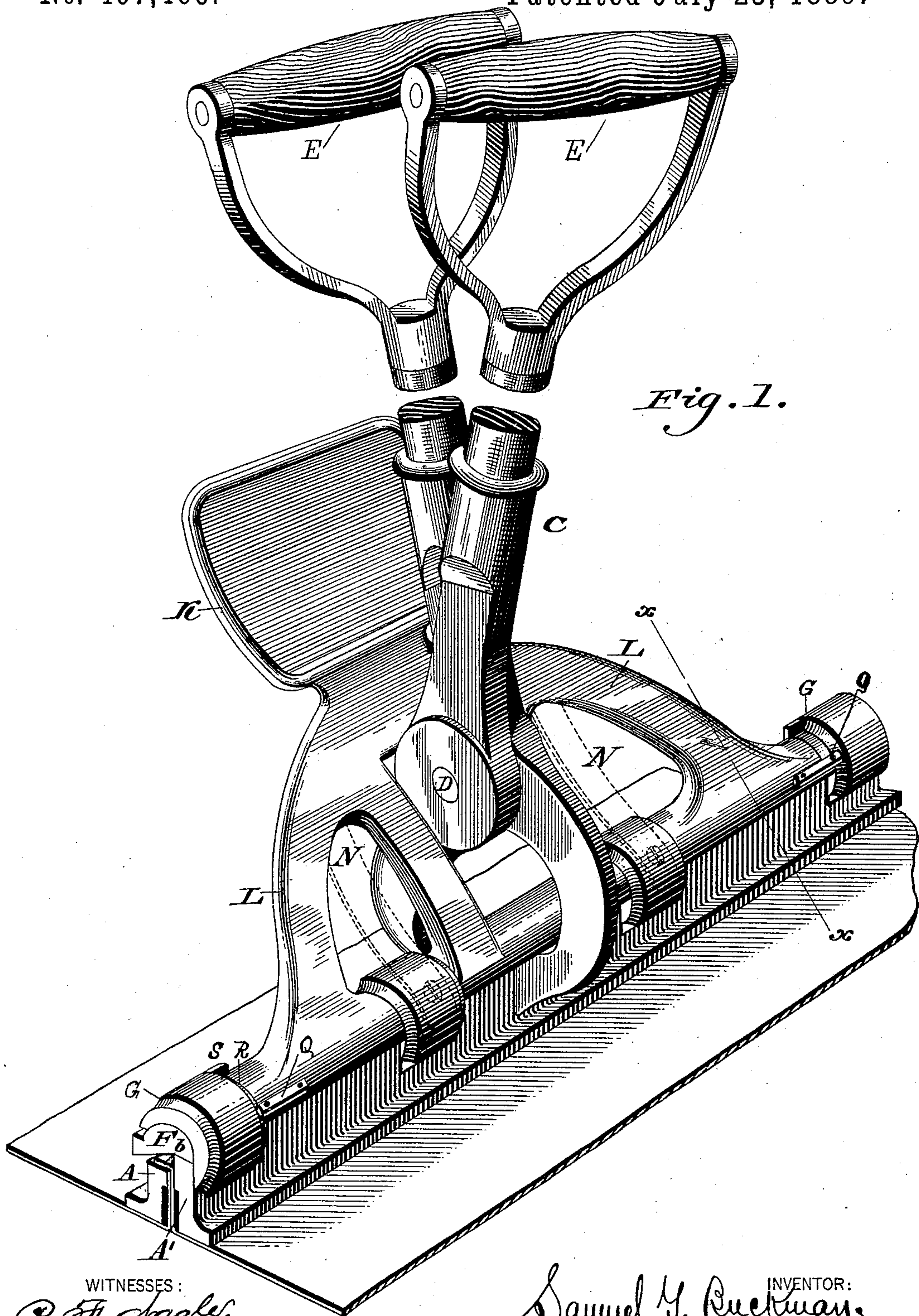
(No Model.)

2 Sheets—Sheet 1.

S. Y. BUCKMAN.  
ROOFING DOUBLE SEAMING MACHINE.

No. 407,466.

Patented July 23, 1889.



*Fig. 1.*

WITNESSES:

*P. H. Ogles.*  
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INVENTOR:

*Samuel Y. Buckman.*  
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ATTORNEY.



(No Model.)

2 Sheets—Sheet 2.

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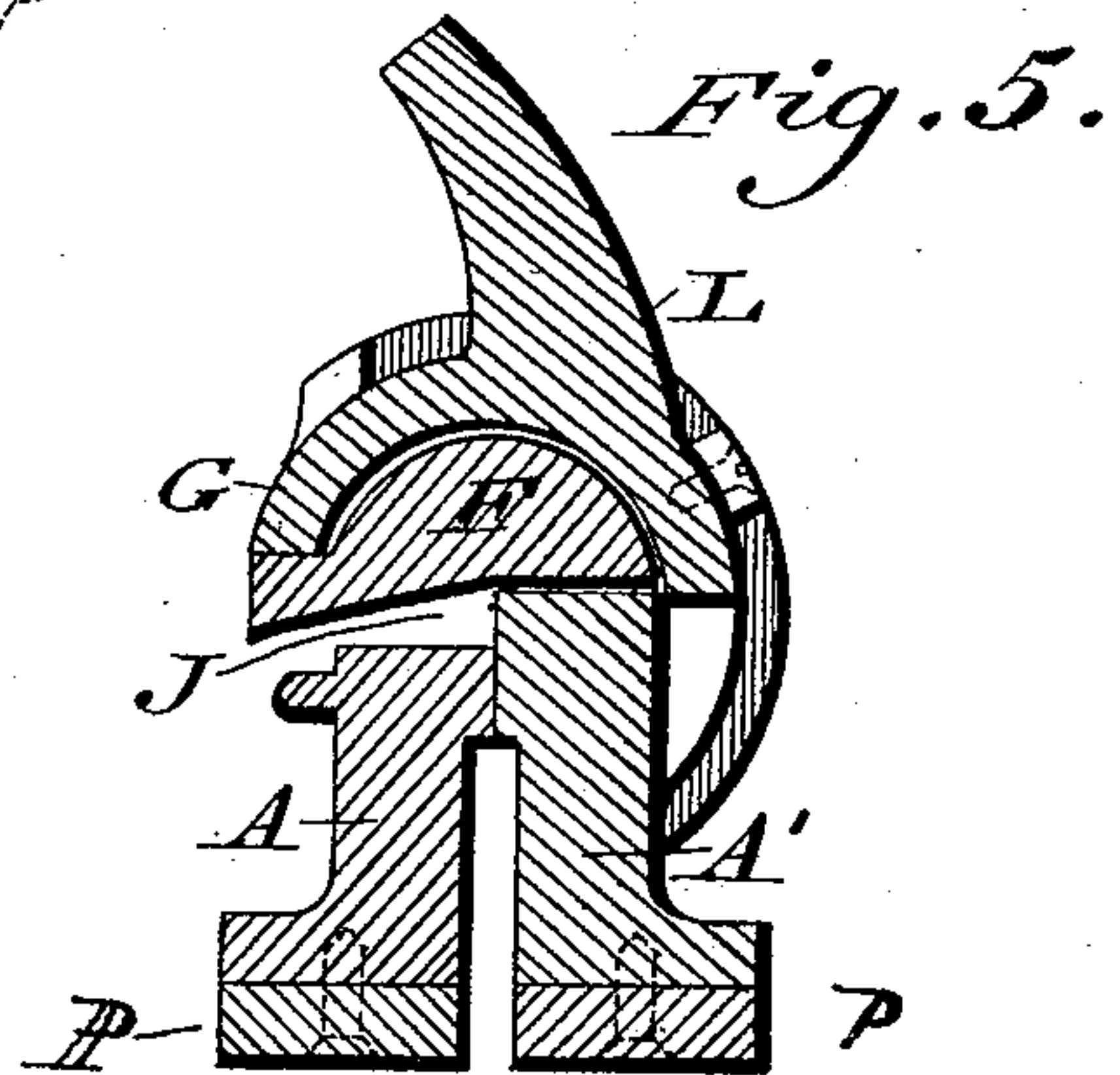
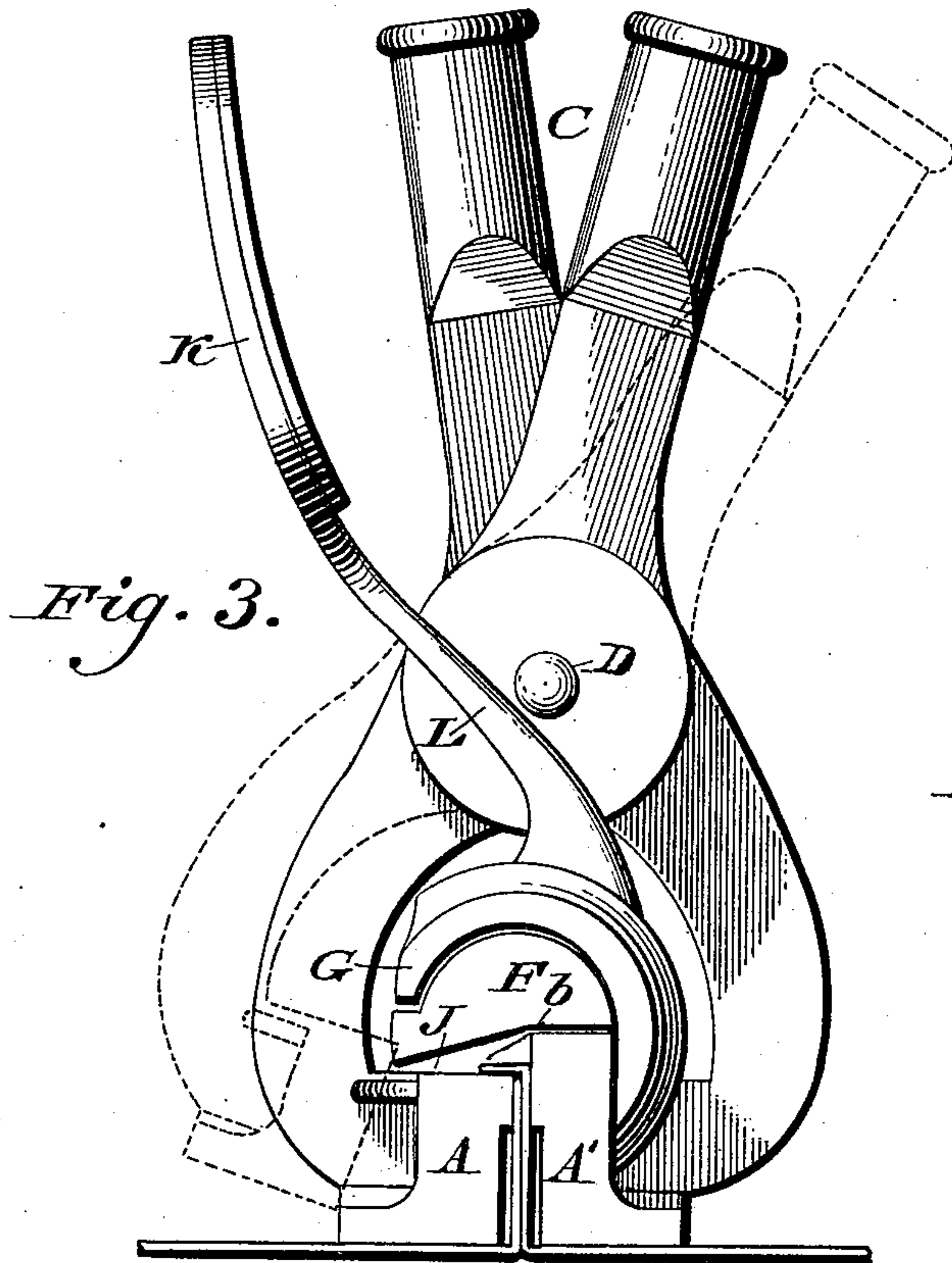
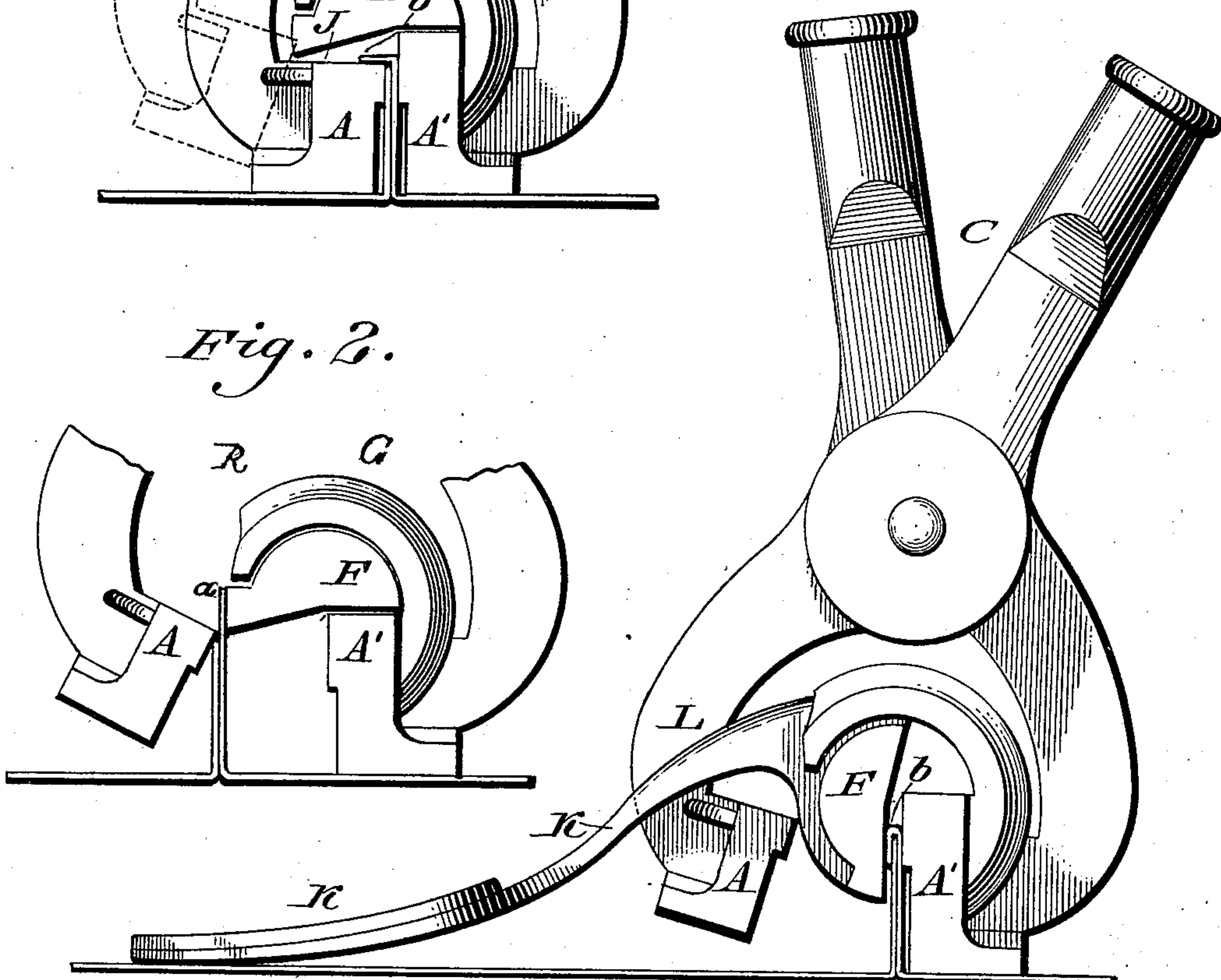


Fig. 4.



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# UNITED STATES PATENT OFFICE.

SAMUEL Y. BUCKMAN, OF PHILADELPHIA, PENNSYLVANIA.

## ROOFING DOUBLE-SEAMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 407,466, dated July 23, 1889.

Application filed May 15, 1889. Serial No. 310,817. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL Y. BUCKMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Roofing Double-Seaming Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of improvements in roofing double-seaming machines embodying, first, novel means for forming the standing seam of the roofing-plates; next, novel means for flattening and closing the seam of the plates.

Figure 1 represents a perspective view of a roofing double-seaming machine embodying my invention. Figs. 2, 3, and 4 represent side elevations of portions on enlarged scales. Fig. 5 represents a vertical section of a portion of Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A A' designate two jaws having flat faces B and connected with the tongs C, which are pivoted, as at D, and provided with handles E, whereby said jaws may be conveniently and properly opened and closed.

F designates a bending-plate, which extends parallel with the jaws A A', and is mounted on the jaw A' by means of ears G, which are formed with or secured to said jaw, the plate when in normal position having its working-face H over the jaw A, with a space J between them.

Formed with or secured to the plate F is a treadle K, whose connecting-arms L are spread or bifurcated, so as to freely embrace the adjacent portion of the tongs C, whereby the tongs and treadle may be manipulated without interference of each other.

The operation is as follows: The jaws A A' are separated, as shown in Fig. 2, and the pieces of sheet metal, primarily bent as in said figure, are introduced between the working-face of the jaw A and that of the plate F, it being noticed that the bend of one plate is longer than that of the other plate, as at a. The jaw A is now closed, whereby the projecting end a of the sheet is carried between the

jaw A and plate F toward the jaw A', and thus bent at a right angle, forming the standing seam b, as will be seen in Fig. 3. The jaw A is then opened and the treadle K depressed without otherwise changing or moving the machine, so that the plate F advances against the standing seam and bends the same over the edge of the contiguous bent portion of the sheet and upon the side thereof, thus producing the seam, as illustrated in Fig. 4. The plate is then restored to its normal position by hand or by the action of a spring N, (shown in dotted lines, Fig. 1,) and the jaws are opened, whereby the machine may be removed and operations continued at another portion of the roofing. The face of the plate F is downwardly inclined when in normal position or when the movable jaw A is brought under the same and in contact with the stationary jaw A', the upper face of the said movable jaw being then at substantially a right angle with the contact-face of the stationary jaw, whereby an angular space is formed between the movable jaw and the bending-plate, thus preventing crimping or springing of the piece operated upon.

The bottoms of the jaws A A' have connected with them the feet P, as will be seen in Fig. 5, the same being readily applicable to and removable from said jaws, and may be made of any desired height relatively to the height of the bent portions of the metal sheets to be seamed. When the feet are removed, the previously-seamed plates, Fig. 4, may be located between the open jaws, after which the plate F is advanced, thus again bending the seamed plates and forming a double seam.

The bending-plate F is mounted on the ears G, as has been stated, said ears being open at one side, whereby the journals of said plate may be readily introduced into and removed from said ears. When said plate is in operative position, it is retained by means of arms Q, which project laterally from the plate F, near the ends thereof, and bear upon the shoulder R on the sides of the adjacent ears, so as to ride over said shoulder when the plate is rotated, limited by the stops S, thus retaining the plate in position and guiding it in its motions. The arm may be unscrewed or



unfastened, so that the plate may be detached from the jaws when so required.

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

10 1. A double-seaming machine consisting of jaws having flat faces and connected with tongs, open ears on one of said jaws, a bending-plate journaled in said ears, detachable arms on said plate, and shoulders on the said ears on which said arms are guided and which retain said plate in said ears, said parts being combined substantially as described.

15 2. A double-seaming machine having jaws with tongs carrying the same, ears on one of said jaws, a bending-plate journaled in said ears, a treadle having arms connected with said plate, and a spring connected with the said ears and adapted to bear against the  
20 treadle or arms thereof, said parts being combined substantially as described.

3. A double-seaming machine having jaws with tongs, ears on one of said jaws, and a bending-plate journaled in said ears and provided with an operative treadle connected there- 25 with, the said bending-plate in its normal position having its contact-face downwardly inclined toward the movable jaw, the upper face of the latter being at substantially a right angle with the contact-face of the sta- 30 tionary jaw when closed against it, whereby an angular space is formed between the bending-plate and the upper face of the movable jaw, said parts being combined substantially as and for the purpose set forth.

SAML. Y. BUCKMAN.

Witnesses:

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