

(No Model.)

H. & W. L. HEBERLING.
ROOFER'S SEAMING TOOL.

No. 539,002.

Patented May 7, 1895.

Fig. 1.

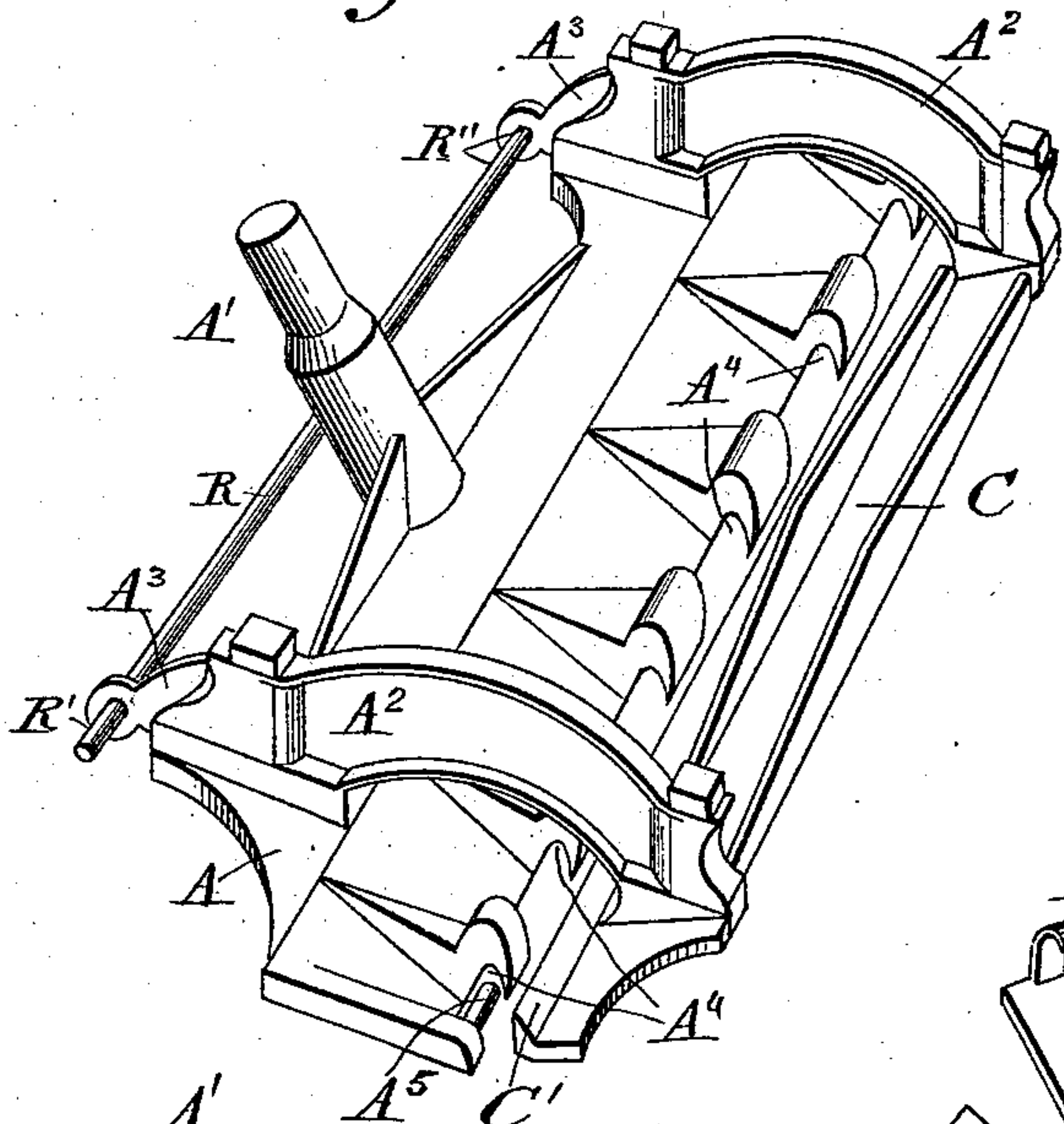


Fig. 2.

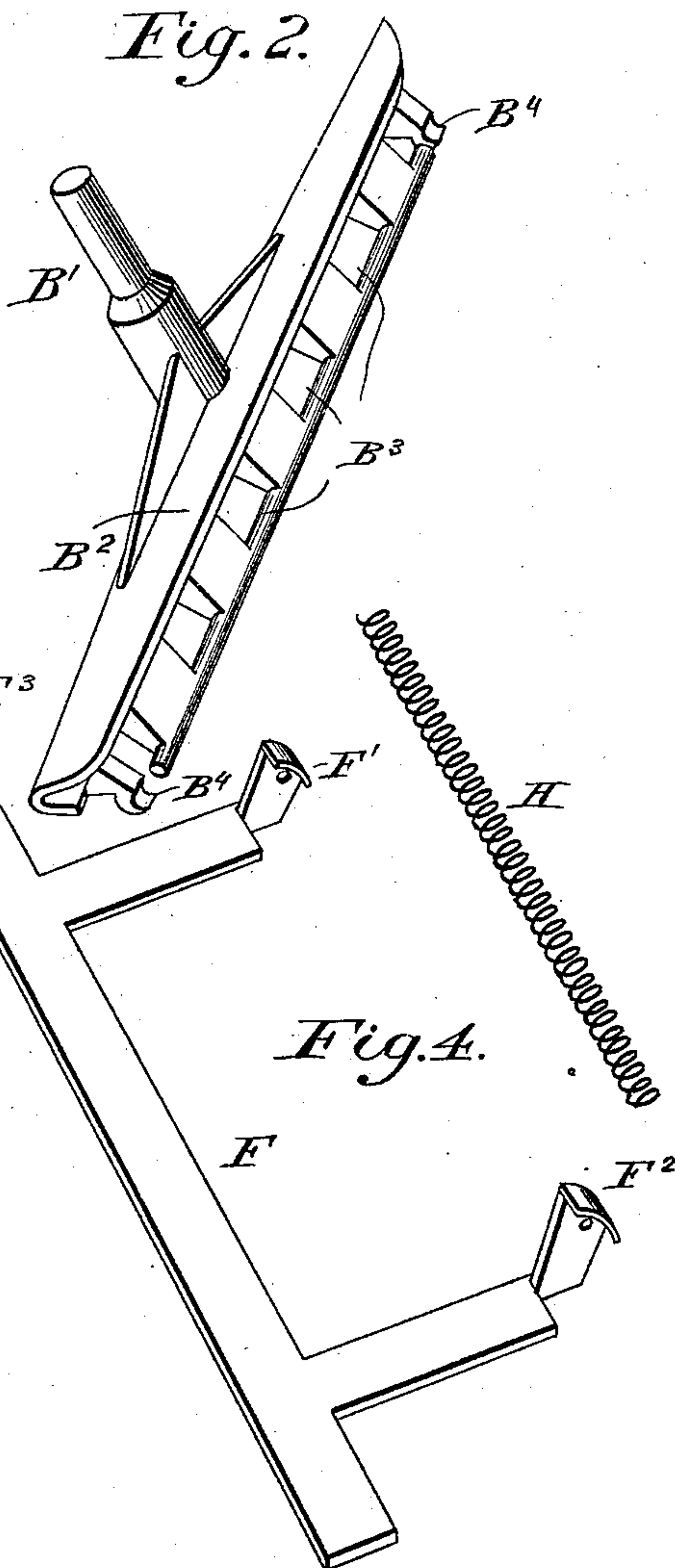


Fig. 3.

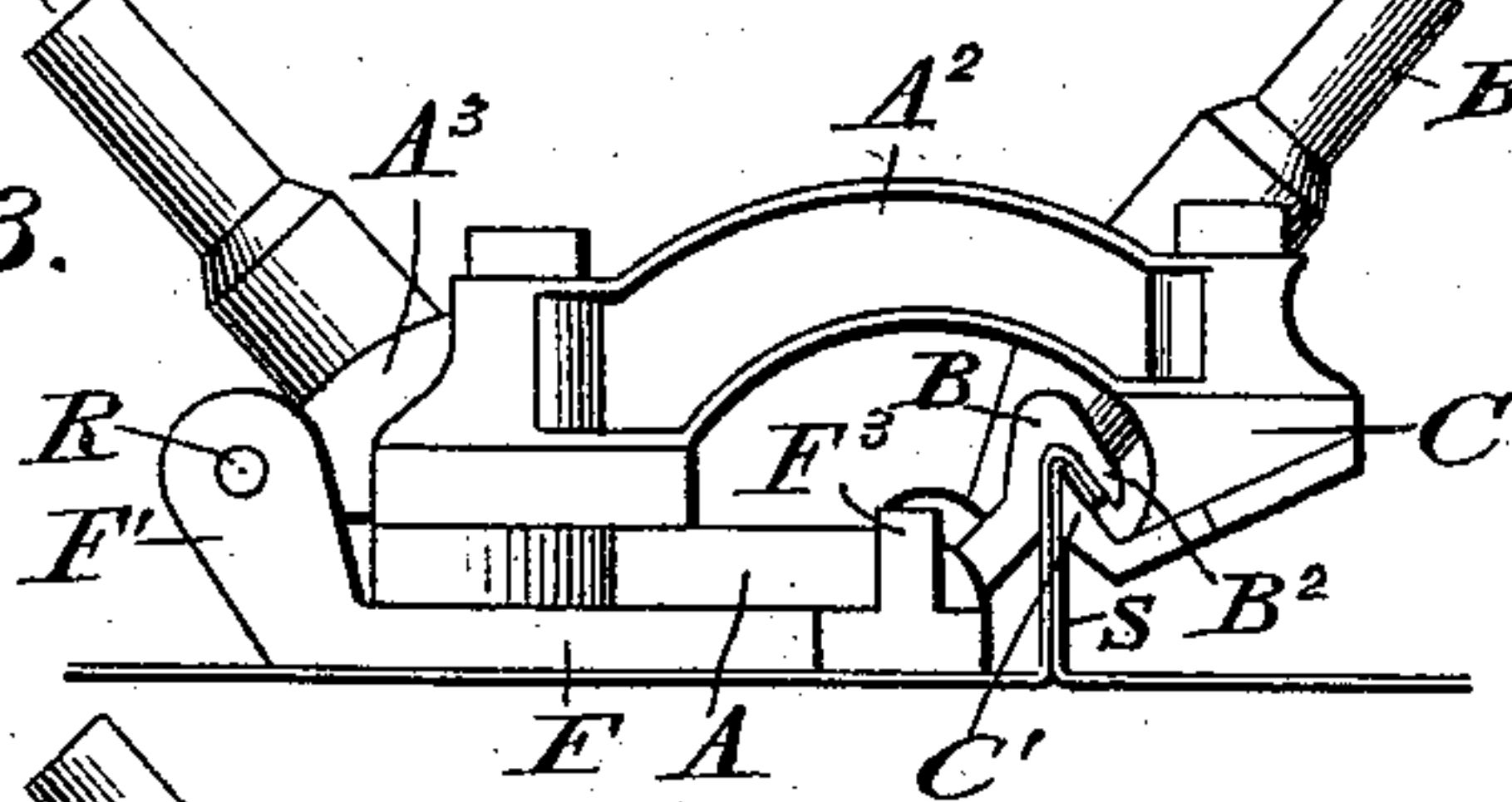


Fig. 5.

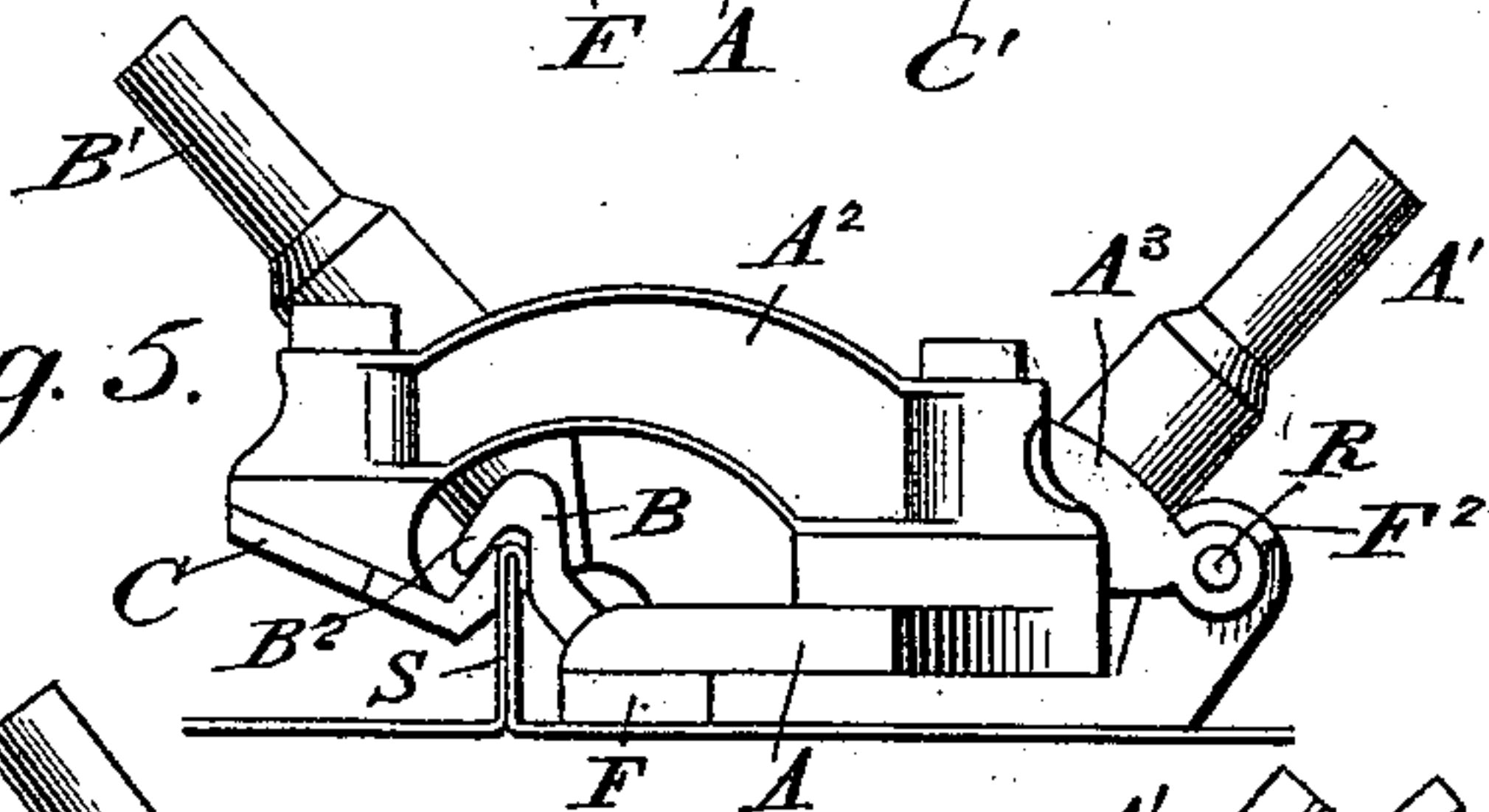
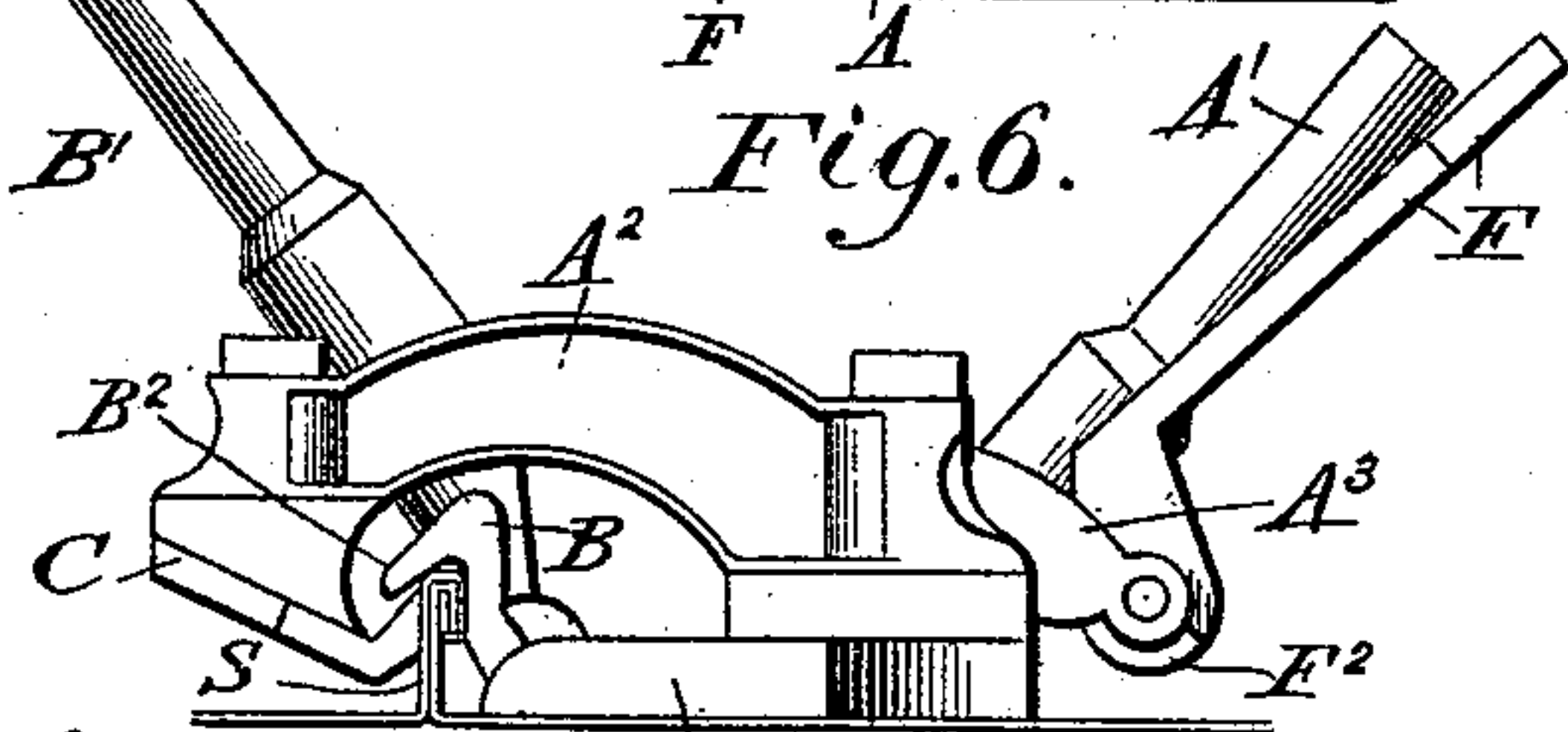


Fig. 6.



Witnesses: A

A. C. Dardig.
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Fig. 4.

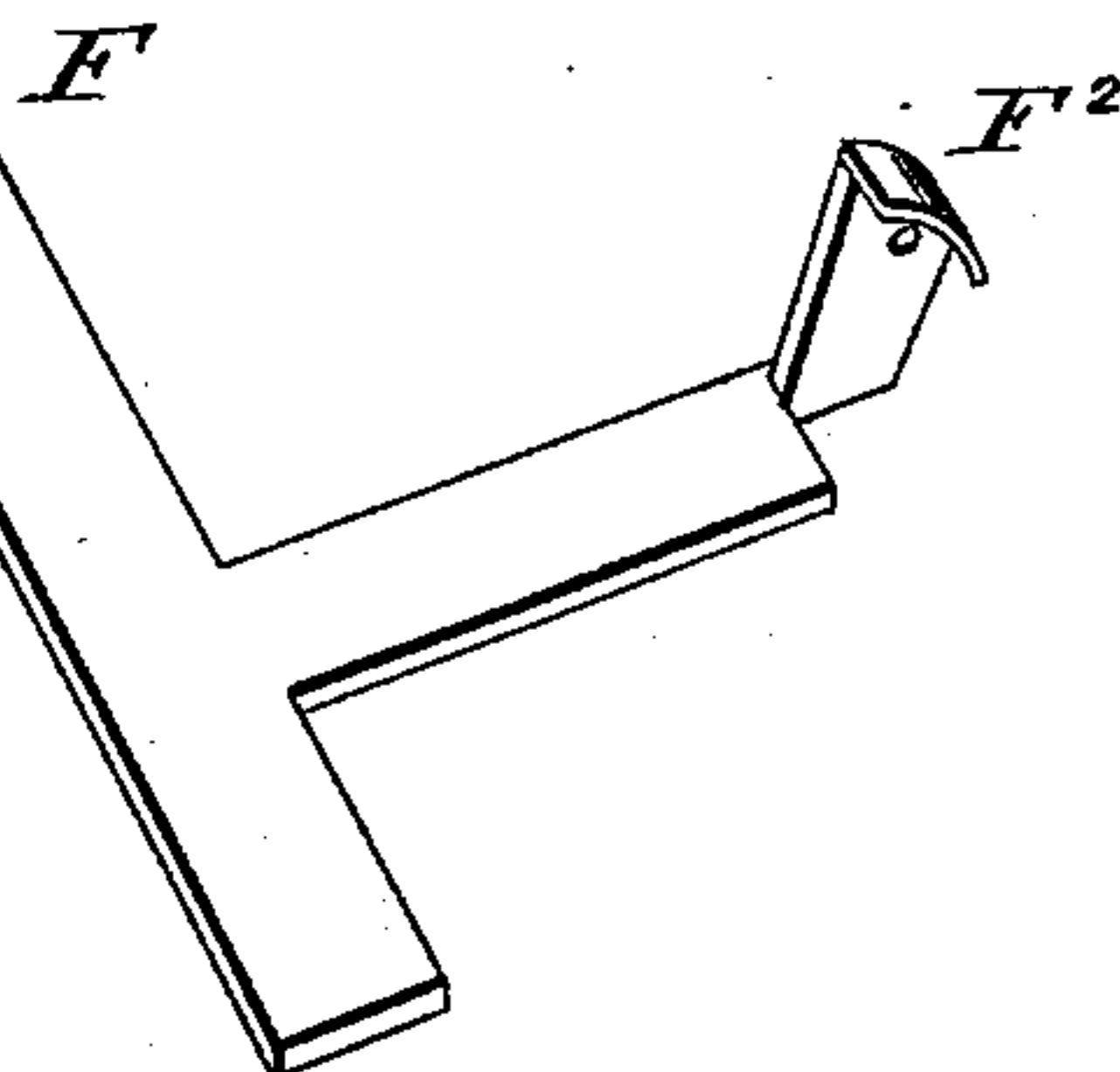


Fig. 7.



Inventors.

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ROOFER'S SEAMING-TOOL.

SPECIFICATION forming part of Letters Patent No. 539,002, dated May 7, 1895.

Application filed March 28, 1894. Serial No. 505,488. (No model.)

To all whom it may concern:

Be it known that we, HENRY HEBERLING and WILLIAM L. HEBERLING, citizens of the United States, residing at Havana, in the county of Mason and State of Illinois, have invented new and useful Improvements in Roofers' Seaming-Tools, of which the following is a specification.

Our invention relates to tools for forming both single-lock and double-lock standing seams in metal roofing; and has for its object to provide a simple, inexpensive tool that will efficiently perform all the operations of double-seaming by the outward movement of two handles, dispensing with foot power and with the use of a second tool to complete the work.

We attain our object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of our main frame, all parts of which are in rigid relation with each other. Fig. 2 is a perspective of our movable jaw detached from its place. Fig. 4 is a perspective of our raising-frame detached from its place. Figs. 3 and 5 are opposite end views of the tool at work on a seam in the two operations of turning a fold and clamping it down. Fig. 6 is an end view of the tool with its raising-frame swung from under it in the operation of clamping the second fold of a double seam, which is shown in its previous form in Fig. 7.

Similar letters refer to like parts throughout the several views.

The main frame of our tool as shown in Fig. 1, consists of the handle A¹; the base plate A, and the under jaw C, which is suspended from the base plate by arched connections A², all of which are in rigid relation to each other.

To the forward edge of the base plate we hinge the movable jaw B, Fig. 2, by uniting its journals B³, and bearings B⁴, with the bearings A⁴, and journals A⁵, respectively, of the base plate. This is done before the jaw C, is bolted in position, by turning the jaw B, upside down, which allows it to enter its place, where, when its handle is brought up, it remains, its downward escape while in this position being prevented by the bearings B⁴, engaging the journals A⁵, of the base plate, only one of which journals is visible in Fig. 1.

The jaw B, is provided with an outwardly projecting lip B², adapted to pass over the upwardly projecting edge C', of the rigid jaw C, Figs. 1 and 3. The lip B², of the jaw B, forms the outward wall of an angular groove in said jaw which is adapted to receive the edge C', of the rigid jaw C; while the lip B², passes over it; and the opposite wall of said groove is surfaced to work as a clamp against the perpendicular face of the jaw C, below its edge C', Figs. 1, 3, 5 and 6.

On the rod R, through the extensions A³, at the rear of the tool, we hinge the raising frame F, Fig. 4, with the lug F', at the point R', on the rod, and the lug F², at R''. To do this we would remove the rod, R, and bring the frame F, in position with its lugs as described, on their respective sides of the extensions A³. Before inserting the hinge rod R, we place a plain coil spring of a length greater than the rod, and of a diameter to receive the rod through its center, H, Fig. 4, with one end against the opposite side of A³, from F', Figs. 1 and 3; and passing the rod through these into the spring we compress the latter until the rod is brought through it and enters the far lug F², of the raising frame, and the extension A³, at R''. When the rod is thus in place, it is apparent that the force of the compressed spring, H, which then surrounds it with one end against the inner side of the extension A³, as described, and the other against the lug F², of the raising frame, will press the raising frame endwise on the hinge rod, holding its lugs F' and F², against the sides of the extensions A³; and if the raising frame is in either of the positions shown in Figs. 5 and 6, it will automatically lock it in such position by causing the side projections on the lugs F', F², Fig. 4, to slide past and engage the shoulders provided for them on the extensions A³, Figs. 5 and 6.

To change the position of the raising frame it is forced endwise against the coil spring far enough to disengage the parts described, and swung to its place, where it automatically locks itself as before.

The means described for locking the raising frame are supplemented by the catch F³, on the end of its main bar, Fig. 4, which engages the base plate A, near its corner, as in Fig. 3, giving the raising frame greater firmness while in working position.

In operation our tool is placed with handles erect astride the flanges to be seamed, with the base plate A, over the sheet having the taller flange. The handle A', is then inclined outwardly until the base of the tool rests squarely on the sheet having the taller or uncleated flange and the lower jaw C, is brought against the side of the shorter or cleated flange. When in this position the outward movement of the handle B', causes the edge B², of the jaw B, to bend the metal over the upwardly projecting edge of the suspended under jaw C, as shown in Fig. 3, which completes the first operation of the tool.

The second operation is performed with the position of the tool reversed on the seam, as in Fig. 5, in which position the main body of the angular jaw B, serves as a clamp, engaging the bent-over portion of the seam against the perpendicular face of the suspended under jaw C, clamping it down as in Fig. 5, thus completing one fold of the seam.

To prepare the tool for the third operation, the raising frame is unlocked, as described, and swung up in idle position, as in Fig. 6. The tool, being again reversed, is placed on the seam in the same position as in the first operation which is substantially repeated. The tool, having been let down by swinging its raising frame from under it, engages the seam lower down, producing the results shown in Fig. 7.

For the fourth and last operation, the tool is again reversed and handled as in the second operation, clamping the second fold down firmly, as in Fig. 6.

Although our tool forms the initial bends in the metal down past a right angle, the peculiar construction of the under jaw, over the edge of which the metal is bent, and the peculiar but simple mechanism with which this jaw is connected gives it freedom under these folds for its endwise movement along the seam by the simple act of elevating the handles for this purpose. That the lower jaw will be released by tilting the tool on the forward edge of its base, is apparent from the views already examined.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a roofer's seaming tool, two parallel plates or bars in fixed position with each other and adapted to receive the flanges of a standing seam between them, in combination with a separate parallel bar hinged or pivoted to one of them and provided with a lip projecting over a surfaced wall, the former adapted to pass over the edge and the latter to clamp against the perpendicular face of the other of said bars.

2. In a roofer's seaming tool, two parallel plates or bars in fixed position with each other and adapted to receive the flanges of a standing seam between them, in combination with a separate parallel bar which is hinged or pivoted to one of them and adapted to work against the other, and a raising device adapted to elevate the tool.

3. In a roofer's seaming tool, two parallel plates or bars in fixed position with each other and adapted to receive the flanges of a standing seam between them, in combination with a separate parallel bar which is hinged or pivoted to one of them and adapted to work in opposition to the other, and a hinged or pivoted raising device which is adapted to fold underneath the tool or to be swung out therefrom and is provided with an automatic locking mechanism to hold it in position.

4. In a roofer's seaming tool, two parallel plates or bars in fixed position with each other and adapted to receive the flanges of a standing seam between them, in combination with a separate parallel bar which is hinged or pivoted to one of them and adapted to work in opposition to the other and is provided with a face on one side with a lip projecting over it, the lip being adapted to pass over the edge, and the face to clamp against the perpendicular surface of the opposing bar.

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Witnesses:
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