(No Model.)

T. B. BEESON.

ROOFING TONGS.

No. 411,755. Patented Sept. 24, 1889.

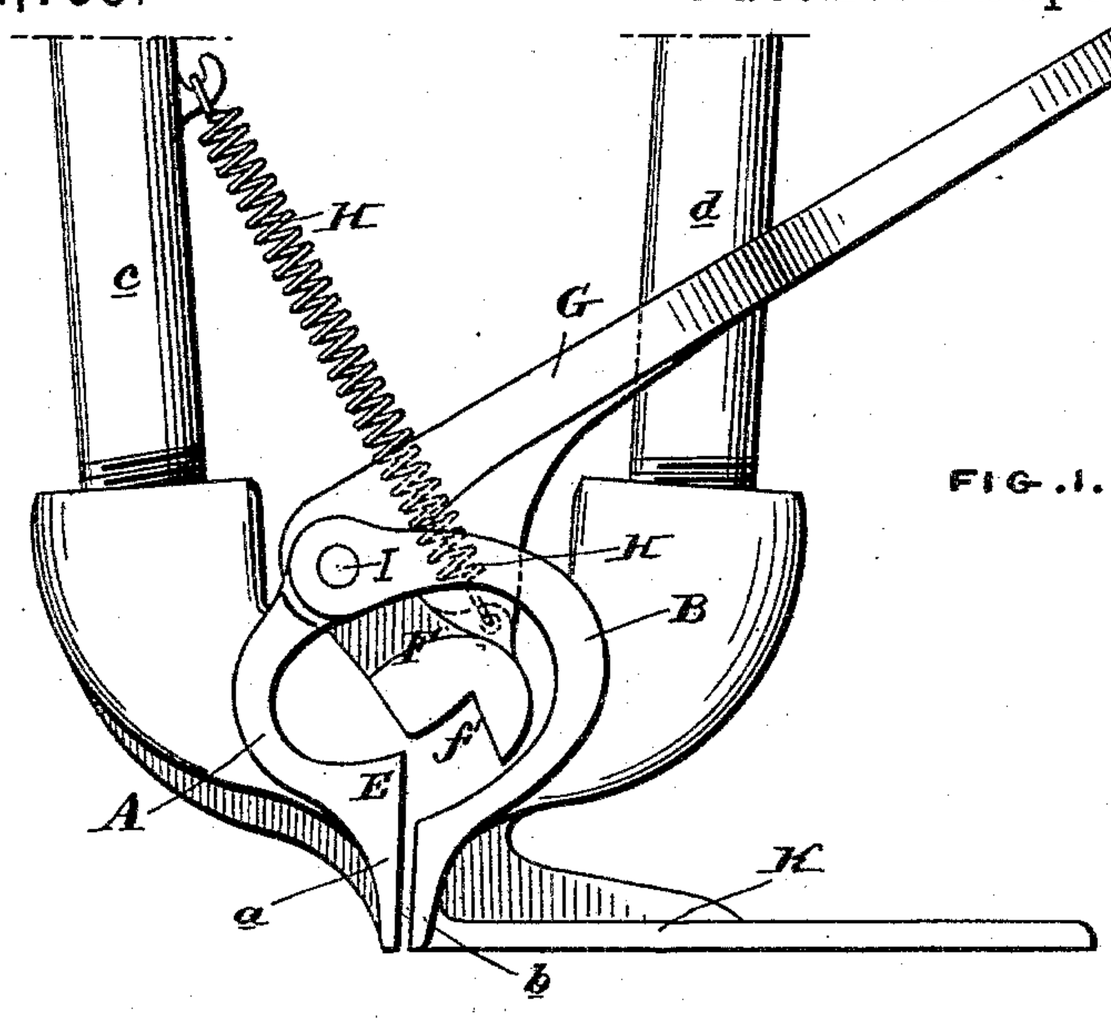

FIG. 1.

FIG. 2.

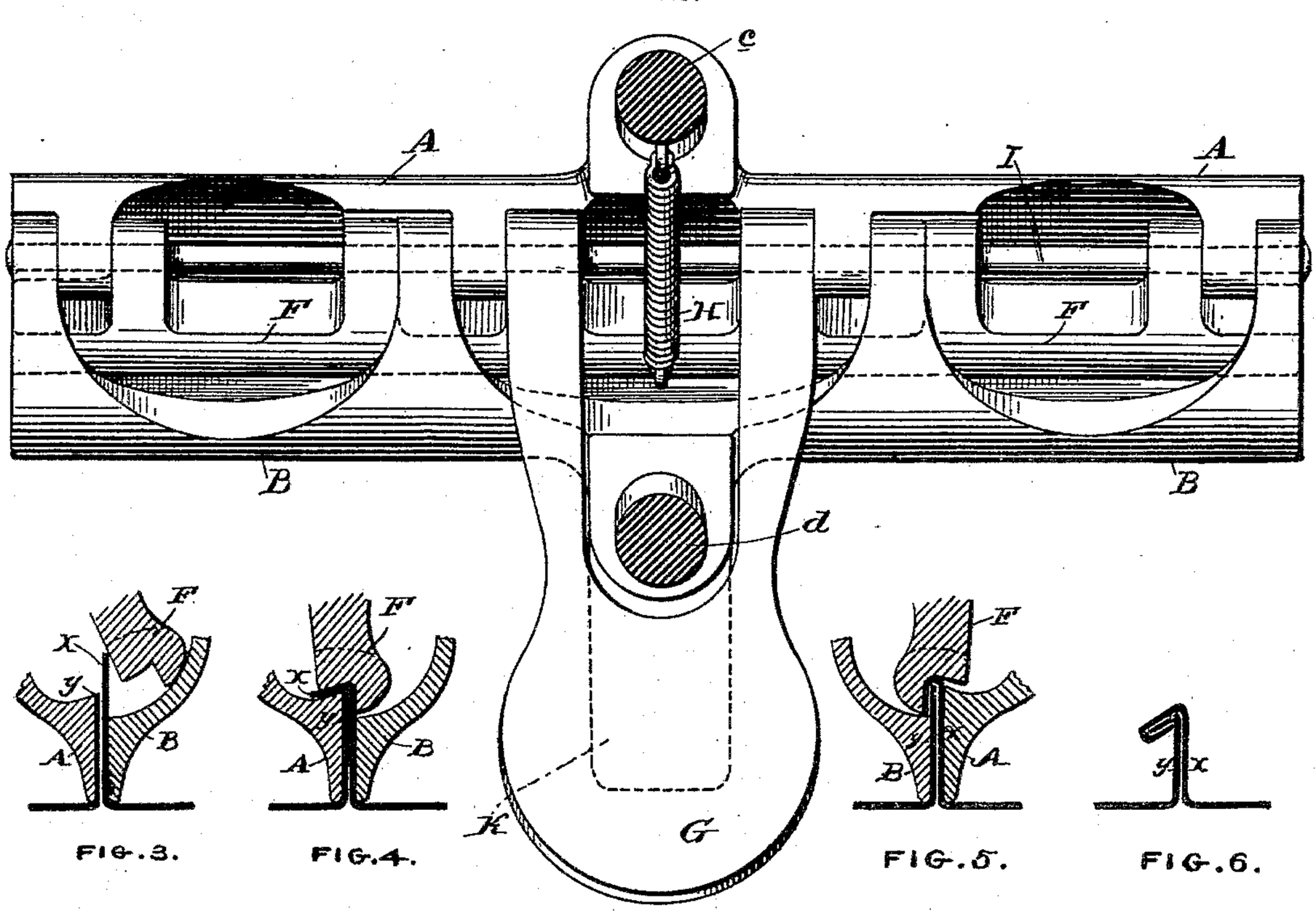

FIG. 3. FIG. 4. FIG. 5. FIG. 6.

FIG. 7.

WITNESSES:
David B. Williams
Henry Dimpf

INVENTOR:
Thos. B. Beeson,
by his Attorney,
A. Thos. Johnson

UNITED STATES PATENT OFFICE.

THOMAS BABB BEESON, OF WILMINGTON, DELAWARE, ASSIGNOR OF ONE-HALF TO ROBERT H. JONES, OF SAME PLACE.

ROOFING-TONGS.

SPECIFICATION forming part of Letters Patent No. 411,755, dated September 24, 1889.

Application filed March 27, 1889. Serial No. 305,014. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BABB BEESON, of Wilmington, county of New Castle, and State of Delaware, have invented an Improvement in Roofing-Tongs, of which the following is a specification.

My invention relates to roofing-tongs; and it consists of certain improvements which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

It is the object of my invention to produce efficient roofing or seaming tongs for the purpose of bending or folding together the edges of sheet metal or tin.

My invention consists in the use of a pivoted jaw operated by a treadle or otherwise for the purpose of bending over the metal to form a seam, in combination with main or gripping jaws by which the metal is held, and in certain other improvements, hereinafter more fully disclosed.

In the drawings, Figure 1 is an end elevation of roofing-tongs embodying my invention. Fig. 2 is a plan view of the same. Figs. 3, 4, 5, 6, and 7 are illustrative views to show the method of bending or seaming the metal.

A and B are two gripping-jaws pivoted together and operated by handles *c* and *d*. These jaws A and B are curved and are provided with straight gripping-surfaces *a* and *b*, between which the metal sheets are seized. The jaws A and B are of such length as is required to make the usual length of seam at each operation. The straight gripping-surface *a* of one of the jaws A extends above the corresponding gripping-surface *b* of the jaw B, forming thereby an angular ledge or tongue E, extending the full length of the jaw A.

F is a jaw pivoted to the jaws A and B at their pivot-point. This jaw F is provided with an angular opening or recess *f*, extending the entire length of the jaw and corresponding in shape to the angular ledge or tongue E of the jaw A. The pivoted jaw F is adapted to swing over the curved surface of the jaw B and to fit over the angular ledge or tongue E of the jaw A. G is a foot lever or treadle secured to the jaw F, by which it may be operated, and H is a spring located in any convenient manner, which may be used to keep the treadle G raised. The jaw F is pivoted to the jaws A and B, preferably by means of a rod I, forming a hinge or knuckle joint out of plumb with the bite of the gripping-surfaces *a* and *b*.

K is a foot-rest which may be secured to the jaw B to support the tongs in an upright position.

The operation of the apparatus is as follows: The edges of the metal sheets to be secured or folded are butted together in the usual manner, the edge of the sheet *x* projecting a distance above the edge of the sheet *y*. The tongs are then applied and the edges are gripped between the surfaces *a* and *b*, with the edge of the sheet *x* projecting above the ledge E. (See Fig. 3.) The jaw F is now caused to sweep forward by depressing the foot-lever G, and this projecting edge of the sheet *x* is bent over into the angular position shown in Fig. 4 by the angular cut or recess *f*, pressing over the tongue or ledge E, while the two edges are firmly held and gripped together by the jaws A and B. The tongs are now reversed, as shown in Fig. 5, and the jaw is again operated to press the bent-over edge of the sheet *x* into contact with the sheet *y*, forming the seam. This is the operation known in the art as "first seaming," and the tongs used for this purpose are called "first seamer." A second pair of tongs known in the art as "No. 2" or "second seamer," exactly similar in construction to those first used, only not so high, are now applied in a similar manner, first bending over the folded edge, as shown in Fig. 6, and upon being reversed shutting down that bent-over edge, as shown in Fig. 7, which represents the finished seam. It will be seen that the projecting edges of metal may be bent over at any width desired, according to the height of the projecting edge. The two angular ledges of that jaw formed by the cut or recess *f* act successively upon the metal edges, the one ledge bending over the metal, as shown in Figs. 3 and 4, and the second ledge shutting it down, as shown in Fig. 5. By having the pivot-point of the jaws out of a plumb line, as described, a downward sweep is obtained from the jaw F, whereby the metal may be bent down into an acute angle, as shown.

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

1. The combination, with two main gripping-jaws having curved inner surfaces and straight gripping-faces, of an inner jaw adapted to sweep over said curved inner surface to bend over the edge of the metal, said gripping-jaws and inner jaw being pivoted together in line with each other and all out of plumb with the bite of the gripping-faces of the gripping-jaws.

2. The combination, with two main gripping-jaws having curved inner surfaces and straight gripping-faces, of an inner jaw adapted to sweep over said curved inner surface to bend over the edge of the metal, said gripping-jaws and inner jaw being pivoted together in line with each other and all out of plumb with the bite of the gripping-faces of the gripping-jaws, and a foot-lever to operate said inner jaw.

3. In roofing-tongs, the combination of two main gripping-jaws formed with an opening or space between their inner surfaces, and an inner jaw adapted to move within said opening or space to bend over the edge of the metal, said gripping-jaws and inner jaw being pivoted on a common axis and all out of plumb with the bite of the gripping-faces of the gripping-jaws.

4. In roofing-tongs, the main gripping-jaws pivoted together, one of said jaws having an angular horizontal ledge or lip, in combination with an inner pivoted jaw provided with an angular cut or recess along its edge adapted to sweep over said angular ledge or lip for the purpose of bending the metal.

5. In roofing-tongs, the combination of the curved jaws A and B, having the straight gripping-surfaces *a* and *b*, one of said gripping-surfaces projecting above the other and forming the ledge or lip E, in combination with the pivoted jaw F, having the angular cut or groove *f* upon its edge, and means to operate said jaw.

In testimony of which invention I hereunto set my hand.

THOMAS BABB BEESON.

Witnesses:

THOMAS R. LALLY,

WILLIAM R. WAY.