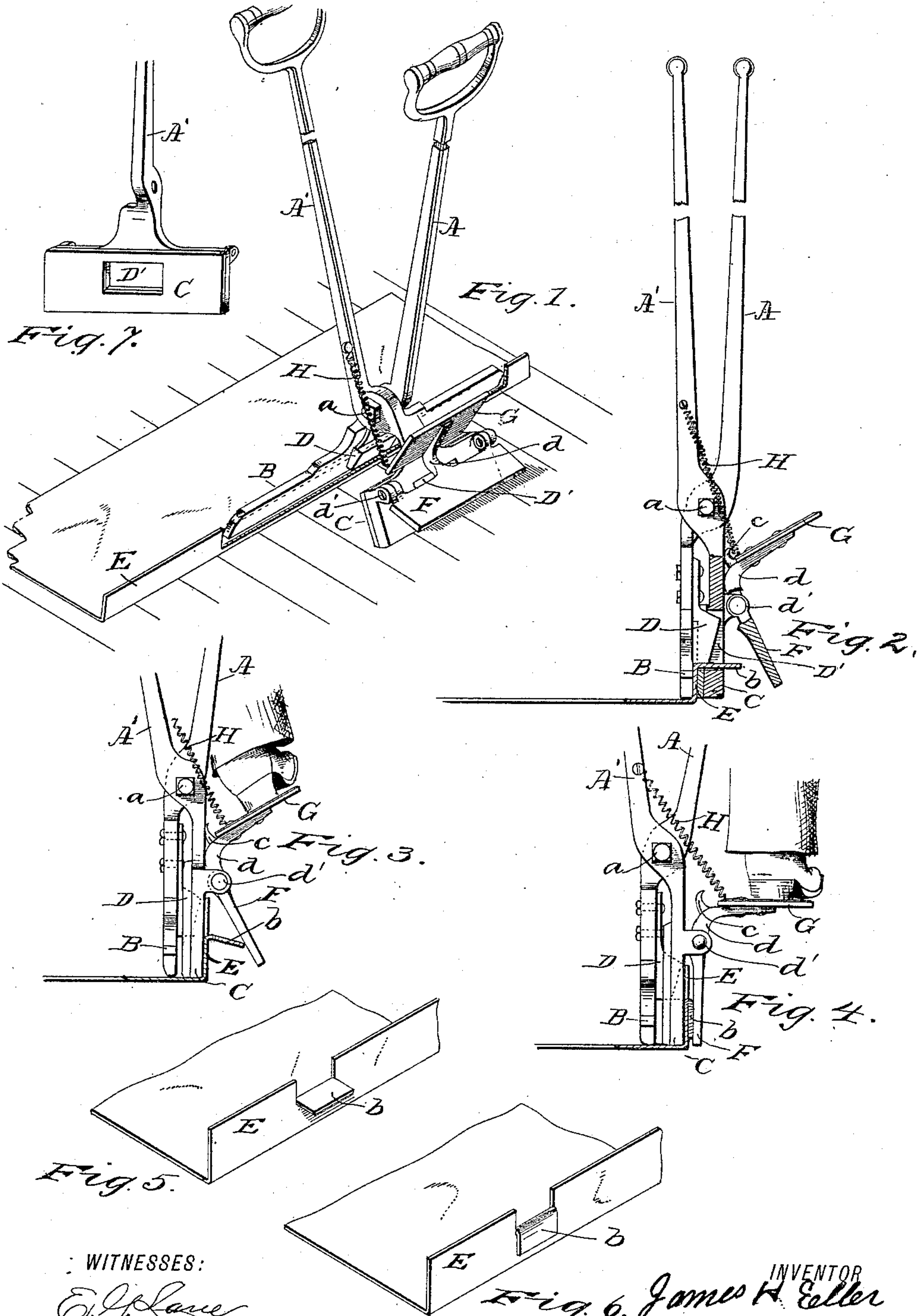


(No Model.)

J. H. ELLER.
SHEET METAL NOTCHER.

No. 436,826.

Patented Sept. 23, 1890.



WITNESSES:

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JAMES H. ELLER, OF CANTON, OHIO.

SHEET-METAL NOTCHER.

SPECIFICATION forming part of Letters Patent No. 436,826, dated September 23, 1890.

Application filed January 29, 1890. Serial No. 338,516. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. ELLER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Sheet-Metal Notchers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a
10 part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view showing the notchers proper placed in proper position to cut or form the notches in the tongued-up portion of a
15 sheet. In said figure a part of the tongued-up portion is shown broken away for the purpose of illustrating the cutting-die. Fig. 2 is a view showing the position which the notchers assume at the time the notches are cut and the lips turned at right angles to the
20 tongued-up portion of the sheet-metal roofing. Fig. 3 is a view showing the notchers placed in proper position to fold the lip or tongue against the tongued-up portion of the sheet-metal roofing. Fig. 4 is a view showing the
25 position of the notchers when the lip or tongue is properly folded against the tongued-up portion of the sheet-metal roofing. Fig. 5 is a view showing a notch properly formed and
30 the lip or tongue standing at right angles to the tongued-up portion. Fig. 6 is a view showing the lip or tongue properly folded. Fig. 7 is a detached view of the socket-bar.

The present invention has relation to notchers
35 designed and calculated to form notches in the sheets of sheet-metal roofing; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

40 Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A and A' represent the operating-handles, which are
45 pivotally attached together by means of the clamping-bolt *a* or its equivalent. To the bottom or lower end of the handle A is securely attached the bar B, which bar may be formed integral with the handle A, if desired. To
50 the bottom or lower end of the handle A' is securely attached or formed integral with said

handle the socket-bar C. To the bar B is securely attached in any well-known manner the cutting and forming die D, which die is located and adjusted directly opposite to the
55 socket D'.

When it is desired to cut or form a notch and tongue, the notchers are placed in such a position that the bar B and the socket-bar C will come upon opposite sides of the tongued-up portion E, at which time the top or upper
60 ends of the handles A and A' are pressed or forced together by the hands of the operator, thereby causing the die D to enter the socket D', said die being so formed that its top or
65 upper end will enter said socket in advance of its bottom or lower end, thereby forming a shear cut, which causes the tongue *b* to be cut as indicated in Fig. 5, and when said die has fully entered the socket D' the tongue
70 will be carried or brought at right angles to the tongued-up portion from which it was cut or formed, which placed said tongue *b* in the position indicated in Fig. 5. After the tongue has been cut or formed, the notchers proper
75 are removed and placed in the position illustrated in Fig. 3.

It will be seen that as the notchers proper are placed in the position illustrated in Fig. 3 the plate or bar F will strike or bear
80 against the outer end of the tongue, and as the notchers are forced downward will carry the outer end of said tongue below its base, thereby starting the downward fold of said tongue, at which time the foot of the operator
85 is placed upon the plate G, and said plate pressed or forced downward until the plates G and F assume the position illustrated in Fig. 4, thereby causing the tongue *b* to be folded, as illustrated in Figs. 4 and 6, when
90 the foot of the operator is removed, and the plates G and F automatically assume their normal positions by means of the helical spring H, one end of said spring being attached to the handle A' and the opposite end attached
95 to the plate G.

For the purpose of stopping the plates G and F at a given point, the extension or arm
100 *c* is provided, which is attached to the connecting-bar *d* at a point so as to cause said extension or arm *c* to strike against the handle A'.

The plates G and F are pivotally attached to the socket-bar by means of the bolts or rivets *d'*.

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

1. The combination of the handles A A', pivotally attached together, the bar B, secured to the lower end of one of said handles below the handle-pivot and provided with a tapering die D, and the bar C, secured to the lower end of the other handle below the pivot and provided with a socket D' to receive the die, whereby said die and socket are adapted to form a tongued notch in the upturned portion of a metal sheet, substantially as described.

2. The herein-described tool for forming tongued notches in sheet-metal plates, con-

sisting of the pivoted handles A A', the bars B and C, secured to the lower ends of said handles respectively below the handle-pivot, one of said bars being provided with a die D and the other with a socket D' to receive said die, the plates G and F, pivotally attached to the socket-bar C, the bar *d*, connecting said plates and provided with an extension *c*, adjacent to the handle A, and the spring H, connected with the plate G and handle A', substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES H. ELLER.

Witnesses:

CHARLES WISE,
FRED W. BOND.