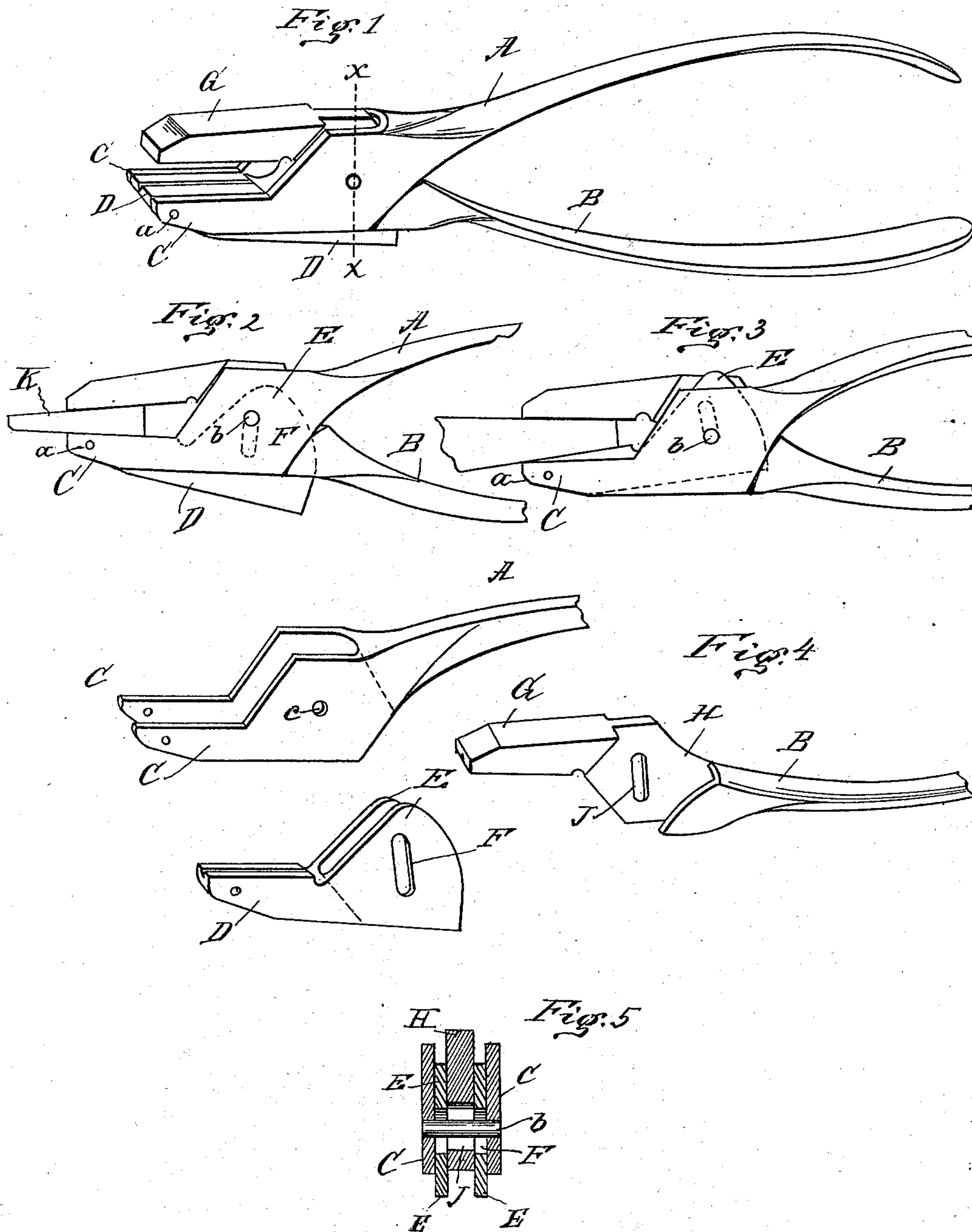


(No Model.)

W. H. METZGER.
PLIERS.

No. 562,552.

Patented June 23, 1896.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM H. METZGER, OF CANTON, OHIO.

PLIERS.

SPECIFICATION forming part of Letters Patent No. 562,552, dated June 23, 1896.

Application filed February 26, 1896. Serial No. 580,919. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. METZGER, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Pliers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in pliers, the object of which is to make the jaws automatically adjustable with relation to each other.

With this object in view my invention relates to certain features of construction and combination of parts, as will be hereinafter described and claimed.

Figure 1 of the drawings is a perspective illustrating my invention. Fig. 2 is a side view showing the jaws grasping a wedge-piece, large end in, with both jaws adjusted to grasp the sides of the wedge, the handles broken off. Fig. 3 is a similar view showing the jaws adjusted to the wedge with point or small end inserted, the handles broken off. Fig. 4 is a perspective of three parts comprising the pliers, which will be hereinafter lettered and explained. Fig. 5 is a section on line $x x$, Fig. 1.

A and B denote the lever-handles, the former having on the end a jaw or head C, between which is pivotally secured a supplemental jaw D, having rearwardly and upwardly projected prongs or sides E, in which is provided a transverse elongated aperture F. On the front end of handle B is provided rigid jaw or head G and shank H. In the shank is provided a transverse elongated aperture J, that coincides with the aperture F in the sides or prongs E, extending rearwardly from the jaw D.

I assemble the parts as follows: The jaw D is secured in the prongs of the jaw or head C by the rivet a . The jaw G on handle-lever B is passed through from the rear between the sides of the prongs of the jaw or head C, the prongs E of jaw D to pass up and embrace the shank H of handle-lever B, the parts se-

cured together in operating position by rivet b , passed through apertures c , F, and J. 50

In operating, as shown in Fig. 1, the jaws D and G stand parallel as if grasping an object having parallel sides, the rivet b having passed to the upper end of the slot J in shank H. In Fig. 2 the pliers are shown in the act of grasping an article, as K, having tapered or converging sides, the larger end of the article passed in between the jaws, the inner end of jaw D pressed down, the rivet b resting in the upper end of slot F in the prongs of jaw D, and in the upper end of slot J in the shank H of handle B. The reverse of this is shown in Fig. 3, where the point of the wedge K is shown with the point passed into the jaws. The pressure of the wedge on jaw D outside of the pivot a has thrown the prongs E up, the rivet b resting in the lower end of the slot F in the prongs E of jaw D. 55 60 65

Having thus fully described the nature and the object of my invention, what I claim is— 70

1. The combination in a pair of pliers of the rigid jaw D, the shank H, having provided therein and transverse thereto, an elongated aperture J, the handle-lever A, having a forwardly-projected pronged jaw C, a jaw D, pivotally secured thereto, said jaw having prongs E that embrace the shank H and aperture F, that coincide with the aperture J in the shank H, substantially as described and for the purpose set forth. 80

2. A pair of pliers comprising handles provided with jaws or heads pivoted together to allow of a bodily movement of one handle and its jaw or head with respect to the other handle and its jaw or head, and a supplemental jaw having one of its ends pivoted to one of the aforesaid jaws or heads, and having a loose movable engagement at its other end with the pivot which unites the handle jaws or heads. 85 90

In testimony whereof I have hereunto set my hand this 31st day of January, A. D. 1896.

WILLIAM H. METZGER.

Witnesses:

W. K. MILLER,
CHAS. M. BALL.