

W. E. SNEDIKER.

Dies for the Manufacture of Pincers.

No. 142,955.

Patented September 16, 1873.

Fig: 1

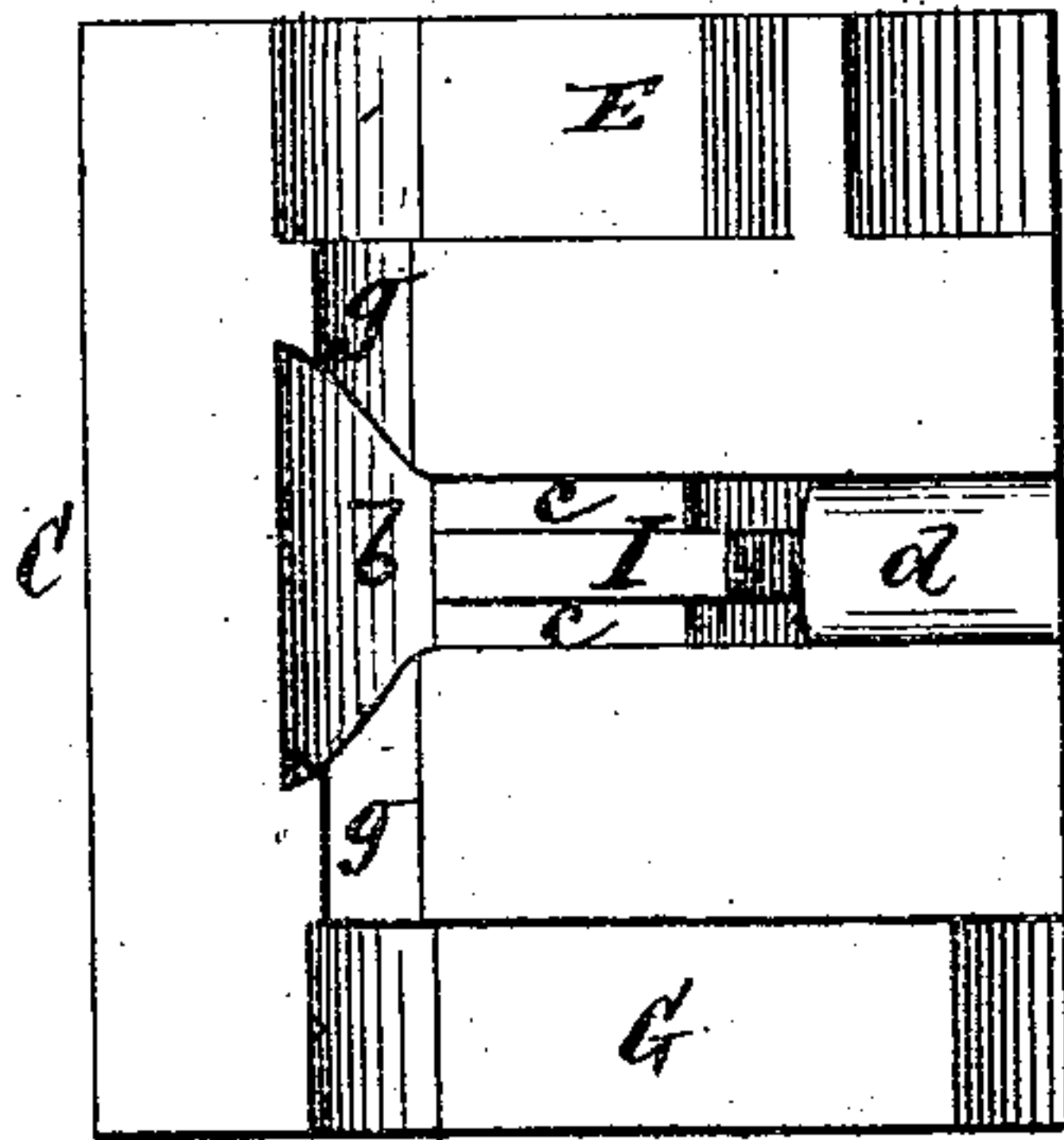


Fig: 2

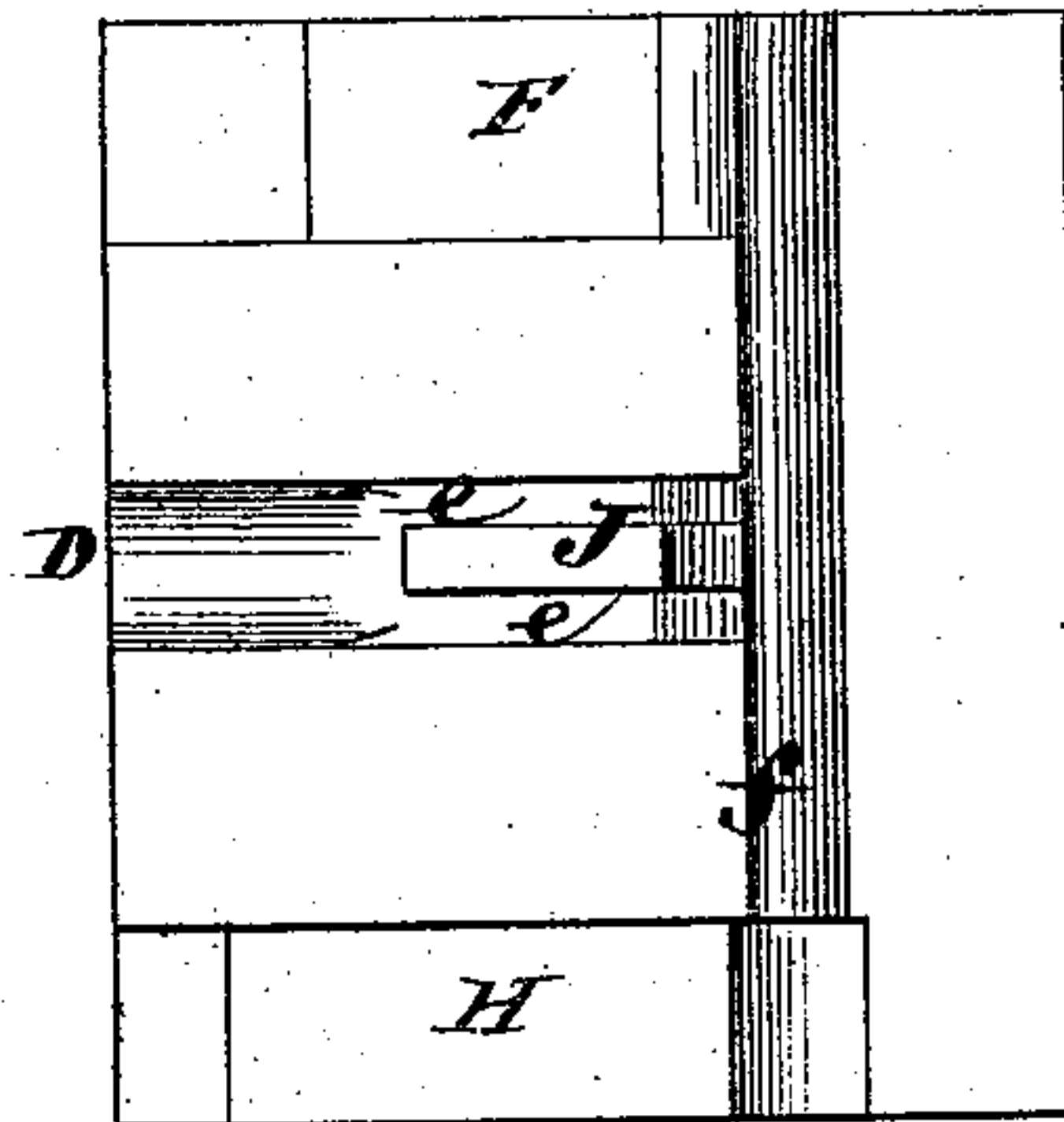


Fig: 3

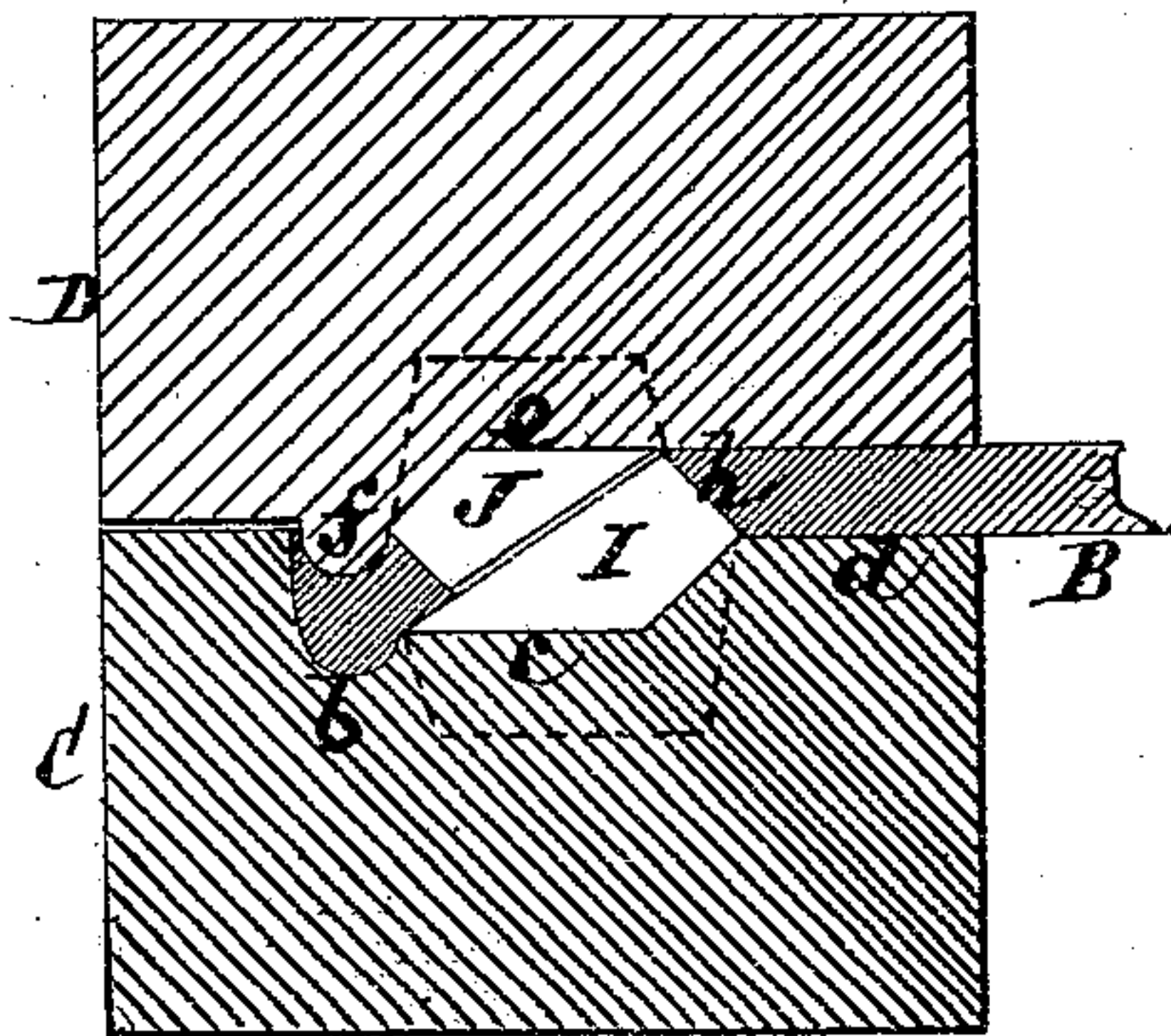


Fig: 4

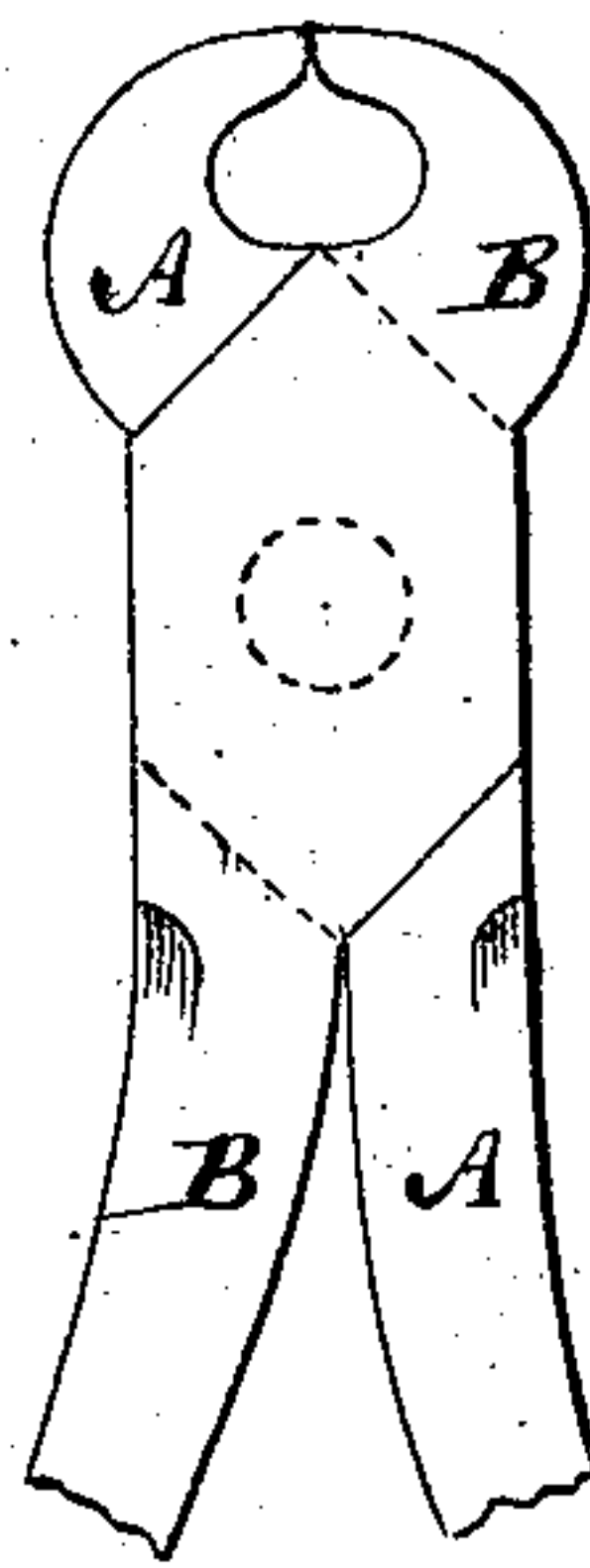
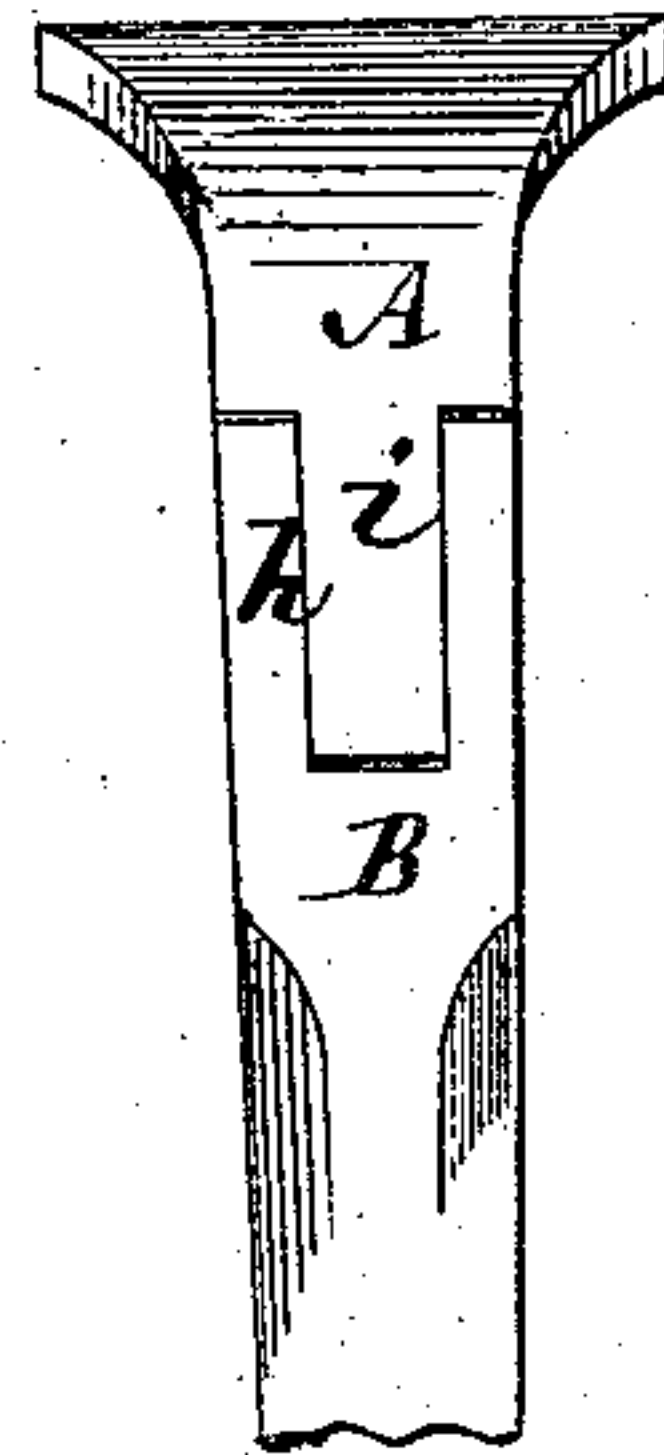


Fig: 5



Witnesses:  
Michael Ryan  
Fred Haynes

Wm E. Snediker  
by his Attorney  
Brown & Allen



# UNITED STATES PATENT OFFICE.

WILLIAM E. SNEDIKER, OF CHARLOTTEBURG, NEW JERSEY.

## IMPROVEMENT IN DIES FOR THE MANUFACTURE OF PINCHERS.

Specification forming part of Letters Patent No. **142,955**, dated September 16, 1873; application filed July 2, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM E. SNEDIKER, of Charlotteburg, in the county of Passaic and State of New Jersey, have invented an Improvement in Dies for the Manufacture of Pinchers and Nippers, and other tongs-like tools having box-joints, of which the following is a specification:

This invention consists in a novel construction of dies to be employed in power or other presses for the production of the female portion of the box-joint used in pinchers, nippers, and other tongs-like tools, whereby loss of stock is avoided, and a truer joint may be made more rapidly and with much less labor, both as regards its production and finish, than is attainable by the means heretofore employed.

Ordinarily it is customary, in producing the female portion of a box-joint, such as used in pinchers, nippers, and other like tools, to punch a blank or stock out of the limb in which such portion of the joint is to be made. This is usually done by taper mandrels or punches, applied successively to opposite sides or edges of the limb; and, besides being a very delicate and tedious operation, accompanied by waste of stock in the piece punched from the limb, and which, in the manufacture of a number of tool, is a serious loss, there is great liability of the limb being burst or cracked, and the slot or opening thus formed requires considerable finish and dressing to admit of the tongue of the other limb or male portion of the joint properly within it. My improvement obviates these defects, economizes labor, and greatly reduces the cost of producing such articles as pinchers and nippers.

In the accompanying drawing, which forms part of this specification, Figures 1 and 2 represent face views of a pair of dies with attached punches, suitable for the construction of the female portion of the box-joint of a pair of nippers. Fig. 3 is a vertical section of said dies when brought together to form the female portion of the joint, and with the forward portion of the female limb of a pair of nippers in position within the dies. Figs. 4 and 5 represent side and edge views of the pinchers, in part, in illustration of the joint produced.

Similar letters of reference indicate corresponding parts.

A is the male limb, in part, and B the female limb, in part, of a pair of nippers fitted together with a box-joint in accordance with the invention. C and D are the dies used in the forging of said parts, or more particularly the female limb of the nippers. These dies it is designed to use in a power press, the one being in the bed and the other in the plunger of the press. Said dies are constructed on opposite margins of their faces, with breaking-down portions E F and G H for the sides and edges of the bar of which the limb is to be made, for the purpose of preparing the limb for the central portions of the dies, which latter portions it is only necessary here to describe in detail. The central portion of the die C is formed with appropriately-shaped recesses *b* and *c*, also preferably with a slight depression, *d*, to give the required outside contour to the cutting end of the limb, and to one-half, or thereabout, in depth, of the sides of the joint with its attached extension, from which the handle is drawn, while the central portion of the die D is formed of a recess, *e*, and rib *f*, to give the requisite inside contour to the cutting end of the limb, and necessary outside shape to the other half, in depth, of the sides of the joint with its attached rear extension, the main portion of the latter lying in this die, and the die C being cut away at *g g* to provide for the action of the rib *f*. In this way both the dies, when brought together, receive half the depth of the joint portion of the limb B within them, and shape it as required.

To make the slot or opening *h* in such female portion of the joint, for reception of the tongue *i* of the male limb A of the pinchers in construction of the box-joint, the central portions of the dies C D are fitted with facial or projecting reversely angular punches I J, arranged so that when the dies are brought together said punches form an oblique contact or approach to each other relatively with the faces of the dies, and are each free from entry, or approximately so, at their one end within the metal of the female portion of the joint, leaving a thin film or fin, extending obliquely within the slot *h* from the inner to the outer edges of the limb, which fin, as well as all outside fin, is afterward readily removed.

Thus not only is the metal removed in stamping out the slot *h* economized by being forced

into the sides of the limb or joint portion thereof, but, by the reversely angular construction of the punches I J, any tendency of the hot metal or limb in shrinking to stick on the punches is avoided by reason of the hereinbefore-described angular construction of the punches and freedom at their one end from entry within the slot *h*. Time, labor, and stock are consequently economized, and a truer joint may be made than by the ordinary process or means of making a box-joint. The slot, too, is made, or mainly so, at the same time that the forward portion of the limb has its general contour given it.

By taking out the punches I J, the same

dies C D may be used, if desired, for similarly forging the male limb *A* of the pinchers.

What is here claimed, and desired to be secured by Letters Patent, is—

The dies C D, constructed to receive the female portion of the box-joint within them, and provided with punches I J of reversely angular construction, substantially as shown and described, and for the purposes herein set forth.

W. E. SNEDIKER.

Witnesses:

C. McLACHLAN,  
P. H. DIAMOND.