

(No Model.)

E. WICKERT.

AX.

No. 375,588.

Patented Dec. 27, 1887.

Fig. 1.

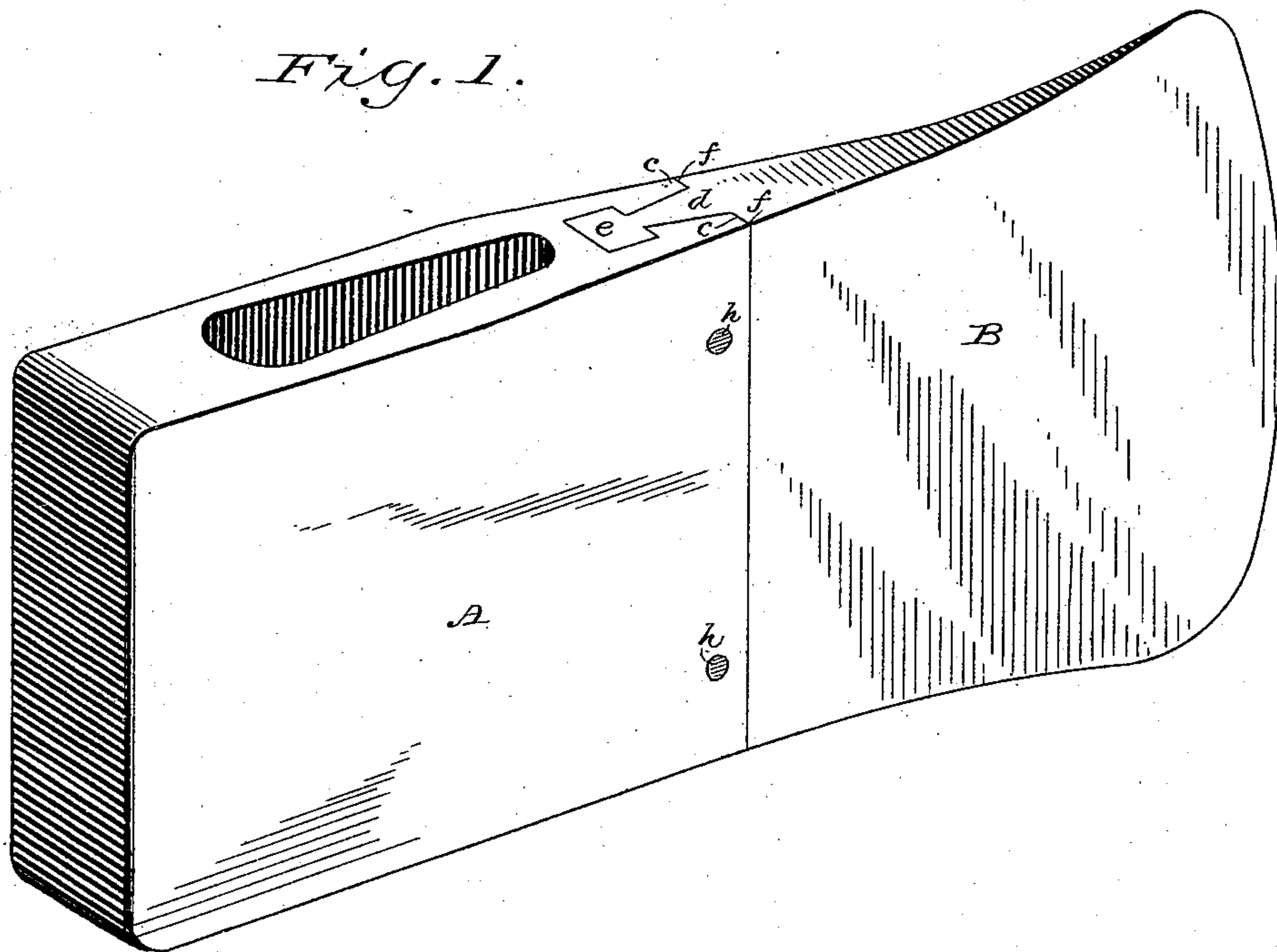


Fig. 2.

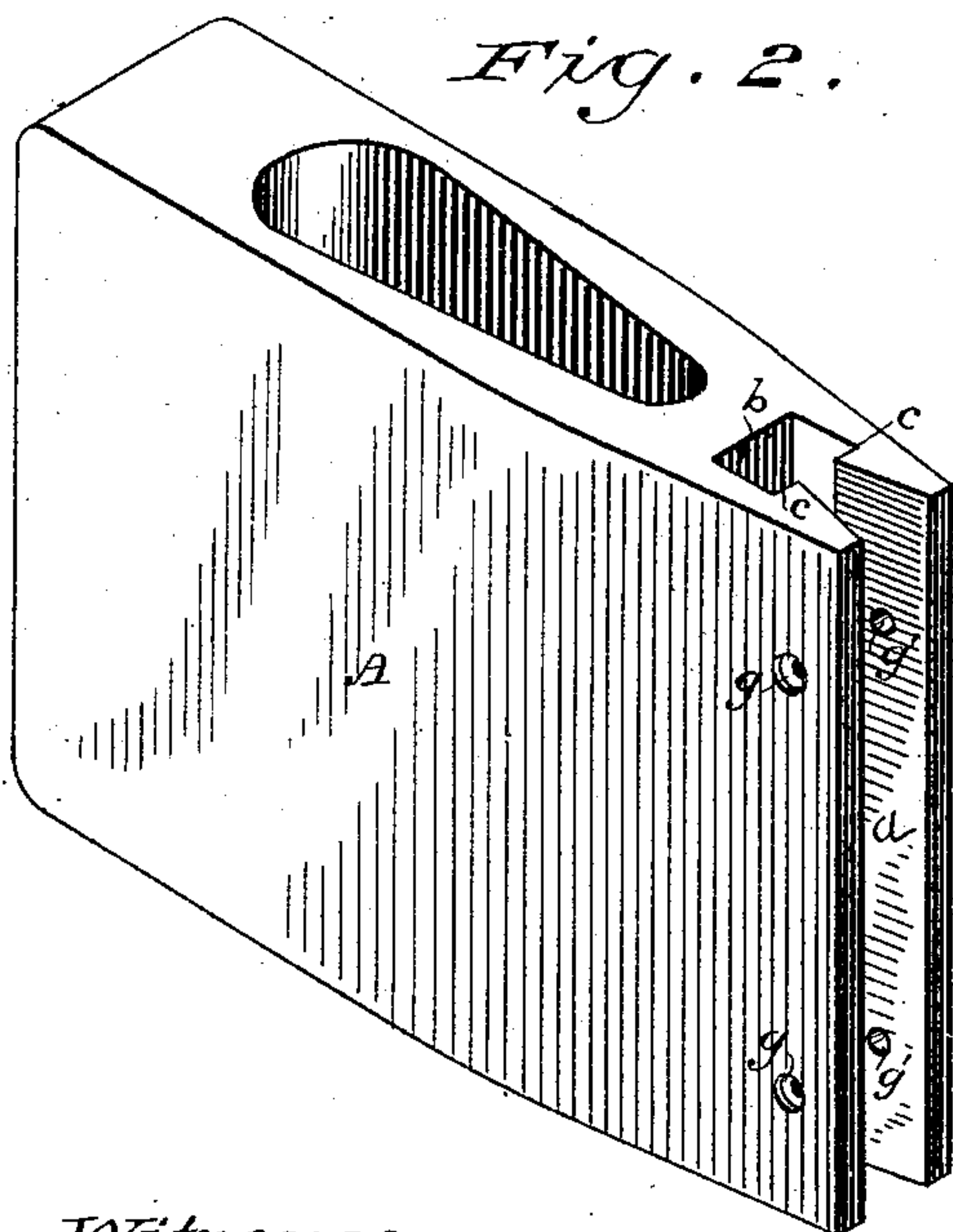
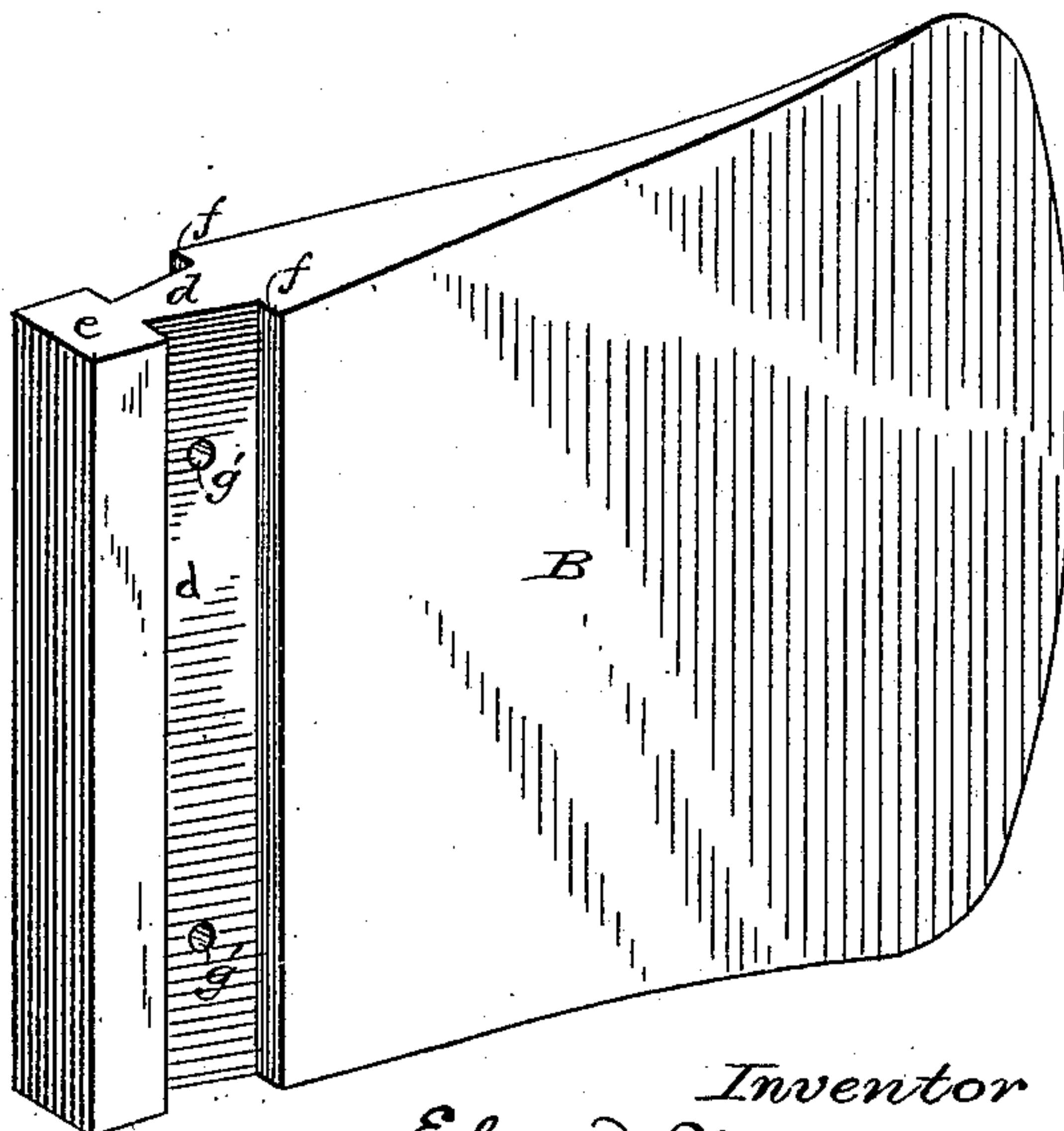


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD WICKERT, OF HORTONVILLE, WISCONSIN.

AX.

SPECIFICATION forming part of Letters Patent No. 375,588, dated December 27, 1887.

Application filed July 11, 1887. Serial No. 243,922. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WICKERT, of Hortonville, in the county of Outagamie, and in the State of Wisconsin, have invented certain new and useful Improvements in Axes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to axes; and it consists in certain peculiarities of construction and combination of parts to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a perspective view of an ax constructed according to my invention; Fig. 2, a detail perspective view of the head; and Fig. 3 a similar view of the bit.

Referring by letter to the drawings, A represents the head, and B the detachable bit, of my ax. The front end of the head is provided with a vertical groove that has a flaring portion, *a*, widest at its outer end, and an enlarged square or rectangular portion, *b*, whereby shoulders *c* are formed at the junction of said portions of the groove. The rear end of the bit is provided with a vertical tenon that has a flaring portion, *d*, widest at a point immediately adjacent to the body of said bit and terminating in an enlarged square or rectangular portion, *e*, this construction serving to form shoulders *f* at the junction of said portions of the tenon, the latter being designed to fit snugly the correspondingly-shaped groove in the head.

The head A of my ax, near its front end, is provided with apertures *g*, preferably counter-sunk upon the outer sides of said head, and the tenon on the rear end of the bit is also provided with apertures *g'*, that register with those in the head when the latter and said bit are joined together, these apertures serving to receive pins *h*, by means of which the above-named head and bit are secured in their united position.

To join the bit B to the head A the parts are held so that the bottom of the tenon on said bit will enter the groove in said head. The parts are now moved on each other until the apertures *g g'* come into register for the

reception of the locking-pins *h*, and the latter being inserted the ax is complete.

To disconnect the head and bit the pins *h* are knocked out by a suitable tool and said parts moved on each other in a reverse direction to that already described until the tenon on said bit is withdrawn from the groove in said head. By the construction above described I am enabled to readily replace a worn or broken bit by a new one at a comparatively small cost, and each head can be placed on the market with two or more bits, so that when one of the latter becomes dull or broken its place may be supplied by another without loss of time or interruption of work.

I am aware of an ax having the poll thereof made in two parts that when united form a groove at the forward end, this groove being straight for the greater part of its length and dovetailed at its inner extremity and serves to engage a correspondingly-formed tenon on the bit of said ax, all the parts being secured together by screws.

I am also aware of an ax constructed with a solid poll and detachable bit, the poll having a groove straight for a portion of its length and then enlarged to form angular shoulders, this groove serving to receive a correspondingly-formed tenon on the ax-bit, said poll and bit being then held in their united position by screws. Axes of the construction just described are weakest at the point where the shoulders of the bit come against the poll, on account of the necessary loss of metal to make the straight portions of the tenon, and consequently are very liable to break when the ax is twisted. In my construction the tenon is made with the flaring portion in order to obtain more metal and consequent increase of strength at what has hitherto been the weakest point in axes having detachable bits.

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

An ax consisting of the head A, having a vertical groove comprising the flaring portion *a*, widest at its outer end, and the enlarged square or rectangular portion *b*, the bit B, having a vertical tenon, comprising the flar-

ing portion *d*, that corresponds with the groove
in the head, and the enlarged square or rect-
angular portion *e*, both said parts provided
with the transverse apertures *g g'*, and pins *h*,
5 inserted in said apertures, substantially as set
forth.

In testimony that I claim the foregoing I have

hereunto set my hand, at Hortonville, in the
county of Outagamie and State of Wisconsin,
in the presence of two witnesses.

EDWARD WICKERT.

Witnesses:

G. T. MOESKES,

JULIUS LUEHLKE.