

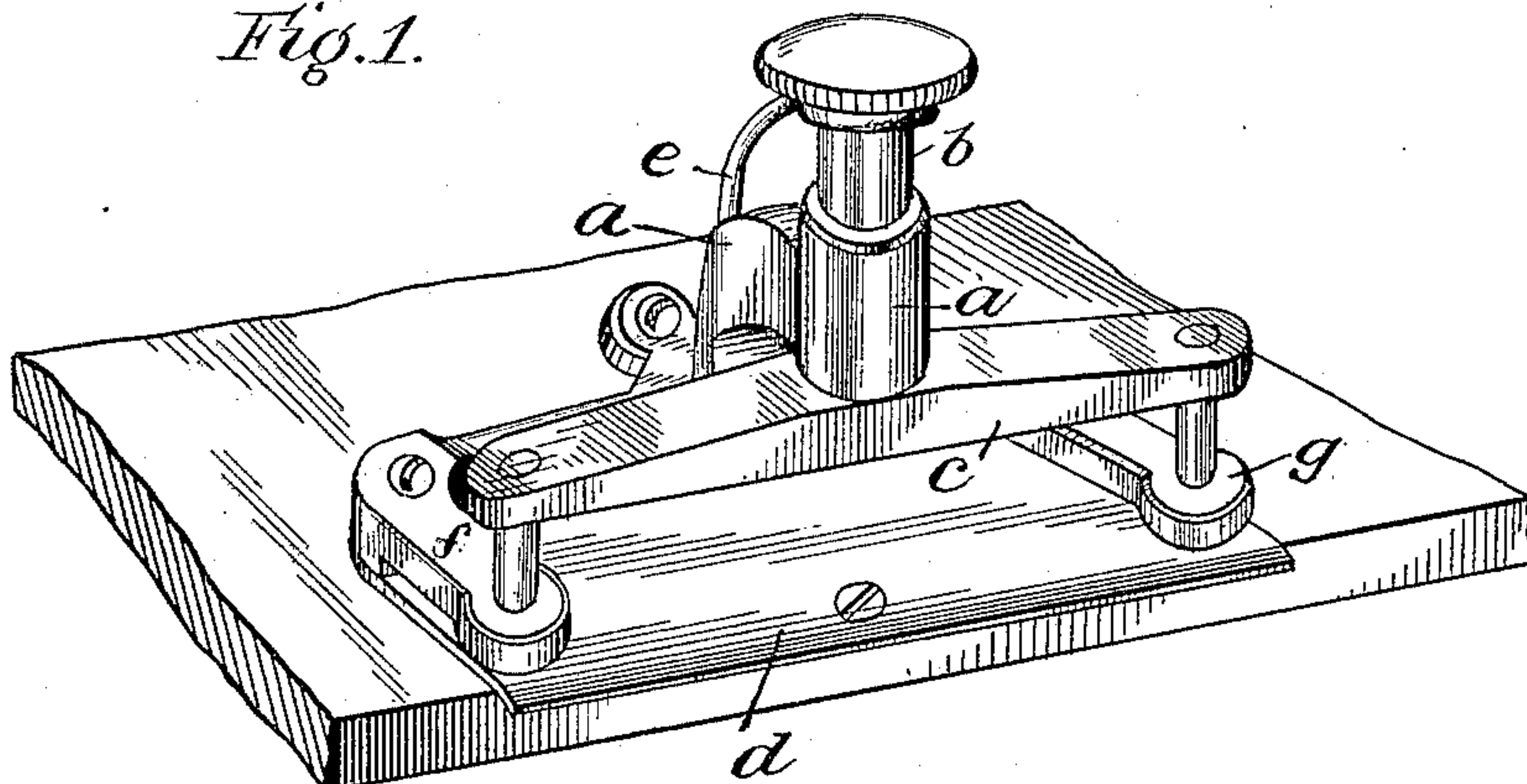
(No Model.)

S. H. FISH.  
PAPER PUNCH.

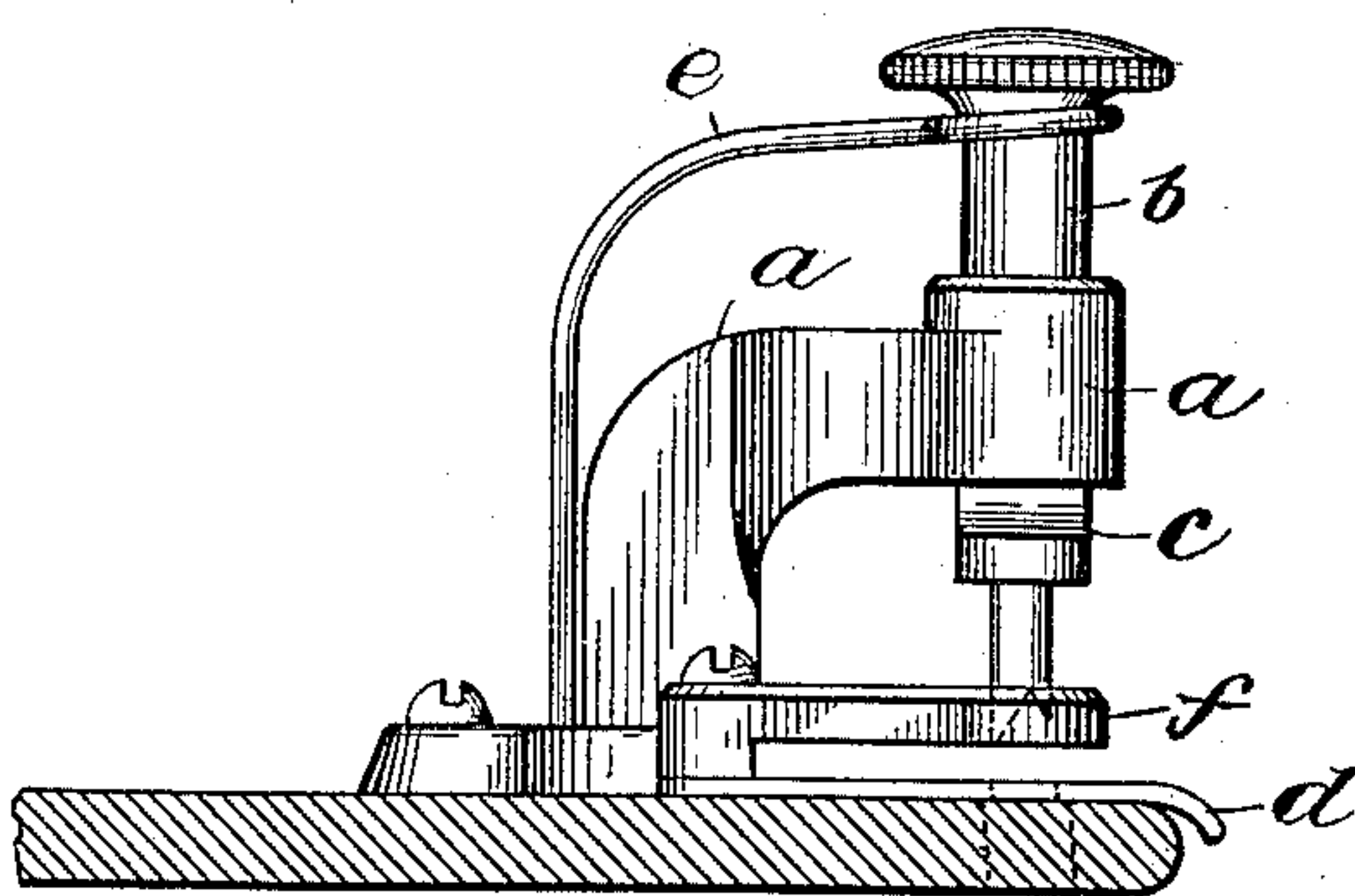
No. 395,320.

Patented Jan. 1, 1889.

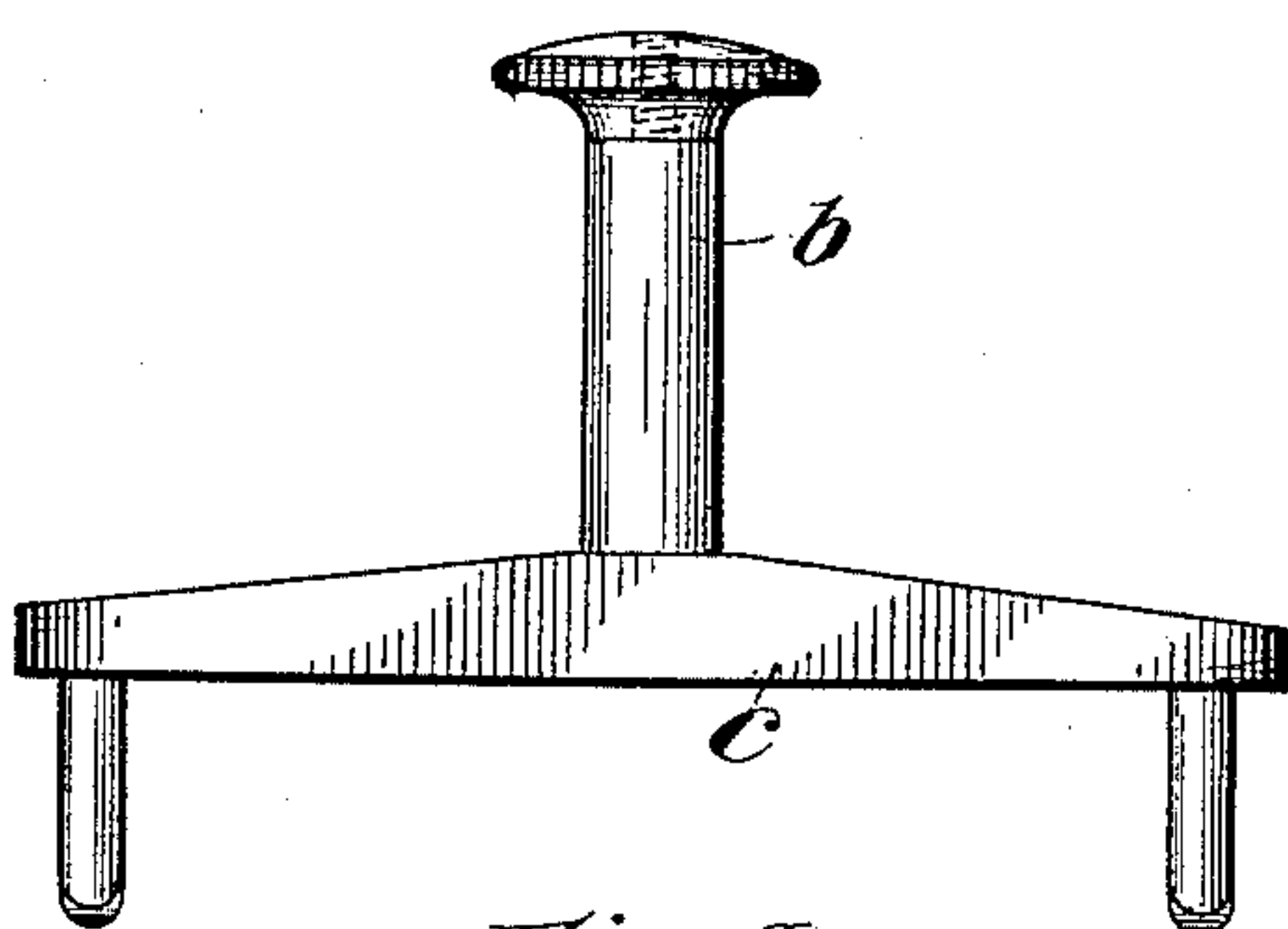
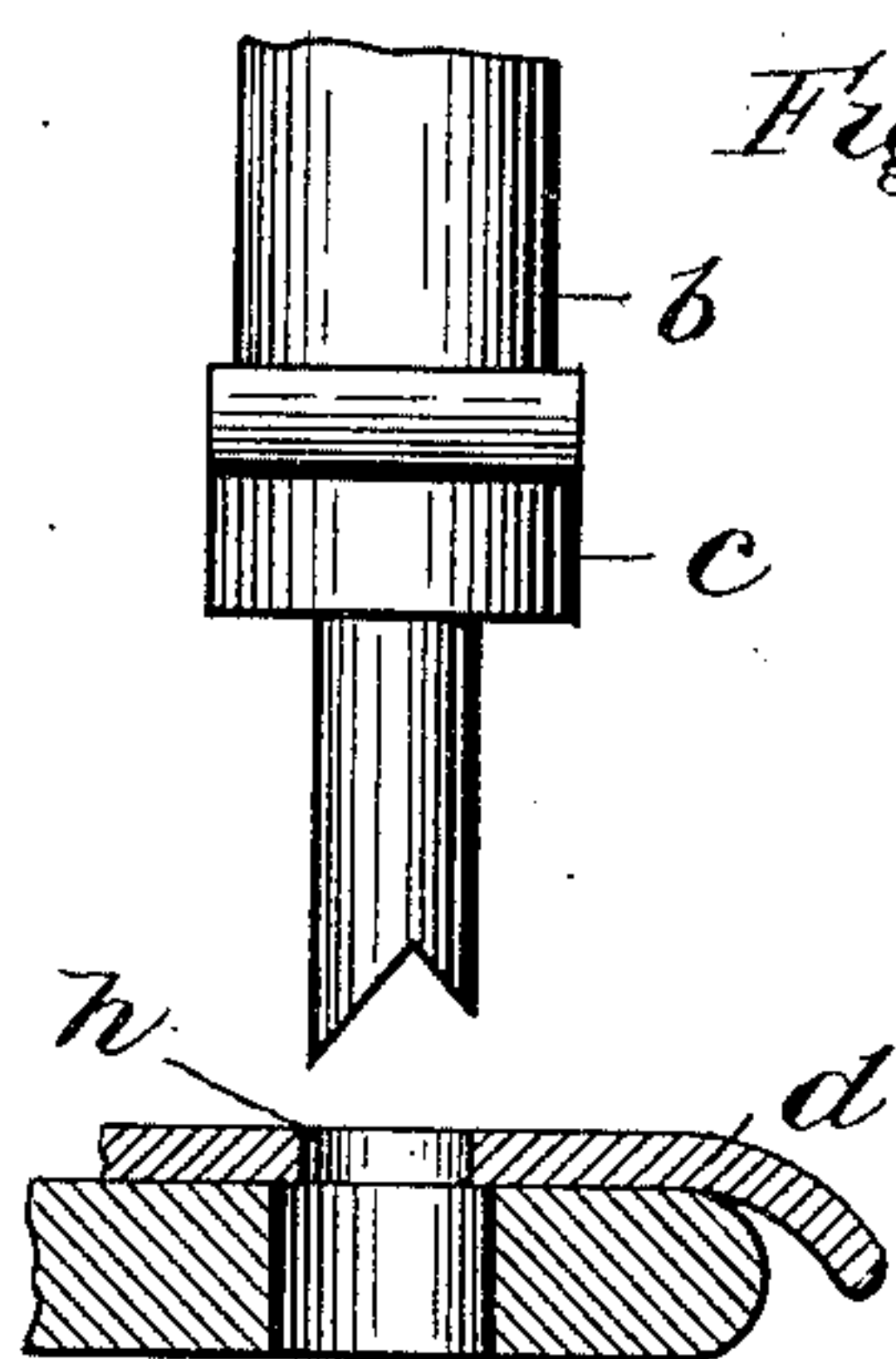
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

Witnesses:  
Saml. B. Dover.  
Wm. M. Giller.

Inventor.  
Samuel H. Fish  
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Atty.

# UNITED STATES PATENT OFFICE.

SAMUEL H. FISH, OF HINSDALE, ILLINOIS.

## PAPER-PUNCH.

SPECIFICATION forming part of Letters Patent No. 395,320, dated January 1, 1889.

Application filed September 13, 1886. Serial No. 213,366. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL H. FISH, a citizen of the United States, residing at Hinsdale, in the county of Du Page and State of Illinois, have invented a certain new and useful Improvement in Paper-Punches, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to paper-punches—such as are used in connection with bill and letter files—to punch the sheets of paper before they are filed upon the hooks.

My invention consists in the peculiar form of the cutting-edges of the punch and the combinations of parts hereinafter described and claimed, and will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my paper-punch mounted upon a wooden base ready for use. Fig. 2 is a side elevation thereof. Fig. 3 is a detailed view showing the peculiar form of the cutting-edges of one of the punches. Fig. 4 is a detailed view of the plunger and the cross-bar carrying the punches.

Like parts are indicated by similar letters of reference in the different figures.

As shown in Fig. 1, *a* is the frame, which consists, preferably, of a brass casting. The plunger *b* and the cross-bar *c* are preferably of brass and are preferably cast in a single piece, the plunger being turned down to fit the hole bored in the standard of the frame. The steel plate *d* is preferably secured to the brass frame by rivets, so that on removing the wood-screws the whole punch will be unfastened from the board. The spring *e* consists, preferably, of a wire attached rigidly at one end to the rear of the frame, while the other end is bent over and wound around the top of the plunger under the button, as shown. The tension of the spring serves to hold the punches up ready to be driven down against the force of the spring to pierce the paper. The lugs or arms *f g* of the frame are placed so that the holes provided therein will fall immediately be-

low the punches or cutters, respectively. The cutting points or edges of the punches, when the punch is in its normal position, come below the upper surface of the arms or lugs, but above the lower surface thereof, so that they are protected from injury. It will thus be seen that there are three bearings, whereby the punches or cutters are guided in their descent through the dies *h*, provided in the steel plate.

Referring now to Fig. 3, it will be seen that the cutting-edges of the punch consist of two points or lips, one lip being longer than the other. It will be seen that the longer lip or point, when pressed against the paper, will cut about half a circle before the shorter point begins to take the paper. It is by using this peculiar form of cutter for the punches that I am enabled to readily punch two holes at once through several thicknesses of paper by striking or pressing against the top of the plunger.

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

1. The combination, with the punches mounted upon the cross-bar carried by the plunger, of a spring for holding the plunger in its elevated position and three guides, one in the standard of the frame and one in each of the arms or lugs, the cutting-edges of said punches being of the form shown, one lip or point of each being longer than the other lip or point, whereby the punches are directed through the dies, as described.

2. The combination, with the cross-bar and the plunger supported by its bearing in the standard of the frame, of the punches or cutters, respectively, at the different ends of the cross-bar, the cutting-edges of said punches being of the form shown, one lip or point of each being longer than the other lip or point, the lugs with openings or guides surrounding the said cutting-edges, and the dies *h* in the plate below, substantially as described.

3. The punches provided with cutting-edges of the form shown, one lip or point of each being longer than the other lip or point of the same punch, in combination with open-



ings or guides surrounding the said cutting-  
edges, and dies, one for each cutter, whereby  
on forcing the punches through the guides  
several thicknesses of paper placed in their  
5 path may be perforated, substantially as and  
for the purpose specified.

In witness whereof I hereunto subscribe

my name this 10th day of September, A. D.  
1886.

SAMUEL H. FISH.

Witnesses:

GEORGE P. BARTON,  
WM. M. GILLER.