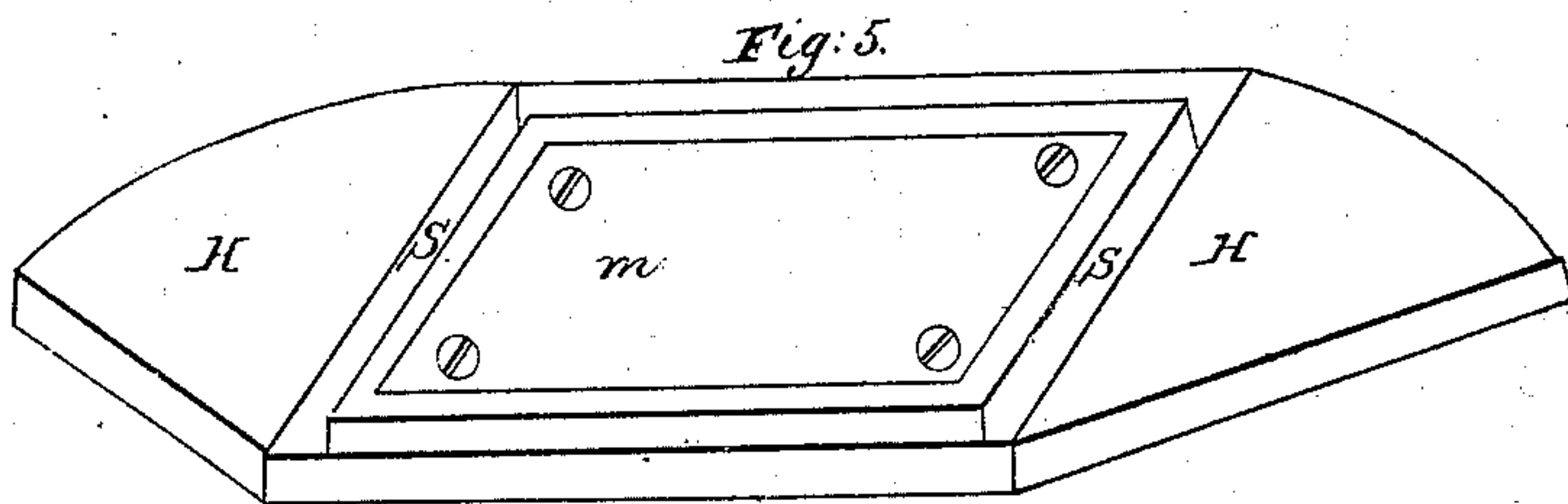
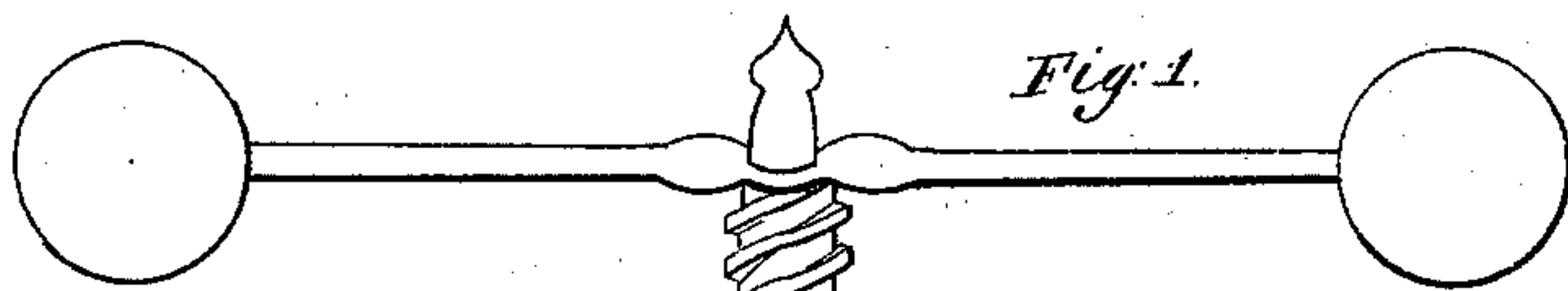
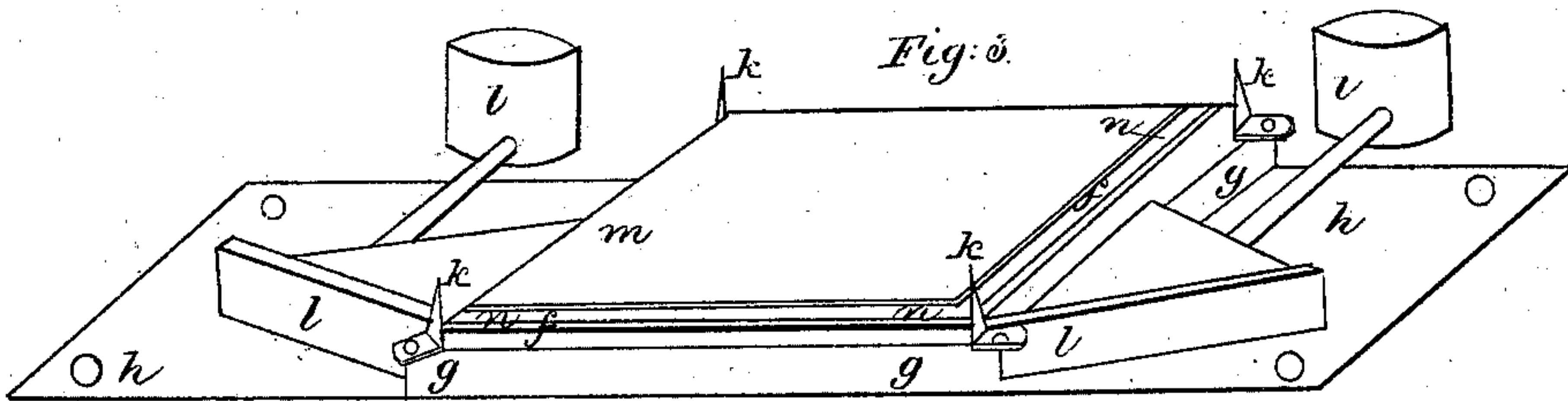
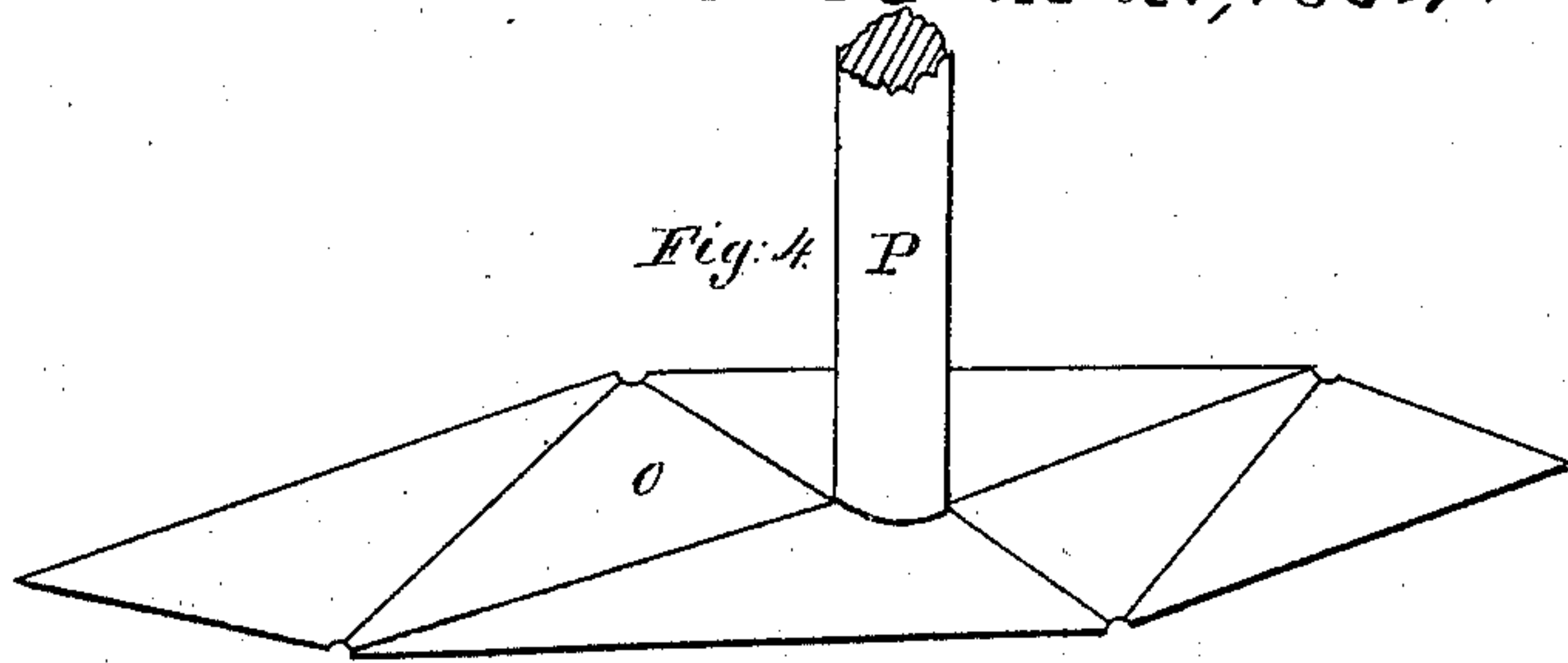
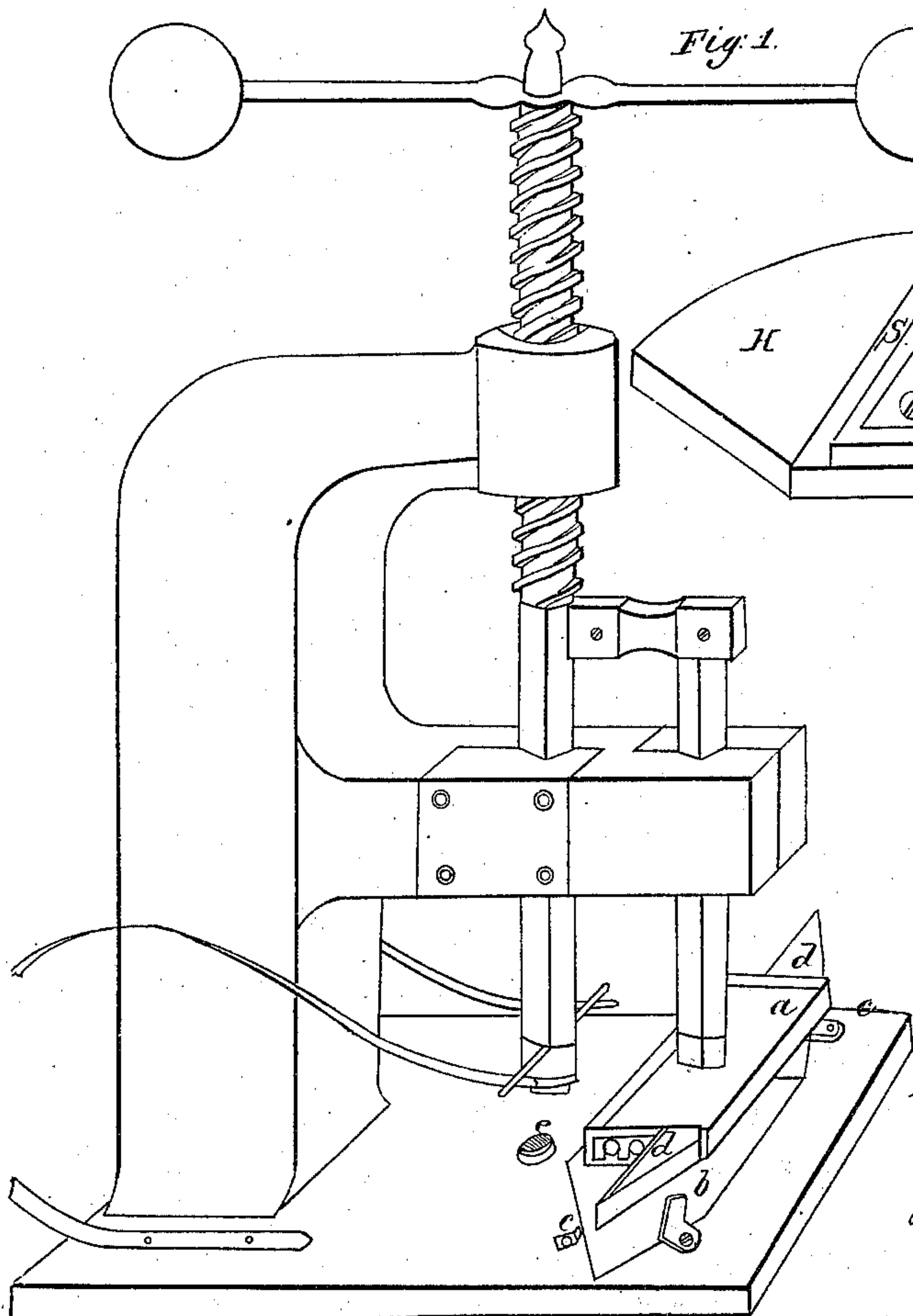


W. H. Hook. Sheet 1 of 2 Sheets.  
Envelope Mach.  
No 43,272. Patented Jun. 21, 1864.

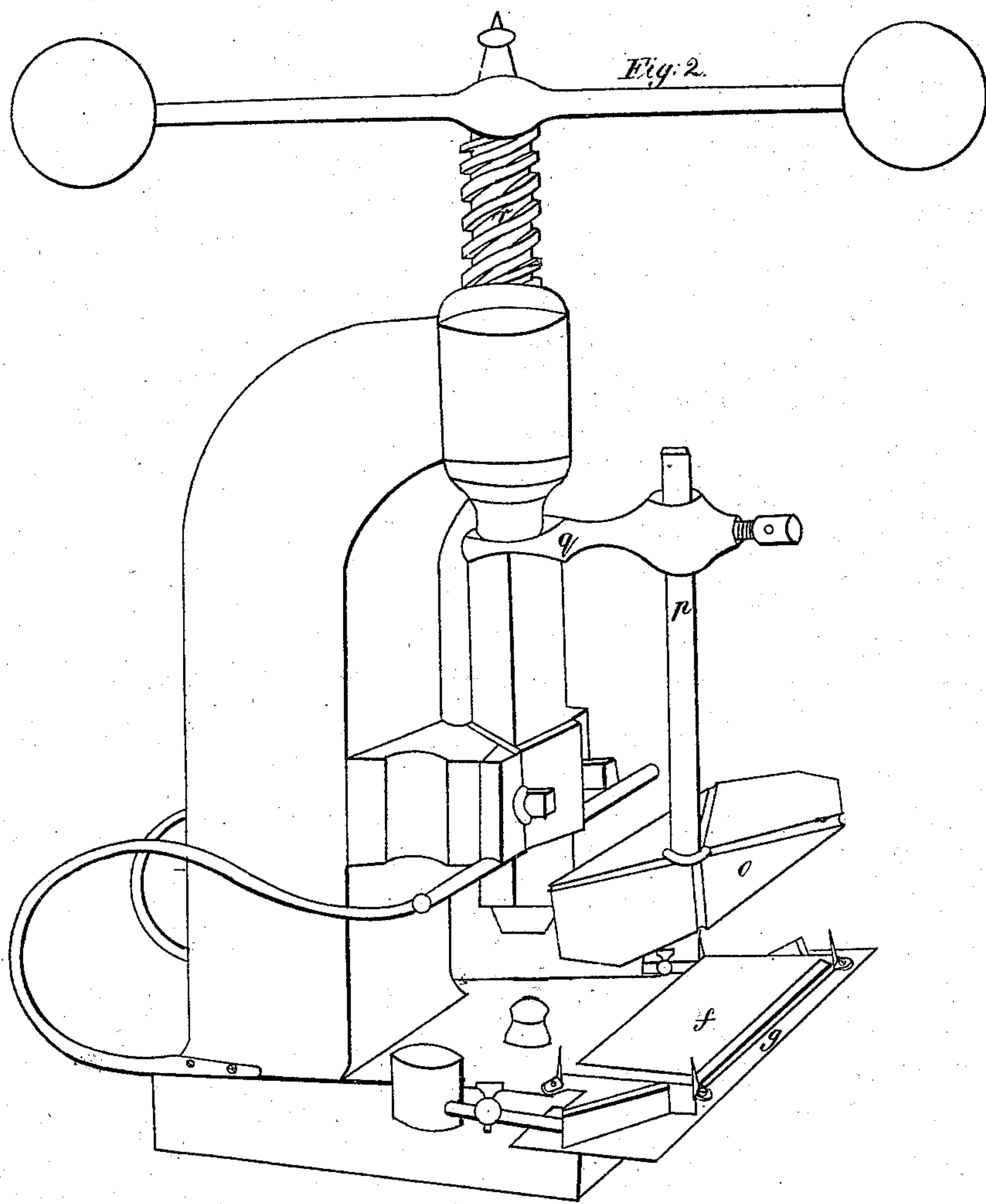


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W. H. Hook. *Sheet 2 of 2*  
*Envelope Mach.*  
 N<sup>o</sup> 43,272. *Patented Jun. 21, 1864.*



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# UNITED STATES PATENT OFFICE.

WILLIAM HENRY HOOK, OF WALWORTH, ENGLAND.

## DEVICE FOR FOLDING ENVELOPES.

Specification forming part of Letters Patent No. 43,272, dated June 21, 1864.

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY HOOK, of Walworth, in the county of Surrey and Kingdom of England, have invented new and useful improvements in folding envelopes and paper, and in machinery or apparatus employed therein; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon—that is to say—

Instead of the ordinary modes of stamping, indenting, or otherwise marking the paper the exact size and shape of the envelope or other matter to be folded, I employ a skeleton frame of thin metal or other suitable material of the required size and shape and cover the edges thereof, or the sides and edges, with linen, silk, leather, or other absorbent material. To the said skeleton frame I supply water or other liquid, so that its edges shall be moistened, and then press the frame on the paper or press the paper on the frame, by which operations the absorbed material covering the edges of the frame will moisten or damp the paper in lines corresponding with the edges of the frame, and thereby enable the operation of folding to be greatly facilitated. Or, instead of covering the edges of the skeleton frame with linen or other absorbent material for imparting the moistened lines to the paper to be folded, I construct the bed-plate, pad, or cushion with a channel or space around the spring-plate which supports the paper to be moistened, and cover the edges of this channel or space with linen or other absorbent material. The skeleton frame is then caused to press the paper onto the moistened edges of the channel or space, and thereby the moistened lines are imparted to the paper to be folded. The required pressure is obtained by an ordinary copying or embossing press, lever, or other mechanical contrivance, and a constant supply of water or other liquid is supplied in any convenient manner.

This invention will be clearly understood by referring to the figures and letters on the accompanying four sheets of drawings, in which—

Figure 1 is a perspective view of an ordinary stamping or embossing press having connected to it my improved skeleton frame

for moistening the paper when the frame is pressed upon it; Fig. 2, a perspective view of a similar press having connected to it a pressure-plate or pad for pressing the paper upon a stationary skeleton frame. Fig. 3 represents a detached view of the stationary skeleton frame or damping-box; Fig. 4, the pressure-plate or pad drawn to an enlarged scale; and Fig. 5, a view of the bed-plate or cushion, showing the channel or space surrounding the spring-plate.

In Fig. 1, *a* is the skeleton frame or damping-box, the edges of which are covered with linen or other absorbent material, which edges are kept damp by saturated fibers, cloths, or sponge placed on the top of the frame, or by other convenient means; *b*, the plate, pad, or cushion upon which the paper is placed; *c c*, the guides for keeping the paper in its proper position; *d d*, the gumming-boxes, and *e* the die for giving the impression of the device.

When the paper is placed on the plate, pad, or cushion, and the screw of the press turned, the paper receives a moistened impression of the edges of the frame or damping-box.

In Figs. 2 and 3, *f* is the stationary skeleton frame or damping-box, on the edges of which is stretched the linen or other absorbent material. The said skeleton frame is held firmly in another frame or box, *g*, and the space between the two frames is supplied with water or other liquid for the purpose of keeping the covered edges of the skeleton frame constantly moistened. The two frames are connected to the plate *h*, fixed to the plate of the press.

*k k* are the ordinary points or guides for keeping the paper in its proper position, and *l l* the gumming-boxes.

In order to support the paper previous to and during the pressing operation, there is a plate, *m*, supported by springs *n*, which plate rises after the paper has been pressed and enables its ready removal. The pressure-plate or pad is shown at *o*, Figs. 2 and 4. It is connected by the rod *p* and bar *q* to the piston of the press, and when the screw *r* is turned presses the paper upon the moistened edges of the skeleton frame, thereby impressing upon the paper lines of moisture of the exact form required, which greatly facilitates the operation of folding envelopes or other articles which have to be folded. Thus in the



manufacture of envelopes the paper is fed by the assistant to the stationary pad or stationary skeleton frame, and kept in its place by the points or guides, and when the skeleton frame, Fig. 1, is pressed upon the plate or pad, or the pad, Fig. 2, pressed upon the skeleton frame, the covered moistened edges of the frame moisten or damp the paper in the exact form in which it is required to be folded, the gumming process and impressing the device being performed at the same time. The paper is then removed from the points or guides and folded by hand.

In Fig. 5, showing another modification of my invention, M is the bed-plate with the channel or space *s s* surrounding the spring-plate *m*, the edges of which channel or space are covered with linen or other absorbent material, and water or other liquid is supplied in any convenient manner. When the paper is placed on the spring-plate *m* and the screw of the press turned, the skeleton frame descends and presses the paper onto the moist-

ened edges of the channel or space *s s*, thereby imparting the lines of moisture to the paper to be folded.

The gumming process and impressing the device being old, I make no claim thereto; but

What I claim is—

Marking or impressing moistened lines on paper for the purpose of facilitating the process of folding, and the machinery or apparatus employed therein, as described and illustrated in the accompanying four sheets of drawings, or any modification thereof.

Done at the city of London, in the Kingdom of England, this 13th day of October, 1863.

WILLIAM HENRY HOOK.

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