

(No Model.)

W. K. CROFFORD.
PAPER CLIP FOR WRITING TABLETS.

No. 410,580.

Patented Sept. 10, 1889.

Fig. 1.

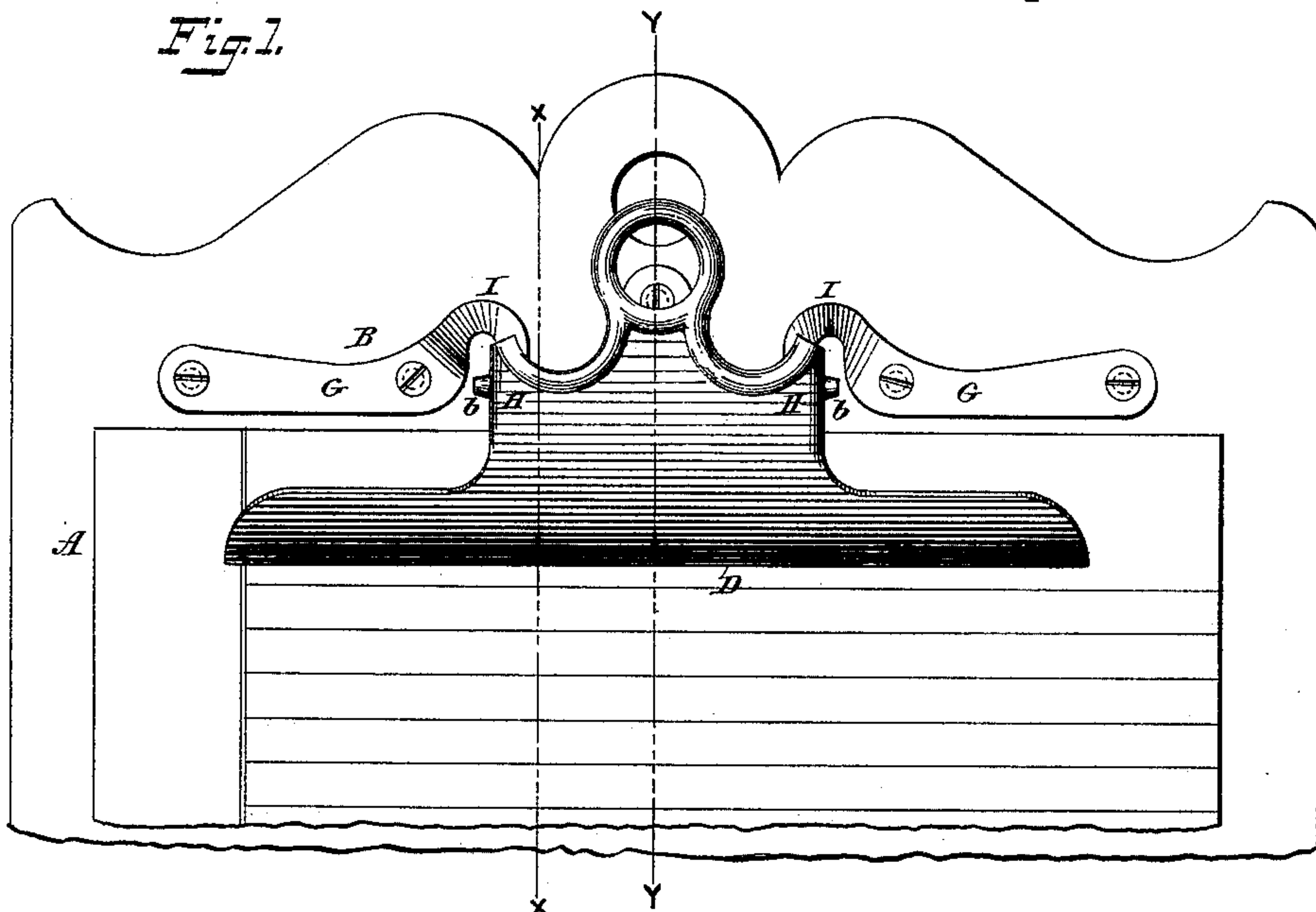


Fig. 2.

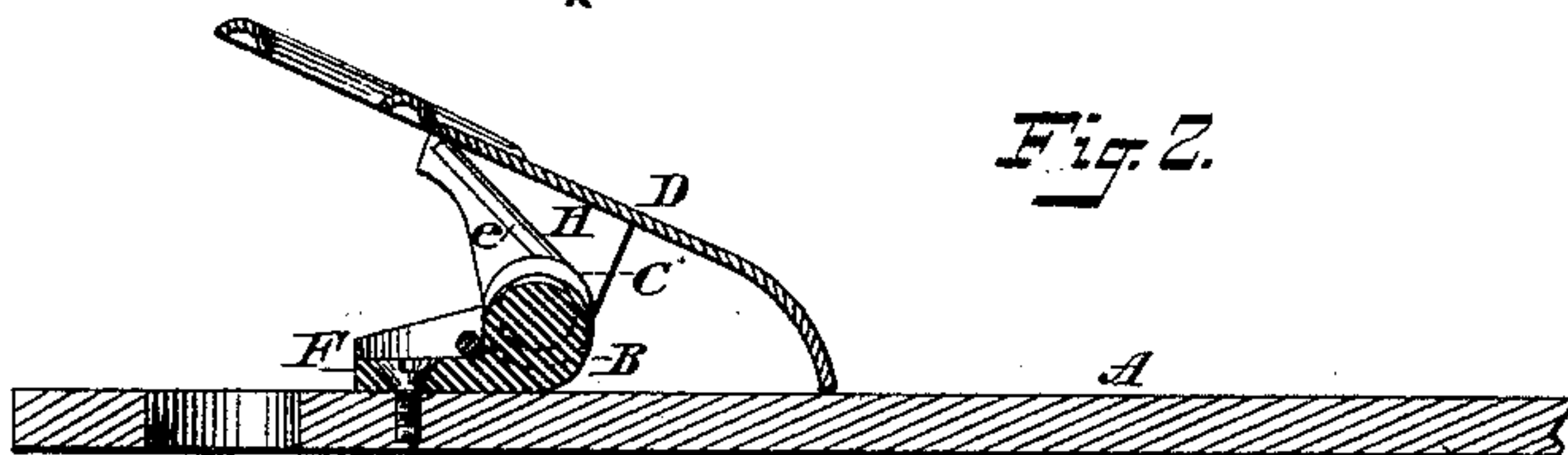


Fig. 3.

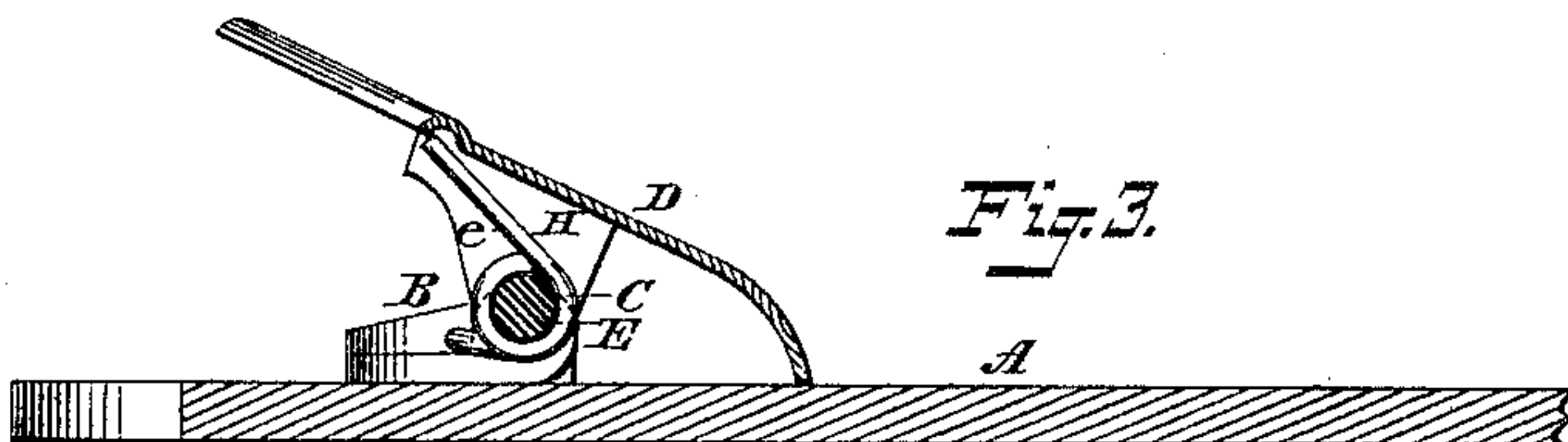


Fig. 4.

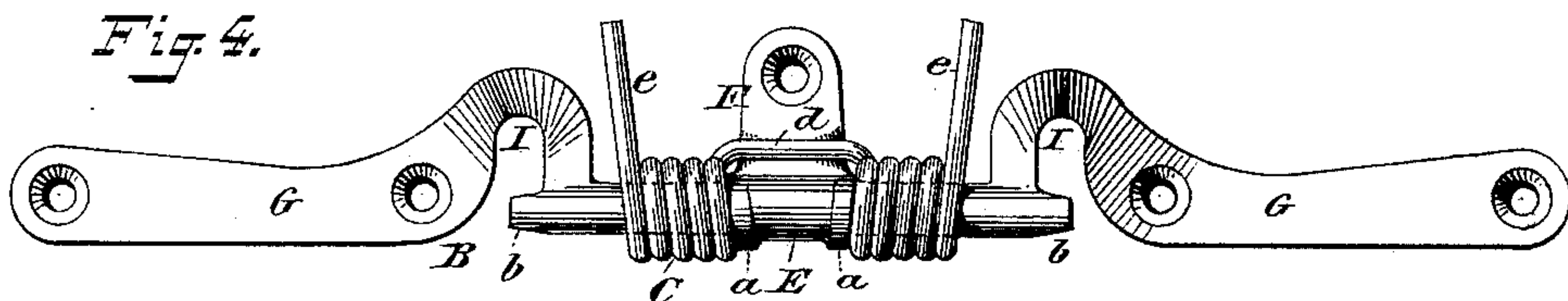
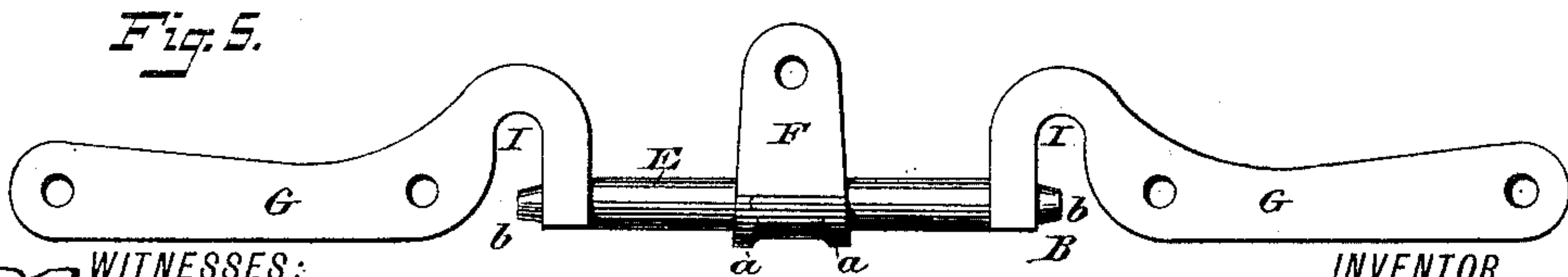


Fig. 5.



WITNESSES:

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WARREN K. CROFFORD, OF NEW YORK, N. Y., ASSIGNOR OF ONE-THIRD TO
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PAPER-CLIP FOR WRITING-TABLETS.

SPECIFICATION forming part of Letters Patent No. 410,580, dated September 10, 1889.

Application filed October 9, 1888. Serial No. 287,681. (No model.)

To all whom it may concern:

Be it known that I, WARREN K. CROFFORD, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Paper-Clips for Writing-Tablets, of which the following is a specification.

The invention relates to improvements in paper-clips for writing-tablets; and it consists in the combination of the pivotally-secured sheet-metal clip, having a spring-pressure against the paper, with a transverse bar of novel construction, said bar being adapted to be secured transversely across the upper end of the usual board and embodying in a single piece an elevated spindle to receive the spring and afford bearings for the clip, and lateral extensions projecting outward from but on a lower plane than the spindle, said extensions, together with a central lug, serving as means of attachment to the board and to prevent the board from warping while in use. The central spindle is provided with diverging shoulders passing partly around it at its central portion for the purpose of imparting the proper trend to the wire while the latter is being wrapped to form the spring, and the ends of said spindle are free to permit the opposite sides of the clip to be sprung upon them, the clip being thus instantly secured in place without the riveting and other expensive operations heretofore necessary in the manufacture of the class of goods to which the invention pertains.

The invention will be more fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of the upper portion of a writing-tablet with my invention shown in position holding a sheet of paper; Fig. 2, a vertical section of same on the dotted line Y Y of Fig. 1; Fig. 3, a like section of same on the dotted line X X of Fig. 1; Fig. 4, an enlarged detached top view of the transverse bar and spring; and Fig. 5, a like view of the lower side of said bar, the spring being omitted.

Referring to the drawings, A denotes the writing tablet or board; B, the transverse bar

secured by screws across the upper end of said board; C, the spring, and D the pivotally-secured sheet-metal clip.

The transverse bar B consists of the superimposed spindle E, having diverging shoulders *a a*, the central lug F, and lateral extensions G G, the lug and extensions having apertures to receive the screws, whereby the bar is secured to the board, and the whole constituting a single casting. The extremities of the spindle E form bearings *b b* for the clip, and are also above the board A, thus rendering it convenient to spring the opposite sides H of the sheet-metal clip D upon them. The extensions G G join the spindle E at its lower side and at points adjacent to but not at the ends, as shown in Figs. 4 and 5, and at these points the extensions form an outward turn, approximating a half-circle, as shown at I I, extending around (and leaving entirely free and unobstructed) the bearings *b b*, after which said extensions project laterally about on a line with but on a lower plane than the spindle. The central lug F unites with the spindle at its lower surface, and while aiding in the attachment of the transverse bar to the board also serves as a bearing for the central part *d* of the spring C, as illustrated more clearly in Fig. 4, and as a division between the two parts of said spring, the outer ends *e e* of which project upward in contact with the lower surface of the clip D, as shown in Figs. 2 and 3. The diverging shoulders *a a* are cast on the spindle E, and, as aforesaid, serve as guides in imparting the proper trend to the wire constituting the spring C while said wire is being wrapped upon the spindle. After the spring has been applied the transverse bar is secured to the board by screws, and the clip D then attached by springing its sides H upon the bearings *b b*, said sides being provided with apertures for this purpose, after which the article is ready for the market.

As above described, the extensions G G prevent the board from warping, and they also add strength and rigidity to the finished article and serve as a guide for the upper edge of the paper, enabling the user to quickly place the paper evenly upon the board.

The article constructed as above described

is simple, durable, and inexpensive, its parts may be conveniently and quickly assembled, and the drilling and riveting heretofore necessary are entirely avoided. The arrangement of the ends of the spindle E for bearings *b b* is very advantageous and materially cheapens the manufacture.

What I claim as my invention, and desire to secure by Letters Patent, is—

10 1. The superimposed spindle E, having the central lug F and diverging shoulders *a a*, and forming at its ends the bearings *b b*, combined with the spring C, clip D, and board A, substantially as and for the purposes set forth.

15 2. The transverse bar embodying the superimposed spindle, the central lug, and the ex-

tensions having turns I, passing around the extremities of said spindle, combined with the spring and clip, substantially as set forth.

3. The transverse bar embodying the superimposed spindle, extensions, and diverging shoulders *a a*, the ends of the spindle forming bearings *b b*, combined with the spring and the clip, the sides of the latter being sprung upon said bearings, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 8th day of October, A. D. 1888.

WARREN K. CROFFORD.

Witnesses:

CHAS. C. GILL,

R. A. PORTEOUS.