

J. S. VANHORN.

PAPER-CLIPS.

No. 176,762.

Patented May 2, 1876

Fig. 1.

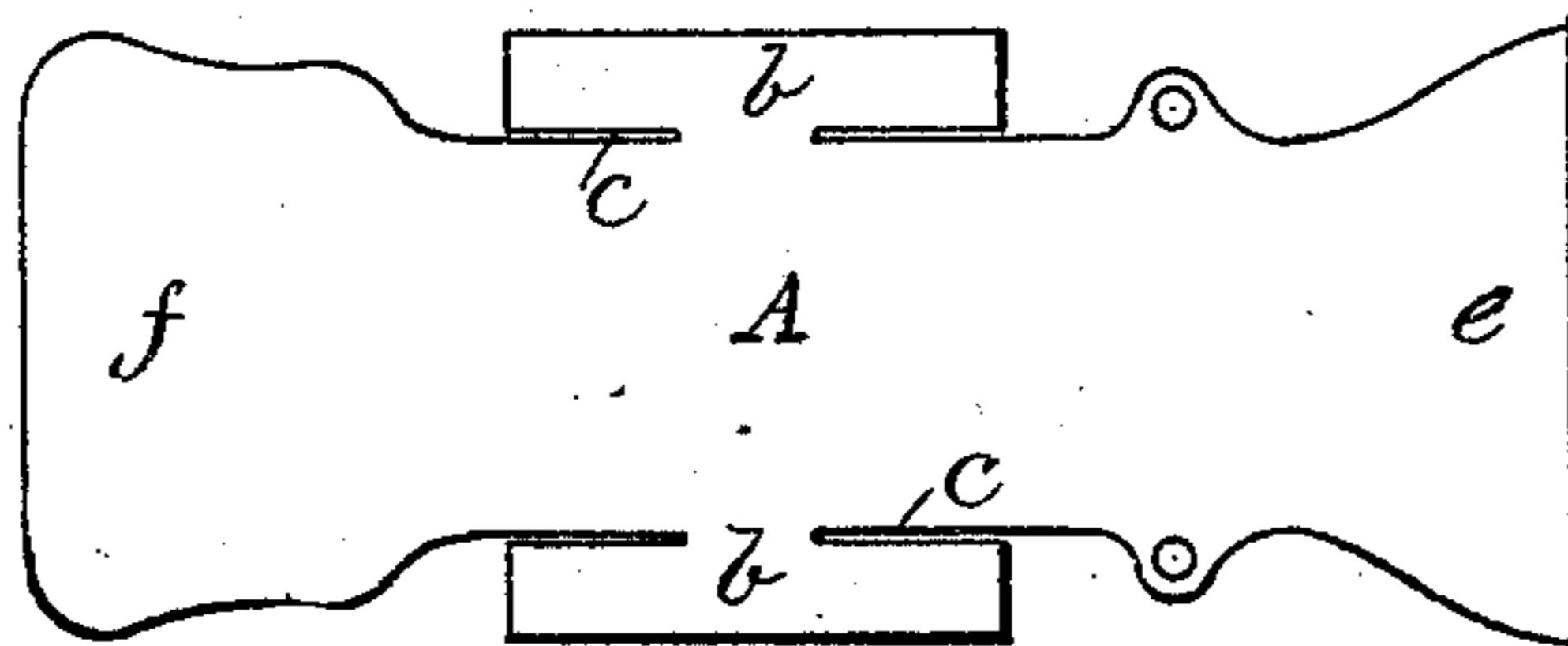


Fig. 2.



Fig. 3.

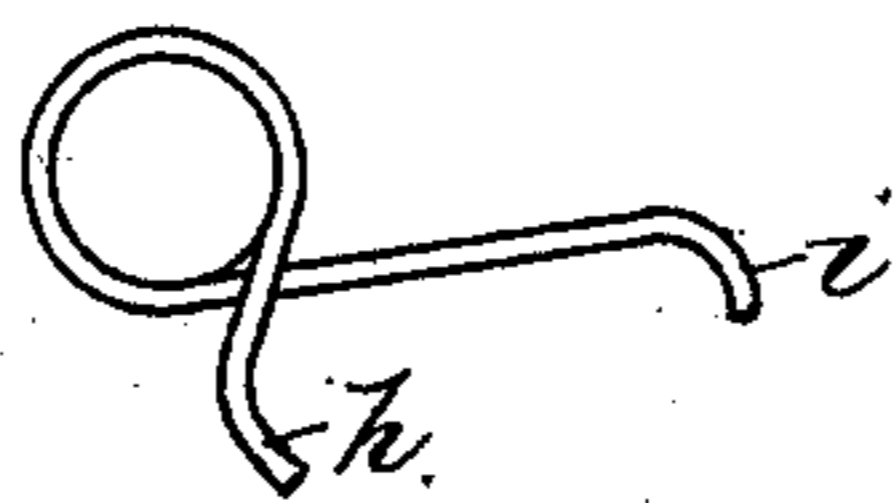


Fig. 4.

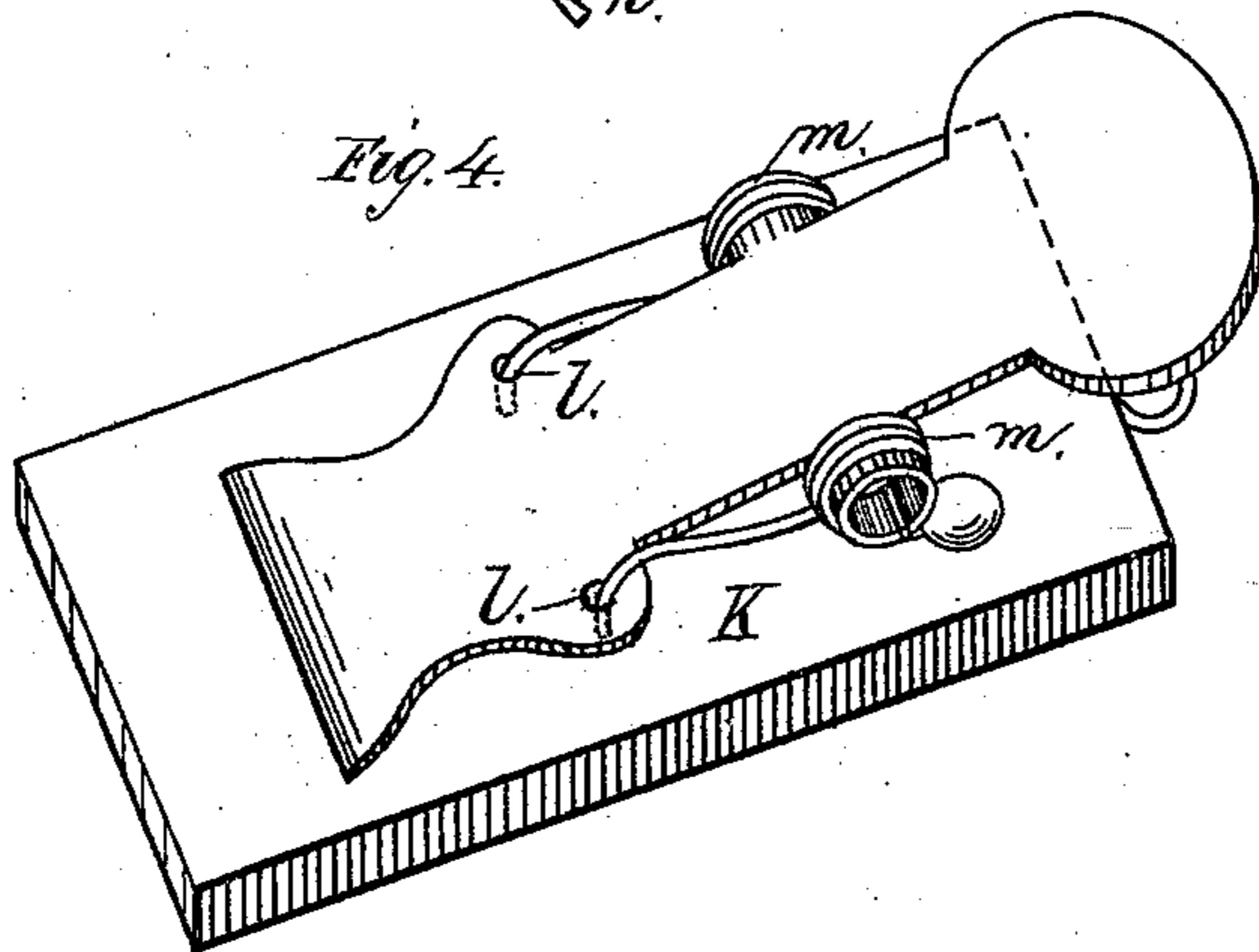
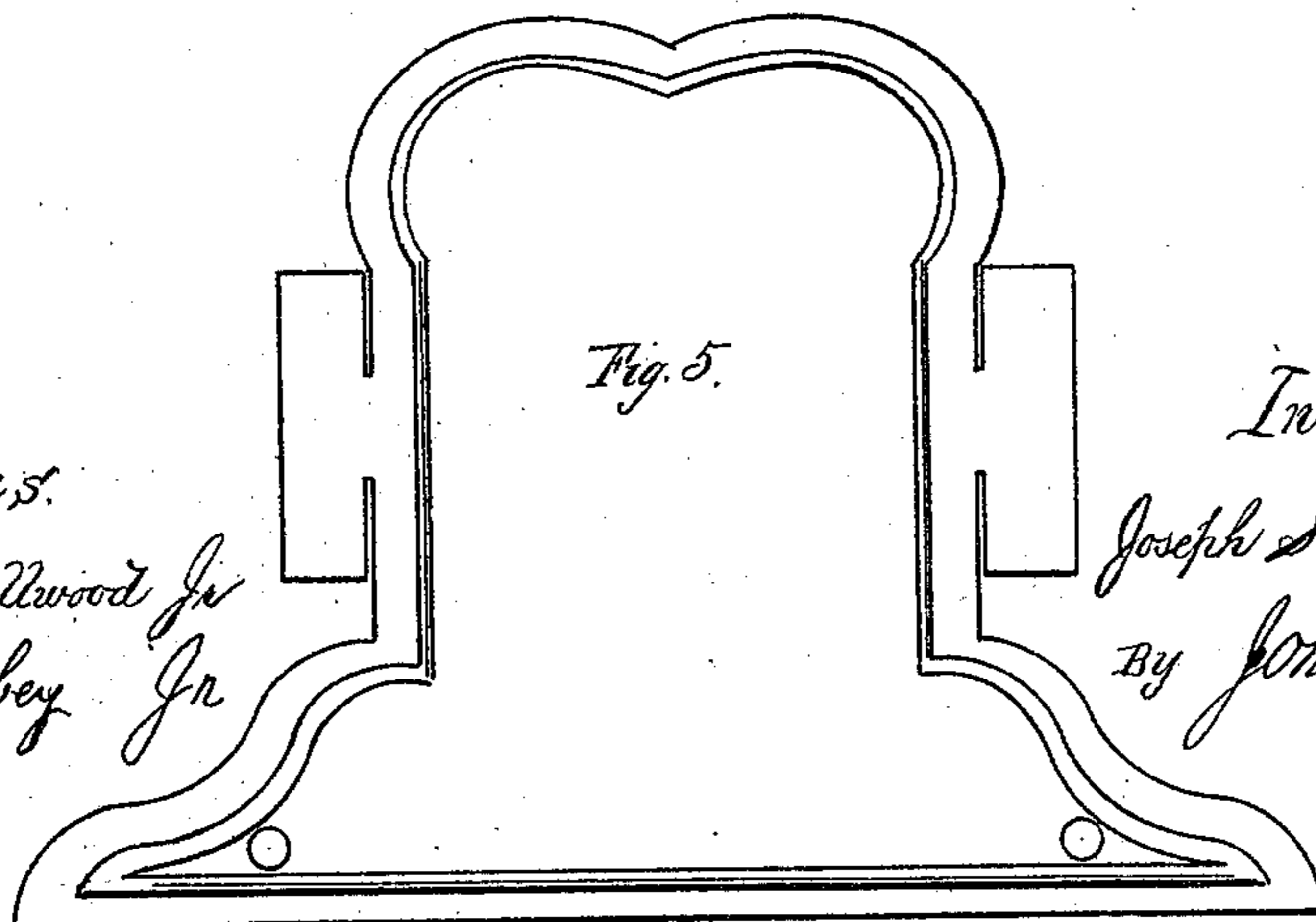


Fig. 5.



Witnesses:

Geo. T. Smallwood Jr
John Robey Jr

Inventor:

Joseph S. Vanhorn.
By John J. Halsted,
his Atty.

UNITED STATES PATENT OFFICE.

JOSEPH S. VANHORN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO WILLIAM H. WOGLOM, OF NEW YORK, N. Y.

IMPROVEMENT IN PAPER-CLIPS.

Specification forming part of Letters Patent No. 176,762, dated May 2, 1876; application filed December 22, 1875.

To all whom it may concern:

Be it known that I, JOSEPH S. VANHORN, of Jersey City, in the county of Hudson and State of New Jersey, have invented an Improved Paper-Clip; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention is an improvement on the clip patented to William H. Pack and myself June 22, 1875, No. 164,657. In that patent was shown a wooden lever secured to a separate wooden cylinder, which served as a journal, this journal being supported in the coils of a single-wire spring, which did the duty of the clip, the lever not acting as a clip, but merely serving as a lifter to release the spring from its direct pressure upon the papers.

In my present invention I dispense with the separate wooden journal and with the separate wooden lifter, and do not cause the spring itself to bear upon the papers, but, instead, I employ a single piece of metal, cut and bent or cast in a peculiar manner, as hereinafter stated, whereby it performs a treble duty—viz., that of a clip, that of a lifter, and also that of the journals which are to rock within the coils of the springs.

In the accompanying drawings, Figure 1 shows a blank, A, cut from sheet metal or equivalent material, having a general shape and size suitable for the character of clip required, and provided at each side, somewhere about midway of its length, with a projecting ear, wing, or flap, *b*, having a slit or slits, *c*, partially dividing it from the main body of the sheet, but still leaving each flap firmly connected thereto, as shown. These projections are then each bent or turned into a circular form, so as to become a strong hollow journal, as shown at *d* in the edge view of this plate in Fig. 2, the ends *e f* being also curved or bent as may be desired. The body of this sheet or plate, between these journals *d d*, may be rounded up, as shown at *g*, Fig. 2, so as to stiffen their points of connection with the main body of the metal. As the lever and its journals are all in one piece they not only can be economically made, but they are also very strong and durable, and there

is no possibility of their becoming relatively loosened or detached from each other.

Fig. 3 illustrates a form of coiled spring adapted for the above-described journaled lever, two of such springs being used, one for each journal *d*, one end, *h*, of each spring being adapted to be secured in the bed or base K of the complete clip, (see Fig. 4,) and the other end, *i*, adapted to enter a hole, *l*, in the forward end of the lever, the journals *d* of the lever having their bearings respectively in the coils *m* of these springs.

Fig. 4 shows the parts applied to the base K, all ready for use. When the lever is cast the journals *d* are cast integral therewith, and may be solid instead of hollow; but I prefer to make the lever of sheet metal.

When desired, an impaling-pin may be secured in the base K, the lever having an opening therein, through which the pin may project.

Fig. 5 shows a lever of different form, for a different style of clip, being made wider, to hold larger papers. With these, when it is desired to bind together the papers held in the clip, I use the pins above named, and also the Pack & Vanhorn tubular binders, patented November 23, 1875, No. 170,294.

It is evident that my clips may be of any desired form, or of any preferred metal, without departing from the spirit of my invention, and that the lever may be japanned, nickel-plated, silver-plated, &c., when preferred. The bed or base may be of any suitable material, but for general uses I prefer wood.

I claim—

1. A paper-clip lever, A, cut from sheet metal, and having ears or wings *b b* integral therewith, adapted to be bent into the form of hollow journals, substantially as shown and described.

2. In combination with a base, K, and with a clip-lever having two hollow journals integral therewith, the two spiral springs, serving as bearings for these journals, and serving also to connect this lever with the base or bed, and to force it down to hold the papers, all as set forth.

JOSEPH S. VANHORN.

Witnesses:

VIRGINIUS DE NYSE,
J. S. A. WITKE.