

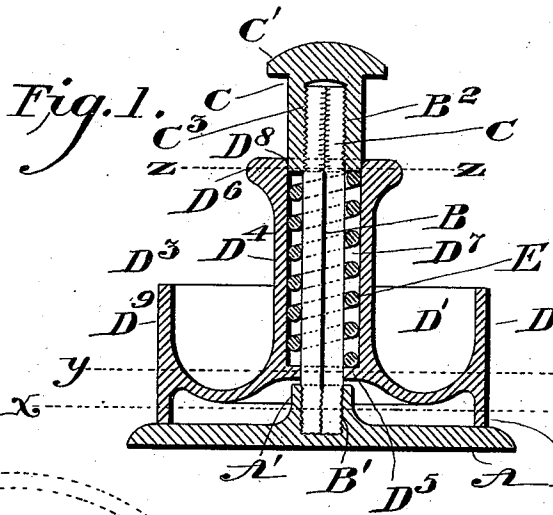
(No Model.)

I. W. HEYSINGER.

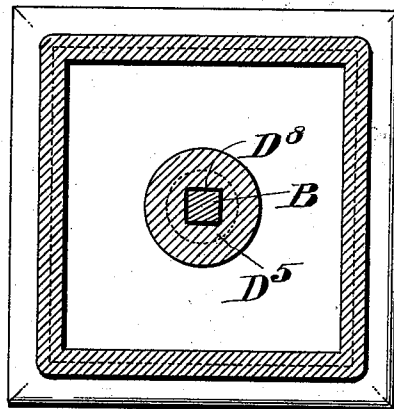
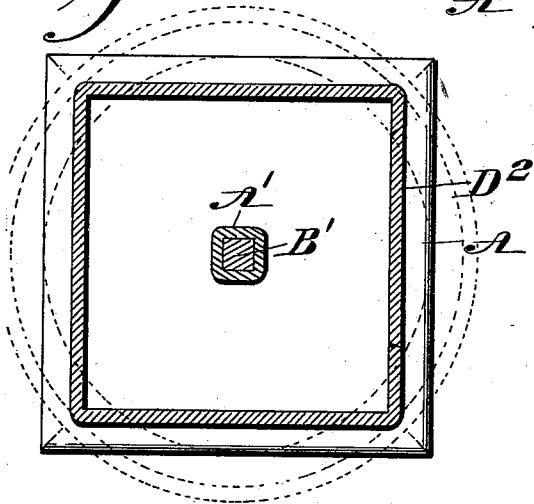
COMBINED PAPER WEIGHT AND CLAMPING DEVICE.

No. 506,232.

Patented Oct. 10, 1893.

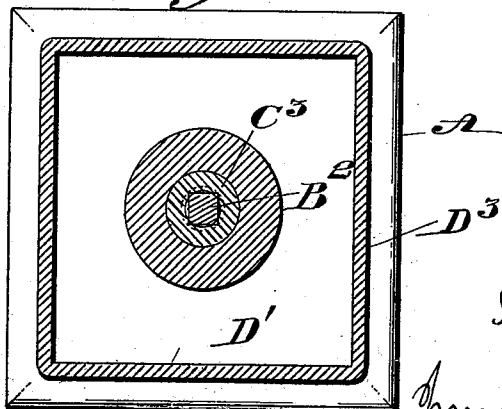


*Fig. 2.*



*Fig. 3.*

*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

ISAAC W. HEYSINGER, OF PHILADELPHIA, PENNSYLVANIA.

## COMBINED PAPER-WEIGHT AND CLAMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 506,232, dated October 10, 1893.

Application filed March 18, 1893. Serial No. 466,596. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC W. HEYSINGER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have made a certain new and useful Improvement in a Combined Paper-Weight and Clamping Device, of which the following is a full, clear, and exact description, reference being had to the drawings which accompany and form a part of this specification, in which—

Figure 1 is a vertical cross section through a paper weight and clamp embodying my invention. Fig. 2 is a cross section along the dotted line  $x-x$  of Fig. 1. Fig. 3 is a cross section along the dotted line  $y-y$  of Fig. 1. Fig. 4 is a cross section along the dotted line  $z-z$  of Fig. 1.

The lettering in all the figures is uniform. My invention relates to the construction of a paper weight or like device in combination with a spring clamping device adapted to hold or clamp loose sheets of paper or similar objects, and is an improvement upon the device for similar purposes described and claimed in Letters Patent of the United States, No. 172,963, dated February 1, 1876, and granted to Jacob Cain.

My present improvement consists of certain modifications designed to render the said device more useful in operation, and more effective in construction, which said modifications are as follows. It frequently occurred in the former device that the center post was not perfectly vertical, and in such cases the periphery of the clamping circle, if fitted to make proper contact with the base in one position, when partly rotated upon its center post, which was constantly liable to occur in use, would open upon one side, the adjustment being uneven of necessity in such cases. To obviate this difficulty I make the center post square or angular in cross section, and form the opening of the sliding cover, which embraces the center post, of a similar shape, so that the adjustment once made cannot be altered or impaired, as rotation of the cover upon the base is prevented. I have used pins for this purpose, vertical and outside the line of the center post, but these pins prevent the free entrance of papers up to the middle, and consequently im-

pair the utility of the device, more especially as the position of the pins cannot be seen from the outside, and the principal utility of the article over and above other clips is in the fact that papers may be inserted and clamped all around the circle of which the thumb-and-finger latch is the center. A second modification is in the method of constructing the tools. These are preferably made of white metal, a form of Britannia or the like, which are easily buffed to take a fine polish and receive a plated surface. But this metal is not rigid enough in practice to bear the shocks and jars to which the center post is subjected in use, and more especially because the center post must be relatively small in cross section to avoid infringement upon the clamping space for the reception of papers. Hence I form the device of a softer or more brittle white metal, so called, and form the center post of a rod of harder metal, such as wrought iron or steel, which, being roughened at the bottom, and screw-threaded at the upper end, is molded into the base within a suitable collar raised upon the flat surface of the base plate, which very slightly enlarges the area cut off from the clamping space, and also permits the use of a much smaller clamping post. The third modification I make is to provide the clamping cover, or cap, the lower margin of which clamps the papers against the base, with a cup-shaped annular depression around the center post and sleeve, in its upper portion, and opening upward, which forms a receptacle for pins, pens, or other like objects. This is very desirable when the device is used by tailors or garment cutters, for whose use it is well adapted, as the article, as a whole, serves as a weight to hold down the goods, and may be moved about at will, while the clamp holds the papers containing the measurements, and the hollow annular dish contains pins which are constantly used to mark the points of measurement or cut. A fourth modification is to make the base and the clamping cover square or angular in cross section, which I am enabled to do, when desired, by reason of rotation of one upon the other being prevented as shown, this shape enabling the papers to be presented squarely at each side.

Referring to the drawings, A is a flat base

plate, in the center of which is a raised part, A', and into this is inserted the center post, B, which is preferably cast into the base plate while the same is being molded, though it may be screwed in if desired. The center post, B, is roughened at the bottom, B', or it may be screw threaded to assist in holding it in place in the base, A. This center post is made square or angular in cross section, as shown in Figs. 2, 3, and 4, and its upper end is screw threaded, as shown at B<sup>2</sup>, to receive the internally screw-threaded head C, which holds the spring, E, in place, and upon which the thumb of the operator rests to operate the clamp, the first two fingers embracing the expanded neck, D<sup>4</sup>, beneath the expansion, D<sup>6</sup>. The clamping cover, D, may be square or circular in its periphery, D<sup>2</sup>, and at its center is provided with a sleeve, D<sup>4</sup>, having vertical opening, D<sup>7</sup>, extended through the same from end to end. Near the bottom however this sleeve is internally flanged, the flange having an opening, D<sup>8</sup>, Fig. 3, corresponding in shape to the cross section of the center post and fitted to reciprocate thereupon, as shown at D<sup>5</sup>, Fig. 1. This flange, D<sup>5</sup>, forms the lower seat of the coiled spring, E, which abuts above against the under surface of the head, C. The external surface of C is cylindrical to permit the sleeve, D<sup>4</sup>, to reciprocate thereupon, and is provided with an expanded head, C', to limit the upward motion of said cover, D. The clamping periphery of the cover, D, shown at D<sup>2</sup>, Fig. 1, is formed integral with the sleeve, D<sup>4</sup>, and when raised by the thumb and fingers compresses the coiled spring, E, and, when the fingers are removed the tension of the spring forces down the cover and closes the clamping jaw, D<sup>2</sup>, against the base A, entirely around the periphery. In the upper portion of the cover, surrounding the sleeve, D<sup>4</sup>, I form an annular depression or cup, D<sup>7</sup>, which forms a receptacle open above. This may be closed by a ring cover if desired, but I prefer to leave it open for use. The bottom of the cup I prefer to form with curved or rounded bottom to permit the contents to be more easily reached by the fingers of the operator. In forming the center post, B, square or angular in cross section, I may cut the screw threaded upper end, B<sup>2</sup>, down to a circular shoulder, but I prefer to merely cut the screw threads on the four corners, as shown in Fig. 4, whereby the same is not weakened, and less metal is required for the head, C<sup>3</sup>, which thus embraces and screws down upon the spring to a proper tension thereof. I usually make these center posts of square rods of steel or iron, cut to length and screw threaded, making them simple and cheap.

While I show the base and clamping periphery square in cross section, I do not restrict myself to this shape, as I may use them round, octagonal, or of other forms, but I show them square because by preventing rotation thereof upon the center post, I am en-

abled to make them square which would not be possible if the cover was free to rotate upon the base, as in that case the corners of one would present to the square sides of the other at random, and without control. In Fig. 3 I show a circular outline in dotted lines to indicate the form of such a periphery when used.

I do not rigidly confine myself to the precise construction shown in the drawings, but modify the same, as would be done by any skilled mechanic, without departing from the scope of my invention, as herein shown, described and claimed.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture a combined paper weight and clamping device consisting of flattened base, A, center post, B, square or angular in cross section, head C, secured to said center post, clamping cover, D, with clamping periphery, D<sup>2</sup>, vertically adjustable along said center post, B, and surrounding the same, hollow sleeve, D<sup>4</sup>, and spring, E, surrounding said center post, said spring having its upper support against under side of said head, C, and its lower support against internal flange, D<sup>5</sup>, of said cover, D, said flange having central angular or square opening, D<sup>8</sup>, fitted to embrace said angular or square center post, B, and adapted to prevent rotation of said clamping cap, D, upon said base, A, substantially as described.

2. As an article of manufacture, a combined paper weight and clamp, consisting of base, A, square or angular in cross section, and clamping cover corresponding in cross sectional shape thereto, and adapted to rest upon said base and clamp papers or the like between said cover and said base, center post, B, secured to said base, A, and extended vertically above the same, head, C, secured to top of said center post, central sleeve, D<sup>4</sup>, secured to said cover, D, and surrounding said center post, B, space D<sup>7</sup> surrounding said center post, spring, E, interposed under tension between head, C, and internal flange, D<sup>5</sup>, of said cover, D, enlarged upper end, D<sup>6</sup>, of said sleeve, D<sup>4</sup>, and means for preventing the rotation of said square or angular cover upon said square or angular base, substantially as described.

3. In a combined paper weight and clamp consisting of base, A, and center post, B, clamping cover, D, surrounding said center post, and having sleeve, D<sup>4</sup>, finger-hold, D<sup>6</sup>, clamping periphery, D<sup>2</sup>, and internal spring support, D<sup>5</sup>, the head, C, internally threaded at, C<sup>3</sup>, in combination with hard metal center post, B, threaded to engage within said head, C, and softer or more brittle base, A, said center post cast into said base, A, during the process of molding the same, substantially as described.

4. In a combined paper weight, and clamp substantially as described, having soft metal

base, A, and soft metal cover, D, the center-post, B, of hard metal cast at its lower roughened end, B', into expansion, A', of said soft metal base, A, during the process of molding said base, substantially as and for the purposes described.

5. In a combined paper weight and clamp, substantially as described, the soft metal base, A, having central rise or expansion, A', and hard metal center post, B, secured within said expansion, A', and said base, A, by fusion, during the process of molding said base, screw-threaded at the upper portion of said center post, in combination with head, C, and clamping cover, D, surrounding said center post, and vertically adjustable thereupon with reference to said base, together with spring, E, operating against a fixed part of said cover, and head, C, of said base, substantially as and for the purposes described.

6. In a combined paper weight and clamp, in combination with base, A, center-post, B, head, C, and spring, E, the upwardly open receptacle, D', surrounding said center-post, and having clamping margin, D<sup>2</sup>, adapted to engage with said base, A, when forced down by pressure of said spring, E, upon said clamping cover, D, substantially as described.

7. In combination with the flat base, A, center-post, B, and terminal head, C, the clamping cover, D, centrally perforated to recip-

rocate vertically upon said center-post, having clamping periphery, D<sup>2</sup>, and annular depression, D', forming a receptacle around said center post and in said cover, together with spring E, adapted to abut, under tension, against the upper side of some part of said cover, A, and the lower side of said head, C, and compress the said clamping periphery D<sup>2</sup>, against said base, A, said clamping cover, D, provided with means for raising the same by engagement of the fingers of the operator beneath some part of said cover, and the thumb of the operator upon the upper surface of said head, C, substantially as described.

8. In combination with flat base, A, square or angular in cross section, center post, B, square or angular in cross section, an annular receptacle, D', surrounding said center post, having central perforation similar in shape to cross-section of said center post and adapted to reciprocate thereupon, without permitting rotation of same upon said base, head, C, enlarged finger-hold, D<sup>6</sup>, interposed spring, E, and peripheral clamping margin of cover, A, similar in cross-sectional shape to said base, A, the whole constructed to operate substantially as described.

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Witnesses:

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