(No Model.)

T. W. G. COOK.

PAPER FILE.

No. 379,860. Patented Mar. 20, 1888.

Fig. 1.

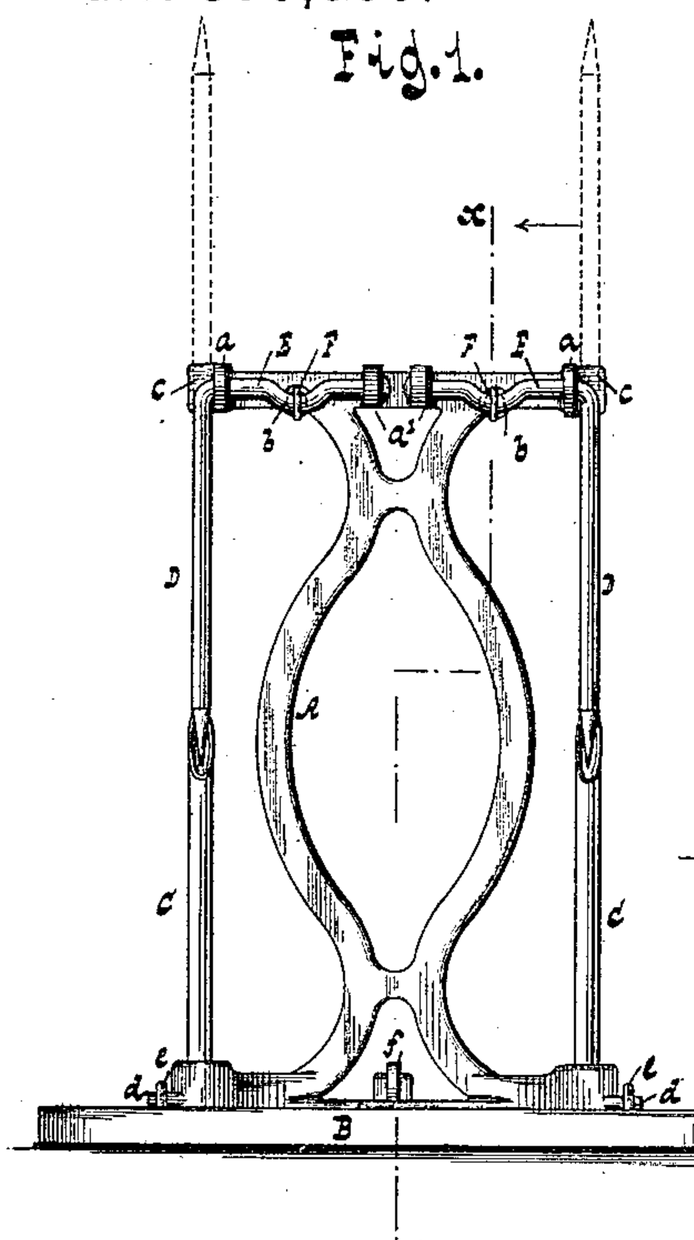


Fig. 2.

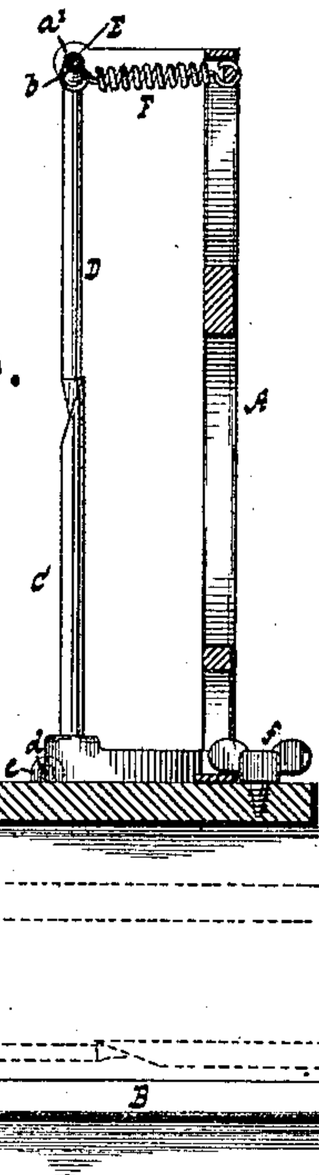


Fig. 3.

Fig. 4.

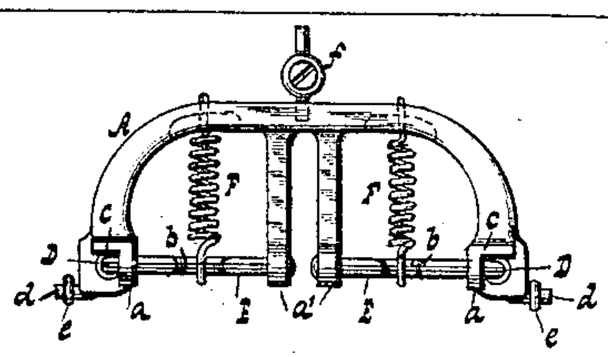
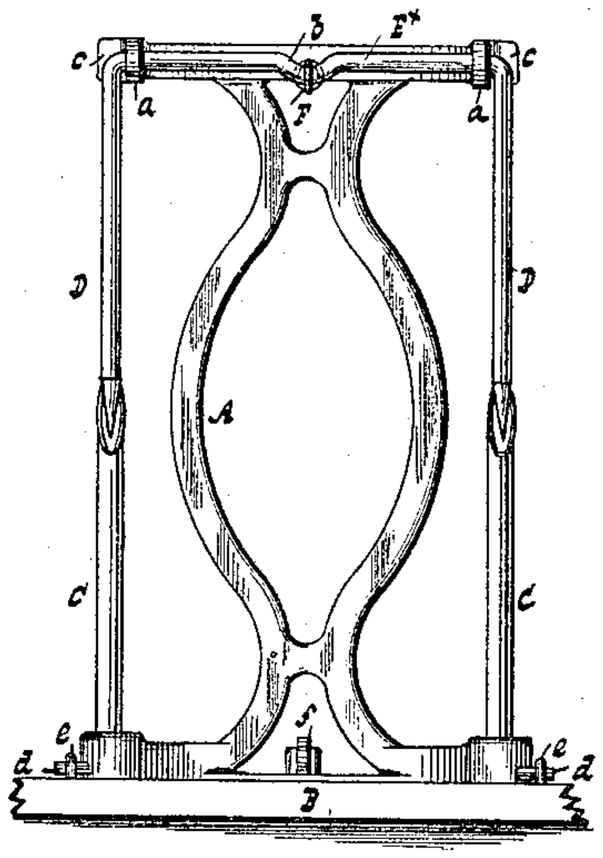


Fig. 5.



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PAPER-FILE.

SPECIFICATION forming part of Letters Patent No. 379,860, dated March 20, 1888.

Application filed November 25, 1887. Serial No. 256,129. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. G. COOK, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Paper-Files, of which the following is a specification.

This invention has for its object to provide novel and efficient paper-files in which the papers can be adjusted from filing-needles to transfer-needles; and the invention consists in the features of construction and combination of devices, hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 represents a front elevation of a paper-file embodying my invention. Fig. 2 is a sectional side elevation thereof. Fig. 3 is a vertical section in the plane *x x*, Fig. 1. Fig. 4 is a plan or top view. Fig. 5 is a front elevation of a modification.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the base, to which the upright standard or frame B of the file is attached. In the foot of the frame B are secured two parallel rectilinear filing-needles, C C, located at a suitable distance apart. Said filing-needles may be solid, or, as shown in the drawings, tubular in form.

D D are rectilinear transfer-needles, which are hinged to the head of the frame A in a vertical plane with the filing-needles C C. These transfer-needles are of such length that they can be brought into contact with the filing-needles. The terminals of all the needles are suitably shaped or pointed, so that a good joint is formed.

In the examples shown in Figs. 1 to 4, inclusive, the two transfer-needles are separate from each other, each of the same being separately hinged to the frame. Each needle, as here shown, is affixed to or formed integral with a horizontal rock-shaft, E, which can turn in bearings in suitable lugs, *a a'*, affixed to the frame A. In the rock-shaft is formed a crank, *b*, to which is attached one terminal of a spiral spring, F, its other terminal being affixed to the opposite portion of the frame B. The crank *b* is so arranged that when the transfer-needle is in contact with the filing-needle the spring F holds the former firmly against the latter, and when the transfer-needle is swung upward on its hinge and away from the filing-needle, as indicated by dotted lines in Figs. 1 and 2, the spring holds the said transfer-needle firmly against suitable stops, *c c*, arranged on the sides of the frame.

In Fig. 5 I have shown the two transfer-needles D D affixed to a common rock-shaft, E*, which can turn in suitable bearings, *a a*, on the frame. A crank, *b*, a spring, F, and stops *c c* are likewise provided. On inspection of the drawings it will be observed that when the rectilinear transfer-needles are in contact with the filing-needles they lie in one and the same straight line with the latter, and consequently the papers can be readily transferred from the filing-needles to the transfer-needles, while at the same time there is no danger of bending or distorting the latter, as is the case with the curved transfer-needles now in use.

In order that the file can be readily packed for shipment or stowed away when not in use, I hinge the frame B to the base A and provide a fastening device for holding the same rigidly in its upright position on the base while the file is in use. In the example shown in the drawings the foot of the frame B is provided at its forward end with small horizontal trunnions *d d*, which are engaged by staples *e e*, driven into the base. However, any other suitable hinge can be employed. To hold the frame in its upright position on the base, I make use of a button, *f*, which is secured to the base and can be turned to engage with the foot of the frame or to release the same, as desired. Any other of the many known devices of this kind can be applied here instead of the button *f*. When the button *f* is thrown out of engagement with the foot of the frame B, the same can be turned down upon the base A to occupy the position shown by dotted lines in Fig. 2.

Instead of arranging the filing and transfer needles in pairs or duplicates, it is evident that a file consisting of one filing-needle and one transfer-needle will answer substantially the same purposes; or only one pair of the duplicate file may be used.

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

1. The combination, with the upright frame having lugs *a*, of the fixed rectilinear filing-

needle and the rectilinear transfer-needle arranged in line with the filing-needle, and having its upper portion provided with a rock-shaft journaled and rotatable in the lugs on the upright frame, to permit the transfer-needle to swing outward from the upright frame, substantially as described.

2. The combination, with the upright frame having lugs *a*, of the fixed rectilinear filing-needle, the rectilinear transfer-needle having at its upper portion a rock-shaft journaled in said lugs and provided with a crank, *b*, and a spring, F, connected with the crank and the frame, substantially as described.

3. The combination, with a suitable frame, of the rectilinear filing-needles C C, fixed in the frame, the rock-shafts E E, springs F, attached to the same, stops *c c*, and the rectilinear needles D D on said rock-shafts, arranged in line with the filing-needles.

4. The combination of the base, the swinging upright frame hinged to the base to swing down thereupon, the stationary filing-needle fixed to the foot of the upright frame, the overhanging transfer-needle on the upper part of the upright frame, and a fastening device for securing the hinged frame when swung to its upright position, substantially as described.

5. The combination, with a suitable frame, of the rectilinear vertical filing-needles *c c*, fixed in the frame, and the rectilinear swinging transfer-needles D D, arranged in line with the filing-needles, and having their hinges located directly above and in the same vertical plane with the filing-needles, substantially as shown and described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

THOMAS W. G. COOK. [L. S.]

Witnesses:
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A. FABER DU FAUR, Jr.