

D. F. SMITH & D. L. SAWYER.

Paper-Clips.

No. 153,502.

Patented July 28, 1874.

Fig. 1.

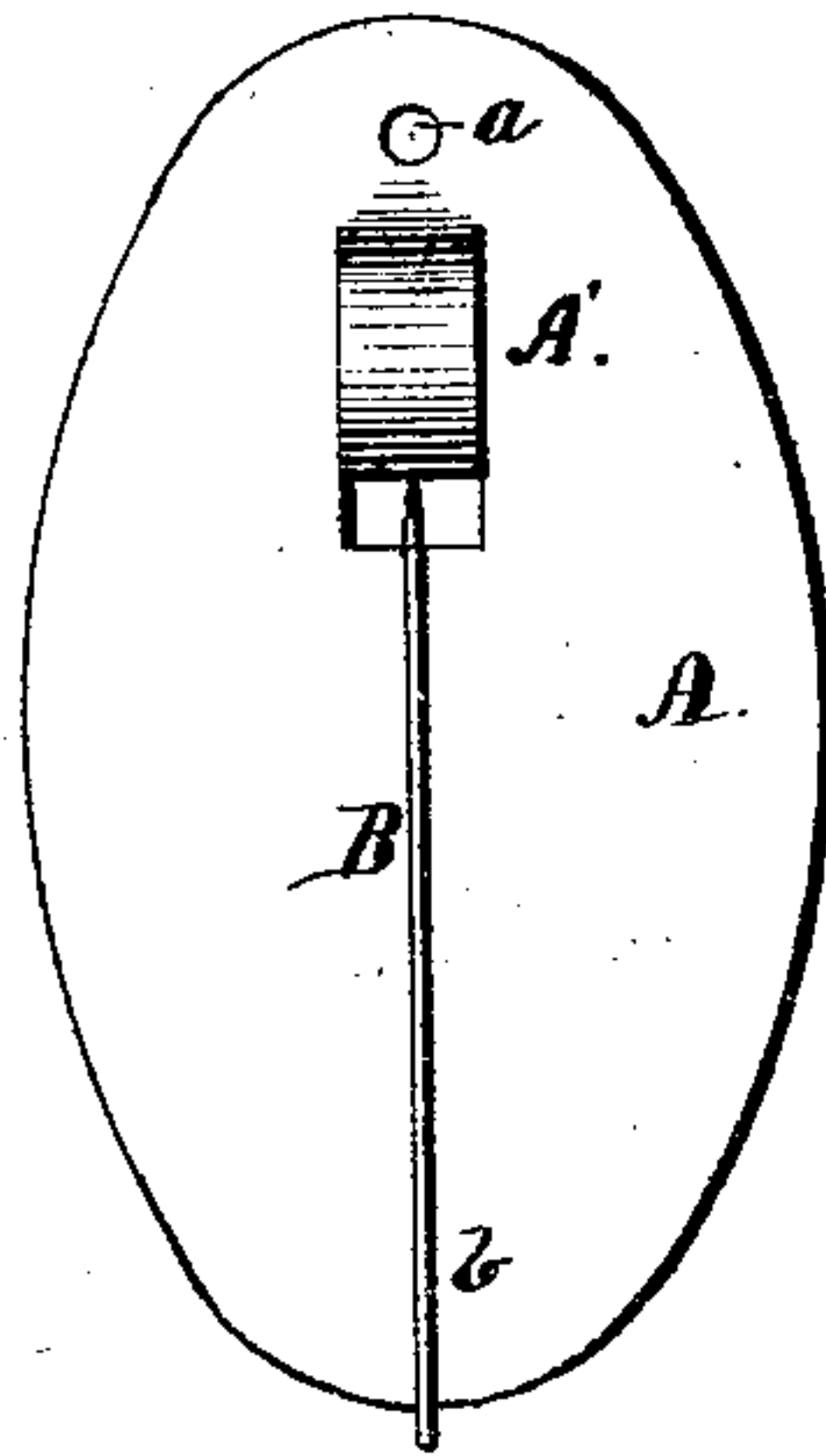
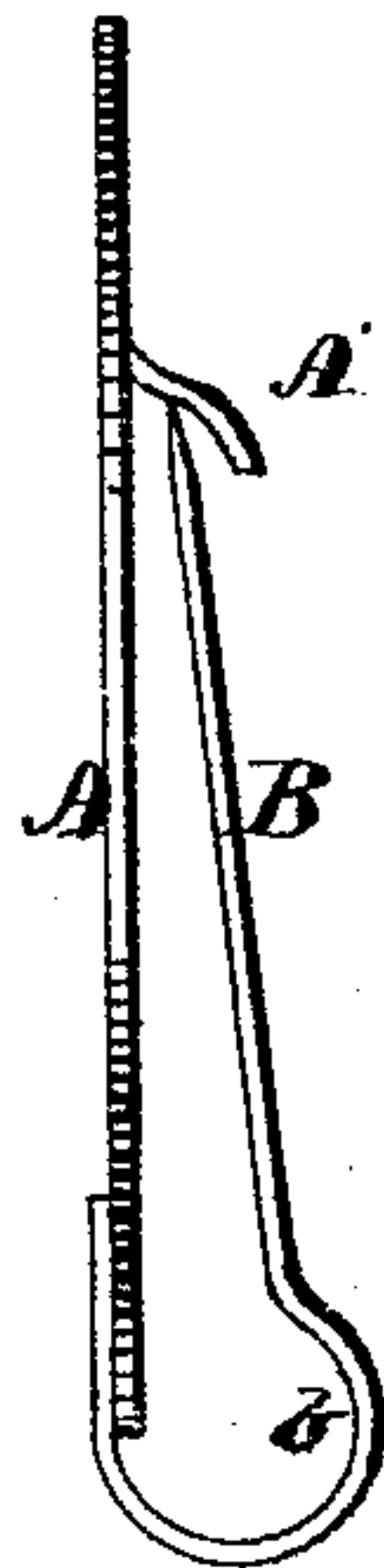


Fig. 2.



WITNESSES

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INVENTOR

UNITED STATES PATENT OFFICE.

DANIEL F. SMITH AND DANIEL L. SAWYER, OF HAVERHILL, MASSACHUSETTS, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO ANDREW F. STOWE, OF SAME PLACE.

IMPROVEMENT IN PAPER-CLIPS.

Specification forming part of Letters Patent No. **153,502**, dated July 28, 1874; application filed June 17, 1874.

To all whom it may concern:

Be it known that we, DANIEL F. SMITH and DANIEL L. SAWYER, both of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Paper-Files; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in paper-files; and consists in a peculiar construction of the lip that engages the hook, in relation to the hook itself, and also a peculiar shape given to the hook, whereby paper pushed up beneath the lip is, by drawing the said paper back along the same line, always strung upon the said hook as hereinafter set forth and claimed.

In the drawings, Figure 1 is a plan view of our invention. Fig. 2 is a side elevation of same.

A is a plate of any suitable material and of any desired design. A' is a lip formed near the top of the same to engage a hook, B, the said hook B being fastened to the plate A near its lower end, and a small hole *a*, or other suitable device, serves to hang the file in any desired position. The lip A', as will be seen, is short, broad, and the portion against which the point of the hook impinges makes a broad angle with the end of the said hook, so as to leave ample space beneath for the insertion of the paper to be filed. The hook B, as it projects from its fastenings to the plate A, is bent into a loop form, so as to throw the upper portion of the hook well back toward the plate A, in order that paper, as it is inserted beneath the lip A', may not bear against the hook beneath the point, and thus throw the point away from the lip A', so that it will not pierce the paper, and the swell or ring portion of the hook at the bottom shields the upper portion of the hook from such a pressure. The upper end of the hook is so curved that it bends outward from the plate A, so as to present its point abruptly against that portion of

the lip that makes the greatest angle with the plate A.

The device is designed to operate by putting the paper up under the lip A', and then drawing it back in the same direction; and as the point of the hook is the only portion of it adjacent to the lip A' that is pressed upon by the paper, and as it impinges squarely against the under surface of the lip at a broad angle thereto, the drawing out of the paper will wedge the latter firmly between the point of hook and the lip, and cause the hook to pierce through the paper and string the latter upon it. The breadth of the lip is so great that the hook will not be thrown from it while filing papers, and will only be disengaged when the hook is intentionally pressed aside to withdraw papers therefrom in case it is desired to remove them in a mass.

One of the important features of our invention, however, consists in the utility derived by the short lip and operation of our device, whereby the point of the hook B always remains beneath the lip A', and the papers are filed by slipping them up beneath the lip; the result being that the papers are necessarily caught close to edge and can be readily removed at any time, no matter where they may be in the file, by simply jerking it slightly, whereupon the small portion of paper between the hook and the edge of the paper will give way and release the paper.

In order to prevent the paper, when inserted beneath the lip, from curling back over the hook, and thereby enabling the hook to take too great a portion of paper between it and the edge of the paper, the lip is made of such a form as to present an acute angle above the hook at its junction with the plate A.

We are aware of the device patented to E. K. Godfrey, December 21, 1858, and lay no claim to the device there shown; but

What we claim, and desire to secure by Letters Patent, is—

1. The paper or bill file composed of the plate A and short broad lip A', forming an acute angle with the plate A at the point of juncture, formed with a considerably greater angle thereto at the point of contact with the hook,

and projecting outward some distance in front of the latter, in combination with the hook B, bulged forward at the base *b*, to form a guard, thence extending upward close to the plate A, and having its point bent outward, and impinging against the lip A' on its under side on that portion which makes the greatest angle with the plate A, substantially as and for the purpose set forth.

2. The combination, with the plate A and hook B, of the lip A', beneath which the paper is fed to the hook, the said lip made short and broad, and joined to the plate A just above the point of the hook, and at the juncture forming an acute angle with the said plate, whereby the hook is made to grasp the paper close to the edge thereof, substantially as and for the purposes set forth.

3. In a paper-file constructed to feed paper to the hook beneath a lip, A, the combination, with the plate A and lip A', of the hook B, formed with an abrupt forward bend at its base, and a forward-projecting point, whereby paper fed to the file is prevented from pressing against the hook between the point and the base thereof, substantially as and for the purpose set forth.

In testimony that we claim the foregoing, we have hereunto set our hands this 11th day of June, 1874.

DANIEL F. SMITH.
DANIEL L. SAWYER.

Witnesses:

WM. TAGGART,
ALBERT KIMBALL.