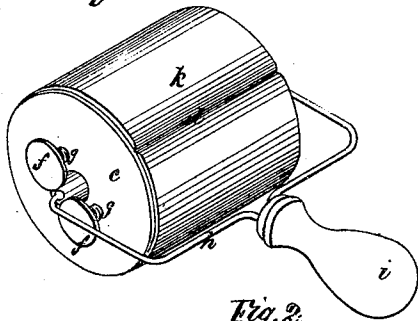


*Frost & Hayward,  
Blotter.*

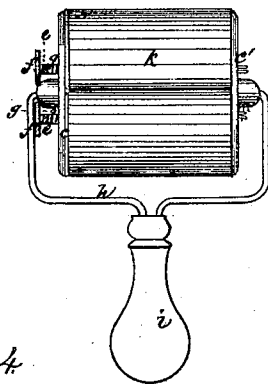
*No. 101,852.*

*Patented Apr. 12. 1870.*

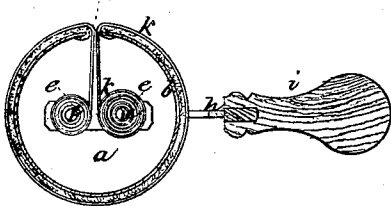
*Fig. 1.*



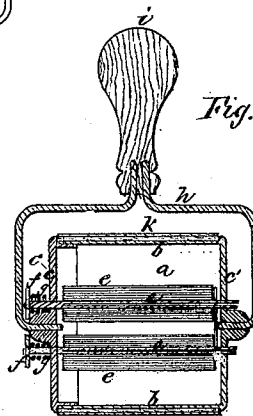
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



*Witnesses,  
E. S. Hawkins  
Edward Griffith*

*Inventors,  
Frost and Hayward  
by their Attorney  
Frederick Curtis.*

# United States Patent Office.

FREDERICK W. FROST AND STEPHEN L. HAYWARD, OF SOMERVILLE,  
MASSACHUSETTS.

Letters Patent No. 101,852, dated April 12, 1870.

## IMPROVEMENT IN ROTARY BLOTTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom these presents shall come:

Be it known that we, FREDERICK W. FROST and STEPHEN L. HAYWARD, of Somerville, in the county of Middlesex and State of Massachusetts, have made an invention of a new and useful Rotary Blotter; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawings making part of this specification, and in which—

Figure 1 is a perspective representation;

Figure 2, a plan;

Figure 3, a longitudinal; and

Figure 4, a transverse section of a rotary blotter embodying my invention or improvements.

The purpose of our invention is to produce a blotter which shall not only contain a large amount of ink-absorbing surface, but which shall permit such absorbing material, as it becomes soiled and unfit for use upon one side, to be stored within the core of the implement to be reversed at the proper time.

The invention consists in the employment of a continuous ribbon of absorbing-paper, with its two ends reversed respectively to two shafts extending longitudinally and in parallelism through a cylindrical box, the said ribbon being passed about the outer periphery of such box, and the whole being as hereinafter explained.

Referring to the drawings accompanying and making part of this specification—

*a* denotes a cylindrical box or drum, of which *b* is the shell, and *c* of the heads, a longitudinal slit or orifice, *d*, being cut in the periphery of said shell to permit of the passage of the blotting-ribbon, as hereinafter explained.

*e e* denote two shafts extending through both heads of the box in which they have their bearings, and, as a consequence, through the interior of the said box, these shafts being parallel to each other and to the axis of the box, and divided by a space equal to about one-third of the diameter of such box.

One end of each shaft upon one side of the box is provided with a milled head, *f*, by which they are easily rotated, a spiral spring, *g*, being interposed between such head *f* and the head of the box, and serving, by its expansion, to create sufficient friction upon the shaft to prevent too free delivery of the blotting-ribbon.

Each shaft *e* is split throughout nearly its entire length, such slits being for reception of the ends of the ribbon *k*, which are inserted within them, the contraction of such shaft and its grip upon the paper being insured by the passage of such shaft through the bearing in the end of the case.

The expansion of this spent journal of each shaft within its bearing also produces a friction, which adds to that produced by the coiled springs before mentioned, although either mode of producing friction may be made of sufficient power to effect the desired purpose alone.

The box *a* is to be provided with a bale, *h*, and handle, *i*, by means of which it is to be trundled over the paper or the writing to be blotted.

Furthermore, the periphery of the box *a* is to be covered with a pad of felt, or other suitable material, in order to produce a yielding foundation for the blotting-ribbon, and enable it to accommodate itself to the inequalities of the surfaces over which it travels.

In preparing the implement for use, one end of the blotting-ribbon is to be inserted through the slit *d*, and secured to one shaft, and the greater portion of said ribbon coiled thereabout, the remaining end being carried tightly about the periphery of the box *a*, thus producing an endless blotting-surface, and thence passed through the slit *d* and secured to the opposite shaft.

As fast as the exposed portion of the blotting-ribbon becomes impregnated with ink and defaced, the ribbon is to be uncoiled from about the shaft upon which it was originally deposited, and wound upon the opposite shaft until a fresh portion has replaced the first.

The renewal of the unstained portion of the blotting-ribbon may be continued until the entire portion has passed from the shaft upon which it was originally deposited and in turn coiled about the opposite shaft.

After the ribbon has passed to the second shaft it should be removed from the box *a*, reversed, and again applied as at first, to again go through the same service heretofore explained, and duplicate the functions of the implement.

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

A rotary blotter, composed of a cylindrical box or drum covered by a ribbon of blotting-paper or other absorbent material, the ends of which are carried within the drum and wound upon two longitudinal shafts arranged therein, so as to be rotated from the outside of the drum whenever it is desired to change the blotting-surface, substantially as shown and set forth.

F. W. FROST.

STEPHEN L. HAYWARD.

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EDWARD GRIFFITH.