J. A. BROWN.
Damping-Roller.

No. 207,160. Patented Aug. 20, 1878.

Fig. 1

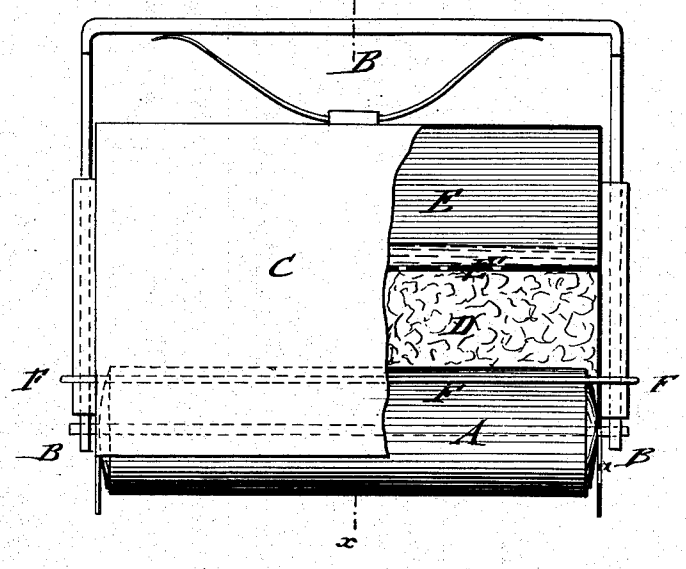
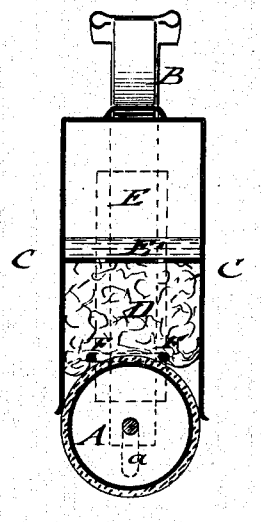


Fig. 2



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UNITED STATES PATENT OFFICE.

JOHN A. BROWN, OF TYLER, TEXAS.

IMPROVEMENT IN DAMPING-ROLLERS.

Specification forming part of Letters Patent No. **207,160**, dated August 20, 1878; application filed May 31, 1878.

To all whom it may concern:

Be it known that I, JOHN A. BROWN, of Tyler, in the county of Smith and State of Texas, have invented a new and Improved Copying-Roller, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a side elevation, partly broken off, to show interior construction; and Fig. 2 is a vertical transverse section of the same on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention is intended to furnish an improved copying-roller, for the purpose of moistening the leaves of letter-books to take impressions, so as to dispense with the hair-brush and other devices used at present, and admit the taking of a large number of impressions without requiring to dip into water as with a brush, so as to save thereby time and expedite the copying.

The invention consists of a roller of suitable material, having an exterior covering of suitable fabric, which roller revolves in the ends of a sliding and spring-acted frame, guided along the end walls of the box that contains a water-receptacle with perforated bottom or partition, and a sponge between the same and the roller to transmit the moisture to the latter. Guard-arms pass across the sponge, and prevent the pressure of the sponge on the roller.

Referring to the drawings, A represents a roller, that is made of tin, wood, rubber, or other suitable material, and covered by felting or other suitable fabric that absorbs the moisture, the roller being revolved in bearings at the ends of the sliding and spring-acted frame B, that is guided in a suitable manner along the side walls of a box, C.

The roller shaft or pivots slide in slots *a* in the side walls of the box C, so that thereby the roller may be thrown by the action of the spring of the frame B against a sponge, D, which is placed at the interior of the box, between the roller and a water-reservoir, E, at the upper part of box C.

The reservoir E communicates with the sponge by means of a perforated bottom or partition, E′, to supply the water therein to the sponge and then to the roller.

The spring-acted frame of the roller forces the latter into contact with the sponge when the roller is not used, while by pushing the frame forward for using the roller the same revolves perfectly free, without being obstructed by the sponge.

To prepare the roller for use, water is poured over the roller until the sponge is entirely full, and then the covering of the roller is brought in contact with the sponge, and turned once or twice, so as to make it thoroughly wet. The roller is then left in contact with the wet sponge, the box being turned up with the spring-frame next to the table, so that the surplus water may pass from the sponge into the receptacle, which water is again utilized by being conducted to the roller when the same is used.

A large number of letters may be copied without having to moisten it again, the moisture being sometimes sufficient to keep the roller wet for three or four days. When the roller begins to get dry, water is poured over it and the sponge, as before described.

Between the sponge and roller are arranged guard-wires F, that run from one end wall of the box to the other, for the purpose of preventing the sponge from expanding too much and impeding the easy working of the roller.

The roller has to be covered with one or more thicknesses of absorbent fabric, so as to work properly, it being readily applied to the leaf of the copying-book by applying the hands to the box and pressing the spring-frame end roller forward, and by passing then the roller over the leaf until the same is properly moistened.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a box containing a water-receptacle and sponge, separated from the receptacle by a perforated partition, with a revolving roller applied to a sliding and spring-acted frame, substantially as set forth.

2. The combination of a box having a water-receptacle and sponge and a revolving moistening-roller with guard-wires, placed in front of the sponge to prevent the sponge from impeding the free working of the roller, substantially as described.

JOHN ANDERSON BROWN.

Witnesses:

ELIJAH P. SMITH,
JOHN F. HADEN.