(No Model.)

J. B. SEYMOUR, Jr.

ROLL PAPER HOLDER AND CUTTER.

No. 451,623. Patented May 5, 1891.

Fig. 1.

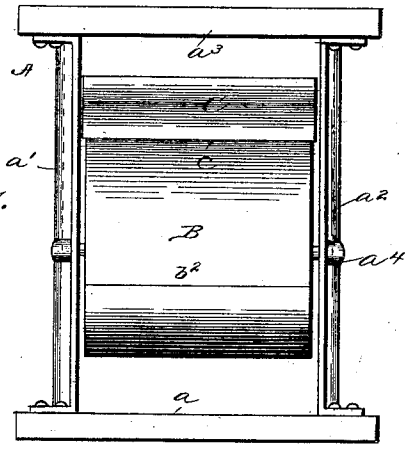


Fig. 2.

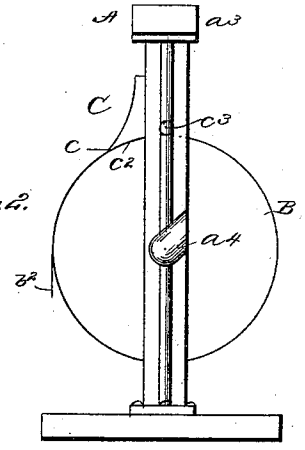


Fig. 3.

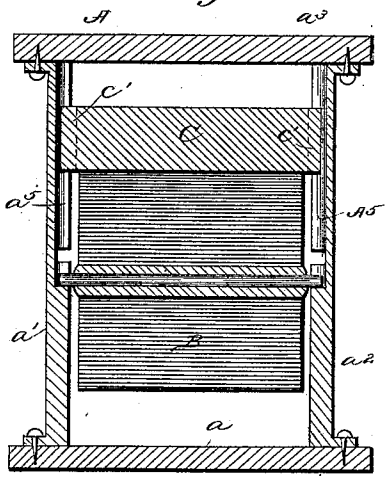


Fig. 4.

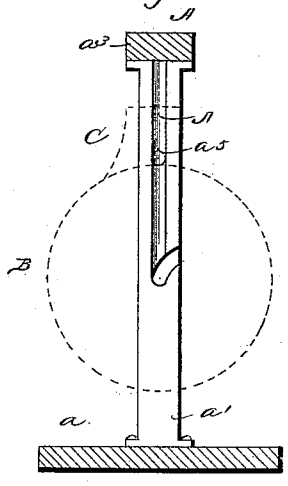
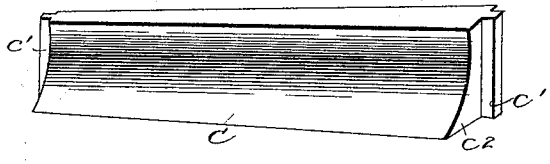


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN B. SEYMOUR, JR., OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN ROLL PAPER COMPANY, OF SAME PLACE.

ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 451,623, dated May 5, 1891.

Application filed March 22, 1888. Serial No. 268,174. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. SEYMOUR, Jr., of St. Louis, Missouri, have made a new and useful Improvement in Roll-Paper Holders and Cutters, of which the following is a full, clear, and exact description.

The novelty in the present instance consists in the construction and combination of the several parts, all as will be hereinafter more fully described, and as is represented in the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation of the improved device, a roll of paper being in position for use; Fig. 2, a side elevation of the same; Fig. 3, a central vertical transverse section of the parts of Fig. 2; Fig. 4, a vertical longitudinal section of the same, and Fig. 5 is a view in perspective of the improved knife.

The same letters of reference denote the same parts.

The frame A for holding the paper roll and "blade" or "knife" or "cutter," as the means for cutting the paper web may indifferently be termed, is of the usual form, saving as it is modified or supplemented by the improvement in question. As shown in the present instance, the frame is composed, essentially, of a base a, uprights a' a^2, and a top cross-piece a^3. The paper roll B is wound in the usual manner upon a roller b, whose journals b' b' are held and adapted to be rotated in the bearings a^4 a^4 in the uprights a' a^2.

C represents the improved knife. It is adapted to ride upon the roll, and preferably from a directly-overhead position, and so that its weight shall operate to keep the edge c of the knife always in position for the free end b^2 of the paper web to be drawn against it, and the weight of the knife is sufficient to keep it in place against any upward force tending to displace it, as the paper-web end is drawn against it in severing the web end from the roll. To this end the knife at its ends is provided with tenons or other form of projections c' c', which engage in slots or guides a^5 a^5 in the uprights a' a^2, and as the roll diminishes the knife slips downward in the slots or guides and its edge is always presented, so that the paper-web end can be drawn against it, and thereby be separated from the main part of the web.

A desirable form of the knife is shown in Fig. 5, it being in practice a casting of sufficient weight for the purpose described, as long or longer than the width of the paper web, having tenons c' c' to engage in the slots a^5 in the uprights a' a^2 and having its under surface c^2 concave. The tenons work sufficiently loosely in the slots to enable the knife to drop freely as the paper roll diminishes, and so that the edge of the knife throughout its length shall keep presented to the paper roll, so that the web end from either side thereof can be properly torn across the knife-edge.

I desire not to be restricted to a directly-overhead knife; but it should be one which drops by gravity against the paper roll. I desire, also, not to be confined to the special form of frame shown, nor to any particular form of guide for directing the downward movement of the knife; but I prefer the form shown.

In the case of large paper rolls it is desirable to provide the knife with a friction-roller, such as indicated in broken lines at c^3, Figs. 2 and 4, which, by coming in contact with the paper roll, enables the paper roll to be rotated under the knife with sufficient ease to prevent the web end from tearing when drawn out.

I do not claim, broadly, the frame having the vertical grooves in combination with a floating cutter-bar mounted in said grooves and provided with a lower concave face for bearing on the roll; but I limit myself to my precise construction.

I claim—

1. In a roll-paper holder and cutter, the combination of the frame A, having bearings for the roll and vertical guides for the knife, with a gravity-knife C, provided with tenons c c', which fit in the vertical guides, and a

friction-roller c^3, which bears on the roll, substantially as herein set forth.

2. In combination with a roll-paper holder and cutter, a gravity-knife having a concave lower face and an anti-friction roller journaled in the lower face, substantially as herein set forth.

Witness my hand this 19th day of March, 1888.

JOHN B. SEYMOUR, JR.

Witnesses:
C. D. MOODY,
JAS. W. ALLEN.