

(No Model.)

J. ZERR.  
ROLL PAPER HOLDER AND CUTTER.

No. 419,811.

Patented Jan. 21, 1890.

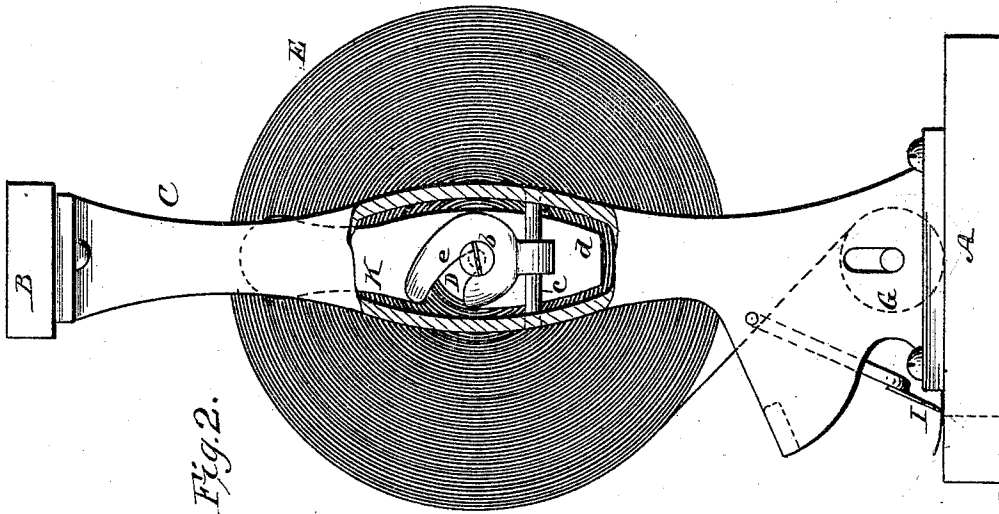


Fig. 2.

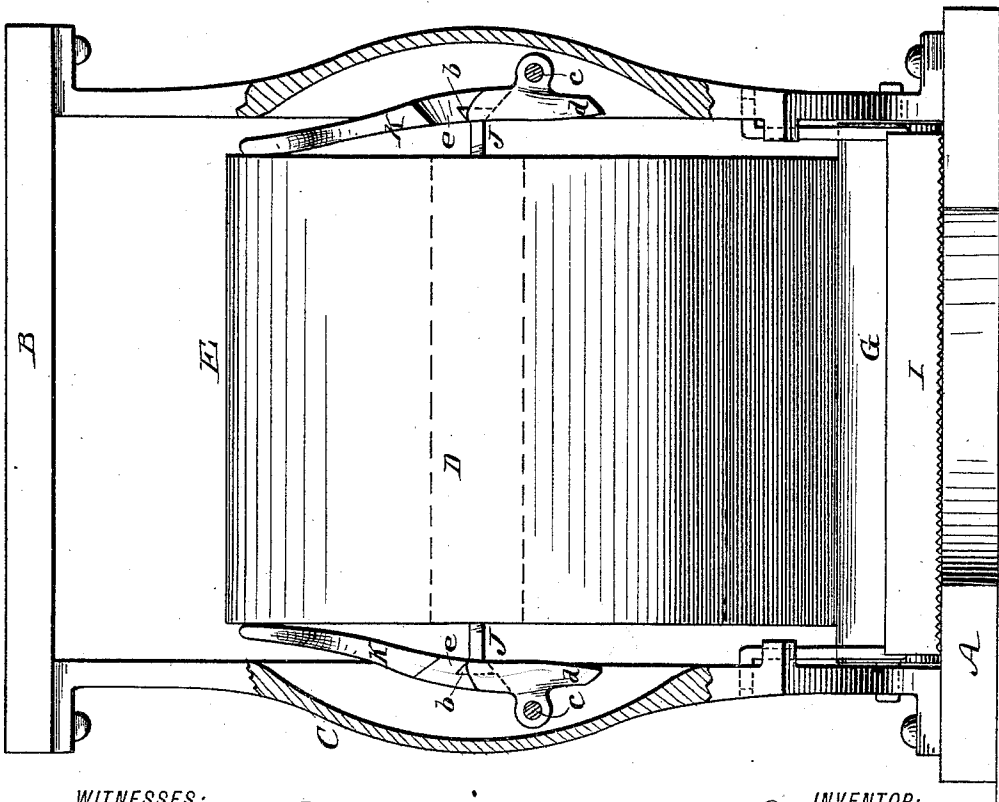


Fig. 1.

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN ZERR, OF QUINCY, ILLINOIS, ASSIGNOR TO THE UNITED STATES ROLL PAPER COMPANY, OF SAME PLACE.

## ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 419,811, dated January 21, 1890.

Application filed April 29, 1889. Serial No. 308,966. (No model.)

To all whom it may concern:

Be it known that I, JOHN ZERR, of Quincy, in the county of Adams and State of Illinois, have invented a new and useful Improvement in Roll-Paper Holders and Cutters, of which the following is a full, clear, and exact description.

This invention is designed as an improvement upon the roll-paper holder and cutter for which Letters Patent No. 393,956 were issued to me conjointly with Edward E. Hawkes as part assignee December 4, 1888.

The invention relates to the means used for supporting the roller upon which the roll of paper is carried and for producing the necessary tension upon the roll of paper to prevent the paper from being too freely unwound or running off more than is required when pulling on the free end of the paper; and the invention consists in certain novel devices for the purpose, substantially as hereinafter described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 represents a partly-broken front elevation of the roll-paper holder and cutter embodying my invention, and Fig. 2 is a partly-broken side view of the same.

A indicates the base of the roll-paper holder and cutter, and B its top united with the base by opposite side or end standards C C.

D is the roller which carries the roll of paper E.

G is the lower roller, beneath which the free end of the paper is carried to and beyond the cutter I.

The paper-carrying roller D is provided at its opposite ends with trunnions J, having conical or beveling heads *b* tapering inward. These trunnions I usually form of wood-screws, arranged to screw into the ends of the roller D.

K K are gravity tension levers or devices at opposite ends of the roll of paper, pivoted at or near their lower ends, as at *c c*, to and within the standards C C. These tension levers or devices, which occupy an upright po-

sition, bear by their upper arms by gravity against the ends of the roll of paper to produce tension thereon, and said arms are free to work inward and follow up the roll as it becomes diminished until the lower arms or extensions *d d* of said levers or devices act to stop it by coming in contact with the standards C C, or otherwise. Each of these gravity tension levers or devices K is constructed with a downwardly-inclining recess *e* open at its upper end, which forms a bearing for either trunnion or screw J of the paper-carrying roller D, and which permits of the ready entrance and removal of said roller and provides for the insertion of a new roll of paper when required. These bearings *e e* occupy a position in the levers or devices K K above the pivots *c c*. Said bearings *e e* are made tapering to conform to the conical heads *b* of the screws or trunnions J J, which take their bearing therein, the conical or tapering heads of the trunnions forming the running portions of the latter in the bearings *e e*. The weight of the roller D and the paper thereon is thrown upon these inclined bearing-surfaces, and the same will exert a tendency by the conical heads *b* of the trunnions in the inclined recesses *e* to increase the pressure of the gravity levers or devices K upon the roll of paper. In this way the tension is regulated by the weight of the roll of paper, and an automatic tension is produced dependent upon the weight of the roll, which an ordinary spring-tension does not produce, the tension in this improvement being strongest upon a full-sized roll of paper and gradually decreasing as the roll is reduced in size.

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

1. In roll-paper holders and cutters, the combination, with the roller on which the paper is reeled, and with the frame of the holder, of one or more pivoted gravity tension devices or levers arranged to bear upon the end or ends of the roll of paper, substantially as specified.

2. In roll-paper holders and cutters, the combination, with the frame of the device, and with the roller on which the paper is

reeled, having trunnions on its ends, of gravity tension levers or devices pivoted to said frame at opposite ends of the paper-roller, constructed to form bearings for the roller-trunnions and arranged to bear upon the ends of the roll of paper, essentially as herein set forth.

3. In a roll-paper holder and cutter, the combination, with the frame of the device, and with the roller D, which carries the roll of paper, of the conically-headed trunnions J J

on the ends of said roller and the gravity tension levers or devices K K, pivoted below to the frame, arranged to bear at their upper ends or portions upon the ends of the roll of paper and provided with tapering bearings *ee* for the conical heads of the trunnions to turn in, substantially as shown and described.

JOHN ZERR.

Witnesses:

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CHAS. A. GASKILL.