(No Model.)

K. O. ST. JOHN.

ROLL PAPER SERVICE MACHINE.

No. 384,877. Patented June 19, 1888.

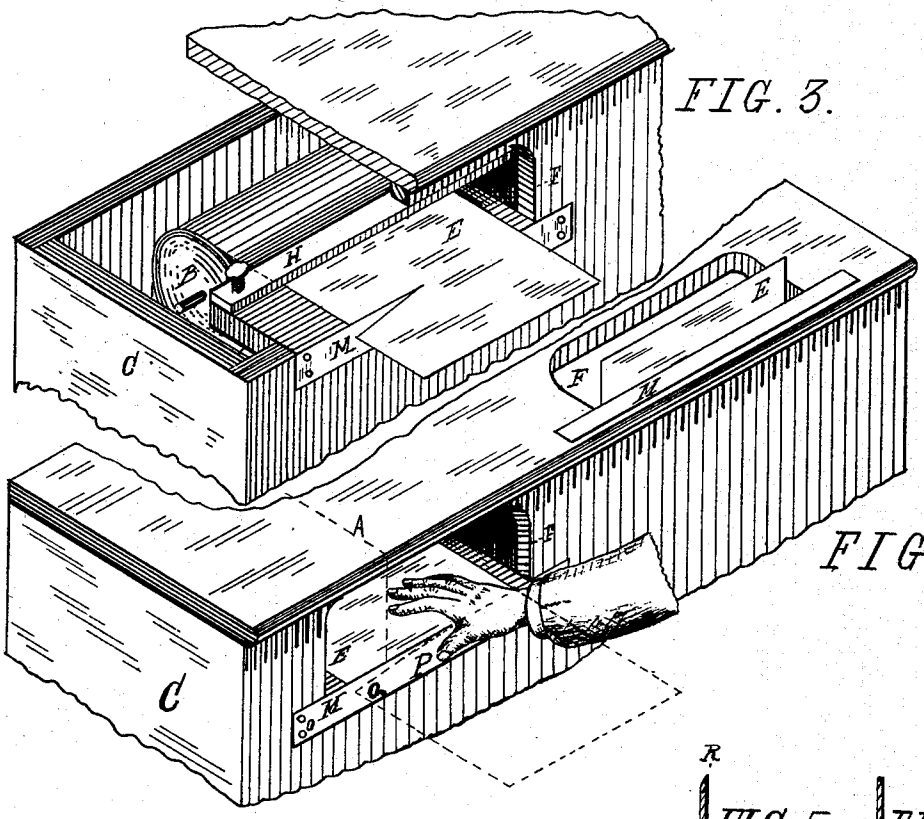

FIG. 3.

FIG. 4.

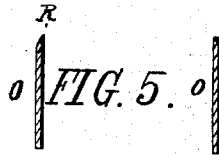

FIG. 5. FIG. 6.

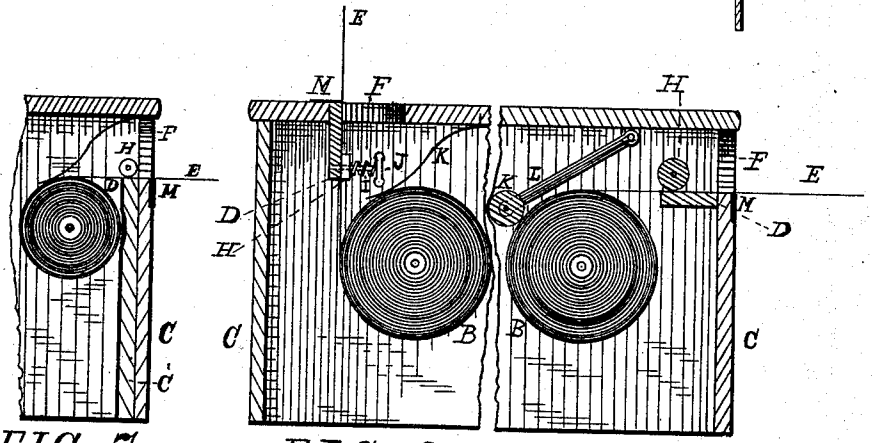

FIG. 7. FIG. 2. FIG. 1.

WITNESSES:

L. H. Colburn.

M. Friedlander.

INVENTOR:

King Otto St. John.

BY

H. J. Colburn.

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

KING OTTO ST. JOHN, OF TOLEDO, OHIO.

ROLL-PAPER-SERVICE MACHINE.

SPECIFICATION forming part of Letters Patent No. 384,877, dated June 19, 1888.

Application filed March 7, 1888. Serial No. 266,477. (No model.)

To all whom it may concern:

Be it known that I, KING OTTO ST. JOHN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Roll-Paper-Service Machines; and I 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 appertains to make and use the same.

My invention relates to improvements in roll-paper-service machines in which quantities of paper are stored in a convenient, compact, and readily-accessible manner for innumerable uses, but mainly for wrapping purposes.

My improvements relate especially to that class of paper-holders wherein the said paper is wound in the form of and stored in rolls; and the objects of my improvements are, first, to provide an apparatus which shall occupy the least amount of available room in stores, where such an apparatus is most commonly used. In such localities a convenient and generally unused space is found just beneath the ordinary common counter, and the construction of my apparatus is such that it may readily be placed in such a position, though not wholly confined to such an application, as will be hereinafter explained; second, to provide a holder in a compact form wherein the stored paper shall be confined without any part thereof protruding therefrom when not wanted for use, and from which said paper may in any quantities within the limit of its capacity be stored and drawn therefrom by the hand of the operator; third, to provide a tensional device in such an apparatus which shall operate to produce a uniform tension upon the paper while it is being drawn from the holder and severed. I attain these objects by the mechanism illustrated in the accompanying drawings, in which--

Figure 1 is a vertical section on line A, Fig. 4, showing weighted tensions. Fig. 2 is also a vertical section on line A, Fig. 4, showing spring-tensions. Fig. 3 is a perspective view of the entire apparatus, having a portion of its cover removed. Fig. 4 is a perspective view of the entire apparatus made with two paper-deliverers, one of which is located upon the side of the case and the other upon its top. Fig. 5 is an enlarged view of one form of severer M, shown in section. Fig. 6 is an enlarged view of a more preferable form of severer M, shown in section. Fig. 7 is a vertical section on line A, Fig. 4, showing how the bar D may be simply formed by thickening the case C on one side, as shown at C'.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings, B represents a roll wound with paper pivotally attached to the case C. At D is a bar made of wood or of any suitable material. In Fig. 1 this bar D is shown lying horizontally and its paper-contacting surface parallel with the direction in which the paper E is drawn from the roll B.

In Fig. 2 the bar D is shown lying in a vertical position, and also parallel with the vertical direction in which the paper E in this figure is drawn from the roll. Through the side of the case C in Fig. 1, and through the top of the case C in Fig. 2, is perforated a hand-hole, F.

At H in Fig. 1 is a roll, and at H in Fig. 2 is a bar with a spring, I, bearing thereon and held in position by means of a nutted bolt, J. These are analogous devices, and serve to hold the paper E in contact with and in position upon the bar D.

At K in Fig. 1 is a roll attached to the case C by means of a swinging arm, and at K in Fig. 2 is a spring attached at its upper extremity to the case C. These, also, are analogous devices, which, by pressing upon the roll of paper B at its periphery, without regard to its varying size, produces a uniform tension upon the paper E as it is being drawn from the said roll. The roll H and bar H aforesaid also perform a similar office, the said tensions being required to the extent of holding the part of the said paper which is within the said case against the force required to sever it from the part of said paper which is without the said case in use, as hereinafter explained.

At M is a severer attached in any convenient way to the case C, but preferably by means of screws O. This severer is preferably made of rectangular section, as shown in Fig. 6, and any one of its four angular corners may be employed as a severing-edge; but it may have an acute cutting-edge, as shown in Fig. 5 at R.

Fig. 4 is illustrated showing two hand-holes F, one through its side and one through its top, the use of which will be hereinafter fully explained.

The operation of this device is as follows: The roll B having been wound with paper, put in position, as shown, in the case C, the end E of the said paper is carried under the tension device K and supporting device H, which parts give the necessary tension and position to the paper upon the bar D. Now, with the fingers pressing upon the paper E and bar D, as shown in Fig. 4, the paper is drawn slightly outward, and by the same operation the said paper is lifted slightly upward, when the thumb P is passed under the edge of the said paper, which paper is then readily drawn from the case any desired length, when it is forced downward upon the severer M to the position shown by the dotted lines Q in Fig. 4, thus severing the protruding part of the said paper from the main body of the roll-sheet, the tension devices K and H serving to exert the necessary tension upon the paper which is within the case to resist the severing force thus applied to that part of the paper which is without the case.

The object of delineating the two hand-holes in Fig. 4 is to illustrate two convenient and desirable applications of this improvement to a common store-counter, either or both of which applications may be adopted, according with the desire or convenience of the user.

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

1. The case C, having a hand-hole, with the bar D and its tensional device K substantially adjacent thereto, and the severer M, in combination with a roll upon which paper is wound, and means adapted to act upon a varying scroll to produce a uniform tension upon said paper as it is being unwound, in the usual manner, from the said roll, substantially as shown and described.

2. The case C, having a hand-hole and a severer substantially adjacent thereto, in combination with a roll upon which paper is wound, and means adapted to act upon a varying scroll to produce a uniform tension upon said paper as it is being unwound, in the usual manner, from the said roll, substantially as shown and described.

3. The case C, having a hand-hole, with a bar, D, and its tensional device K substantially adjacent thereto, and the severer M, in combination with a roll upon which paper is wound, substantially as shown and described.

4. A paper-serving device having a hand-hole and a severer substantially adjacent thereto, in combination with means for giving necessary tension to the said paper, whereby the said paper is adapted to be clutched by the hand of the operator through the said hand-hole and severed on a line substantially flush with the hand-entering side of said device, substantially as shown and described.

5. A paper-serving device consisting of a roll upon which a scroll of paper is wound, and a tensional device, such as shown, adapted to operate upon said scroll to produce a uniform tension upon said paper as it is being unwound from the said roll, in combination with a severer, substantially as shown and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

KING OTTO ST. JOHN.

Witnesses:

EDWARD H. RHOADES,

HARRY HAYNES.