(No Model.)

D. J. ETLY.

PAPER REEL AND PRINTER.

No. 569,096. Patented Oct. 6, 1896.

Fig. 1.

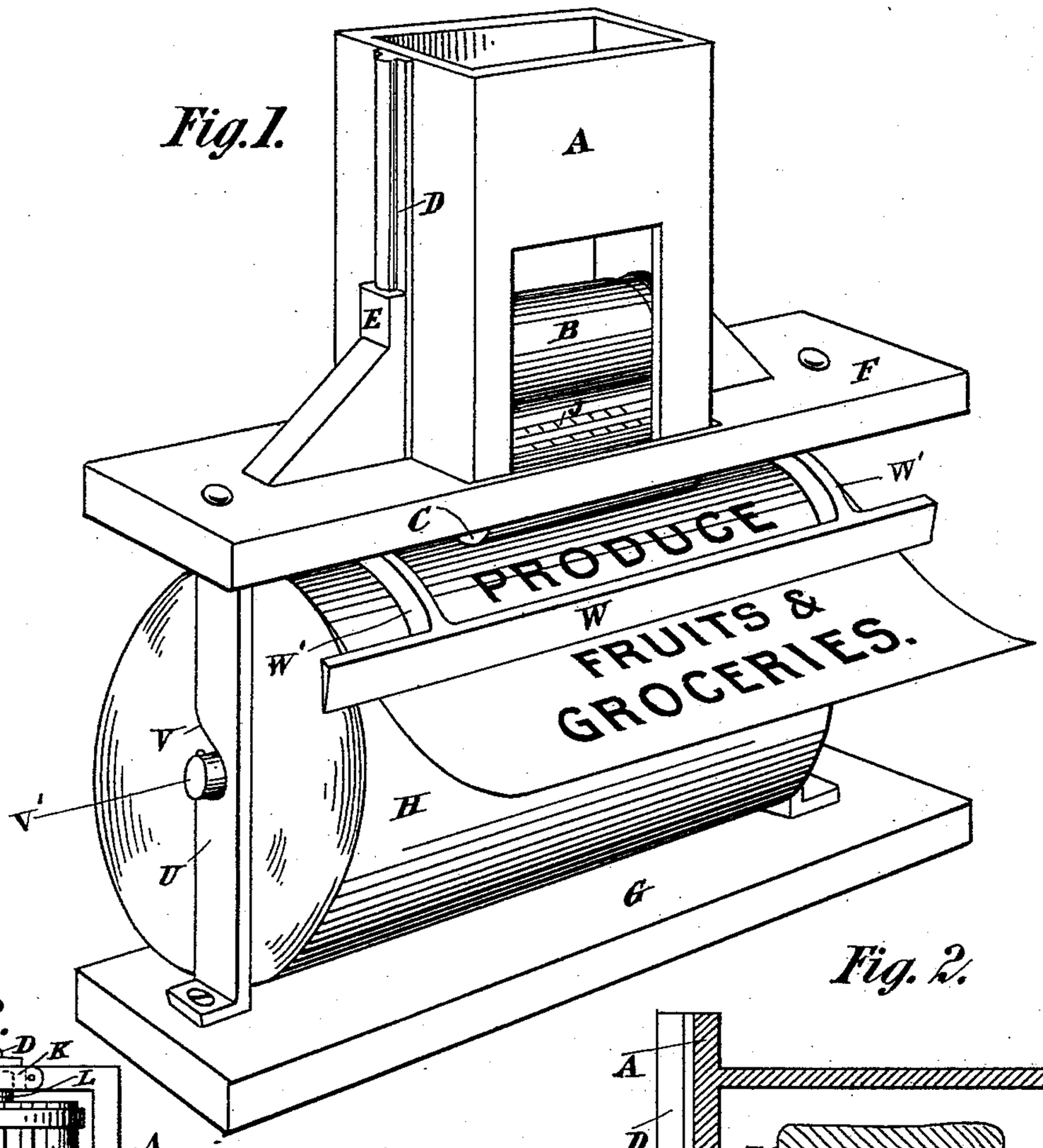


Fig. 2.

Fig. 3.

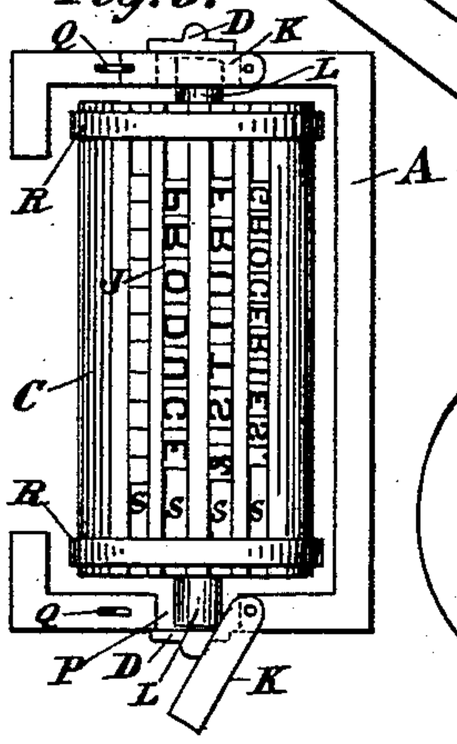
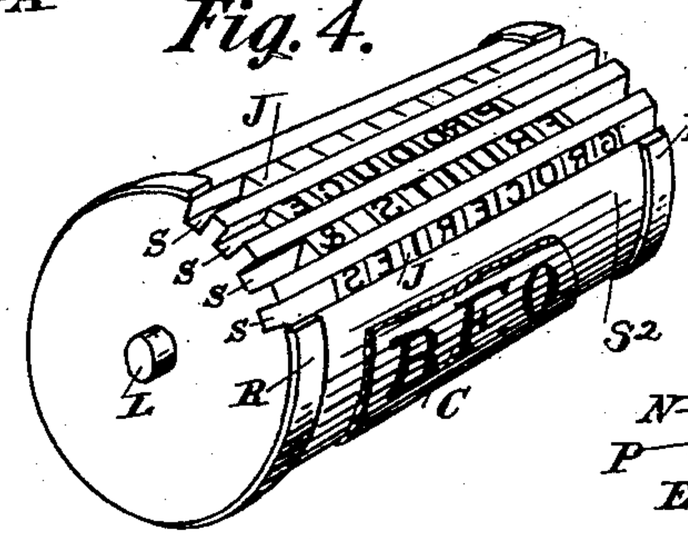
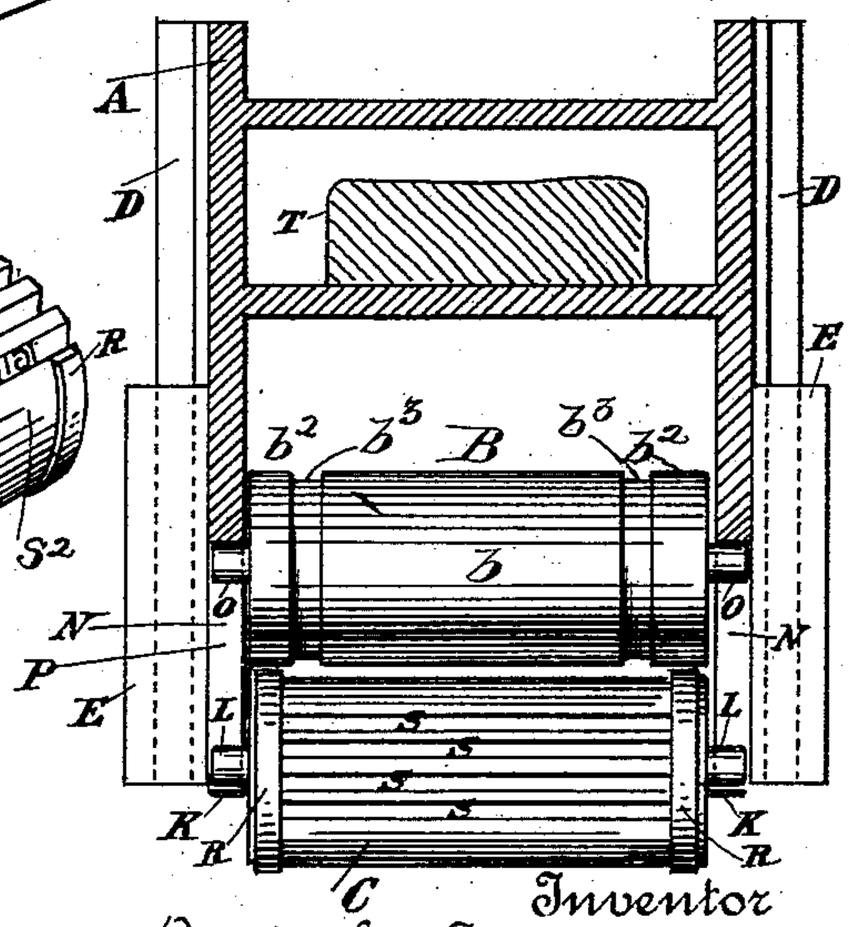


Fig. 4.





Witnesses
Edwin Cruse.
Addison J. DeBerg

Inventor
David J. Etly
By Attorney
C. J. Stoltman

UNITED STATES PATENT OFFICE.

DAVID J. ETLY, OF LOUISVILLE, KENTUCKY.

PAPER REEL AND PRINTER.

SPECIFICATION forming part of Letters Patent No. 569,096, dated October 6, 1896.

Application filed January 2, 1896. Serial No. 574,062. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. ETLY, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Paper Reels and Printers; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has relation to that class of printing devices for imprinting an advertisement on a sheet of wrapping-paper as the latter is withdrawn from its roll for use; and it consists in certain novel features in the construction thereof, substantially as hereinafter described, and particularly pointed out in the subjoined claim.

The main object of my invention is to produce a most simple, cheap, and durable printing device which may be applied to wrapping-paper reels of any length.

This object is accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a paper roll provided with my improved printing attachments. Fig. 2 is a sectional view of the printing attachment. Fig. 3 is an inverted plan view of the latter, and Fig. 4 is a perspective view of the printing-roller.

The same letters of reference designate the same parts in the several figures.

The paper-reel proper shown in the accompanying drawings is, in the main, of usual construction and embodies a base G, a top F, connecting-standards U, formed with notches V, serving as bearings for the journals of the cylinder V′, upon which the roll of paper H is wound, and the cutting-bar W, having a sharpened under edge and formed with integral arms W′, which are located near the center thereof and are journaled in bearings secured to the under side of the top board F.

The printing attachment embodies a box A, within slotted openings in the ends of the sides of which are journaled an inking-roller B and a printing-roller C, the latter projecting below the lower end of the box into contact with the roll H of the wrapping-paper and bearing on the latter with sufficient pressure to revolve therewith and imprint thereon, when the operator is unrolling the paper for use, in the well-known way. The rolls are held at the bottom by the pivoted bars K, crossing the open ends of the slots. The box A must move downward as the paper is unwound and bear with an operative pressure on the roll H, and to make this operation certain a compartment is formed in the box above the rolls, and within this compartment is placed a suitable weight T.

The printing-roll C is formed with a series of longitudinal grooves S, which preferably extend throughout a part only of the circumference of the roll, leaving a solid portion S^2. Within these grooves are placed the separate type J forming an advertisement, which may be quickly changed whenever desired, and upon the solid part S are placed the permanent type. These permanent type may form the name and address of the advertiser, while the changeable part may relate to the matter advertised. At the ends of the printing-rolls are bands R, which project beyond the surface thereof and bear upon the roll of paper. These bands operate to partially relieve the type of the downward pressure of the printing apparatus, and they are preferably of elastic material, so as to yield to permit an even impression of all the type.

It is desirable, though not absolutely essential, that the elastic bands be kept free from ink, so that their life will not be shortened and that they will be prevented from imprinting upon the paper. To this end the pad encircling the inking-roller is made in three sections b, b', and b^2, of which the middle one only receives ink and the other two contact the bands and are kept free from ink by being separated from the inked section, as shown at b^3 b^3.

The sides of the box A are provided with tongues D, which extend from the top to the bottom thereof and engage grooves formed in uprights E, erected upon the top board F of the paper-roll frame, whereby the box is guided in its downward movement as the

paper is unwound and may be instantaneously lifted out of its engagement with the frame of the paper-reel whenever desired.

In adapting any of the common forms of paper-reels to this printing attachment it is only necessary to cut an opening in the top board F thereof which will accommodate the box A and permit the same to move downward therein, and thus it will be seen that the attachment may be applied to paper rolls of any length whatever, thereby obviating the necessity of constructing the printing and inking rollers of the length of the upper roll with which it is to be used.

I do not claim, broadly, herein the paper-holder frame with the aperture in its top plate, together with the vertically-movable box carrying the printing means and projecting through said aperture, and any suitable form of guides supported by the top plate of the frame, as such a claim is embodied in my pending application, Serial No. 564,098, filed September 30, 1895.

Having thus described my invention, what I claim is—

The combination with a paper-roll frame having an aperture in its top plate, of grooved guides supported on said plate at opposite sides of the aperture, a vertically-movable box projecting through said aperture and having tongues received by said grooves in the guides, and inking and printing rollers carried by said box, substantially as described.

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

DAVID J. ETLY.

Witnesses:
C. J. STOCKMAN,
RHESA G. DUBOIS.