N. KEELY.

ROLLS FOR PAPER-BARREL MACHINES.

No. 195,218. Patented Sept. 18, 1877.

FIG 1

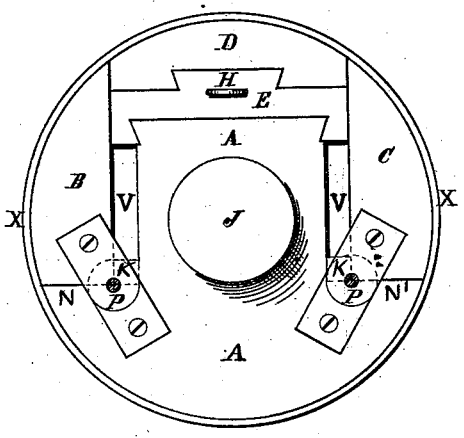


FIG II

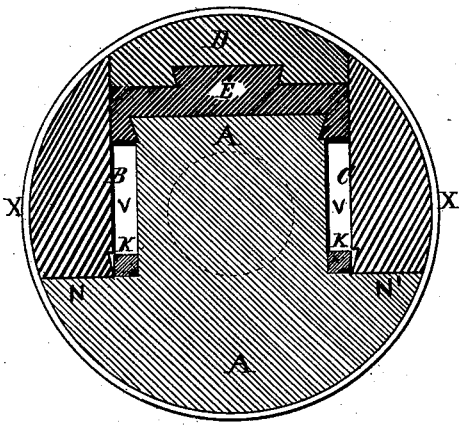
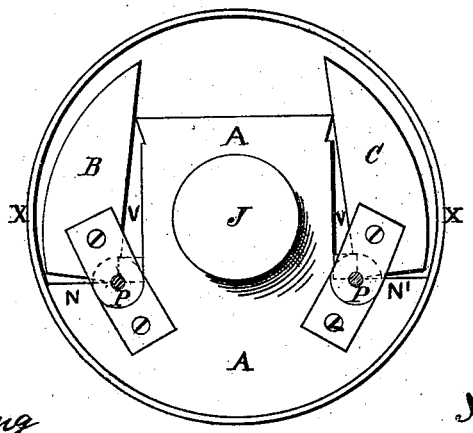


FIG III



WITNESSES.

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IMPROVEMENT IN ROLLS FOR PAPER-BARREL MACHINES.

Specification forming part of Letters Patent No. **195,218**, dated September 18, 1877; application filed November 28, 1876.

To all whom it may concern:

Be it known that I, NICE KEELY, of the city of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Rolls for Paper-Barrel Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to collapsible or contracting rolls, to be used on machines for making cylindrical paper boxes or shells for kegs, barrels, &c., similar to those described in Letters Patent issued to me April 20, 1875, and numbered 162,237, and is an improvement on the "former" roll described in my Letters Patent numbered 169,107, and bearing date October 26, 1875, whereby the operation of collapsing the roll, in order to remove the paper tube or shell previously formed thereon, is greatly facilitated.

Figure I of the annexed drawings shows an end view of my improved roll with its component parts in place. Fig. II is a transverse section thereof, and Fig. III represents the same collapsed preparatory to the removal of the cylindrical shell X.

It is made up of four distinct longitudinal parts or sections, A, B, C, and D. V V are slots or openings through the entire length of the roll. They serve to lighten it up, and are also necessary in order to permit of the movement of B and C, as hereinafter described. Sections B and C are hinged or pivoted, at P, at each end of the roll, to part A. Their bases are fitted nicely to rest upon the faces N N′, respectively, of the latter, so that, as will clearly appear by reference to the drawings, they can only be swung or thrown in toward the center of the roll, in the position shown in Fig. III. Section D is keyed to A by means of the key E, which dovetails into both said sections and holds them together. J is the shaft or journal of the roll.

In order to collapse or diminish the size of the latter, it is merely requisite to draw out the key by means of the hook or eye H fixed therein. Section D may then be extracted, and the parts B and C turned in, as represented in Fig. III. The hollow paper cylinder or shell X may then be readily slipped over the roll.

K, Fig. II, is a separate piece, or it may be an offset of A, of square cross-section, running the length of the roll, against which rests the inner edge of parts B and C, respectively. Its office is to serve as an abutment to take the strain, and to preserve the rigidity of B and C when the heavy pressure of the usual upper or calender roll is received thereon.

I claim as my invention—

1. A collapsible roll constructed with hinged sections B and C, in combination with offsets K, substantially as and for the purpose shown and described.

2. The combination of sections B and C, pivoted on A, section D, and dovetail key E, substantially as hereinbefore set forth.

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Witnesses:

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