No. 819,709. PATENTED MAY 8, 1906.

H. BARNARD.

MACHINE FOR PRINTING ROLLER WRAPPING PAPER.

APPLICATION FILED JUNE 1, 1905.

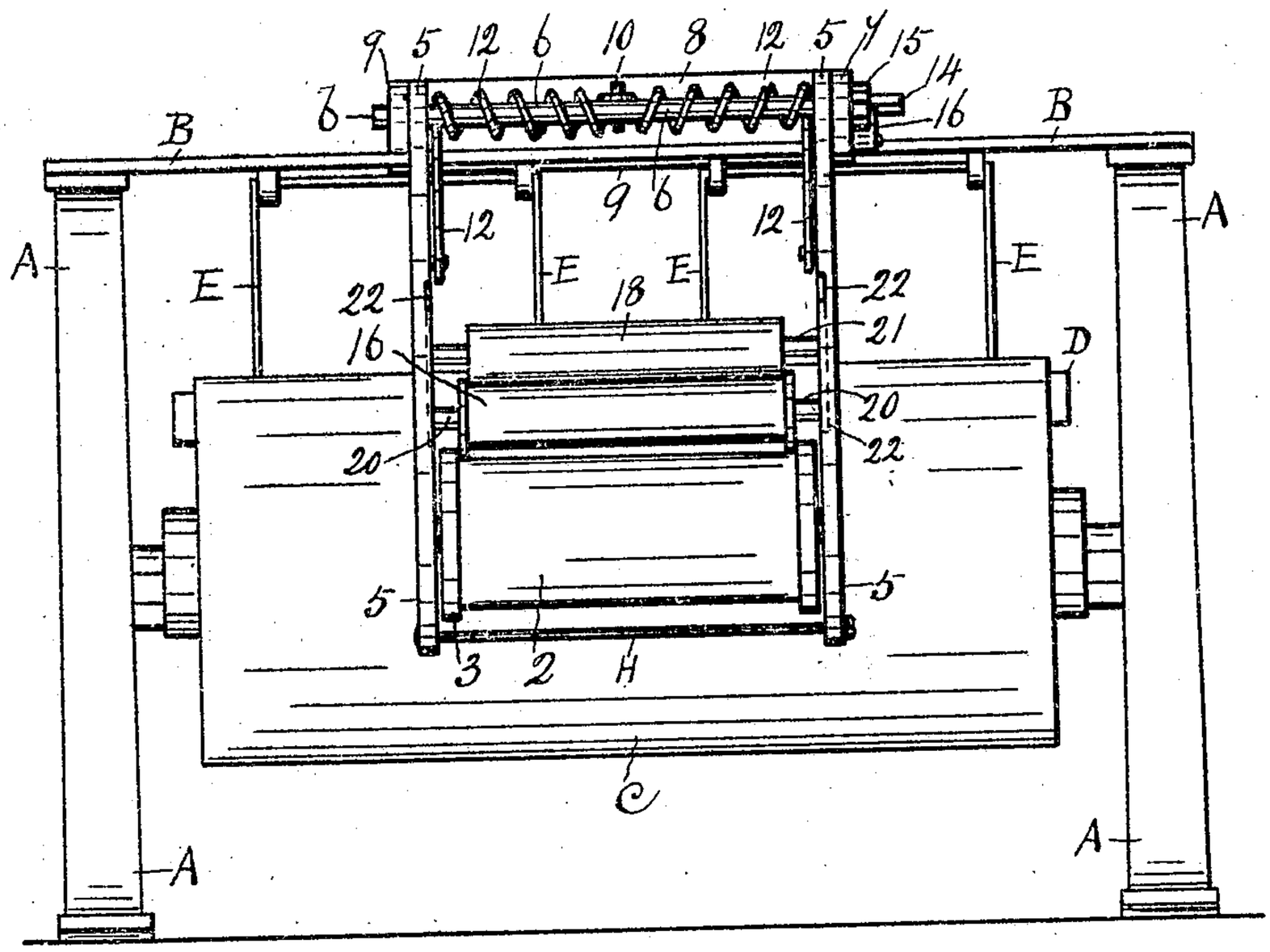


Fig. 1.

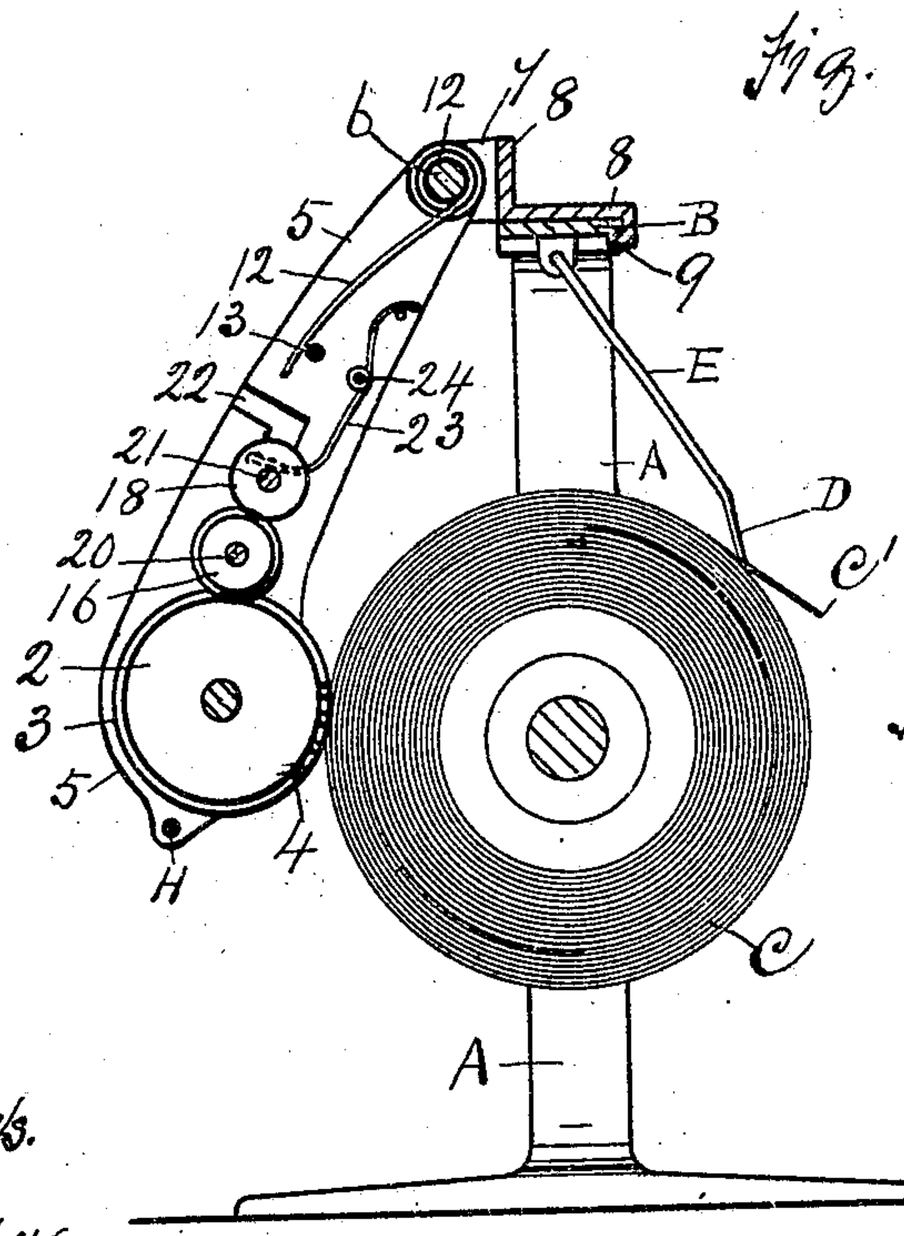


Fig. 2.

Witnesses.

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# UNITED STATES PATENT OFFICE.

HARRY BARNARD, OF HAMILTON, CANADA.

## MACHINE FOR PRINTING ROLLER WRAPPING-PAPER.

No. 819,709. Specification of Letters Patent. Patented May 8, 1906.

Application filed June 1, 1905. Serial No. 263,304.

*To all whom it may concern:*

Be it known that I, HARRY BARNARD, a citizen of Canada, and a resident of Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented new and useful Improvements in Machines for Printing Roller Wrapping-Paper, of which the following is a specification.

My invention relates to a machine for printing roller wrapping-paper in which is a pivotal spring-frame carrying a printing-roller and inking-rollers adapted to be revolved by the action of a wrapping-paper roll journaled on a stand by means of taking off a length of paper from the roll.

The objects of my invention are, first, to provide means whereby a printing-roller prints commercial matter on a roll of wrapping-paper every time that a length of paper is taken from the roll; second, to provide means whereby the inking-rollers may be removed and replaced for printing purposes; third, to provide means on the printing-roller whereby said roller is revolved; fourth, to allow the printing-roller to assume a central position on the paper-roll, as shown, or to be removed toward either end of the paper-roll, and, fifth, to afford facilities for adjusting the tension of the printing-roller to the paper-roll. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the printing side of the machine. Fig. 2 is an end elevation of the same, the sides of the frames being removed and as viewed from the right-hand end thereof.

Similar characters refer to similar parts throughout both views.

In the drawings, A represents standards, which support a horizontal stationary bar B, and a roll of wrapping-paper C is journaled between said standards and adapted to revolve loosely therein.

D is a horizontal paper-cutting blade, forming a part of the spring-arms E, which are connected to the bar B in the usual manner of paper-roll machines, which include the above-mentioned framework and mechanism and which are not new.

The parallel printing-roller is indicated by 2 and has end flanges 3 of larger diameter than the roller. The periphery of the roller 2 is adapted to receive lines of rubber or other suitable type 4, secured thereto and shown in Fig. 2 of the drawings. The roller 2 is journaled in the frame 5 and adapted to revolve loosely therein. The upper end parts of the frame 5 are loosely connected to the horizontal shaft 6, which passes through said end parts of the frame 5 and through the lugs 7 of the slidable plate 8, which rests on the bar B. The plate 8 has an under lip 9 on the opposite side to the lugs 7 to allow the plate 8 to be moved either way on the stationary bar B and to be held in adjusted position by the weight of the printing device on the opposite side of the frame A. The plate 8 with its lip 9 fit the bar B very snugly and securely. The shaft 6 has a central pin 10, to which retains the middle part of the spiral spring 12, which spirals around the shaft 6, and the two ends of the spring 12 press against the studs 13 on the inner sides of the frame 5 to press the flanges 3 and the type 4 of the roller 2 against the paper-roll C.

The end part 14 of the shaft 6 is four-sided and has a ratchet-wheel 15, secured on the shaft, and a dog 16 is pivotally connected to the lug 7 and adapted to engage the opposite side of the ratchet-wheel 15 and stop the same, together with the shaft 6, after the same has been revolved either way in order to give more or less tension on the ends of the spring 12 and on the frame 5. The shaft 6 may be revolved by means of a wrench on its end 14. The intermediate inking-roller 16 has end flanges 17, which engage the periphery of the printing-roller 2 and the periphery of the roller 16 is adapted to ink the type 4 on the roller 2 when the roller 16 is revolved by the printing-roller. The upper inking-roller 18 is in contact with the periphery of the roller 16. The rollers 16 and 18 have end journals 20 and 21, respectively, and shown in Fig. 2 of the drawings.

The inner sides of the frame 5 have suitable recesses or slots 22, which extend from the outer edges inward and downward to below the journals 20 of the intermediate roller 16 in order that said middle roller shall rest on the printing-roller 2, previously referred to. Springs 23 are attached to and fulcrumed at 24 to the inner sides of the frame 5 and press on the journals 21 of the upper roller 18 to tension the inking-roller 18 to the intermediate roller 16 and said intermediate roller to the printing-roller 2.

H is a brace-bolt through the lower part of the frame 5.

The operation of the machine is as follows: When a desired length of wrapping-paper is re-

moved from the paper-roll C by means of pulling by the end C', the roll C is revolved. Consequently the printing-roller 2 is revolved by the friction of the roll on the flanges 3 and the type 4 prints on the roll of paper being taken from off the roll C. At the same time the intermediate roller is revolved by means of its flanges engaging the periphery of the roller 2, and the upper roller is revolved by contact with the intermediate roller. The printing-roller is given more or less tension or adjustment against the paper-roll by means of adjusting the shaft 6 in either direction, as the case may be. Said shaft when adjusted increases or diminishes the tension of the spring 12 on the frame 5.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a printing device for paper-rolls, the combination with a frame for the paper-roll having a flat cross bar or member, of a plate resting on said cross-bar and provided with a lip which hooks over the front edge and underneath the cross-bar, whereby the plate is secured to the cross-bar so that it may be slid longitudinally of said cross-bar, lugs projecting from the plate toward the rear and opposite side of the paper-roll frame from the lip aforesaid, a depending printing-device frame pivotally connected to said lugs, and printing and inking rollers journaled in said printing-device frame, whereby the weight of the printing-device frame and said rollers holds the lipped plate slidably clamped to the paper-roll frame.

HARRY BARNARD.

Witnesses:
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E. GOMM.