O. L. CHESNUTT.

TAPE OR WEB PRINTING MACHINE.

APPLICATION FILED APR. 18, 1921.

1,422,666. Patented July 11, 1922.

2 SHEETS—SHEET 1.

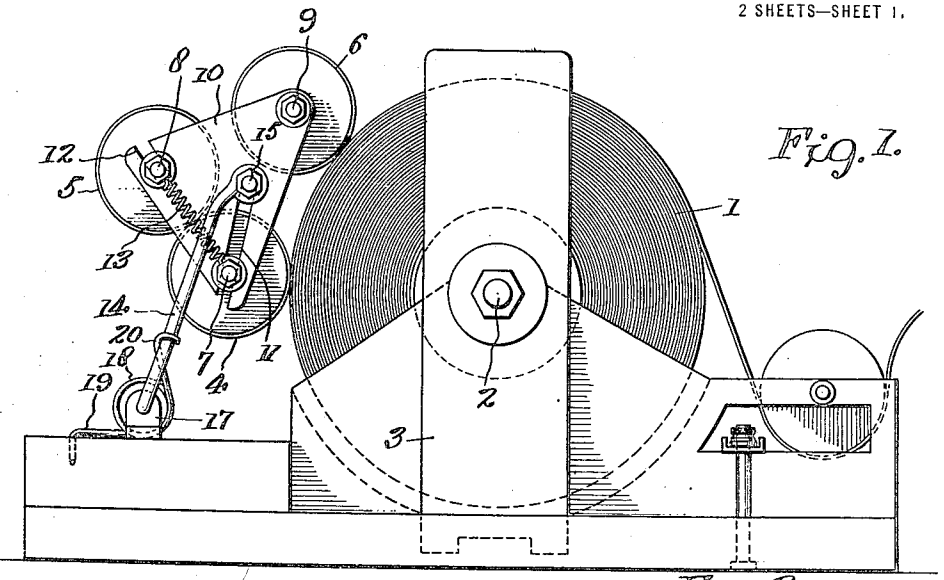


Fig. 1.

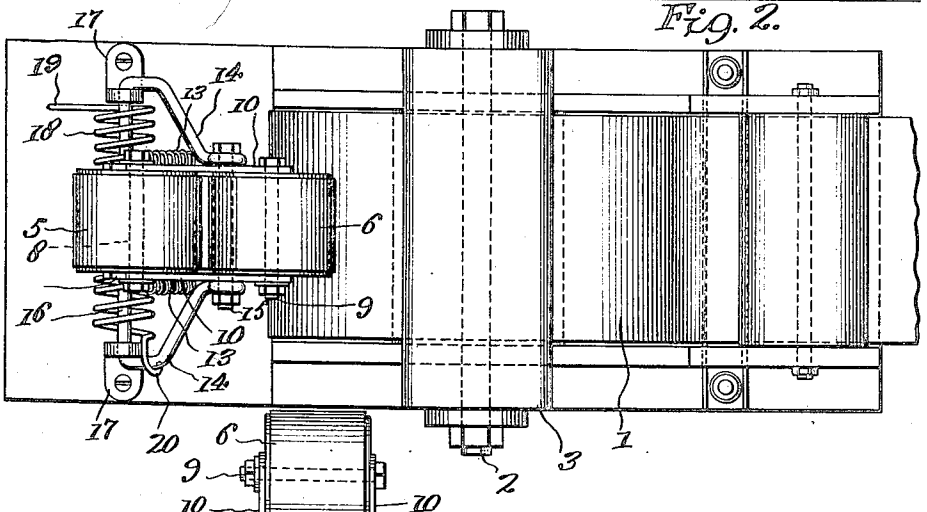


Fig. 2.

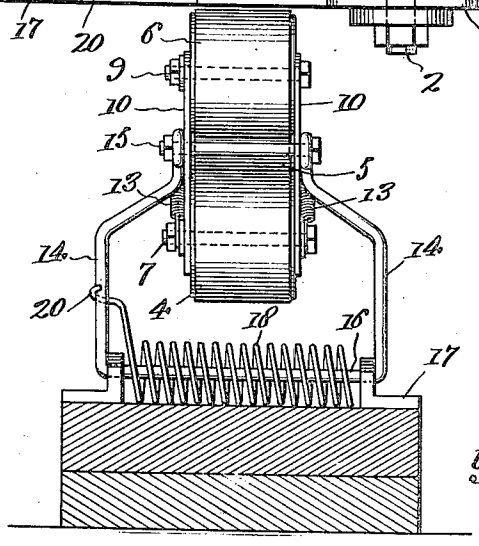


Fig. 3.

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2 SHEETS—SHEET 2.

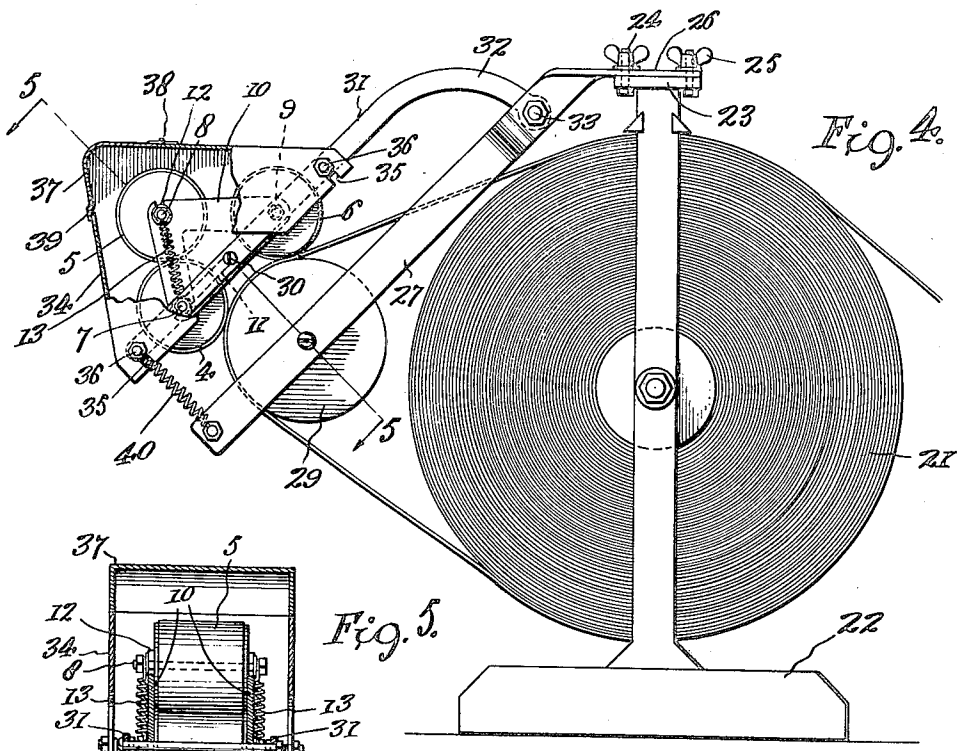


Fig. 4.

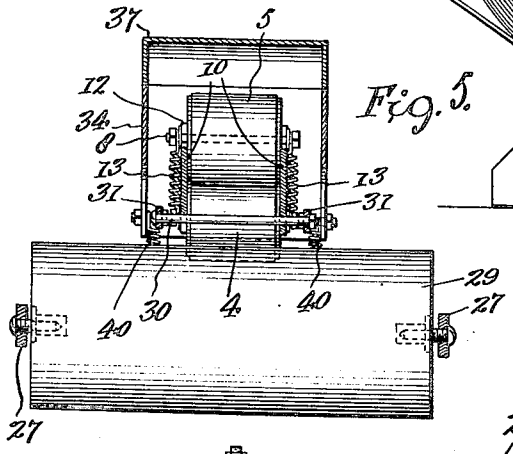


Fig. 5.

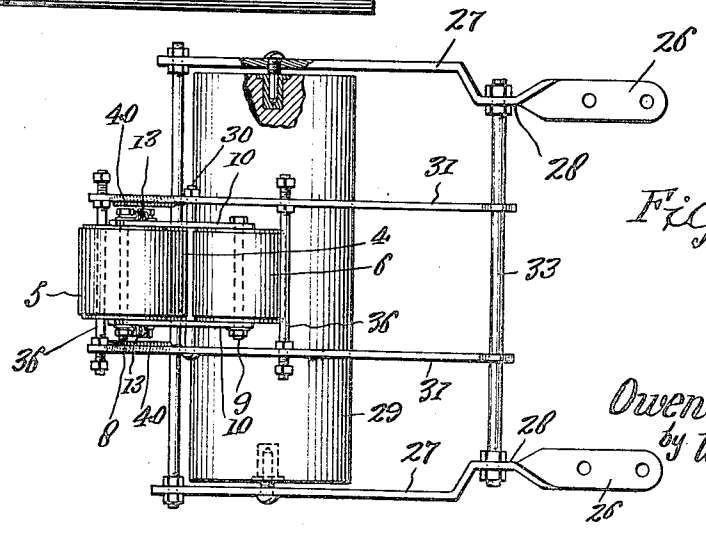


Fig. 6.

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UNITED STATES PATENT OFFICE.

OWEN LEE CHESNUTT, OF ATLANTA, GEORGIA.

TAPE OR WEB PRINTING MACHINE.

1,422,666. Specification of Letters Patent. Patented July 11, 1922.

Application filed April 18, 1921. Serial No. 462,317.

To all whom it may concern:

Be it known that I, OWEN LEE CHESNUTT, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Tape or Web Printing 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.

The present invention relates to improvements in tape or web printing machines, and has for an object more particularly to provide a compact, inexpensive and efficient device for association with, for instance, the rolls of wrapping paper employed in department and like stores for the wrapping of bundles, to the end that advertising matter or the name of the proprietor of the store may be successively printed upon the wrapping paper so that this matter will become widely circulated.

Another object of the invention resides in providing a neat and compact device for the above purposes which is capable of attachment to existing forms of wrapping paper stands and rolls, and which will at all times effectively print the paper irrespective of the size of the paper roll and which is always accessible for the purpose of making any needed repairs and for the supplying of ink to the inking roller.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Fig. 1 is a view in side elevation of a paper roll and stand illustrating the improved printing device associated therewith;

Fig. 2 is a plan view of the same;

Fig. 3 is an end view of the improved printing device with a portion of the stand shown in section;

Fig. 4 is a view in side elevation with parts broken away of a modified form of a paper stand and roll and with a modified form of an improved printing device applied thereto;

Fig. 5 is a section taken on the line 5—5 in Fig. 4; and

Fig. 6 is a plan view with parts broken away and with the housing or cover removed of the bracket and parts carried thereby.

Referring more particularly to the drawings, and for the present to Figs. 1, 2 and 3, 1 designates a roll, for instance, of wrapping paper mounted to turn about an axis 2 in a stand or supporting frame 3.

In accordance with the invention I provide a printing roller 4 adapted to roll in contact with the outer periphery of the paper roll 1 in order to print desired matter upon the wrapping paper just prior to its being pulled from the roll 1. The name, for instance, of the store proprietor, or the manufacturer of specific articles in which the paper 1 is wrapped may produced upon the wrapping paper by the printing roller 4 which receives a supply of ink constantly and uniformly from an inking roller 5, the surface of which lies in contact with the type surface of the printing roller 4. I also provide a blotting roller 6 which rotates in contact with the periphery of the paper roll 1 in rear of the printing roller 4 so as to effectively blot the ink prior to the paper's being handled in the actual wrapping of the bundle, which would otherwise be smeared and the message contained on the paper lost.

The rollers 4, 5 and 6 are provided with trunnions, journals or shafts 7, 8 and 9 which are fitted in the corners or angles of a pair of triangular plates 10 fitted at opposite ends of the rollers and provided with slots 11 and 12 for slidingly and adjustably receiving the trunnions 7 and 8, which are provided with nuts as shown to tighten against the plates. The slots 11 and 12 have their mouths or entrance portions near corners of the plates 10 and the slot 12 is directed toward the axis of the printing roller 4, there being coil springs 13 connected between the trunnions or the nuts thereon whereby the ink roller 5 will be yieldably drawn constantly toward the printing roller and in this way a uniform supply of ink will be constantly distributed over the type surface of the latter.

The other slot 11 in the plates 10 moves from one corner toward the center of the plate and provides for the adjustment of the printing roller 4 toward the blotting roller 6 and also inwardly of the plate so as to accommodate various curvatures in the different sizes of the paper roll 1. As this roll 1 is diminished in diameter as it becomes used, the rollers 4 and 6 accommodate

themselves to this new curved periphery so that at all times an effective printing and blotting of the paper is had.

Arms 14 are pivoted substantially centrally as at 15 to both the plates 10, the arms being preferably formed in one piece with a transverse rod or shaft 16 journaled in angle pieces or other supports 17 affixed at one side to the stand of the paper wrapping roller. A coil spring 18 is wound about the shaft or rod 16, having one end 19 secured to the stand 3 and the other end 20 coiled about one of the arms 14. The spring is so tensioned and arranged as to cause the rollers to bear yieldably against the wrapping paper roll 1 and to follow this roll down to or near its axis as it decreases in size through use, it being understood that the plates 10 may revolve about the pivots 15 to allow the printing rollers 4 and 6 to both simultaneously and at all times bear against the wrapping paper.

Referring more particularly to Figs. 4, 5 and 6, a similar pyramidal arrangement of printing, inking and blotting rollers is herein shown in connection with a wrapping paper, tape or other roll 21 mounted in a slightly different type of stand 22 and including as a part thereof a top plate or bar 23 to which is removably affixed as by the use of bolts 24 with butterfly nuts 25, the flat upper portions 26 of brackets 27 which are twisted as indicated at 28 and extend down diagonally with respect to the paper roll 21.

These brackets 27 are preferably formed of thin metal strips bent so that the diagonal portions have their thinner portions lying substantially vertically to better resist the weight imposed thereon. In the lower portions of the brackets is journaled a drum 29 over which the web or paper moves from the drum as it is being drawn off. The printing and blotting rollers which have been numbered similarly 4 and 6 bear against the web as it passes about the periphery of the drum 29. A slightly different form of support is shown in these figures, the triangular plates 10 being pivoted at 30 in arms 31 which are curved at their upper ends 32 and are pivoted as represented at 33 to the brackets 27.

The pyramidal rollers may thus adjust themselves on the arms 31 in the manner already described and they are protected by a housing or cover 34 likewise of a pyramidal or triangular structure provided with slots 35 secured as by nuts and bolts 36 to the arms 31. A door 37 is formed at one corner of the housing 34 near the inking roller 5 in order to give access to the same for the purpose of providing a fresh supply of ink. The door 37 is hinged as indicated at 38 and is closed by gravity, being provided with an overhanging lip 39 to afford a tight joint at its free edge. Coil springs 40 are connected between the lower portions of the arms 31 and the brackets 27 for the purpose of moving the printing device as a whole toward the paper web.

In use, the improved printing device is associated with, for instance, wrapping paper rolls and any suitable impression may be made thereon in accordance with that given the printing roller 4. The paper is thus printed as it is pulled from the wrapping roll and it is also blotted by moving against the blotting roller 6. The triangular plates in which the rollers are secured may oscillate about their pivot points 15 as in the case of Fig. 1, or 30 as in the case of Fig. 4, thus preserving the necessary active contact with the web by the printing and blotting rollers. Moreover the spring 18 in the first form of the invention and the springs 40 in the second form move the rollers as a whole against the web resulting in the effective printing and blotting of the same.

It will be appreciated from the foregoing that I have provided an exceedingly small device which may form an accessory for the wrapping paper rolls and their stands as ordinarily used in stores without great expense and with small cost may reproduce the proprietor's name or some desired advertising matter continuously upon the wrapping paper which will consequently be circulated broadcast.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:

1. In combination, a stand, a paper roll supported in the stand, a bracket affixed to the stand, a drum journaled in the bracket over which the paper web is led from the roll, printing and blotting rollers bearing on the web as it passes over the surface of said drum, an inking roller in contact with said printing roller, and means for supporting and yieldingly urging said printing and blotting rollers against the web, substantially as described.

2. In combination with a stand having a web roll thereon, a bracket removably secured to the stand, a drum journaled in the bracket over which the web is adapted to be passed from the roll, arms pivotally attached in the bracket, triangular plates pivotally supporting from said arm, printing, inking and blotting rollers journaled in the corners of said triangular plates, said printing and blotting rollers adapted to rotate in contact with the web passing about said drum, and resilient means between the

bracket and arm for drawing the printing and blotting rollers forcibly against said tape or web, substantially as described.

3. In combination with a stand having a paper roll, a bracket removably attached to the stand, a drum rotating in the bracket and receiving the web from the roll, an arm pivoted in the upper portion of said bracket and extending down in substantially parallelism with said bracket, triangular plates pivotally carried by said arm, printing, inking and blotting rollers journaled in the corners of said plates, said printing and blotting rollers rotating in contact with the web passing about said drum, a housing carried by said arm, and having an openable portion opposite said inking roller, and resilient means between the lower portion of said arm and bracket for drawing the printing and blotting rollers toward the web, substantially as described.

4. A tape web printing machine comprising a printing roll, an inking roll in contact therewith, a blotting roll spaced from both of the other rolls, said rolls being disposed in substantially pyramid form, triangular plates fitted to the ends of the several rolls, said triangular plates having slots opening through the edges of the plates near two corners thereof, trunnions for the printing and inking rolls slidably fitted in said slots, trunnions for the blotting roll rotatably fitted at the unslotted corners of the plates, springs between the trunnions of the inking and printing rolls, said springs adapted to draw the inking roll yieldably against the printing roll and for tending to slide the printing roll toward the blotting roll, means for pivotally supporting said triangular plates and the rolls carried thereby, and spring means for urging the printing and blotting rolls against the tape or web to be printed, substantially as described.

OWEN LEE CHESNUTT.