S. ALEXANDER.

PRINTING ATTACHMENT FOR WRAPPING PAPER REELS.

APPLICATION FILED MAY 19, 1913.

1,102,627.

Patented July 7, 1914.

2 SHEETS—SHEET 1.

FIG. 1

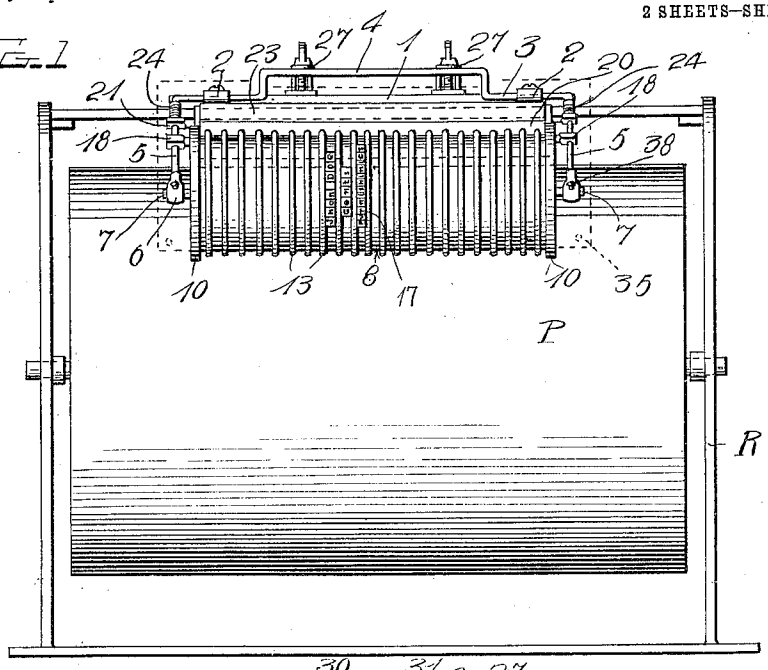


FIG. 2

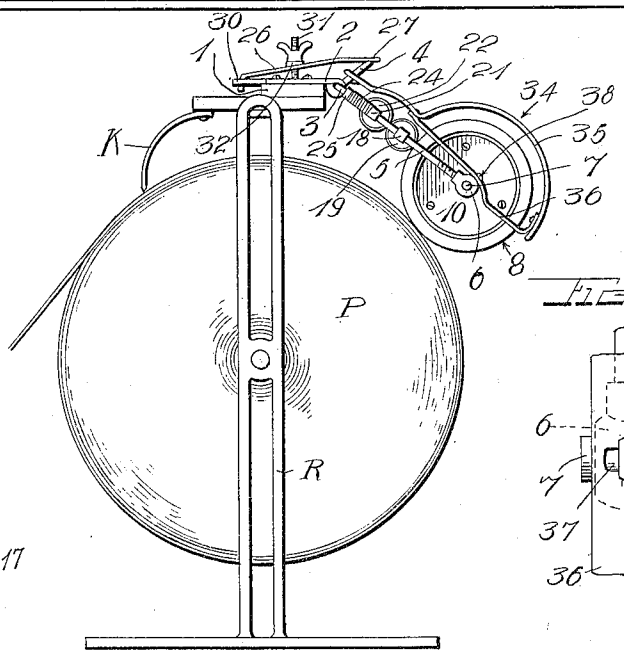


FIG. 7

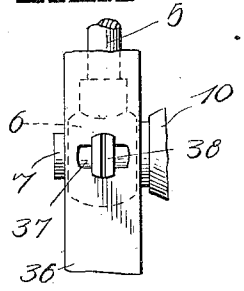
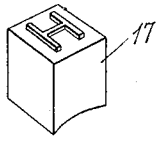


FIG. 6



Witnesses

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2 SHEETS—SHEET 2.

FIG. 3

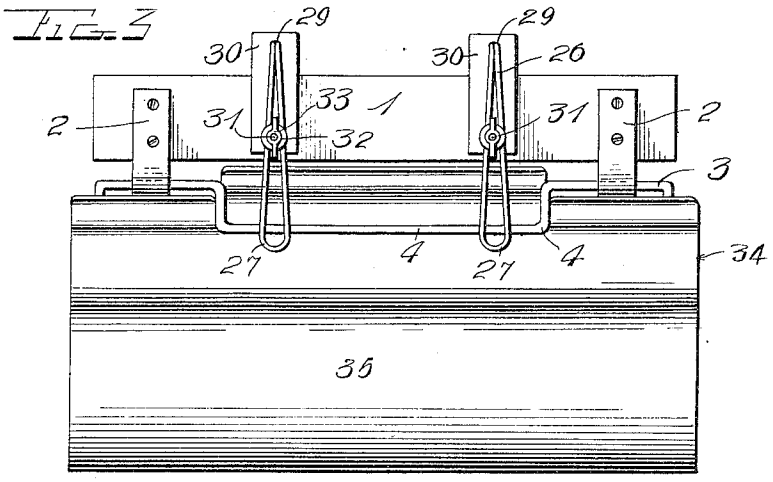


FIG. 4

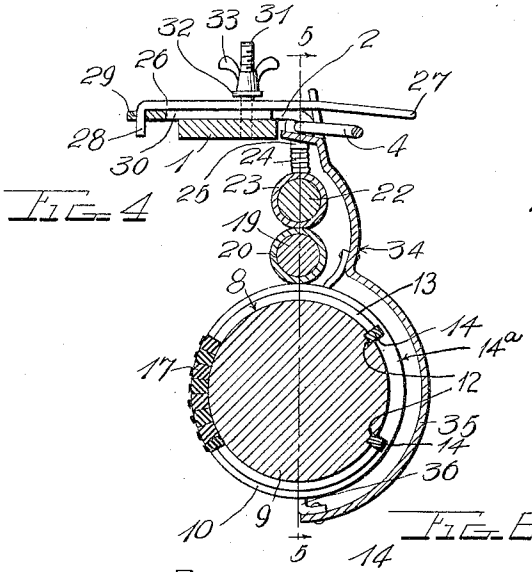


FIG. 5

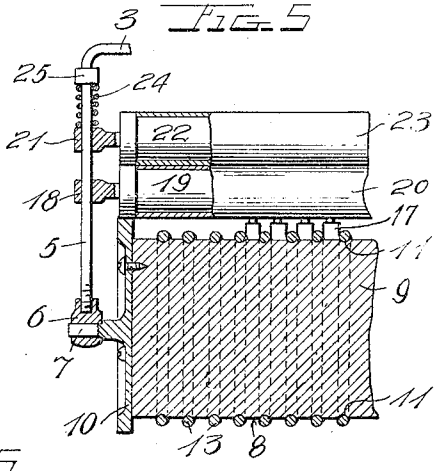
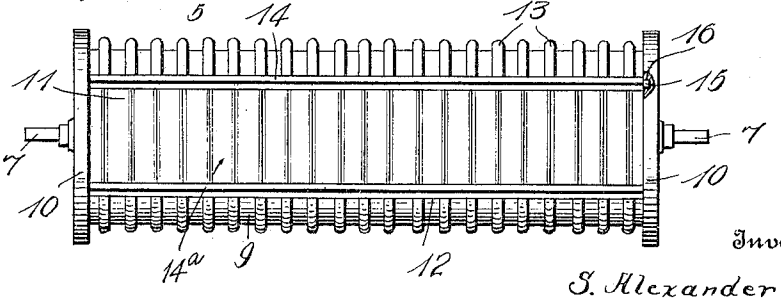


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PRINTING ATTACHMENT FOR WRAPPING-PAPER REELS.

1,102,627. Specification of Letters Patent. Patented July 7, 1914.

Application filed May 19, 1913. Serial No. 768,576.

To all whom it may concern:

Be it known that SOLOMAN ALEXANDER, citizen of the United States, residing at Longbeach, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Printing Attachments for Wrapping-Paper Reels; 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.

This invention relates to improvements in printing attachments for reels containing rolls of wrapping paper.

One object of the invention is to provide a printing attachment for wrapping paper reels having an improved construction and arrangement of type carrying rollers and improved means for uniformly distributing the ink to the type carried by the roller.

Another object is to provide an improved means for yieldingly holding the type carrying roller in engagement with the roll of paper as the latter is decreased in size by the removal of the paper therefrom, thus insuring a succession of perfect impressions on the paper as long as any of the same remains on the reel.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings, Figure 1 is a rear view of a paper holding reel and a roll of paper therein showing the application of the improved printing attachment, the shield of the attachment being shown in dotted lines; Fig. 2 is a side view of the reel and the printing attachment as shown in Fig. 1; Fig. 3 is a top plan view of the printing attachment removed from the reel; Fig. 4 is a vertical cross sectional view of the same; Fig. 5 is a detail vertical longitudinal section of one end of the attachment; Fig. 6 is a side view of one side of the type carrying roller of the attachment; Fig. 7 is a detail plan view of a portion of one of the shield attaching bars illustrating the manner in which the same is detachably fastened to one of the bearings of the type carrying roller; Fig. 8 is a detail perspective view of one of the type employed in connection with my improved printing roller.

Referring more particularly to the drawings, R denotes a paper holding reel which may be of the usual or any approved construction and in which is revolubly supported a roll of wrapping paper P. In the present instance the reel R is shown as having a knife K by means of which the paper is severed when the desired length thereof has been unreeled from the roll.

My improved printing attachment comprises an attaching member 1 in the form of a flat board or plate which is adapted to be secured in any suitable manner to the top plate of the reel R as shown. Secured to the attaching plate 1 near the ends thereof are bearing brackets 2 which project beyond the rear side of the plate and have pivotally engaged therewith the supporting frame 3 for the printing or type carrying roller of the attachment. The frame 3 comprises an upper cross bar having formed therein a right angular rearwardly extending crank loop 4. The ends of the cross bar are turned downwardly at right angles to form the side bars 5 of the frame, said side bars 5 being preferably threaded on their ends as shown. Screwed onto the threaded ends of the arms 5 are bearing boxes 6 in which are revolubly mounted the pintles 7 of the printing or type carrying roller 8.

The roller 8 comprises a cylindrical body 9 which may be of any suitable size and length and constructed of any suitable material, said body being preferably formed of wood. Secured to the ends of the body 9 by screws or other fastening devices are circular end plates 10 which are of greater diameter than the body of the roller and thus project beyond the outer surface thereof to a distance slightly less than that to which the type carried by the roller project, as clearly indicated in Fig. 4 of the drawings. The projecting portions of the end plates 10 form annular flanges with which the ends of the ink applying roller of the attachment are engaged as will be hereinafter more fully described. In the body 9 of the roller are formed series of parallel annular grooves 11 and on one side of the body and

spaced a suitable distance apart are two longitudinal grooves or channels 12, said grooves 12 intersecting the grooves 11 as shown. Engaged with each of the annular grooves 11 in the body of the roller 8 is a segmental rod 13, the ends of said rods terminating at the outer edges of the longitudinal grooves or channels 12 as clearly shown in Fig. 4 of the drawings. Engaged with the grooves or channels 12 are longitudinally disposed stop bars 14 the ends of which are reduced to form cylindrical studs 15 which are engaged with sockets 16 formed in the inner surfaces of the projecting portions of the end plates 10 as shown in Figs. 4 and 6 of the drawings. The stop bars 14 when thus arranged are engaged by the ends of the segmental rods 13 and hold said rods against turning or slipping around in the grooves 11 of the roller.

The spaces between the segmental rods 13 are intended to receive the type 17 which are preferably formed of rubber and are of such width that they must be squeezed or forcibly engaged between the rods 13 and by their expansive action and frictional engagement with the rods are firmly held in place on the printing roller. While the type may be set between the rods 17 to read either way, they are preferably arranged to read around the roller or lengthwise of the spaces between the rods, the latter forming the spaces between the lines of type. The type 17 have their inner or base ends concaved or recessed to conform to the curvature of the surface of the roller thus permitting the type to be closely engaged with each other and firmly seated on the roller. The space 14^a between the stop bars 14 forms the spacing between the impressions made by the type when the printing roller is revolved over the paper while the latter is being drawn or unreeled from the roll.

Slidably mounted on the side bars 5 of the roller supporting frame 3 are bearing studs 18 on the inner ends of which are revolubly mounted the ends of an ink applying roller 19. The outer ends of the roller 19 also have a revoluble engagement with the outer edges of the flanges formed by the projecting portions of the end plates 10 of the roller 8. The intermediate portion of the roller 19 is reduced and on this reduced portion is arranged a pad or covering 20 of any suitable material which will carry and apply the ink to the type when the roller is passed over the same. Also slidably mounted on the side bars 5 of the roller frame 3 are the bearing studs 21 of an ink distributing roller 22, the ends of which are revolubly engaged with the inner ends of the studs 21. The intermediate portion of the roller 22 is also reduced and has applied thereto a covering 23 of any suitable material. The roller 22 is held in yielding engagement with the roller 19 and the latter held in yielding engagement with the end plates of the type carrying roller and with the type when brought into engagement therewith by coiled springs 24 which are arranged on the side bars 5 of the frame 3 between the bearing studs 21 and collars 25 which are secured to the side bars adjacent to the upper ends thereof as shown.

In order to hold the printing attachment in continuous operative engagement with the roll of paper on the reel, suitable springs 26 are provided, said springs being here shown and are preferably in the form of spring metal rods bent midway their ends to form frame engaging loops 27 which, when the springs are in place, engage the crank loop 4 of the roller supporting frame 3 as clearly shown in Figs. 1 and 2 of the drawings. The ends of the rods which form the springs 26 are brought together and turned downwardly to form attaching lugs 28 which are engaged with apertures 29 in the ends of spring attaching plates 30 secured to the upper side of the roller attaching plate 1. The springs 26 are further held in position on the plate 1 and the tension thereof regulated by tension bolts 31 secured in the plate 1 and projecting upwardly through the plates 30 between the ends of the rods forming the springs 26. On the projecting upper ends of the bolts 31 are arranged washers 32 which engage the springs 26. With the ends of the screws are also engaged clamping nuts 33, which when screwed down against the washers 32 force the latter and the springs 26 downwardly thereby holding the loops 27 in more or less forcible engagement with the crank loop 4 of the roller supporting frame which will thus hold the printing or type carrying roller against the roll of paper with more or less pressure and will hold said roller in continuous engagement with the roll of paper as the latter is decreased in size by the removal of the paper therefrom.

In order to protect the printing or type carrying roller and the inking rollers from dust and to prevent goods from becoming soiled by contact with these parts, a shield 34 is provided, said shield comprising a sheet metal plate having its lower portion bent to form a substantially semi-cylindrical hood 35 which is disposed over the outer portion of the printing roller. The upper portion of the plate is bent outwardly over the printing rollers and has its upper edge notched to fit beneath the crank loop 4 of the roller supporting frame to which the shield plate is secured by attaching bars 36 secured to the inner side of the hood 35 of the shield near the ends thereof as clearly shown in Fig. 2 of the drawings. In the bars 36 at points adjacent to the bearing box 6 of the printing roller are formed trans-

verse slots 37 with which are adapted to be engaged the elongated heads of fastening screws 38 which have a threaded engagement with the bearing boxes 6 and which after being inserted through the slots 37 of the shield attaching bars are adapted to be turned crosswise of said slots, thereby detachably fastening the bars to the bearing boxes and the shield to the frame of the attachment as clearly shown in Fig. 7 of the drawings.

By constructing and arranging my improved printing attachment as herein shown and described, it will be seen that as the paper is drawn or unwound from the roll P in the reel that the revolution of the roll of paper will revolve the printing or type carrying roller of the attachment which as herein described is yieldingly held in engagement with the paper roll thereby bringing the type carried by the printing roller into successive engagement with the paper at each revolution of the printing roller, thus imprinting or stamping a succession of impressions on the wrapping paper as the same is unreeled from the paper roll.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

In a printing attachment for paper reels, the combination of an attaching plate adapted to be secured to a reel frame, bearing brackets secured to said plate, a roller supporting frame pivotally mounted in said brackets and having formed therein a crank loop, a printing roller revolubly mounted in said frame, ink applying and distributing rollers carried by said roller frame, apertured spring attaching brackets secured to said attaching plate, springs having one end engaged with the apertures in said spring attaching brackets and having their opposite ends engaged with the crank loop of said roller supporting frame, spring holding and adjusting screws secured in said attaching plate, and clamping nuts on said screws adapted to be screwed down into engagement with said springs whereby the pressure thereof is regulated to hold said printing roller in continuous engagement with a roll of paper in a reel with greater or less force.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SOLOMAN ALEXANDER.

Witnesses:
G. VAN VLEET,
L. L. RHEA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."