March 22, 1932. K. M. HENDERSON 1,850,718

MOUNTING AND PACKAGE FOR ROLLS

Filed June 6, 1930

Fig. 1

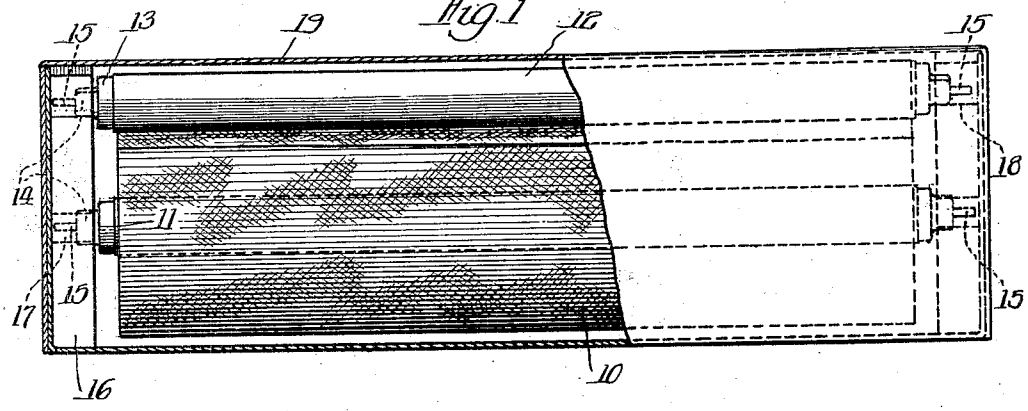


Fig. 2.

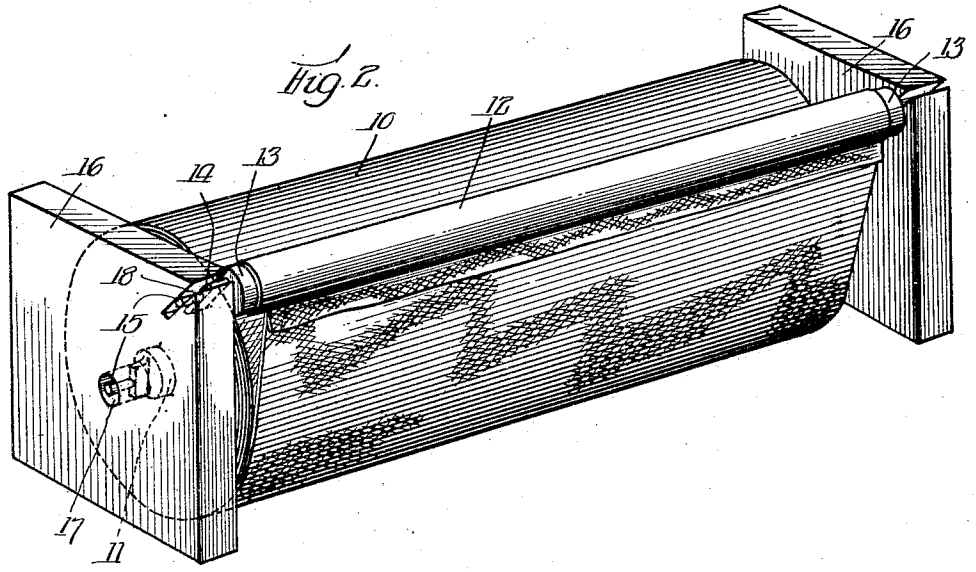
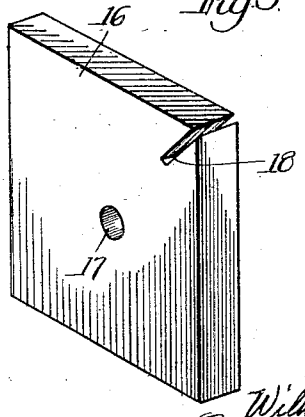


Fig. 3.



Inventor:-
K. M. Henderson,
By Wilkinson, Huxley, Byron & Knight
Attys.

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UNITED STATES PATENT OFFICE

KENNETH M. HENDERSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO DITTO, INCORPORATED, OF CHICAGO, ILLINOIS, A CORPORATION OF WEST VIRGINIA

MOUNTING AND PACKAGE FOR ROLLS

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This invention relates to an improved mounting and package for rolls, and particularly to rolls which are capable of being reversibly wound and having winding core rods fixed to each end thereof.

This invention has particular application for use in connection with rolls, the core rods of which project laterally beyond the side edges of the roll, which projecting edges constitute means by which the roll is mounted when in use.

Although this invention is applicable to rolls of any type, but is herein illustrated as applied to hektograph rolls, the peculiar nature of which is that they are unusually heavy for their size. It is well known that hektograph rolls are relatively large and comprise a backing sheet provided with a relatively thick coating of easily damaged gelatinous material thereon.

In packaging rolls of this character, it is desirable to provide a box in which at each end thereof means are provided which cooperate with the center core rod in a manner to support the roll.

An object of this invention is to provide in a package of the above described type, means composed of relatively rigid material located in the end of the box, and provided with recesses, openings or other means adapted to receive the ends of the center core rod of the roll. In addition the means above referred to are provided with other recesses and in the illustrated form, slits extending inwardly from the edge thereof adapted to receive the extension on the core rod secured to the other or outer end of the roll.

It is a further object to provide a mounting and package of the above described type which will hold the roll against rotation and will in addition, hold the outer or free core rod in a fixed position relative to the roll and also against rotation, and at all times with the roll out of contact with the walls of the box or surface in which it is supported.

As above described, it is preferable to make the supporting means for the roll in the form of rigid bodies for the purpose of serving as reinforcement or strengthening means for the box in which the roll is contained. It will be appreciated that any suitable material may be employed, but in the present illustration, blocks of wood are provided which serve well for supports and in addition as reinforcing means for the box, so that in spite of the relatively heavy weight of the rolls, the boxes, even though of cardboard or other similar relatively flexible materials, may be stacked with the rolls contained therein to relatively high heights without danger of crushing or otherwise damaging the boxes or their contents in the lower portion of the pile.

Other particular advantages which flow from utilizing wood for the supporting blocks are that they are cheap, easy to make and when used, the roll may be held against rotation by means of forcing the end thereof, which is preferably provided in the form of a strip extension, into an opening of slightly less diameter than the width of the strip, so that the edge of the circular opening provided for receiving the end strip may be slightly deformed in a manner to tightly grip and hold the ends of the core rod so as to prevent rotation of the roll.

In addition to the above stated objects, numerous other objects are contemplated as will readily appear to one skilled in the art as the following description proceeds. An illustrative embodiment of the invention will be hereinafter described with reference to the accompanying drawings, but it is to be understood that the invention is not to be limited in any particular by the following disclosure. The scope of the invention will be fully comprehended after an understanding of the illustrated embodiment and an appreciation of the advantages which the invention produces in this illustrated form.

In the accompanying drawings:

Figure 1 is a plan view partly in cross section of a box and roll supporting means containing a roll all constructed in accordance with the present invention.

Figure 2 is a perspective view of a roll as shown in Figure 1, mounted in supporting block constructed in accordance with the present invention, and

Figure 3 is a perspective view of one of the blocks disclosed in Figure 2.

By referring to the drawings, it will be noted that the present form of box and mounting is constructed to receive a roll 10, which is a roll adapted to be reversely wound and having a core rod 11 in the center thereof and core rod 12 secured to its outer or free end. Each of the core rods is provided at its end with an extension which may be of any suitable construction, but in the present illustration, is shown as a metallic member 13, having a flat strip-like portion 14 and a rod-like extension 15 on the end of the strip.

Inasmuch as the present illustration relates to hektograph rolls, it is to be understood that the end portion of the core rod are those which are commonly used for mounting rolls of this character, but that the present invention is accordingly to be construed broadly enough to accommodate rolls of slightly different character and having somewhat different but corresponding end portions.

For the purpose of supporting the roll so that it will be wholly out of contact with any surface on which it is supported or any of the walls or bottom and top portions of the box in which it is contained, supporting blocks are provided designated 16, each having a central opening or recess 17, which is adapted to receive the end of the center core rod for the purpose of supporting the roll.

It is obvious that these blocks 16 may be of any suitable construction but it is preferable to have them of the same shape as the cross sectional shape of the box in which the roll is to be contained, so that when they are located in the ends of the box, the box will form means for holding the blocks against displacement. It is also preferable to have them of a relatively rigid material and in this illustration are shown as being made of wood, of relatively soft character. With the blocks of relatively soft wood and with the opening 16 therein of slightly less diameter than the width of the extension 14 on the end of the core rods, the roll may be held against relative rotation by forcing the extension into the opening. As the extensions enter the opening the circumferential edge thereof is slightly deformed so that the side walls of the opening will grip and tightly hold the core rod.

The supporting blocks are further provided with slits 18 extending inwardly from the outer surface thereof, so as to receive and form a means for non-rotatably holding the outer or free core rod. It is obvious that these slits may be located in different portions of the supporting block but they are preferably located as shown, that is, extending diagonally inwardly toward the center of the supporting block from one corner thereof. In any case the slit of the two supporting blocks will be located in alignment in substantially the manner shown in Figure 2, so that the roll when placed therein will be fully supported and held against rotation, or accidental displacement. With the roll so mounted, the roll together with the supporting block may be placed into a box, so that the roll and the blocks will take the position illustrated in Figure 1, and in this position, the box and the supporting block form a complete package for containing the roll.

It will be obvious that the block form reinforcing means for the box and that when boxes are stacked or piled one upon the other that the reinforcing blocks will be located above each other in a manner to form a rigid supporting means which will act to prevent damage to the boxes in the lower portion of the pile.

It will also be obvious that the roll may be readily removed from the box by lifting the roll with the supporting blocks from the box, so that the roll and the supporting blocks will be presented as shown in Figure 2. When in this condition, the supporting block may be removed laterally from the ends of the roll without difficulty whereby the roll will be free for the supports and ready mounting for use.

Although any form of box is contemplated, it is obvious that this invention will be particularly useful in connection with boxes of cardboard or boxes of similar flexible material, as the blocks will offer a substantial reinforcement at the locations where it is needed.

In practice it is desirable to use boxes of cardboard as they offer substantial protection and form an adequate package for the roll, especially when they are reinforced to accommodate the weight of rolls such as hektograph, and in a manner to permit stacking, as described above.

I claim:

1. In combination with a hektograph roll adapted for reverse winding having core rods on both ends thereof, a support and container therefor comprising a straight sided box and top therefor, and a pair of spaced roll supporting blocks in each end of said box, the core rods of said roll having flat projections on each end and said blocks having centrally located cylindrical openings for receiving said flat projections of the core rod at the center of said roll, said openings being of slightly less diameter than the width of said projections and having side walls of deformable material so that said projections may be forced into and non-rotatably held in said openings for any diametrical position of said flat projections, and slits in said blocks extending inwardly from the outer edge thereof having width and depth sufficient to receive said flat projections of the other of said core rods and to hold said core rod against rotation in a position entirely inside of the

planes defined by the outside surfaces of said blocks.

2. In combination with a hektograph roll adapted for reverse winding having core rods on both ends thereof, a support and container therefor comprising a straight sided box and top therefor and a pair of spaced roll supporting blocks in each end of said box; the core rods of said roll having portions extending beyond the edges of said roll with flat projections extending from each of said ends and said blocks being spaced apart a distance substantially equal to the length of said rods so as to provide a space between the edges of said rolls and the inner faces of said blocks, and said blocks further having centrally located cylindrical openings for receiving said flat projections of the core rod at the center of said roll, said openings being of slightly less diameter than the width of said projections and having side walls of deformable material so that said projections may be forced into and non-rotatably held in said openings for any diametrical position of said flat projections, and aligned slits in said blocks extending inwardly from the outer edge thereof having width and depth sufficient to receive said flat projections on the ends of the other of said core rods and to hold said core rod against rotation in a position entirely inside of the planes defined by the outside surfaces of said blocks.

Signed at Chicago, Illinois, this 2nd day of June, 1930.

KENNETH M. HENDERSON.