Nov. 28, 1939. R. S. SANFORD 2,181,207

ROLL HOLDER

Filed June 12, 1937

Fig. 1.

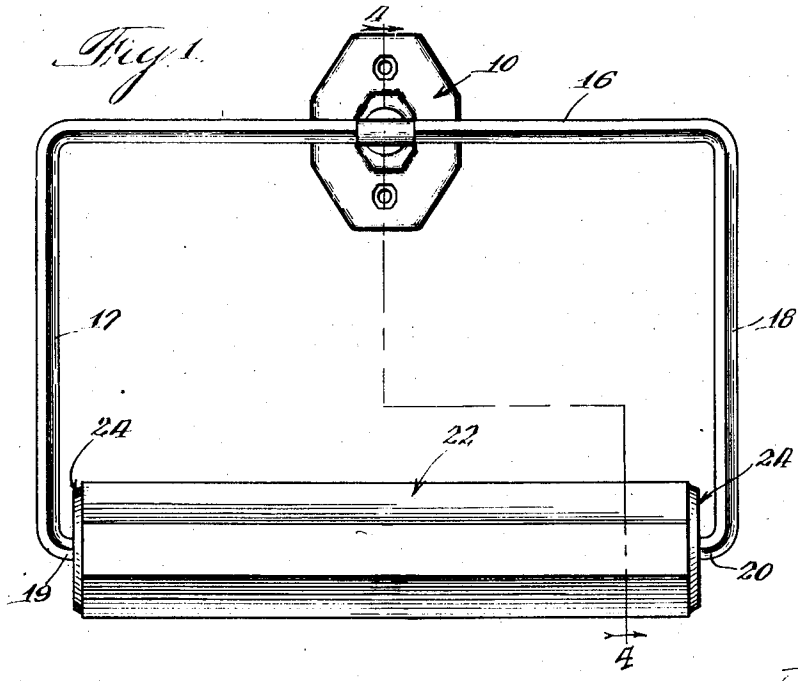


Fig. 2.

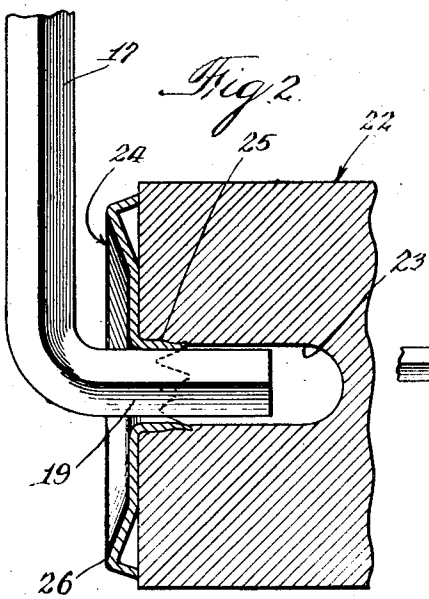


Fig. 3.

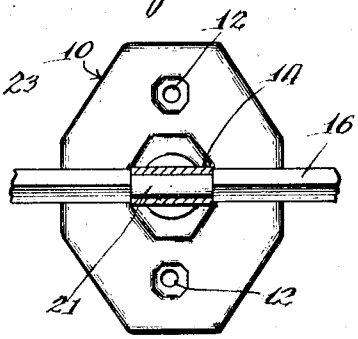
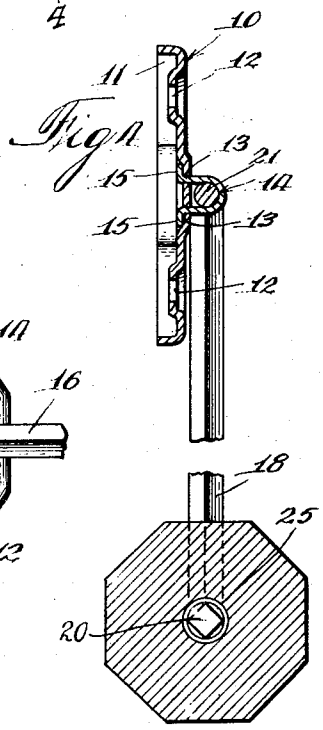


Fig. 4.



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ROLL HOLDER

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3 Claims. (Cl. 242—55.2)

This invention relates to a roll holder and has special reference to a paper roll holder especially adapted for carrying rolls of toilet paper.

More particularly, this invention relates to a roll holder comprising a bracket having a gripping member for receiving a circularly deformed portion of a polygonal rod, the rod having spaced arms at the ends thereof with inwardly turned end portions for supporting a spool. Also the spool may be of wood and provided with a metallic disc-shaped member at each end of the spool, the material of a central portion of the disc-shaped member being pierced and deformed to provide a metal bearing for receiving the arm ends of the polygonal rod.

It is the usual practice, in order to prevent the spool support from shifting longitudinally, to provide a bracket adjacent each of the end arms. The present invention contemplates the use of but a single bracket with a rod of polygonal cross section forming the spool support and in order to obtain a swiveling action of the support and prevent the rod from sliding longitudinally in the bracket, the corners of the polygonal rod are flattened out or deformed to provide a substantially round section. The rounded portion of the rod is received in a cylindrical bearing portion extending from the bracket, the roll support thereby being free to swivel and being prevented from longitudinal movement by reason of the corners of the polygonal rod abutting against the ends of the cylindrical bearing.

The spool for holding the roll of paper is preferably formed of wood and, since the support for the spool is preferably formed of a wire of polygonal cross section, it is desirable to provide a metallic end piece for attachment to the wooden holder at its ends and thereby provide a metallic bearing for permitting the roll or spool to rotate freely if the arms of the support are shaped so as to obtain a spaced relation with the ends of the roll. However, it may be desirable to provide a frictional resistance to the rotation of the roll and the arms of the support for the spool may be bent inwardly in a direction toward each other to engage the ends of the roller. Thus, there may be a slight but uniform tension on the roller which would not be obtained were the arms of the support pressed against the ends of a plain wooden roller since the frame, and particularly a frame of polygonal cross section, would tend to dig into the wood.

Further, the metallic end piece is adapted to be attached to the wooden roller by means of a central portion of the metallic piece by being pierced and deformed to extend at right angles from the disc-shaped piece, the jagged ends being forced into the wood and the main body portion of the deformed piece being smooth to provide a metallic bearing for receiving the inturned arm ends. The metallic bearing portions prevent the wire from digging into the wood of the spool as the spool rests thereon and provide for a freedom of movement of the spool or a uniform movement under tension.

One of the objects of this invention is to provide a roll holder of the type indicated above which is simple and efficient in operation, is comparatively inexpensive to manufacture, and is durable.

Another object of this invention is to provide a roll holder of the character referred to above, wherein the spool support is comprised of a rod of polygonal cross section having a deformed portion of circular cross section received by the gripping member of a bracket.

A further object of this invention is to provide a roll holder of the type referred to above in which metallic end pieces are employed at the end of the spool providing a metallic bearing for receiving the arm ends of the roll support and for providing uniform frictional engagement for the arms of the roll support when desired.

Other objects and advantages will hereinafter be more particularly pointed out and for a more complete understanding of the characteristic features of this invention, reference may now be had to the following description when taken together with the accompanying drawing, in which latter:

Figure 1 is a front elevational view of a roll holder embodying the features of this invention;

Fig. 2 is an enlarged central vertical sectional view of an end portion of the spool and its metallic end piece together with a portion of an arm end in elevation;

Fig. 3 is an enlarged front elevational view of the bracket of Fig. 1, showing the gripping portion thereof in section and fragmentary portion of the spool support; and

Fig. 4 is an enlarged vertical sectional view taken on the line 4—4 of Fig. 1 with a portion of the spool support broken away.

Referring now more particularly to the drawing, the roll holder embodying the features of this invention comprises a bracket 10 preferably formed of sheet metal and having a peripheral flange 11 extending therearound and bent at substantially right angles to the front surface thereof. The face of the bracket 10 is provided with apertures 12 in depressed portions thereof, the

depressions being of a size to receive the heads of screws or other attaching means, the shanks of which extend through the apertures. The face of the bracket is also provided with apertures 13 for receiving the free ends of a U-shaped clip 14, the extending portions 15 of the free ends of the clip 14 being cleated over the material bounding the apertures to fix the clip 14 relative to the bracket.

A support is secured to the bracket and comprises a rod 16 of polygonal cross section having spaced arms 17 and 18 at the ends thereof with inwardly extending end portions 19 and 20 respectively. A portion 21 of the polygonal rod 16 is deformed into substantially circular cross section, that is, the corners of the polygonal cross section of the rod are flattened at this portion to be received in the U-shaped clip 14 for rotative or swiveling movement relative to the bracket. The support is thus held against longitudinal movement by means of the projecting corners or portions of the non-circular or polygonal rod 16, these corners or portions, which extend beyond the substantially circular portion, abutting against the ends of the U-shaped clip 14.

A spool 22 for supporting a roll of paper or the like is preferably formed of wood and is provided with an axial aperture 23 at each end which may or may not extend through the entire spool as desired for receiving the arm ends 19 and 20. Since the arm ends as well as the entire spool support is preferably formed of polygonal cross section having sharp corners, it is preferable to provide a metallic support so that the arm ends will not dig into the wood material of the spool. Therefore, a metallic end piece 24 is provided for each end of the spool 22 and preferably comprises a disc-shaped metal piece having a central portion 25 which is pierced and deformed into the aperture 23 of the spool, the jagged ends of the portion of the disc thus pierced penetrating the material of the wooden spool so as to fix the end piece permanently against displacement.

By reason of the fact that a punch of uniform external diameter is preferably employed, that portion of the material which is inturned into the aperture 23 forms a smooth bearing or collar for riding on the arm ends 19 and 20.

It is preferable that the metallic end pieces 24 be of dished cross section to provide a peripheral portion 26 which is spaced from the ends of the roller 22. Thus, upon movement of the spool in a longitudinal direction, the end pieces 24 will abut against the arms 17 and 18 and by reason of the dish-shaped portion of the end piece engaging the arms, the arms will not be permitted to dig into the wood of the spool and will obviate the tendency for non-uniform rotation. The arms 17 and 18 may be resilient and may be sprung into frictional engagement with the end pieces 24 to provide uniform tension on the spool, or as shown in Fig. 1, they may be so spaced as to permit free rotation of the spool. However, in either instance the end pieces will operate to permit freedom of movement of the spool or uniform tension thereof preventing the wire from marking or digging into the wood either in the aperture 23 or at the ends of the spools.

While but a single embodiment of this invention is herein shown and described, it is to be understood that various modifications thereof may be apparent to those skilled in the art without departing from the spirit and scope of this invention and, therefore, the same is only to be limited by the scope of the prior art and the appended claims.

I claim:

1. A roll holder comprising a bracket having a gripping member, a support comprising a rod of polygonal cross section having a portion received by said gripping member for rotatable movement relative thereto, said rod having spaced arms at the ends thereof with inwardly turned end portions on said arms, a wooden spool supported on said arm ends, and sheet metal disc-shaped members adjacent the ends of said spool, the material of a central portion of said members being pierced and deformed to penetrate the material of said spool bounding apertures in the ends thereof for fixing said members permanently thereto and for providing metal bearings for said arm ends of polygonal cross section.

2. A roll holder comprising a bracket having a gripping member, a support comprising a rod of polygonal cross section having a portion received by said gripping member for rotatable movement relative thereto, said rod having spaced arms at the ends thereof with inwardly turned end portions on said arms, a wooden spool supported on said arm ends, and a sheet metal piece of dished cross section attached to the ends of said spool for preventing said arms of polygonal cross section from engaging the ends of said spool.

3. A roll holder comprising a bracket having a gripping member, a support comprising a rod of polygonal cross section having a portion received by said gripping member for rotatable movement relative thereto, said rod having spaced arms at the ends thereof with inwardly turned end portions on said arms, a wooden spool supported on said arm ends, and a sheet metal piece of dished cross section adjacent the ends of said spool for preventing said arms of polygonal cross section from engaging the ends of said spool, the material of a central portion of said sheet metal piece being pierced and deformed to penetrate the material of said spool bounding apertures in the ends thereof for fixing said pieces permanently thereto and for providing metal bearings for said arm ends.

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