May 11 , 1926. 1,583,868

B. A. BERGER

REEL

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Fig. 1.

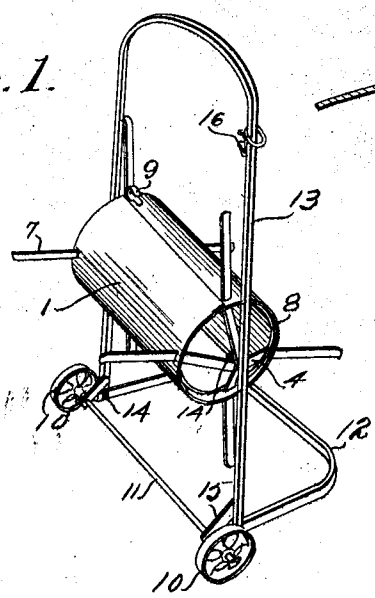


Fig. 3.

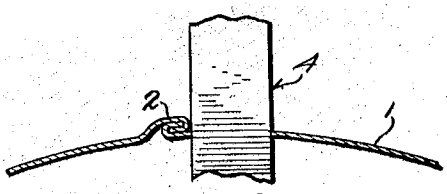


Fig. 4.

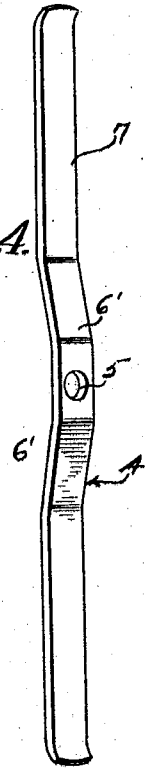
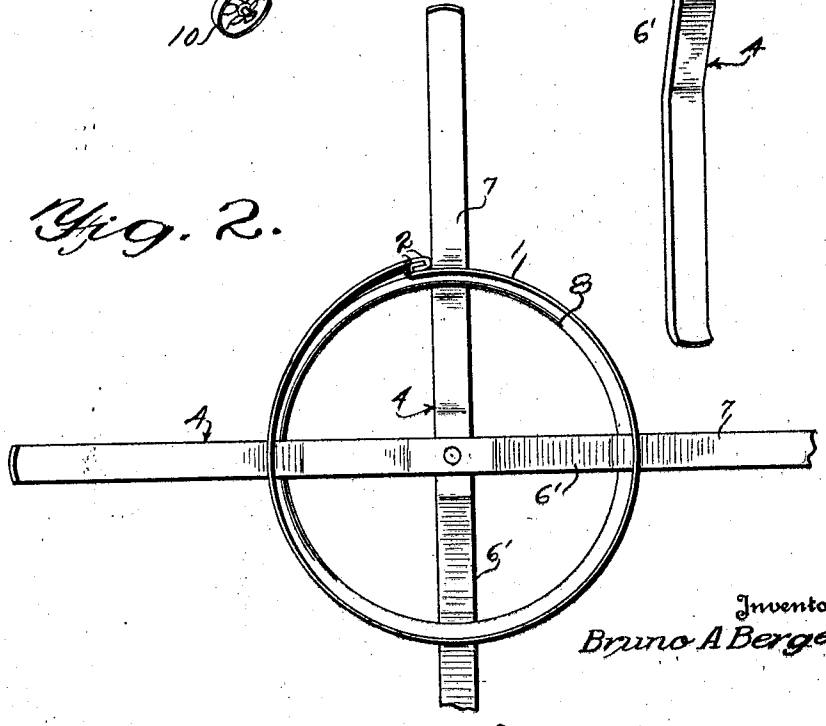


Fig. 2.



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REEL

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Fig. 6.

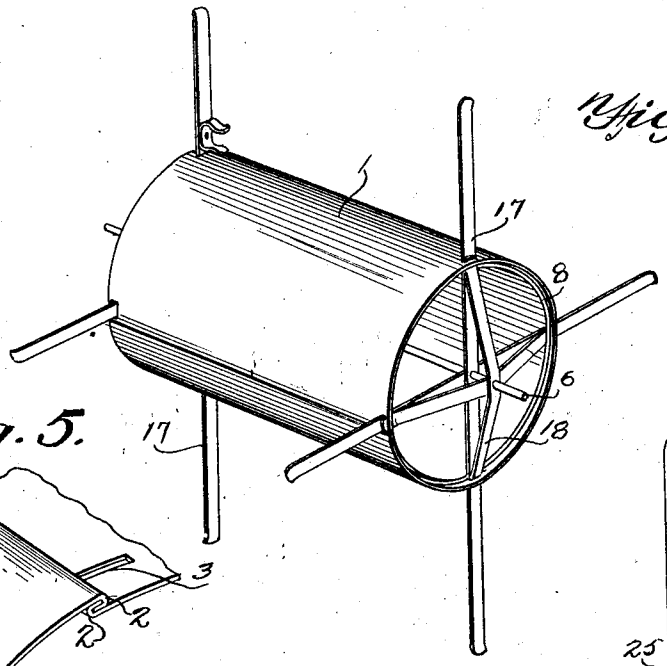


Fig. 5.

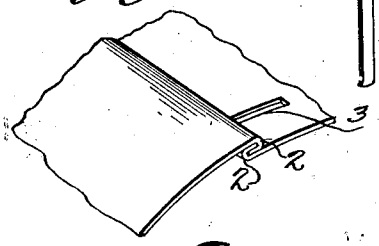
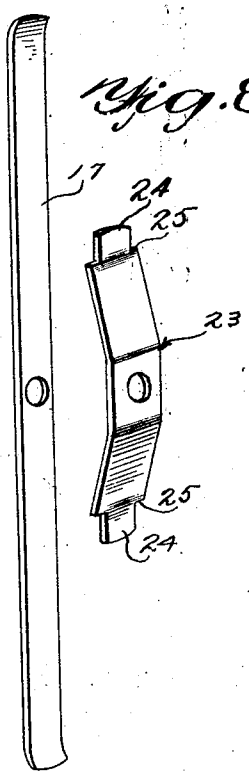


Fig. 8.



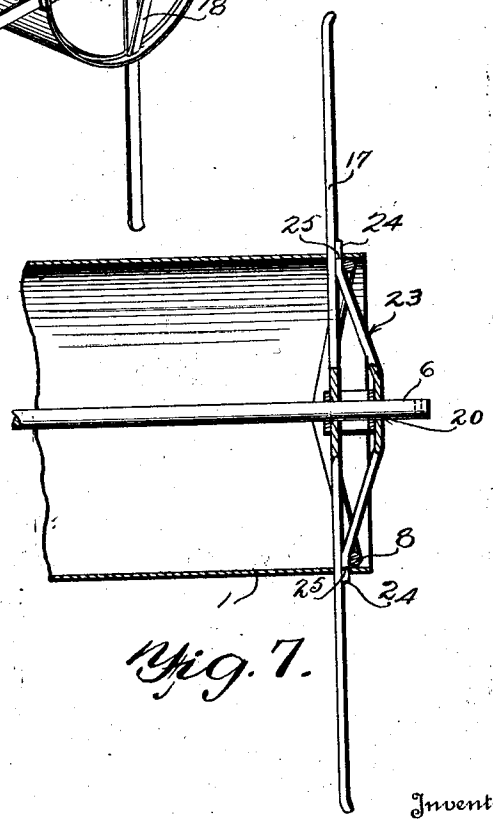


Fig. 7.

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Patented May 11, 1926. 1,583,868

UNITED STATES PATENT OFFICE.

BRUNO A. BERGER, OF RICHMOND, VIRGINIA, ASSIGNOR TO BERGER SPECIALTY MANUFACTURING COMPANY, INC., OF RICHMOND, VIRGINIA, A CORPORATION OF VIRGINIA.

REEL.

Application filed July 2, 1925. Serial No. 41,198.

This invention relates to reels, and more particularly to hose reels.

An object of the invention is to provide a reel consisting of a drum formed of sheet metal and adapted to be shipped in a knocked-down condition, together with cross arms arranged at each end of the reel to form guides for the hose, said cross arms being passed through slots in the drum and being adapted to retain the two edges of the sheet from which the drum is formed in locked position.

A further object is to provide a stiffening ring adapted to be arranged in the ends of the drums and retained in position by the cross arms.

In the accompanying drawings, I have shown several embodiments of the invention. In this showing:

Figure 1 is a perspective view of the reel mounted on a suitable carrier,

Figure 2 is an end elevation of the reel,

Figure 3 is a detail sectional view taken parallel to the edge of the ring through one of the slots which receive the cross arms,

Figure 4 is a perspective view of one of the cross arms,

Figure 5 is a perspective view of a portion of the reel or drum showing the fastening means,

Figure 6 is a perspective view of another form of reel, showing the use of an auxiliary cross arm,

Figure 7 is a central longitudinal sectional view, and,

Figure 8 is a detail view showing a further modification of the cross arm employed in the form of reel shown in Figures 6 and 7 of the drawings.

Referring to Figures 1 to 5 of the drawings the reel consists of a piece of sheet metal 1, the opposite edges of which are provided with interlocking joints 2 adapted to engage each other when the flat sheet metal is arranged in cylindrical form in assembling the reel or drum. The reel is provided with diametrically opposed slots 3 adjacent each end adapted to receive cross arms 4. As shown, these cross arms are provided with central openings 5 for the reception of a shaft 6 on which the reel is mounted. On each side of the center, the arms are inclined as at 6′, to retain them in position when the reel is assembled. Beyond the inclined portions, the arms are provided with straight portions 7 which project through the slots and extend beyond the reel for the purpose of forming guides for a hose or the like. A stiffening ring 8 may be arranged in each end of the reel and this ring may be retained in position by alternately placing it inwardly and outwardly of the cross arms (see Figure 2). One of the cross arms may be provided with a suitable clip 9 to which the end of the hose may be attached.

The reel is adapted to be mounted in a suitable carrier to permit it to be transported from place to place. As shown, a pair of wheels 10 are mounted on an axle 11 and this axle is carried by a substantially U-shaped frame 12, which is adapted to engage the surface when the reel is standing, as shown in Figure 1 of the drawings. Arranged at substantially right angles to the U-shaped member 12 is a U-shaped member 13 which forms a handle in rolling the reel and which forms a support for the reel. As shown, this U-shaped handle is secured to the base 12, as at 14, and suitable diagonal braces 15 may extend from the axle to the handle. The shaft 5 is adapted to be received in openings in the arms of the handle and one of the arms is provided with a clip 16 to receive one end of the hose.

In the form of the invention shown in Figures 6 and 7 of the drawings, the arms 4 are replaced by arms 17 which are not provided with the central offset portions 6′. In connection with these arms, I employ auxiliary arms 18 having a central portion 19 provided with an opening 20 for the reception of the shaft and having inclined portions 21 adjacent the central portion. The ends 22 of the auxiliary arms are straight and are adapted to lie in contact with the main arm 17 at the point where it passes through the slots 3.

In the form of the invention shown in Figure 8 of the drawings, I provide an auxiliary cross arm 23, which is of greater width throughout the major portion of its length than the slots 3. Adjacent each end, the auxiliary arm is reduced in width, as at 24, to permit the end to pass through the slot

and the shoulders 25 produced by the reduction in the width of the arm, engage the inner wall of the drum. As shown, this cross arm may be offset in a manner similar to the auxiliary cross arm 18 shown in Figures 6 and 7 of the drawings.

By providing a reel of this character, the device may be shipped in a knocked-down condition, saving considerable amount of space, and when assembled, the cross arms 4 and 17 not only serve as guides for the hose where they extend beyond the surface of the reel, but they also serve as locking members to prevent the seam 2 from opening after the reel has been set up.

It is to be understood that the forms of my invention herewith shown and described are to be taken as preferred examples of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. In a device of the character described, a reel formed of a flat sheet of metal adapted to be rolled to form a cylinder, the ends of said sheet being provided with seams adapted to be interlocked when assembled, said cylinder being provided with diametrically opposed slots adjacent each side, and cross arms passing through said slots, said cross arms being adapted to retain said seams in locked position, and being further provided with projecting portions serving as guides.

2. In a device of the character described, a reel formed of a flat sheet of metal adapted to be rolled to form a cylinder, the ends of said sheet being provided with seams adapted to be interlocked when assembled, said cylinder being provided with diametrically opposed slots adjacent each side, cross arms passing through said slots, said cross arms being adapted to retain said seams in locked position and being further provided with projecting portions serving as guides, and a stiffening ring arranged in each end of said cylinder and retained in position by said cross arms.

3. In a device of the character described, a reel formed of a flat sheet of metal adapted to be rolled to form a cylinder, the ends of said sheet being provided with seams adapted to be interlocked when assembled, said cylinder being provided with diametrically opposed slots adjacent each side, and cross arms passing through said slots, said cross arms being adapted to retain said seams in locked position, and being further provided with projecting portions serving as guides, the portion of said cross arms within said cylinder being offset to prevent displacement of said arms.

4. In a device of the character described, a reel formed of a flat sheet of metal adapted to be rolled to form a cylinder, the ends of said sheet being provided with seams adapted to be interlocked when assembled, said cylinder being provided with diametrically opposed slots adjacent each side, cross arms passing through said slots, said cross arms being adapted to retain said seams in locked position and being further provided with projecting portions serving as guides, said cross arms being provided with openings arranged centrally of said cylinder, and an axle passing through said openings.

5. In a device of the character described, a reel formed of a flat sheet of metal adapted to be rolled to form a cylinder, the ends of said sheet being curled to form interlocking seams adapted to be secured to each other when the reel is assembled, said cylinder being provided with diametrically opposed slots adjacent each side, and cross arms passing through said slots, said cross arms being adapted to retain said seams in locked position, and being provided with projecting portions adapted to serve as guides.

6. In a device of the character described, a reel formed of a piece of sheet metal shaped to form a cylinder, the edges of said sheet being curled to form an interlocking seam, said sheet being provided with a plurality of slots adjacent each side and adapted to form pairs of diametrically opposed slots when the reel is assembled, cross arms passing through said slots, said cross arms projecting beyond said cylinder to form guides, and auxiliary cross arms arranged adjacent said cross arms and having their ends passing a slight distance through said slots.

7. In a device of the character described, a reel formed of a piece of sheet metal shaped to form a cylinder, the edges of said sheet being curled to form an interlocking seam, said sheet being provided with a plurality of slots adjacent each side adapted to form pairs of diametrically opposed slots when the reel is assembled, cross arms passing through said slots, said cross arms projecting beyond said cylinder to form guides, and auxiliary cross arms arranged adjacent said cross arms and extending a slight distance through said slots, said auxiliary cross arms serving as reenforcing means for said cylinder.

In testimony whereof, I affix my signature.

BRUNO A. BERGER.