Dec. 15, 1931. H. HARVEY 1,836,593

WIRE ROLL HOLDER

Filed Dec. 22, 1927

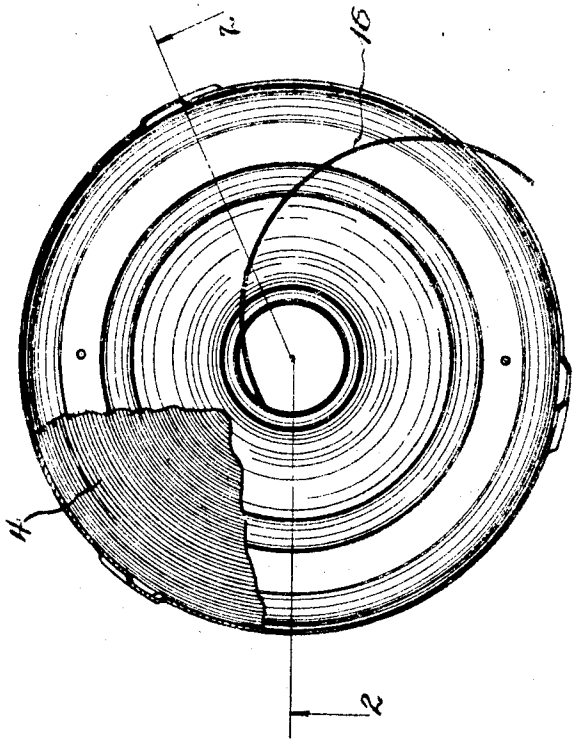


Fig. 1.

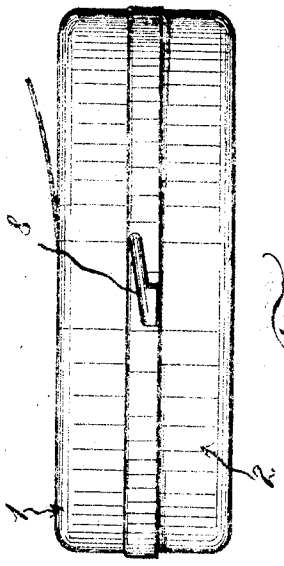


Fig. 3.

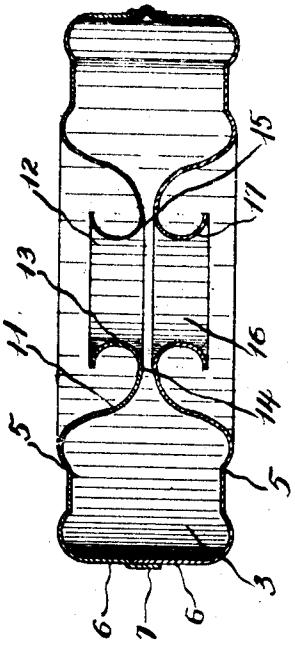


Fig. 2.

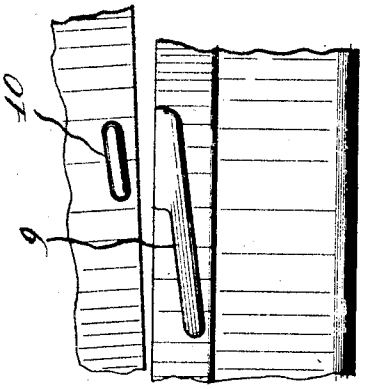


Fig. 4.

Inventor

Herbert Harvey

By Lyon & Lyon

Attorneys

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HERBERT HARVEY, OF LOS ANGELES, CALIFORNIA

WIRE ROLL HOLDER

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This invention relates to a holder for holding a coil of wire to facilitate the drawing off of quantities of wire as needed from the coil. While the device may be used in various situations, it is intended to be especially useful for carrying wire to be used in strapping boxes and packing cases. It has been attempted to hold such a wire coil on a conical support but where the coil is of light wire, the wraps of the coil become expanded and it is difficult to keep the coil intact on the holder.

The general object of this invention is to provide a holder for a wire coil which will operate as a container for the coil but which will operate to enable the wire to be drawn off from the coil as needed; the device is constructed in such a way that it will guide the wire and prevent forming kinks in it as it is drawn out of the holder.

A further object of the invention is to strap the holder so that it can be very conveniently made of pressed sheet metal with dies or with the spinning tool; also to construct the device so that if desired it can be constructed of two substantially similar parts thereby enabling the device to be substantially constructed with two parts that are alike. In this way I avoid the necessity for providing two different sets of dies to form the holder.

A further object of the invention is to provide a holder of this kind which lies upon a floor or a workbench and which can be moved but which at the same time will always hold the coil so that the wire can be drawn from it at will.

Further objects of the invention will appear hereinafter.

The invention consists in the novel parts and combination of parts to be described hereinafter, all of which contribute to produce an efficient wire roll holder.

A preferred embodiment of the invention is described in the following specification, while the broad scope of the invention is pointed out in the appended claims.

In the drawings Fig. 1 is a plan of a wire coil holder embodying my invention, certain parts being broken away; this view illustrates the end of the wire of the coil protruding from the opening in the holder.

Fig. 2 is a cross-section through the holder taken on a line 2/2 of Fig. 1.

Fig. 3 is a side elevation of the holder.

Fig. 4 is a side elevation upon a larger scale showing a small portion of the two side sections which form a holder and particularly illustrating the details of the banner joint that may be employed for attaching the two side sections together.

In practicing the invention I provide a holder having two side sections with means for attaching the same together. These side sections are constructed so that they cooperate to form a chamber to receive a coil. This chamber is preferably of annular form and at least one of the side sections is provided with a central opening through which the wire may be drawn off from the coil. This central opening is constructed at its edge in such a way as to prevent forming kinks in the wire. In practice the material of the side section carrying this opening lies adjacent to the material of the opposite side section so that a relatively narrow guide throat is formed guiding the wire through the opening. In the present specification and drawings I have disclosed a holder of symmetrical construction having two side sections which are substantially alike in form, each being provided with a central opening.

In practice, however, it is not essential to provide more than one of the side sections with an opening for the wire to pass out, but it is more economical to construct the holder of two alike side sections because that enables me to construct both side sections with one set of dies or spinning tool making slight modifications to enable them to be attached together.

Referring more particularly to the parts, 1 and 2 indicate two side sections which come together to form a chamber 3 to receive a wire coil 4. The chamber 3 is preferably of annular form to correspond with the annular from of the wire coil. The side sections 1 and 2 are constructed in some way to enable them to be readily separable to place the coil in the holder. For this purpose each side

section is preferably constructed so that it has a disk portion 5 (see Fig. 2) with an integral annular flange 6. These flanges 6 are substantially alike but one of them is provided with an offset portion 7 of a large diameter to telescope over the flange of the opposite side section (see Fig. 2). These telescoping portions of the flanges are provided with bayonet slot connections 8 including a bayonet slot 9 and a cooperating tongue 10 formed on the opposite flange (see Fig. 4). The central portion of at least one of disks 5 is offset inwardly toward the middle plane of the holder, so as to form an inclined or curved guide cheek 11 on the inner side of the holder, that is to say, the material is offset toward the disk of the opposite side section and is provided with a central opening 12 having a flange 13 formed integral with the material of the disk. This flange flares outwardly and is preferably of concavo-convex form with its convex side disposed inwardly and toward the axis of the opening. This enables the wire to be drawn out without pulling it against an edge. The material of the disk at the point 14 near the opening 12 should lie near the material of the disk 5 of the other side section. In this way a relatively narrow guide throat 15 is formed which guides the loose end 16 of the wire as it passes out through the opening (see Figs. 1 and 2).

As illustrated in Fig. 2 both the upper side section and the lower side section may be constructed alike so that the device is of symmetrical form as regards its middle plane. In this way the lower side section will be provided with an opening 16 alining with the opening 12 and similarly provided with a concavo-convex flange 17.

It will be evident that a holder constructed as described can have its parts very readily detached from each other so as to permit placing another coil of wire within it. It will also be evident that the wire in passing from the coil will be guided easily over the guide cheeks 11, through the throat 15 and through the guide openings 12 or 16 in such a way as to prevent forming a kink in the wire. The throat 15 is continuous around the edges of the openings 12 and 16. In other words the wire can be pulled in almost any direction from the coil through the throat 15 and in any direction through the opening 12 without producing a kink in the wire or tending to bend it around any sharp corner or edge. These holders are relatively inexpensive as they may be formed of thin sheet zinc or similar material.

It is understood that the embodiment of the invention described herein is only one of the many embodiments this invention may take, and I do not wish to be limited in the practice of the invention, nor in the claims, to the particular embodiment set forth.

What I claim is:

1. A holder for a coil of wire having two side sections with means for attaching the same together, said side sections having annular walls cooperating to form an annular chamber to receive the coil and having a circumferential inclined guide cheek on its inner side and a substantially central opening through which the wire is guided by the guide cheek when being drawn off from the coil, said guide cheek terminating in an outwardly flaring flange.

2. A holder for a coil of wire having two side sections each consisting substantially of a disk form body with a marginal flange extending around the same, said side sections having interlocking means on their flanges and having their disk portions offset toward each other with annular walls co-operating with the marginal flanges to form an annular chamber to receive the coil and guide the wire out of the holder, at least one of said disk portions having a substantially central opening through which the wire may be drawn off from the coil.

3. A holder for a coil of wire having two side sections with means for attaching the same together, said side sections cooperating to form an annular chamber to receive the coil and having a substantially central opening with a concavo-convex flange around the opening with the convex side of the flange disposed toward the axis of the opening and operating to prevent forming kinks in the wire when it is drawn off from the coil and through the opening.

4. A holder for a coil of wire having two detachable side sections cooperating to form a chamber to receive the coil, at least one of said side sections having a substantially central opening with a concavo-convex flange surrounding said opening with the convex side of the flange disposed toward the axis of the opening and operating to guide the wire and prevent forming kinks in the same when the wire is drawn off from the coil through the opening.

5. A holder for a coil of wire having two side sections, each section having a disk form body with an integral marginal flange, the said flanges having interlocking means enabling the two side sections to be attached together, the central portion of one of said disks having an opening with an outwardly projecting flange having a convex face on its inner side for guiding the wire as it is pulled from the coil and out of the opening, the other disk portion having an offset central portion cooperating with the disk portion of the opposite side section to form a guide throat for the wire in passing from the coil and through the opening.

6. A holder for a coil of wire having two side sections with means for attaching the same together, said side sections cooperating

to form a chamber to receive the wire coil, at least one of said side sections having a central portion with an opening having a guide flange with a convex face on its inner side for guiding the wire as it passes through the opening, said central portion lying adjacent to the central portion of the opposite side section and cooperating with the same to form a relatively narrow throat through which the wire moves in passing from the wire coil through the opening.

7. A holder for a coil of wire having two side sections with means for attaching the same together, said side sections cooperating to form an annular chamber to receive the coil, each side section having its central portion offset toward the opposite side section, at least one of said side sections having a substantially central opening with a curved guide flange extending around the edge of the same for guiding the wire, the central portion of the opposite side section being offset toward the opposite wall of the other section and co-operating with the wall of the section having the opening to form a relatively narrow guide throat through which the wire moves in passing from the coil through the opening.

8. A holder for a coil of wire having two side sections each side section having a disk body with an integral marginal flange, means for attaching the side sections together at their flanges, the central portions of the disks of said side sections being offset inwardly so that the two side sections cooperate to produce an annular chamber to receive the wire coil, said central portions having openings and lying relatively close together so as to form a guide throat therebetween for the wire and having guide flanges convex on their inner sides surrounding the said openings for guiding the wire.

9. A holder for a coil of wire having two side sections with means for attaching the same together, said side sections co-operating to form an annular chamber to receive the coil, one side section having its central portion offset toward the opposite side section, at least one of said side sections having a substantially central opening with a guide flange extending around and forming the side of the opening, and for guiding the wire, the central portion of the opposite side section being offset toward the offset portion of the first section and co-operating with the same to form a reatively narrow guide throat through which the wire moves in passing from the coil through the opening.

Signed at Los Angeles, Calif. this 6 day of December, 1927.

HERBERT HARVEY.