Aug. 12, 1958 J. L. SALKIELD 2,847,172

COILED MATERIAL DISPENSER

Filed June 5, 1956

Fig. 1

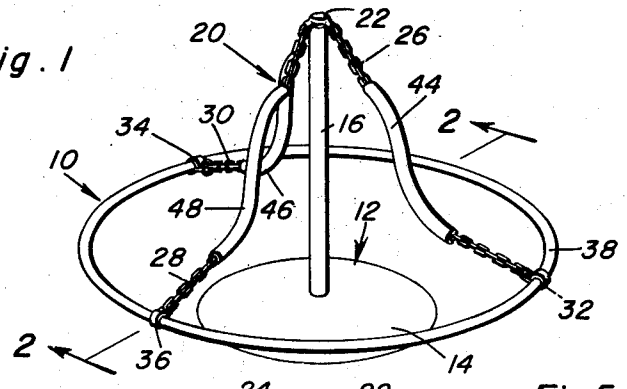


Fig. 5

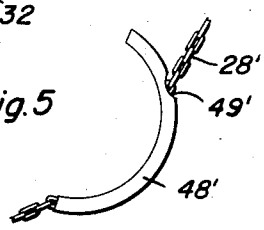


Fig. 2

Fig. 3

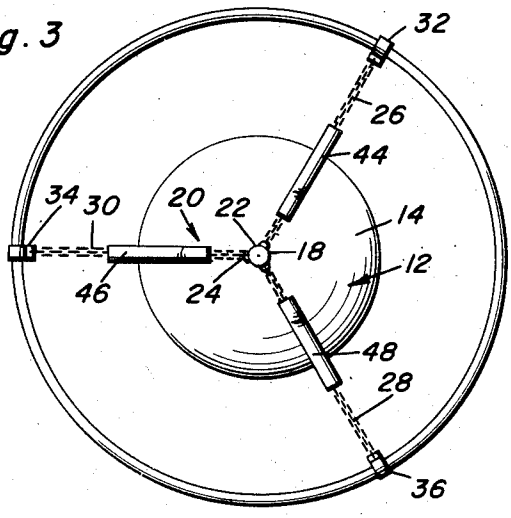
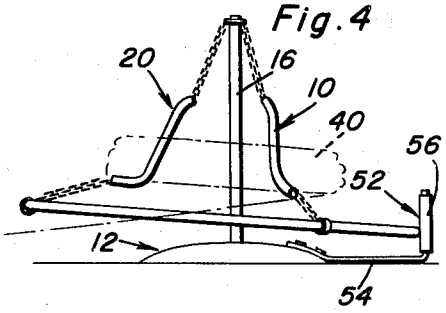


Fig. 4



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COILED MATERIAL DISPENSER

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3 Claims. (Cl. 242—129)

This invention relates to devices for dispensing coiled material.

The object of the present invention is to provide a dispenser for coiled material, as wire, rope, cable and any other material that is ordinarily coiled and adapted to be unrolled, the reel accommodating various diametered coils with equal facility.

A further object of the invention is to provide such a dispenser wherein the reel is of special construction, including one and preferably three flexible elements which extend from the bearing that mounts the reel for rotation on a base to a frame, these flexible elements each supporting a tube that has curved upper and lower ends, the upper ends being so arranged that the reel can support smaller diametered coils of wire or the like, while the lower curvature of the tubes are for accommodating larger diameter coils of wire or like material. The range of adjustment of the reel is very large inasmuch as the tubes may be slid from the extreme upper ends to the extreme lower ends of the flexible elements.

A further object of the invention is to provide a dispensing device for coiled material wherein there is an automatically operative brake to prevent over-riding when dispensing a length of the coiled wire.

Another and very important object of the invention is to provide a practical device of this nature which is usable by various professions or trades and which, due to its practicality is acceptable as a tool that materially facilitates the work of technicians, journeymen, skilled workers and helpers alike.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of a sub-combination of the composite device shown in Figure 4;

Figure 2 is a longitudinal sectional view of the device of Figure 1 taken on the line of 2—2 in Figure 1;

Figure 3 is a top plan view of the device of Figure 1;

Figure 4 is an elevational view of a dispenser for coiled rope, wire or other like material, which made in accordance with the priniciples of the invention; and

Figure 5 is a fragmentary perspective view showing a modified form of the invention.

The dispenser **10** comprises a base **12** made of a weighted base plate **14** from which vertical post **16** rises. This post has an open upper end in which to accommodate the bearing **18**, the latter being mounted for rotation.

The bearing **18** is a part of reel **20**, the bearing supporting the latter so that it is capable of reasonably free rotation. Although various bearing constructions may be adapted, it is preferred that the bearing be made of a short pice of bar stock or another cylindrical body having a flange **22** that seats on the upper extremity of the

post **16**. Ears **24** are attached to the flange **22** or, form a part thereof. Each of these ears accommodates a flexible element, for example, chains **26**, **28** and **30** respectively. The lower extremities of these chains are secured, as by brackets **32**, **34** and **36**, to the frame **38** which is of considerably larger diameter than the bearing **18**. Chains **26**, **28** and **30** support the frame **38** in space approximately equidistant from post **16**. Adjustable means for accommodating coil **40** and other coils of various diameters, are mounted adjustably on chains **26**, **28** and **30**. These means comprise tubes **44**, **46** and **48** respectively, one tube being slidably mounted on each of the chains. The upper extremity of each tube is bent inwardly (Figure 2) in order to accommodate the smaller diameter coils of wire, rope, cable or other coiled material, while the lower extremities of the three tubes are bent outwardly in order to support the larger coils. In either case whether the bend is inwardly or outwardly, the bent parts of the tubes form seats on which the coils are mounted and held.

Brake **52** is operatively connected to a reel **20** to prevent over-riding when the worker pays out a length of the coiled material from reel **20**. The brake comprises an arm **54** which is riveted or otherwise fixed to base plate 14, whose outer extremity is bent upwardly at approximately 90°. A rubber, plastic or light high friction liner material **56** is on the angulated part of arm **54** and is adapted to be contacted by frame **38**. In the illustration of Figure 4 the liner **56** is in the form of a sleeve. The length of arm **54** is slightly less than a radius of frame **38** so that the rest position of the reel **20** is with a part of the frame **38** lightly touching the brake.

In using the device the tubes **44**, **46** and **48** are adjusted to the position considered most expedient in accordance with the desires of the user. Where electrical work is done on a building, the tubes will be located approximately as shown in Figure 2. For heavier work, for example, handling cables, and where the coil is of a larger diameter, the tubes will be slid downwardly to a position close to frame **38**. For lighter work, for example in a laboratory, and where wire is in smaller coils, the tubes may be moved upwardly to a position very close to or even touching the ears that support the chains.

After simply throwing the coil **40** over the reel, it will nest to a position shown in Figure 2. Then, when the worker desires to dispense a part of the coil **40**, he merely pulls on the end of the wire thereby automatically swinging frame **38** away from brake **52** and paying out a part of the coil by rotating reel **20**. When the pulling force is relaxed, the reel swings automatically to a stop position, either on its accord (Figure 1), or by having frame **38** contact brake **52**.

Although preferred forms of the invention are illustrated and described, it is apparent that various modifications may be made and still remain within the purview of the invention. For example, there are three chains and three tubes described as being in the construction of reel **20**. It is obvious that four or five or more of such chains may be adapted. In addition a lesser number of pairs of chains and tubes may be used. In fact, some of the chains may omit the tubes or other constructions where only a single chain and single tube links or braces may be substituted. Moreover, the shape of the sleeve may be altered somewhat as shown in Figure 5 where tube **48'** on chain **28'** demonstrates such a departure. The lower end of the tube **48'** is shaped approximately the same as tube **48**, but the upper end is bent in a direction opposite to the upper end of tube **48** and there is a chain entrance **49'** intermediate the ends of tube **48'**.

What is claimed as new is as follows:

1. A portable dispensing device for a coil of wire, rope

or the like, said portable device comprising a base, a post rising from said base and carried thereby, a reel mounted for rotation on said post, said reel including a frame concentrically arranged with said post, a plurality of flexible elements secured at their lower ends to said frame, a bearing mounted for rotation on the upper end of said post, means securing the opposite ends of said flexible elements to said bearing in order to thereby support said frame for rotation on said post, a tube slidably adjustably mounted on each flexible element, said tubes having outwardly bent lower ends in order to form a seat on which to support the coil, the effective diameter of said seat being adjustable by adjusting said tubes along the lengths of said flexible elements.

2. A portable dispensing device for a coil of wire, rope or the like, said portable device comprising a base, a post rising from said base and carried thereby, a reel mounted for rotation on said post, said reel including a frame concentrically arranged with said post, a plurality of flexible elements secured at their lower ends to said frame, a bearing mounted for rotation on the upper end of said post, means securing the opposite ends of said flexible elements to said bearing in order to thereby support said frame for rotation on said post, a tube slidably adjustably mounted on each flexible element, said tubes having outwardly bent lower ends in order to form a seat on which to support the coil, the effective diameter of said seat being adjustable by adjusting said tubes along the lengths of said flexible elements, a brake carried by said base and adapted to be contacted by said frame, said frame being circular and having a radius slightly in excess of the distance between said brake and said post so that said frame touches said brake in a normal rest position of said reel.

3. The combination of claim 2 wherein said brake includes an arm secured to said base and protruding outwardly of said post, and a brake liner secured to said arm and arranged in a position which is lateral of said arm.

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