May 9, 1933. E. WITTE 1,907,695

REEL

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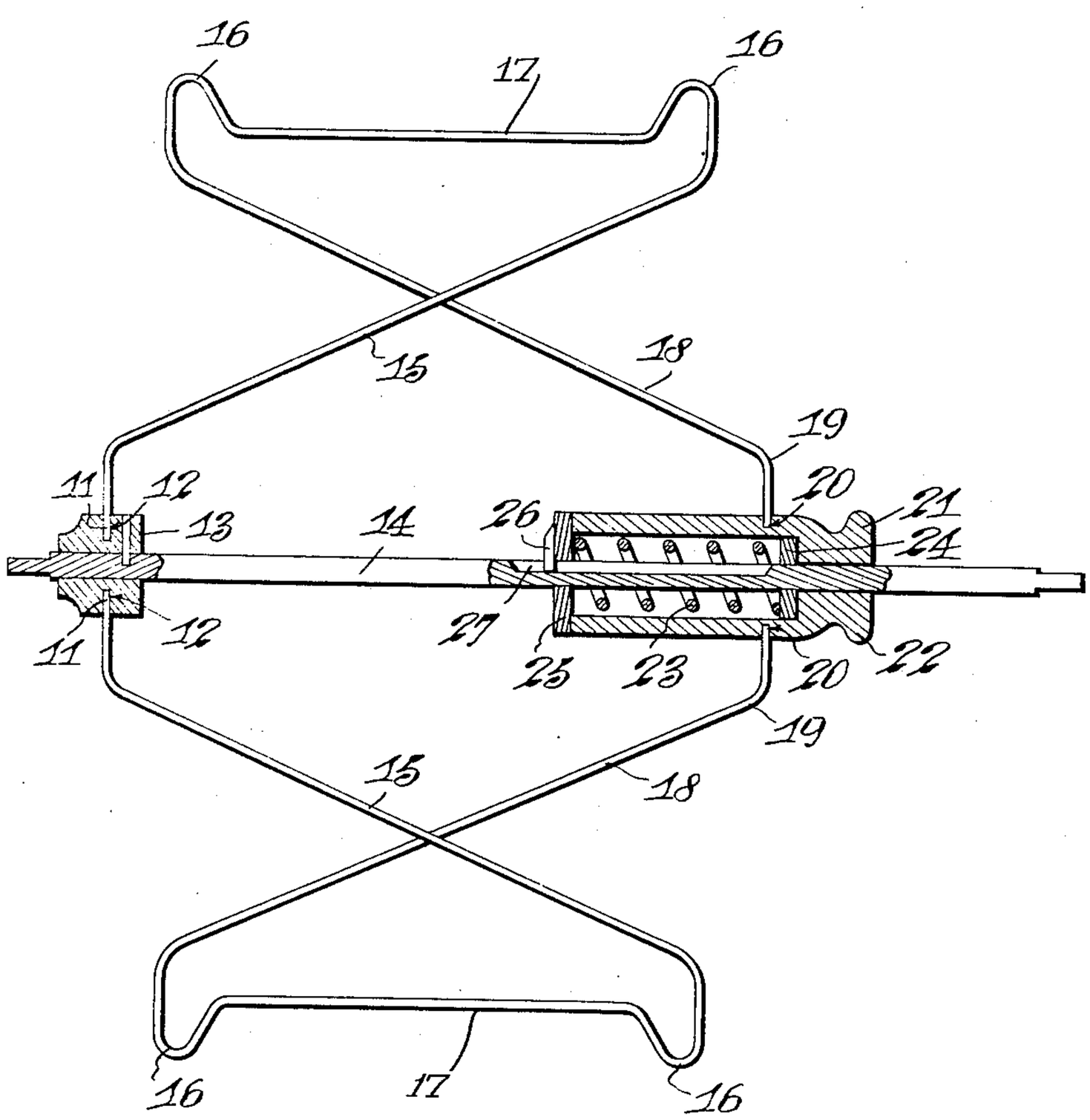

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REEL

Application filed October 8, 1931, Serial No. 567,721, and in Germany January 12, 1931.

This invention relates to the provision of an improved reel to be used in the handling of skeins.

It is an object of this invention to provide a reel which may be easily collapsed.

More particularly, it is an object of this invention to provide a reel whose diameter may be reduced so that a skein of artificial silk or other material may be readily placed thereon for treatment and afterward removed therefrom.

A further object of this invention is to provide a reel with suitable means to prevent the carrier arms from rotating.

These and other objects of this invention will become more apparent from a perusal of the following description and a study of the drawing in which:

The figure is a side elevation of the reel, certain parts thereof being shown in cross section.

Referring now to the drawing, there is shown a reel comprising a plurality of carrier arms 10. Each carrier arm consists of a single length of wire, having one end 11 secured in a socket 12 provided in the hub 13, which is fixedly mounted on an axle or shaft, 14. The wire is bent, as shown at 15, at an angle to the axle or shaft and extends outwardly a substantial distance therefrom. The wire is then formed with outwardly bent portions 16 which serve to hold a skein on the carrier arm 17 located therebetween. The other end 18 of the wire extends at an angle toward the axle, crossing the portion 15 of the wire, and is then bent as shown at 19, the end of the wire fitting into a socket 20 formed in a hub 21 movably mounted on the axle or shaft.

The hub 21 comprises an elongated hollow member having formed at one end a handle or knob 22. Located within the hollow member is a spring 23 bearing against a ring 24 which may be adjustably secured to the axle or shaft. A cover 25 is provided for the end of the hub and is provided with a detent 26, the end of which is located in a groove 27 formed in the axle or shaft. By this construction the hub is prevented from rotating on the axle or shaft.

When it is desired to collapse the reel the hub 21 is moved away from the hub 13, causing the portions 15 and 18 of the wire carrier members to be moved near the axle or shaft, and thus decreasing the diameter of the reel.

From the above description it is obvious that the reel may be readily collapsed, and if the crossed portions of the carrier arms are of the same length the carrier arms will remain parallel during their movement toward the axle, or shaft. By making one of these longer than the other, one end of the reel will be, when in collapsed condition, nearer to the axle or shaft than the other. Such construction is sometimes preferable when handling small skeins such as those produced by the "pot-spinning" process.

Although the invention has been described with reference to the specific embodiment disclosed, it is to be understood that the invention is not specifically limited thereto, but may be varied in many details without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

1. A collapsible reel comprising in combination, an axle, a hub fixedly secured thereto, a hub movably secured thereto at a distance from said fixed hub, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending angularly from said axle, a carrier portion, a portion extending toward said movable hub and crossing said first mentioned portion, and the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub away from the fixed hub.

2. A collapsible reel comprising, in combination, an axle, a hub fixedly secured thereto, a hub movably secured thereto at a distance from said fixed hub, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending angularly from said axle, a carrier portion, a portion extending toward said movable hub and crossing said first mentioned

portion, and the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub away from the fixed hub, and means associated with said movable hub to return said carrier members to normal position.

3. A collapsible reel comprising, in combination an axle, a hub fixedly secured thereto, a hub movably secured thereto at a distance from said fixed hub, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending angularly from said axle, a carrier portion, a portion extending toward said movable hub and crossing said first mentioned portion, at a point half way along the length thereof, the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub.

4. A collapsible reel comprising, in combination an axle, a hub fixedly secured thereto, a hub movably secured thereto at a distance from said fixed hub, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending angularly from said axle, a carrier portion, a portion extending toward said movable hub and crossing said first mentioned portion at a point half way along the length thereof, the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub, and means associated with said movable hub to return said carrier members to normal position.

5. A collapsible reel comprising, in combination an axle, a hub fixedly secured thereto, a hub movably secured thereto at a distance from said fixed hub, means to prevent rotation of said movable hub on said axle, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending angularly from said axle, a carrier portion, a portion extending toward said movable hub and crossing said first mentioned portion, at a point half way along the length thereof, the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub.

6. A collapsible reel comprising in combination, an axle provided at one end with a groove, a hub fixedly secured to said axle at the other end thereof, a hub movably mounted on said axle and provided with means engaging in said groove to prevent rotation of said movable hub, carrier members secured to said hubs, each member comprising a wire having one end secured to said fixed hub and bent to form a portion extending toward said movable hub and crossing said first mentioned portion, at a point half way along the length thereof, the other end of said wire being secured to said movable hub, the said carrier members being collapsed upon movement of the movable hub.

In testimony whereof I affix my signature.

ERHARD WITTE.