

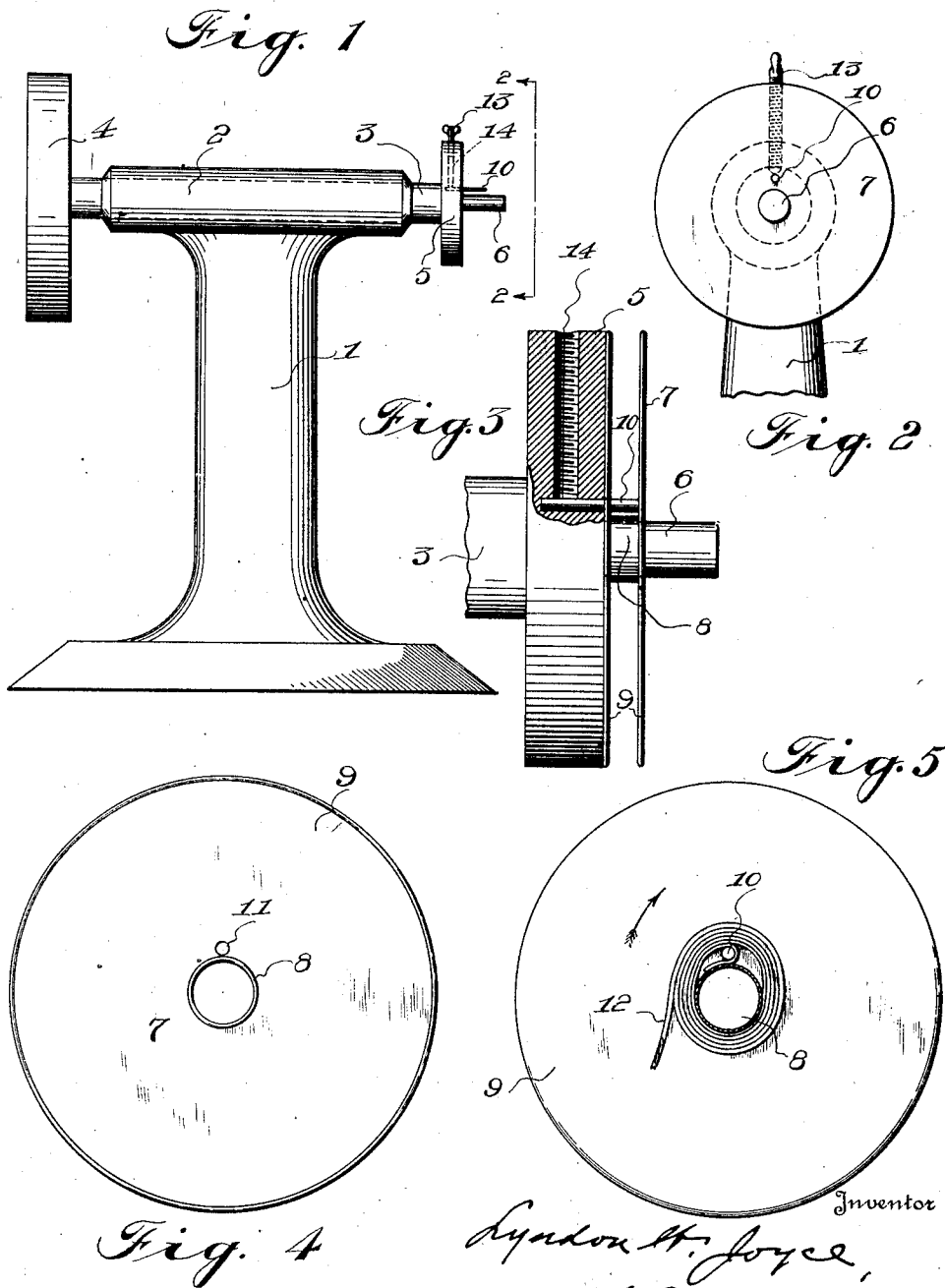
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WINDING DEVICE AND REEL FOR ELASTICS OR TAPES

Filed April 22, 1925



Inventor
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WINDING DEVICE AND REEL FOR ELASTICS OR TAPES.

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My invention relates to a device for winding ribbons or elastics, more specifically elastics on spools or reels, and also to the spool or reel formed so as to be mounted on the winding device and have the ribbon or elastic tape wound thereon in the rotation of the winder.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the features hereinafter fully described and then sought to be clearly defined by the claims, reference being had to the accompanying drawing forming a part hereof, and in which

Figure 1 is a front elevation of the winding device;

Figure 2 an end view of Fig. 1 looking in the direction of the arrows, on an enlarged scale, with the reel or bobbin in position, and the lower portion of the pedestal broken away;

Figure 3 is a view in front elevation, enlarged scale, of a portion of the rotatable shaft with its disc head partly in section, and the bobbin or reel mounted on the reduced end of the shaft, and showing the pin that attaches the reel to the shaft head and secures the tape while being wound on the reel;

Figure 4 is a side view of one face cheek of the reel; and

Figure 5 is a section through the hollow hub of the reel, showing one cheek of the reel and the manner in which the pin holds the tape to the reel while being wound thereon.

In the drawing the numeral 1 designates a pillar or pedestal of any suitable form and material and carrying at its top a transversely extending tubular bearing 2 in which fits a rotatable shaft 3 having a belt drive pulley 4 or other suitable drive at one end and provided at the other end with a disk-head 5 beyond the face of which extends or projects a spindle 6 which is designed to support a bobbin or reel 7 upon which the ribbon or elastic tape is to be wound. The reel or bobbin is formed of metal, preferably sheet metal, and has a hollow hub 8 carrying oppositely disposed flanges or cheeks 9. The reel is mounted on the spindle 6 of rotatable shaft 3 and is caused to rotate therewith by a pin or stud 10 projecting beyond the face of head 5 and passing through an aperture or perforation 11 made in one of the cheeks 9 of the reel in relatively close

relation to hub 8 of the reel and extending practically the length of the hub so that the reel is caused to rotate with shaft 3. This stud or pin 10 also functions as a retainer for the end of the elastic or tape 12 as it is being wound upon the reel, the inner end of the tape lying between the retaining stud or pin and hub of the reel so that when the reel is rotated in the direction indicated by the arrow in Figure 5 the end of the tape will be held between the reel hub and pin and the tape wound around the hub in convolutions as indicated in Figure 5. The stud or pin 10 is adjustable lengthwise so as to span the space between the opposite cheeks of the reel according to the size or cross area of the reel, and it is held to its adjustment by a set screw 13 working in a threaded opening 14 formed in the head 5 and having its end bear against the retaining pin as indicated in Figure 2 of the drawing. When one reel is filled with tape it is removed and replaced with an empty reel which will have the ribbon or tape wound thereon in the manner hereinbefore described.

The device is simple and efficient, and insures the ribbon or tape being evenly and compactly wound upon the reel and held by the cheeks in smooth and protected condition between them when put upon the market.

The winder shaft can be rotated by hand or by power, and may if desired be driven by a drive belt (not shown) passing around pulley 4.

I have illustrated and described the preferred details of the various parts, but changes may be made therein and essential features of construction retained.

Having described my invention and set forth its merits what I claim is:—

1. Means for winding elastic or tape onto a reel, comprising a rotatable shaft, a reel or bobbin having a central tubular hub and side cheeks, the hub serving to detachably mount the reel on the shaft, and a retaining member projecting from a part of the shaft and adapted to extend through a cheek of the reel adjacent to its hub and serve to hold a tape to the hub and the reel to the shaft to rotate therewith.

2. Means for winding elastic or tape onto a reel, comprising a rotatable shaft, a reel or bobbin having a central tubular hub and side cheeks, the hub serving to detachably mount the reel on the shaft, an adjustable

member extending from a part of the shaft to lie between the cheeks of the reel adjacent to its hub to cause the reel to rotate with the shaft and hold the tape to its hub, and means for securing the member in its adjustment.

3. Means for winding elastic or tape onto a reel, comprising a rotatable shaft, a head to the shaft, a reel or bobbin having a central tubular hub and side cheeks, the reel being supported by the shaft and having one cheek positioned next to the face of the shaft head, and means for detachably securing the reel to the shaft to rotate therewith and serving to hold the tape to the reel hub in winding the tape.

4. Means for winding elastic or tape onto a reel, comprising a pedestal provided with a shaft-bearing, a shaft rotatable in the bearing, a reel having a hollow-hub and

side cheeks detachably mounted on the shaft to rotate therewith, and a member extending from a part of the shaft to lie between the cheeks of the reel parallel with and adjacent to the hollow-hub of the reel to hold a tape to the reel-hub in winding the tape and separable from the reel in removal of the reel from the shaft.

5. A reel for elastic or tape, comprising a tubular hub and side cheeks constituting flanges projecting beyond the periphery of the hub for retaining the tape on the reel in convolute formation, one of the cheeks being formed with an aperture or opening adjacent to and external of the periphery of the hub to receive a detachable member holding the elastic or tape in being wound in convolute formation on the hub.

In testimony whereof I affix my signature.

LYNDON W. JOYCE.