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# False Twister

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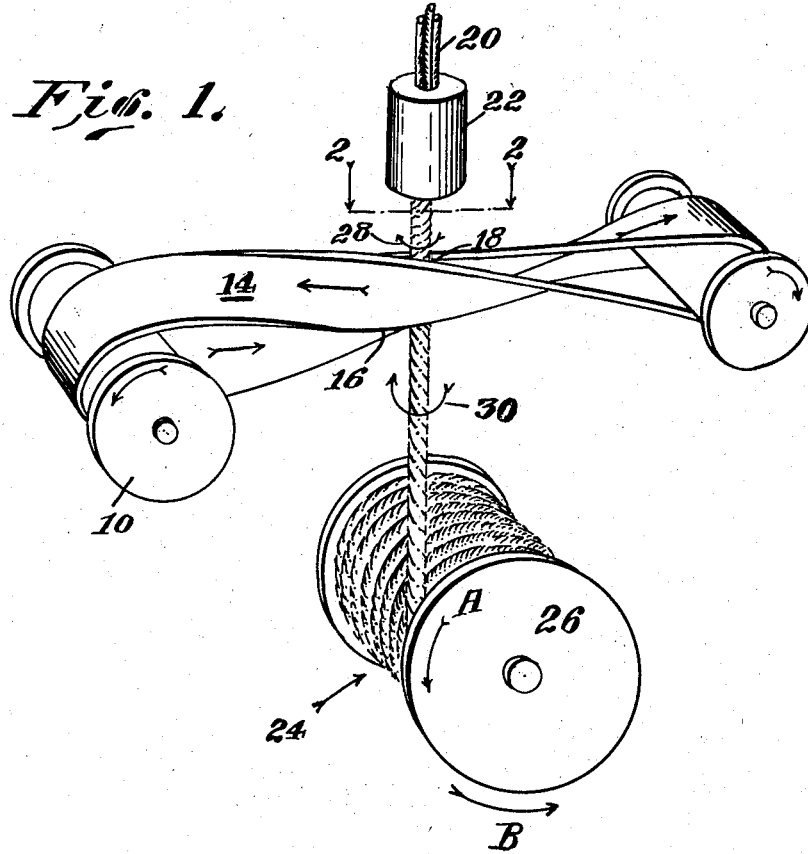
H. M. BROWN

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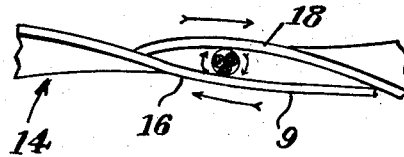
FALSE TWISTER

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*Fig. 1.*



*Fig. 2.*



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**FALSE TWISTER**

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4 Claims. (Cl. 57—77.4)

This invention relates to false twisters used in connection with carding machines, draw frames, roving frames, and the like to condense and strengthen strand like bundles of fibers during the handling thereof by such machines.

It is an object of this invention to provide a simple and effective false twisting arrangement.

Other objects will appear in connection with the following specification and the accompanying drawings which constitute a disclosure of the invention.

In the drawings, Figure 1 is a part diagrammatic representation of my invention; and

Figure 2 is a fragmentary view on the line II—II of Figure 1 looking in the direction of the arrows.

In Figure 1, a pair of rollers on pulleys 10 and 12 are mounted on parallel shafts 10a and 12a and are connected by a belt or endless band 14 trained over them with a 180 degree twist in the belt between the pulleys so that the reaches 16 and 18 of the belt are substantially in face-to-face contact midway between the pulleys which rotate in opposite directions as shown by the arrows, and either or both may be driven by suitable means.

A bundle of filaments or fibers 20 in strand form passes through a guide 22 thence between the confronting faces of the oppositely moving reaches 16 and 18 of the belt 14 and on to suitable take-up means 24 which, for example, may be a twister having a spool 26 rotating in the direction of the arrow A and revolving in the direction of the arrow B, but any suitable conventional take-up or receiving means may be used instead.

Where the confronting faces of the belt 14 engage the material 20 they rotate it in the clockwise direction, as indicated in Figure 1. This rotation produces false twist

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as indicated by the arrows 28 and 30. Any twist produced according to the arrow 28 is neutralized as the material passes the belt 14, by equal and opposite twist according to the arrow 30.

5 The belt 14 is formed of leather or any other material providing the necessary frictional drag on the strand being twisted.

10 Since the shafts 10a and 12a are engaged in parallel relation, any desired number of pairs of pulleys with connecting crossed belts may be mounted on these shafts at points spaced along their length.

I claim:

1. A yarn twister comprising a pair of spaced pulleys, an endless belt trained over said pulleys with the reaches thereof in crossed, face-to-face relation at a location between the pulleys, and means for guiding a textile strand between said reaches at the crossing location.

2. A yarn twister comprising an endless belt, means supporting and driving said belt through two loop formations between which the reaches of the belt travel in opposite directions and in crossed, face-to-face relation, and means for guiding a textile strand between the reaches of said belt at the crossing location.

3. A yarn twisting arrangement comprising a pair of shafts arranged in spaced parallel relation, a pair of pulleys mounted upon said shafts in aligned driving relation, an endless belt trained over said pulleys with the reaches thereof being crossed in face-to-face relation between the pulleys, and means for guiding a textile strand between said reaches at the location of crossing.

4. A yarn twister comprising a pair of spaced pulleys, an endless flat belt trained over said pulleys with the reaches thereof in crossed, face-to-face relation at a location between the pulleys, and means for guiding a textile strand between said reaches at the crossing location, said pulleys being mounted on axes normal to the direction of draft of the strand.

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