

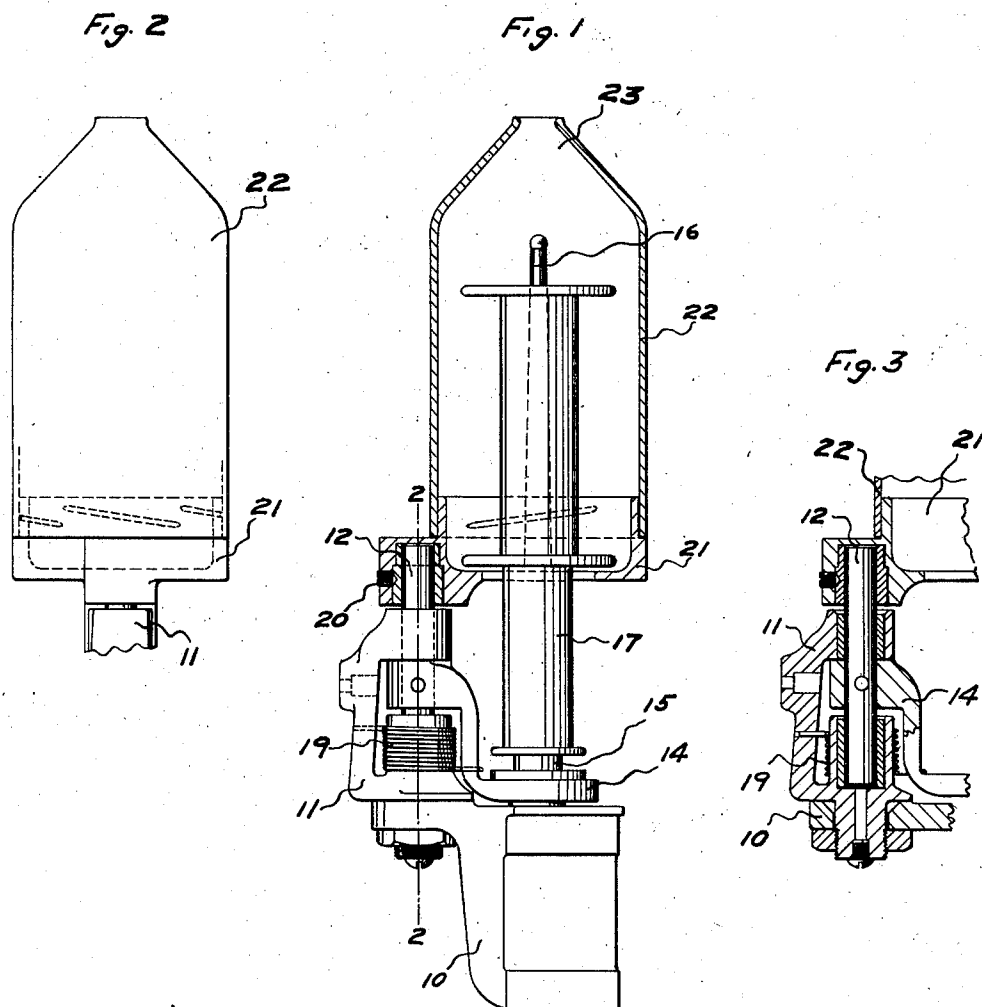
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BOBBIN ENCLOSURE FOR TEXTILE TWISTING MACHINES

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BOBBIN ENCLOSURE FOR TEXTILE TWIST-
ING MACHINES

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4 Claims. (Cl. 118—11)

This invention relates to twisting machines for textile yarn and more particularly relates to means to enclose the twisting spindles and their bobbins.

5 An object of the present invention is to provide an enclosure for the spindle of a twisting machine adjacent the bobbin carrying portion, the member forming the enclosure being supported so that it may swing with the spindle into and out of driving or operative position and always remain co-axial with the spindle.

10 Another object of the invention is to mount a supporting base member for the enclosing member of ring form, disposed coaxially of the spindle and supported upon the pivot about which spindle swings.

15 With the above and other objects in view the invention may include the features of construction and operation set forth in the following specification and illustrated in the accompanying drawing.

20 In the accompanying drawing annexed hereto and forming a part of this specification, we have shown the invention embodied in a swinging type spindle of standard or conventional form but it will be understood that the invention can be otherwise embodied and that the drawing is not to be construed as defining or limiting the scope of the invention, the claims appended to this specification being relied upon for that purpose.

30 In the drawing:

Fig. 1 is a complete longitudinal sectional view of a swinging type twisting spindle to which the improved form of enclosure has been applied;

35 Fig. 2 is a fragmentary outside view of a portion of the spindle and its enclosure, and

Fig. 3 is a sectional view taken on line 2—2 of Fig. 1.

40 In the above mentioned drawing, there has been shown but one embodiment of the invention which is now deemed preferable, but it is to be understood that changes and modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

45 Briefly, and in its preferred aspect, the invention may include the following principal parts: first, a supporting bracket; second, a swinging member supported on said bracket by means of a vertical pivot; third, a bolster secured to the swinging member; fourth, a spindle assembly rotatably mounted in said bolster; fifth, a ring-like base member secured to the pivot about which the swinging member pivots; sixth, a cylindrical member detachably retained in the base member

and surrounding the upper portion of the spindle and enclosing the bobbin supported on the spindle.

Referring more in detail to the figures of the drawing there is provided a bracket 10 adapted for attachment by any suitable means (not shown) to a textile twisting machine of any standard or conventional form. This bracket 10 may have an extension 11 preferably directly secured thereto as shown in Fig. 3. The extension 11 has spaced aligned holes through which the pivot shaft 12 extends and forms a bracket support for the spindle supporting and rotating means and also for the enclosure for the bobbin supporting portion of the spindle.

15 Keyed or pinned to the pivot shaft 12 is a swinging member 14 within which is supported a bolster member 15 within which is rotatably supported the spindle 16 on which is secured a whorl 17. As the swinging member 14, the bolster 15 and the rotating spindle 16 are or may be of standard or usual construction, it will be unnecessary to further describe or illustrate these parts of the construction. It will be understood that the spindle 16 will be rotated at high speed by a driving belt (not shown) engaging the whorl 17 when the swinging member 14 is resiliently forced in one direction as by a coiled spring 19 mounted as shown around the extension member 11. As shown, the swinging member 14 may be pinned directly to the pivot shaft 12 between the bearings for the shaft.

20 The pivot shaft 12 is extended a short distance above the upper end of the extension 11 and has secured thereto as by means of a set screw 20 a ring-like base member 21 surrounding the spindle 16 shortly above the whorl 17. This member 21 is provided with a cylindrical bearing surface on which is supported an enclosing member 22. The enclosure 22 is preferably of thin cylindrical form and preferably is formed of molded material such as bakelite.

40 To secure the enclosure 22 in position on the base 21 a plurality of short helical projections may be provided upon the outside cylindrical bearing surface of the base and upon the internal surface of the enclosure adjacent its lower edge. By turning the enclosure 22 when placing it upon the base 21 the enclosure and base will be detachably but firmly locked together.

50 Swinging movement of the spindle 16 and attached parts with the member 14 to engage and disengage the whorl 17 with the spindle driving member in the usual way also serves to swing the base member 21 and the enclosure 22. The

enclosure 22 is therefore at all times maintained concentric with the spindle 16.

In the drawing the enclosure 22 has been shown conical at its upper end and to have a central opening 23 through which the yarn or thread being twisted may pass as it is being drawn upward from the bobbin on the spindle 16.

We claim as our invention:

1. Spindle enclosing means for twisting machines comprising in combination, a spindle bracket, a shaft supported in said bracket for oscillatory movement upon a vertical axis, a swinging member secured to said shaft, a ring-like base member secured to said shaft, and a spindle enclosure detachably secured to said base member.

2. Spindle enclosing means for twisting machines comprising in combination, a spindle bracket, a shaft supported in said bracket for oscillatory movement upon a vertical axis, a swinging member secured to said shaft, a spindle and supporting and rotating means therefor on said swinging member, a ring-like base member surrounding said spindle and secured to said shaft, and an enclosure for said spindle detachably supported on said base member.

3. Spindle enclosing means for twisting machines comprising in combination, a spindle bracket, a swinging member pivotally supported within said bracket for movement about a vertical axis, spindle supporting and rotating means on said swinging member, a ring member surrounding an intermediate portion of said spindle and secured to said pivotal support at its upper end, and a bobbin enclosing member resting upon said ring member and detachably retained thereon.

4. Spindle enclosing means for twisting machines comprising in combination, a spindle bracket, a swinging member pivotally supported within said bracket for movement about a vertical axis, a spindle bolster secured in said swinging member, a spindle rotatable within said bolster and having a whorl thereon, a ring member surrounding the upper portion of said whorl and secured to the pivotal support for said swinging member and a bobbin enclosing member having its lower end removably retained within said ring member.

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