Jan. 18, 1927. 1,615,149

B. M. A. TREBES

SUPPORTING DEVICE

Filed Sept. 10, 1924

Fig. 1

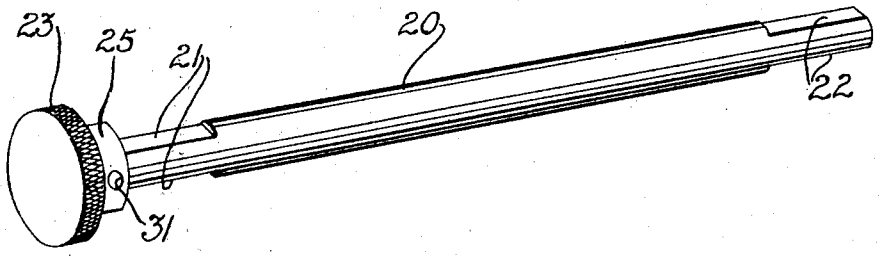


Fig. 2

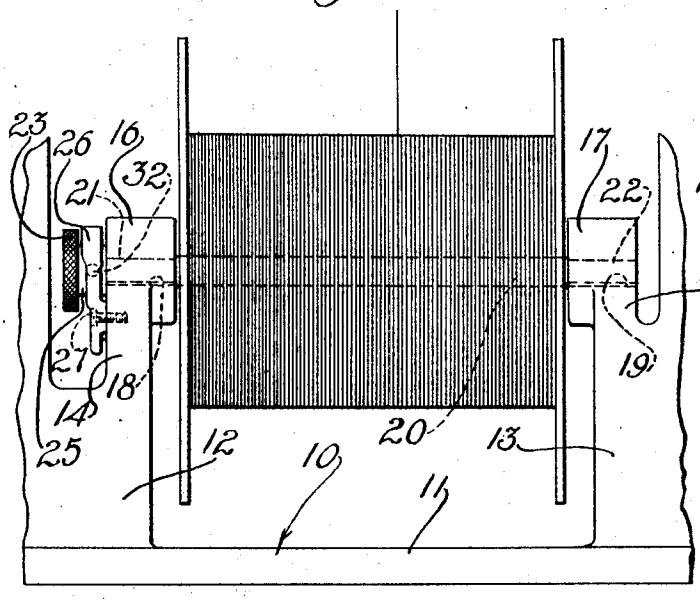
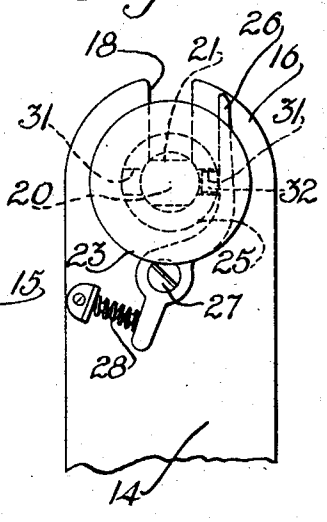


Fig. 3



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UNITED STATES PATENT OFFICE.

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SUPPORTING DEVICE.

Application filed September 10, 1924. Serial No. 736,850.

This invention relates to supporting devices, and more particularly to a support for a rotatable object.

The object of the present invention is to provide an improved support by which a rotatable object may be readily and speedily mounted and securely locked against displacement.

The invention is particularly adapted for mounting supply spools in strand working machines in places where it is impossible, because of the crowded arrangement of the spools or other parts of the machine, to roll the spool in place and insert the shaft lengthwise, or otherwise mount the spool in its operative position.

In accordance with the object and general features of the invention, there is provided a drop shaft having flattened portions near either end and a portion of circular cross section therebetween. The shaft is inserted through the supply spool and the spool is then dropped between the supporting standards therefor. Each flattened portion of the shaft engages an open slot in the top of a supporting standard. Means is provided for securely locking the shaft against displacement such as may be caused by centrifugal action when the spool is in operation. When the spool is operatively mounted the shaft is in a fixed position and the spool is free to rotate thereon.

In the accompanying drawings which illustrate one embodiment of the invention,

Fig. 1 is a perspective view of a drop shaft suitable for use in a supporting device embodying the features of the present invention;

Fig. 2 is a front elevation of the improved supporting device with a supply spool of strand material rotatably mounted thereon, a portion of the framework of a strand working machine being shown diagrammatically, and

Fig. 3 is a detail view of the mechanism employed for locking the shaft in its operative position.

The invention, as herein illustrated and described, is applicable for mounting the supply spools in strand working machines, but it is apparent that the general features thereof are capable of other applications as set forth in the appended claims.

Referring now to the drawings in detail, wherein like reference characters designate corresponding parts throughout the several views, 10 indicates generally a portion of the framework of a strand working machine and comprises a base member 11 and upright supporting standards 12 and 13. Formed integral with the standards 12 and 13 and suitably spaced therefrom are supporting members 14 and 15, respectively. Bearings 16 and 17 are formed at the top of the supporting members 14 and 15 respectively, and are provided with vertical slots 18 and 19 which are open at the top to receive flattened portions 21 and 22 of a shaft 20. The slots 18 and 19 are narrower than the diameter of the shaft 20 and are slightly enlarged at the bottom to permit the shaft 20 to turn freely therein. A knurled member 23 secured to one end of the shaft 20 serves to facilitate turning the shaft 20 to any desired position in the bottom of the slots 18 and 19. The shaft 20 is provided with an enlarged or hub portion 25 which is positioned between the knurled member 23 and the flattened portion 21. A lever 26 is pivoted at 27 to the supporting member 14 and is normally held in contact with the hub portion 25 of the shaft 20 by means of a compression spring 28. The hub portion 25 is provided with oppositely disposed apertures 31, 31, either one of which is adapted to receive a pin 32 formed on the inner side of the lever 26.

When mounting a supply spool or other rotatable object, the shaft 20 is inserted therethrough and the flattened portions 21 and 22 thereof are dropped to the bottom of the slots 18 and 19, respectively. The shaft is then turned 90° by means of the knurled member 23, in which position, the pin 32 engages either of the apertures 31, thereby securely locking the shaft against displacement. The shaft 20 may be very readily removed by operating the lever 26 to disengage the pin 32 from the aperture 31 and thereafter turning the shaft 90° so that the flattened portions 21 and 22 are again in alignment with the slots 18 and 19.

What is claimed is:

1. In a support for rotatable objects, a supporting member having a plurality of bifurcated uprights, a shaft having flattened portions permitting the insertion thereof in the bifurcated uprights, but preventing the removal thereof when said shaft is angularly displaced with respect to said

uprights, and a resiliently controlled means carried by one of said uprights for engaging said shaft to hold it against rotation.

2. In a support for rotatable objects, a base, a pair of oppositely disposed bifurcated uprights having a fixed position relatively to each other secured to said base, a shaft having flattened portions permitting the insertion thereof in the bifurcated uprights, but preventing the removal thereof when said shaft is rotated through an angle of approximately 90°, and a resiliently controlled means pivoted to one of said uprights for positively engaging said shaft to lock it in a set position.

3. In a support for a rotatable object, a shaft having flattened portions and a hub portion, said hub portion having an aperture therein, supporting members for said shaft, each supporting member having an open slot therein adapted to receive a flattened portion of said shaft, a spring compressed lever pivoted to one of said supporting members, and a pin carried by said lever and adapted to engage the aperture in the hub portion of said shaft to securely lock it in said supporting members.

In witness whereof, I hereunto subscribe my name this 27th day of August A. D., 1924.

BRUNO MAX ALFRED TREBES.