

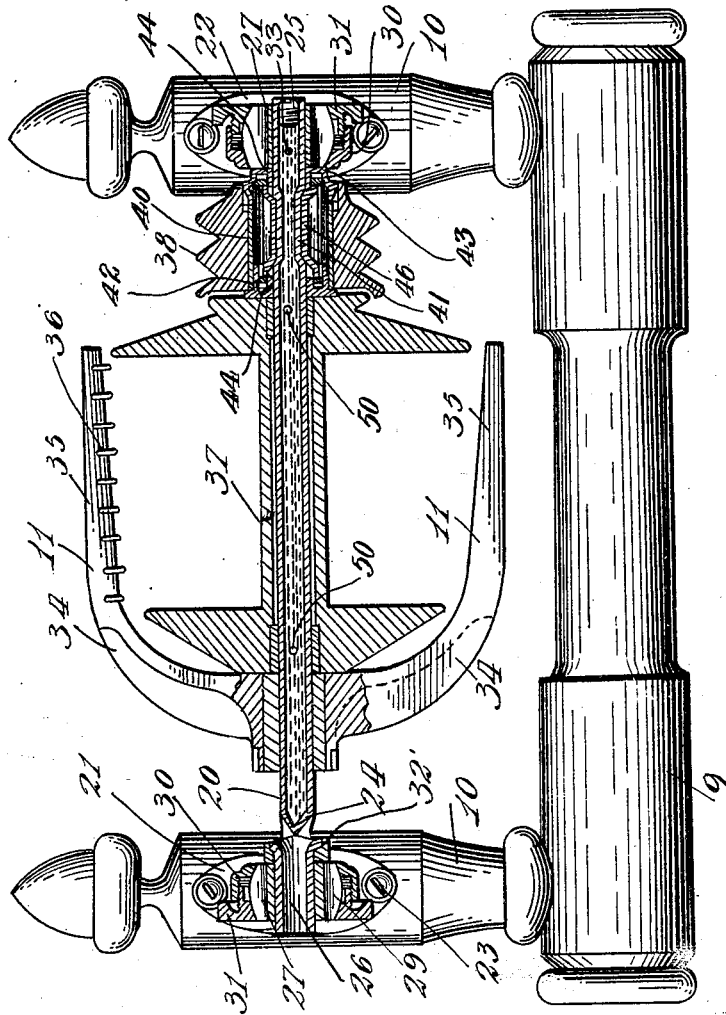
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1,532,618

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SPINNING WHEEL

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UNITED STATES PATENT OFFICE.

HYACINTHE ORIGÈNE BORDUAS, OF MONTREAL, QUEBEC, CANADA.

SPINNING WHEEL.

Application filed May 16, 1921. Serial No. 469,970.

To all whom it may concern:

Be it known that I, HYACINTHE ORIGÈNE BORDUAS, a subject of the King of Great Britain, residing at Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Spinning Wheels; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to new and useful improvements in spinning wheels and more particularly to that class used for domestic purposes.

The primary object of the invention is the provision of a spinning wheel so constructed that the bearings thereof will be greatly increased in their efficiency and preserved in wearing by providing a novel oiling system therefor.

Another object of the invention is the provision of a spinning wheel including bearings so constructed that the efficiency thereof will be greatly increased and which will last for a considerably longer period of time than the bearings now in common use.

Still another object of the invention is the provision in a spinning wheel of metallic bearings which are substituted and which take the place of the usual leather bearings now customarily employed.

A further object of the invention is the provision of a flexible connection between the drive pulley and the spindle to prevent breaking of the several parts in case the said spindle sticks or fails to properly revolve.

A still further object of the invention is the provision of a spinning wheel such as above referred to, in which the several parts thereof are standardized, thus making it possible to easily and readily obtain various parts for the machine in the event of their becoming worn or broken.

A still further object of the invention is the provision of a spinning wheel such as above referred to, which will be comparatively simple and inexpensive to manufacture, reliable and efficient in use and readily operated.

With the above and other objects in view the present invention resides in the novel features of construction, formations, combinations, and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying draw-

ings forming a part of the present application.

The figure is a perspective view of a spinning wheel constructed in accordance with the present invention.

The invention is illustrated as applied to a spinning wheel which includes a transverse bar 9, carrying the upright members 10 in which the flyer 11 is journaled.

The flyer 11 is keyed to the usual spinning tube or hollow shaft 20 rotatably supported in suitable bearings 21 and 22, secured as shown at 23 to the members 10.

The tube 20 is closed at 24 adjacent the bearing 21 and is provided at its opposite end with a screw plug 25 which closes the same.

This forms a hollow interior in which oil or other lubricants may be placed.

The end of the shaft 20 within the bearing 21 is slightly enlarged as shown at 26 and is fitted within a split ball 27 adapted to firmly clamp the enlarged portion 26 of the said shaft.

This member is also cut away as shown at 29 to reduce the quantity of material used and also to lighten the bearing.

A pair of socket members 30 and 31 are threaded into engagement with each other to engage the ball 27 and hold the same against displacement yet permitting of a slight movement thereof, as might be desired.

A ring 32' is inserted over the enlarged portion 26 into engagement with the flared inner end thereof to limit the movement of the shaft in one direction.

The bearing 22 is formed identical with bearing 21 with the exception that this ring is not necessary as will be readily seen.

In order to properly lubricate the bearing 22 suitable oil passages 33 are formed in the side of the shaft 20 so that the lubrication provided within the said compartment may feed by centrifugal force into the said bearing.

The flyer above referred to includes the usual yoke portion 34 with the arms 35 which support the eyes 36 and between these arms is loosely mounted a spool 37 from which the material worked is to be wound.

A drive pulley 38 is connected to the usual drive wheel by an endless cord or belt (not shown). A sleeve 40 fits within the pulley 38 while the portion of the shaft 20 within the sleeve is flattened intermediate the ends

of the pulley, as shown at 41. End caps 42 and 43 are fitted in the ends of the sleeve 40 and are provided with inwardly directed flanges 44 between which are positioned 5 spring locking elements 46 engaging the flattened portion 41 of the shaft. Obviously, when power is applied to the pulley 38, a rotary motion will be imparted to the shaft 20 and flyer keyed thereto. In case 10 the flyer becomes caught and does not freely rotate, the pulley will turn relatively to the shaft because of the spring or friction engagement between these two members. The flyer and shaft will remain stationary, thus 15 preventing the breaking of the threads or other parts of the machine.

The drive spool 37 mounted on the shaft 20 may also be lubricated through the openings shown at 50 provided in the adjacent 20 portion of the shaft or tube 20.

From the foregoing description taken in connection with the accompanying drawings it will be manifest that a spinning wheel for domestic use is provided which will fulfil all 25 of the necessary requirements of such a de-

vice and it should be understood in this connection that various minor changes in the specific details of construction can be resorted to within the scope of the appended claim, without departing from the spirit or 30 sacrificing any of the advantages of the invention.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is: 35

In a machine of the type described including a hollow shaft and a flyer keyed to said shaft, bearings rotatably supporting the ends of said shaft, said shaft being hollow thereby constituting an oil reservoir and 40 having a passage communicating with one of the bearings for lubricating the latter, ball members supporting said bearings, clamping elements engaging said ball members, for supporting the bearings for uni- 45 versal movement, substantially, as and for the purposes set forth.

In witness whereof I have hereunto set my hand.

HYACINTHE ORIGÈNE BORDUAS.