

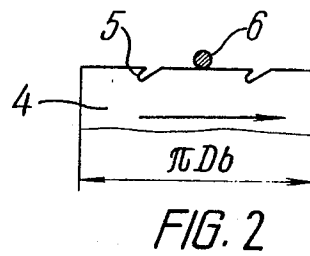
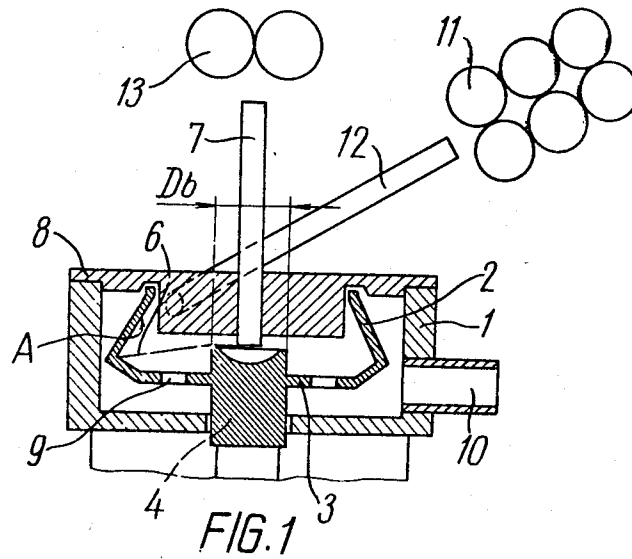
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DEVICE FOR SPINNING FIBRES

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DEVICE FOR SPINNING FIBRES

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1 Claim

ABSTRACT OF THE DISCLOSURE

A device for spinning fibres which includes a rotating twisting pot having a base and being provided with a cover. A boss is disposed in the base of the pot and has the shape of a solid of revolution. The boss is provided with end-face teeth which are skewed in the direction of rotation of the twisting pot. Provision is made for the supply of material to be spun into fibres and for the exhausting of air from the pot.

The present invention relates to textile machinery, and more particularly to devices for spinning fibers

Known in the prior art are devices for spinning fibers comprising a twisting pot with an inner surface for collecting the fibers, and a passage for the withdrawal of yarn.

In the prior art devices, the produced yarn is weakened within the region extending from the collecting surface to the withdrawal passage owing to a poor penetration therein of twist with the result that increased yarn breakages occur. In addition, the angular speed of yarn rotation can be slower than that of the twisting pot. This being the case, the removal of yarn from the collecting surface occurs in a direction opposite to that of the pot rotation and therefore, production of poor quality yarn takes place.

An object of the present invention is to eliminate the disadvantages mentioned above.

The principal object of this invention is to provide a device for spinning fibers which improves the quality of the produced yarn.

In accordance with the invention, this object is achieved owing to the fact that the device for spinning fibers, comprising a rotary twisting pot, is provided with an inner protruding boss in the form of a solid of revolution situated at the base of the pot.

It is considered expedient to furnish the boss with end-face teeth which are skewed in the direction of rotation of the pot. The presence of the boss with end-face teeth thereon improves the quality of the produced yarn.

The invention will become more fully apparent from the following description of an embodiment which is given with reference to the accompanying drawings in which:

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FIG. 1 is a longitudinal cross section of the device according to the invention.

FIG. 2 is a development of the diameter of the boss of the twisting pot.

The device for spinning fibers comprises a stationary housing 1 (FIG. 1) with a rotary twisting pot 2 therein provided with a boss 4 at the pot base 3. The boss 4 rotates with the pot 2 and is made in the form of a solid of revolution. The boss 4 is furnished with teeth 5 (FIG. 2) on its end face which are skewed in the direction of rotation of the pot 2. Such a design significantly strengthens the yarn 6 within the section between the yarn-collecting surface A and withdrawal passage 7 (FIG. 1), due to the rolling of the yarn 6 over the boss 4 whose angular speed is usually smaller than that of the yarn. The teeth 5 provided on the boss 4 and inclined in the direction of the pot 2 rotation prevent the movement of the yarn and removal of the fiber from the surface A in the direction opposite to that of the pot 2 rotation, thus preventing production of poor quality yarn. From above, the pot is covered by a lid 8; the pot base 3 and the housing 1 are provided with holes 9 and passage 10, respectively, through which evacuation of air takes place.

The device operates in the following way.

Fibers are delivered, under the effect of vacuum via a passage 12 and the tapered surface of the pot 2 onto the collecting surface A. Due to the action of centrifugal forces arising as a result of the pot rotation, the fibers are uniformly spread upon the collecting surface A and are continuously pieced up to the yarn 6 produced, which contacts the boss 4 and is withdrawn through the passage 7 by the rollers 13 for subsequent winding. Contacting the boss 4, the yarn is strengthened in the section from the surface A to the passage 7, whereas, owing to the provision of the teeth 5 on the boss 4, the fibers are removed from the surface A only in the direction of the pot 2 rotation, which excludes the production of poor-quality yarn.

What is claimed is:

1. A device for spinning fibers comprising a rotating twisting pot having a base; a boss disposed in the base of the pot on the inner side thereof, said boss being rotatable with the said pot and having the form of a solid of revolution, said base having end-face teeth which are skewed in the direction of rotation of the twisting pot.

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