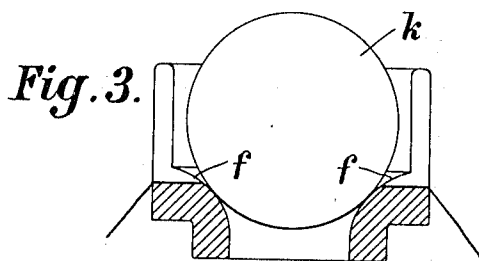
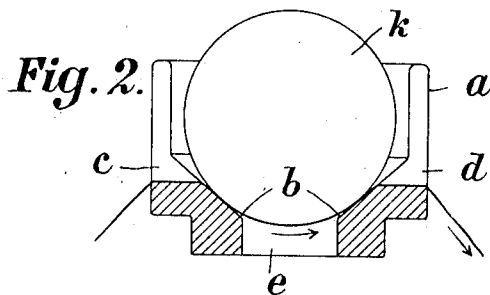
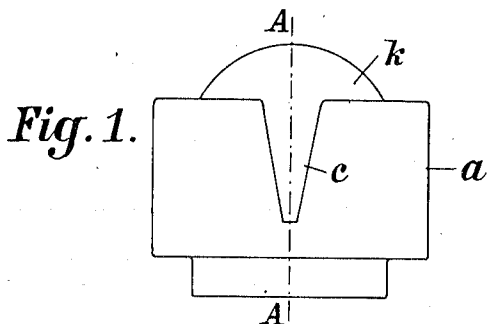


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 THREAD BRAKE FOR FIRST COMBING MACHINES.
 APPLICATION FILED APR. 9, 1910.

1,040,185.

Patented Oct. 1, 1912.



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JOHANN GERSTBERGER, OF LÓDZ, RUSSIA.

THREAD-BRAKE FOR FIRST-COMBING MACHINES.

1,040,185.

Specification of Letters Patent.

Patented Oct. 1, 1912.

Application filed April 9, 1910. Serial No. 554,554.

To all whom it may concern:

Be it known that I, JOHANN GERSTBERGER, a subject of the Emperor of Austria-Hungary, and residing at Lódz, Russian Poland, have invented certain new and useful Improvements in Thread-Brakes for First-Combing Machines, of which the following is a specification.

My invention relates to thread-brakes, for first combing or carding machines, in which the brake consists of a ball, well-known in itself, located in a slotted cup. In the known thread-brakes of this type the thread which is to be braked is pulled from below upward in an axial direction on one side of the cup between the latter and the ball. This form of the brake has a certain disadvantage. Apart from its being difficult to make the face of the cup which is necessarily rounded off in this known brake, and on which the ball rests, exactly concentric with the latter, even if this can be done by specially careful workmanship the braking action on the thread is unreliable and non-uniform because, owing to impurities being deposited between the cup and the surface of the ball, the braking action on the thread is easily completely negated, especially as, in consequence of the above mentioned formation of the cup, it is not possible automatically to remove such impurities. According to my invention I also employ a ball arranged in a funnel-shaped cup, but the funnel is slotted transversely at diametrically opposite places and is of such shape that, when regarded in section, the ball contacts at two points with the bearing face, so that, on the one hand, a good support of the ball on the bearing face results and, on the other hand, the thread must necessarily be braked at two places. The consequence of this is that even if there should be impurities at one place, the braking action of the ball is still operative at the other place. In addition, my improved form of the thread-brake has the considerable advantage as compared with known constructions, with regard to the transversely-passing thread and owing to the arrangement of an orifice in the bottom portion of the funnel, that owing to the movement of the thread and the rapid rotation of the ball caused thereby, all impurities are at once conveyed to the orifice in question or through

the slots out of the funnel and consequently the braking action cannot be impaired.

Two illustrative embodiments of my invention are represented by way of example in the accompanying drawing, wherein:—

Figure 1 is a side elevation of one form, and Fig. 2 a section in the plane A—A in Fig. 1, whilst Fig. 3 is a view similar to Fig. 2 but showing a modified form or funnel.

Referring to the drawing, *k* designates the ball located in a funnel *a*. The funnel-shaped cavity in the latter, in the form according to Figs. 1 and 2, is of such a shape that, in section, it is limited by straight lines and consequently a supporting face *b* which is likewise rectilinear in section and consequently a tangent to the surface of the ball, is obtained in the bottom part for the ball *k*. The consequence is that the ball, regarded in section, is supported at two points. I provide the funnel *a* with two slots *c*, *d* arranged at diametrically opposite places, through which the thread passes and runs below the ball *k*, but must pass the points of contact of the ball with the bearing surface *b*. I provide an orifice *e* in the bottom of the funnel.

As Fig. 3 shows, instead of the rectilinear surface *b* I may form the funnel in such manner that the ball *k* rests on a curved face *f* which likewise affords the possibility of supporting the ball uniformly with certainty at two points when regarded in section.

Owing to the ball pressing the thread against the wall of the funnel at two places according to my invention, an energetic braking action is obtained and maintained with certainty under all conditions, even if one of the two places should be displaced say by impurities, for in any event the one place remains free for the certain braking action. In addition, any impurities which possibly collect at one place are at once conveyed to the orifice *e* or through the slots *c*, *d* of the funnel by the motion of the thread and by the rapid rotation of the ball produced thereby, and consequently the brake is automatically cleaned.

I claim:—

In a thread brake the combination with a ball, of a hopper-shaped cup provided with an opening in its bottom beneath the ball and with slots in the lateral walls thereof

situated at diametrically opposite points, which cup, owing to the opening provided in its bottom, furnishes two successive braking places for the thread carried through it
§ in the transverse direction whereby the rotation of the ball is maintained with certainty.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

JOHANN GERSTBERGER.

Witnesses:

JAN MATJ,
ERNST BLEISOT.