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YARN BRAKE

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FIG. 1

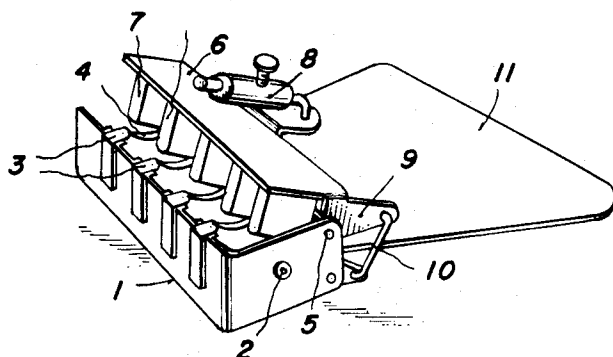
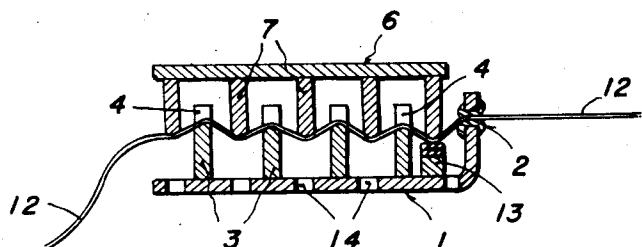


FIG. 2



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YARN BRAKE

Lambertus te Strake, Deurne, Villa Gelria,
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2 Claims. (Cl. 242—154)

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The invention relates to a yarn brake to be used with creels and other textile machines.

For warping yarns on beams or other auxiliaries destined for the working-up of yarns, it is necessary that a certain braking action is exerted upon the yarn.

This braking action is necessary in order to bring the yarn with a certain tension upon the beam and to hold fast the thread-guards, if the latter are arranged on e. g. a warping machine.

Also the quality of the fabrics to be manufactured is dependent on the tension with which the yarn is warped upon the beam.

The purpose of the invention now is to provide a device which exerts a predetermined pressure upon the thread and by this brakes the thread passing through the device off, so that incidental tension differences in the threads are removed during warping.

According to the invention this is attained by providing two jaws which are movable towards each other with projections which are so placed that the projections of the one jaw extend between those of the other jaw and guide a thread passing between all projections with friction at various places according to a zig-zag line.

The great advantage of this is that a yarn brake according to the invention is not based on the clamping principle, so that no twining shifts are caused, whilst when warping strongly twined yarns, e. g. crape, the thread can make no loops around projecting parts.

According to the invention the yarn brake is so made that one jaw stationarily mounted on e. g. the frame of the machine, whereas the other jaw is pivotally connected.

This has the advantage that the putting in of the threads can be done in a simple rapid manner, viz. by tilting the pivotal jaw.

Herewith it is preferred to provide the projections of one of the two jaws with recesses in which the thread can be guided. In order to ensure a good working of the yarn brake the latter according to the invention is so made, that the pivotal jaw possesses an adjustable weight, with which the tension on the thread can be controlled if the thread is arranged in the brake. The pivotal jaw is in connection with a movable plate which serves as air brake for reduction of the oscillation of the jaw.

An especial practical embodiment is obtained according to the invention in that one of the jaws possesses a stop against which a projection of the other jaw can abut, which stop is

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so positioned that if the tension of the thread falls off the thread is clamped between the stop and the projection. Owing to this the thread end is held fast so that it does not drop between the other threads.

The invention will now be elucidated by the drawing with an embodiment.

In the drawing is

Fig. 1 a view in perspective of a yarn brake according to the invention;

Fig. 2 is a longitudinal section through a yarn brake according to the invention, from which appears in which way the thread passes between the projections.

The jaw 1 is connected to a machine, e. g. creel and is provided with a thread eye 2.

In the jaw projections 3 are placed which are provided with recesses 4. The edges of the recesses and projections are rounded-off.

To the jaw 1 at 5 the jaw 6 is pivotally connected. This jaw as well is provided with projections 7. On the jaw 6 a weight 8 is arranged by the adjustment of which the pressure on the thread passing through the yarn brake can be controlled. The jaw 6 is connected by the arm 9 and the rod 10 to a pivotal plate 11. If during the operation the jaw 6 starts vibrating the plate will take the movement in increased measure. The air resistance which the plate experiences during the reciprocation the latter will act as a brake.

As appears from Fig. 2 the thread 12 passes in a zig-zag between the projections. Owing to the friction experienced by the thread against the projections, the thread will be tensioned.

The thread 12 in Fig. 2 at one side is tensionless so that the projections extend more between each other than in the normal position of operation. In so doing an extension 13 rests on a stop 13 provided with a pad of felt, by which the thread is clamped.

In the bottom of the jaw 1 apertures 14 are provided to allow the dust collecting between the projections 3 to escape.

I claim:

1. In a yarn brake for creels and other textile machines having two jaws one of which is pivotally mounted and the jaws being movable towards each other, and provided with projections which are so arranged that the projections of one jaw extend between those of the other jaw and guide a thread pressed between all the projections with friction at various places according to a zigzag line, the improvement consisting in a movable plate connected to said pivotally mounted jaw,

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said movable plate being oscillatable in the air surrounding the machine and constituting an air brake for reduction of oscillation of the pivotal jaw.

2. A yarn brake for creels and the like comprising a fixed jaw and a movable jaw pivotally connected thereto adapted for coaction with said fixed jaw, projections on each said jaw directed toward each other and being staggered so as to intermesh when said jaws are brought together, said projections on said fixed jaw having recesses therein, said projections and said recesses being adapted to guide and tension a thread through said brake, a movable plate connected to said movable jaw and adapted to oscillate in the surrounding atmosphere, said movable plate constituting an air brake for reducing oscillation of said movable jaw.

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