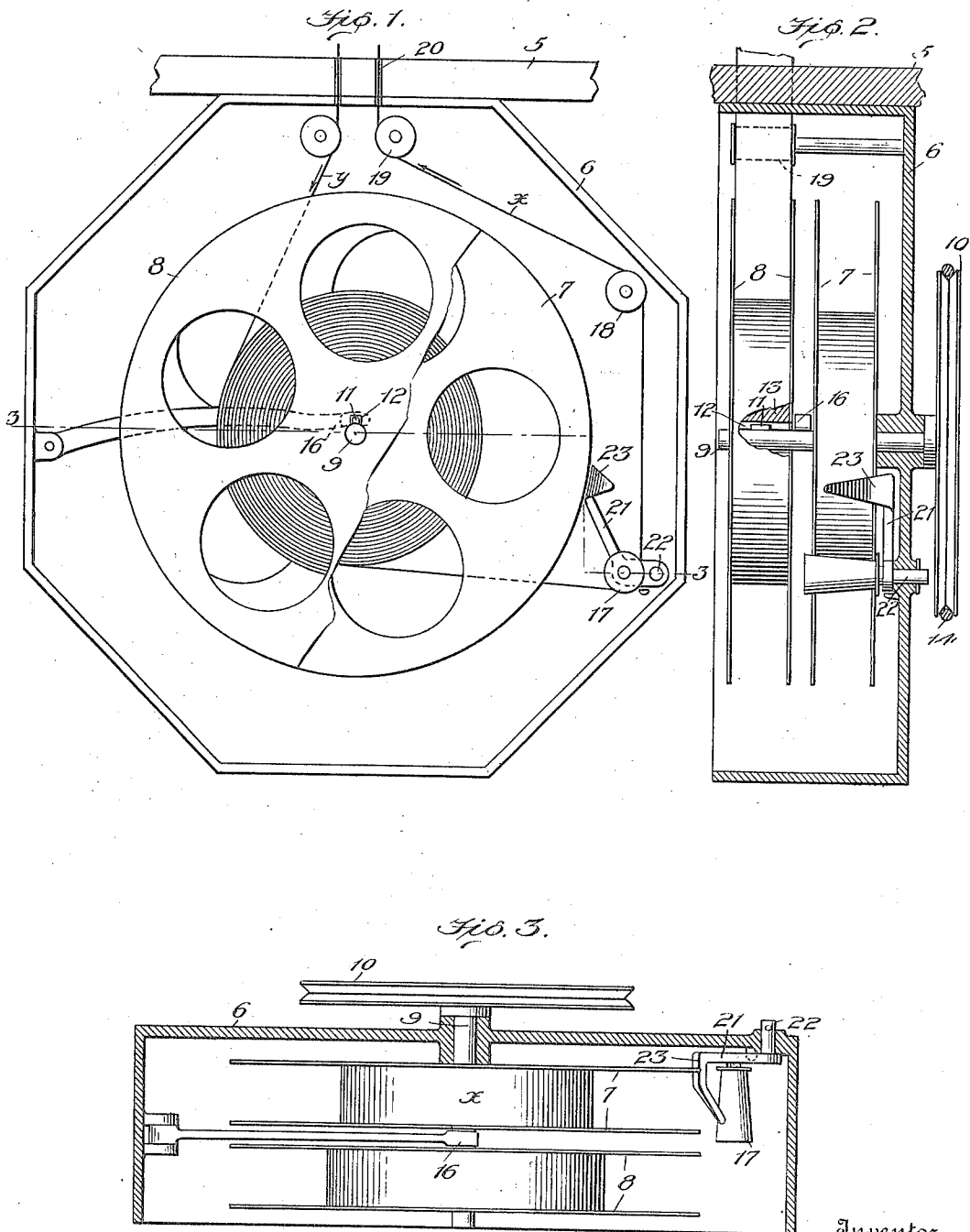


C. F. JENKINS.
 PICTURE FILM REEL.
 APPLICATION FILED JUNE 22, 1918.

1,302,803.

Patented May 6, 1919.



Witness

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CHARLES FRANCIS JENKINS, OF WASHINGTON, DISTRICT OF COLUMBIA.

PICTURE-FILM REEL.

1,302,803.

Specification of Letters Patent.

Patented May 6, 1919.

Application filed June 22, 1918. Serial No. 241,385.

To all whom it may concern:

Be it known that I, CHARLES FRANCIS JENKINS, a citizen of the United States, and resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Picture-Film Reels, of which the following is a specification, reference being had therein to the accompanying drawing.

The general object of this invention is to prevent overrunning of picture film reels when the machine stops or falls far below normal speed. In the accompanying drawings,

Figure 1 is a side view of a portion of the picture machine table and reel-containing casing, the door of the casing and a part of one reel being removed.

Fig. 2 is a partial elevation, part of the casing being removed.

Fig. 3 is a section on the line 3—3, Fig. 1.

In these views, 5 is a table supporting film operating devices not shown, and 6 a casing below the table and containing side by side film reels 7, 8 separated by a removable spacer 16 and mounted upon a shaft 9 driven by a pulley 10 and having a spline 11 engaging a groove 12 in a hub, 13, of the reel 8, whereby the reel must rotate with the shaft, although the belt 14 driving the pulley 10 may slip when film tension is unduly increased. From the other reel which is loose upon the shaft, film passes around cone pulleys 17, 18, a guide pulley 19, and through an anti-combustion slot 20, to the film operating mechanism which pulls the film x from the reel 7 at the same time that the reel 8 draws downward the segment y of the film. The casing, reels, spacer, driving devices, and slotted table are all without novelty herein claimed.

The cone pulley 17 is revolubly mounted upon a bent brake arm 21 pivoted at 22 and having at its free end a sort of brake shoe 23 in the plane of one of the circular reel plates and slightly separated therefrom when the machine is operating because the unwinding pull upon the film lifts the pulley and brake arm.

The motion of the film when the machine is in normal operation is quite rapid and nearly constant but if the operating devices stop the momentum of the reel quickly slacks the film passing to the pulley 17 and the latter being thus unsupported instantly falls with the brake arm which swings upon the pivot 22, and the shoe presses against the reel plate and arrests the over running almost as soon as it begins. The resumption of normal working obviously lifts the pulley and brake again and leaves the reel entirely free. A stop 24 limits the falling movement of the brake when the reel is not in place, and the brake shoe is curved outward as shown so that the reel itself in passing to place upon the shaft pushes the shoe aside without any attention on the part of the operator.

It may be noted that when the reel is nearly filled and relatively heavy the feed of the film rotates the reel slowly, yet the weight gives momentum and causes the reel to overrun when the machine is stopped, while if the reel be nearly empty and hence light, the roll is small and the same rate of feed causes rapid rotation and the tendency to overrun is approximately the same as before.

In either case, the brake prevents material overrunning, this common evil being substantially eliminated.

What I claim is:

1. The combination with a revolubly mounted film reel, of a brake member pivotally supported in position to be swung against the reel by its own weight, and a film deflecting member mounted on the brake member in position to swing the brake from the reel when itself pulled by outgoing film.

2. The combination with a film reel arranged for rotation by the pull of film drawn therefrom, of a pivoted brake member arranged to be swung by gravity against the film reel's periphery, and a member lifting and film deflecting roller mounted upon the member between its pivot and point of contact with the reel and in the plane of film drawn from the reel.

3. The combination with a shaft, of a reel adapted to move along the shaft to a predetermined plane of operation and to be rotated in that plane by the tension of film
5 drawn therefrom, and a brake arranged for moving against the peripheral portion of the reel and provided with a face inclined out-

wardly from the axis of the shaft and in the path of a reel moving to said plane, whereby a reel so moving automatically pushes the 10 brake aside.

In testimony whereof I hereunto affix my signature.

CHARLES FRANCIS JENKINS.