No. 767,722. PATENTED AUG. 16, 1904.

F. TAFT.

SPOOL FOR PERFORATED MUSIC SHEETS.

APPLICATION FILED JUNE 3, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

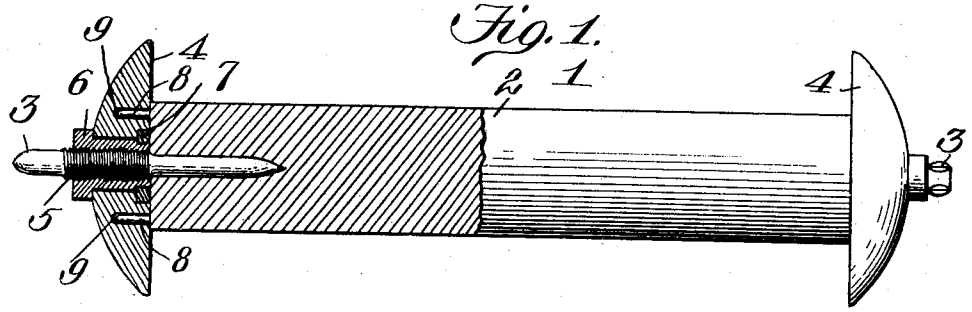


Fig. 2.

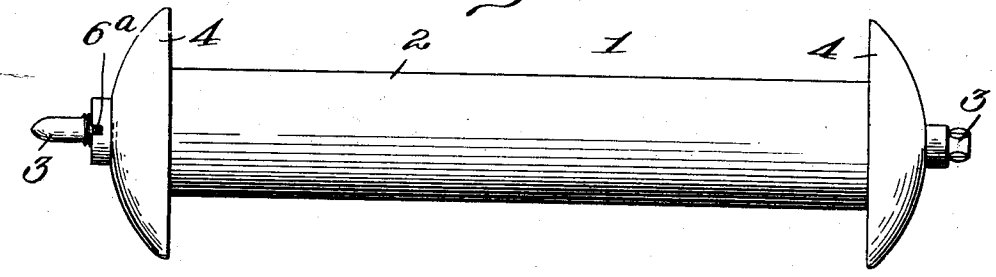


Fig. 3.

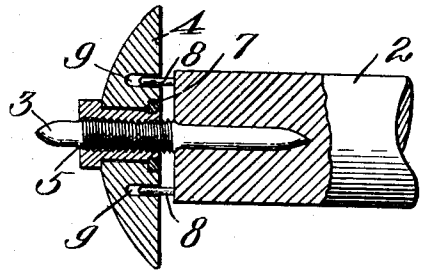
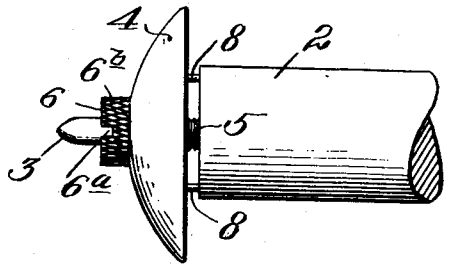


Fig. 4.



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SPOOL FOR PERFORATED MUSIC SHEETS.

APPLICATION FILED JUNE 3, 1904.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.

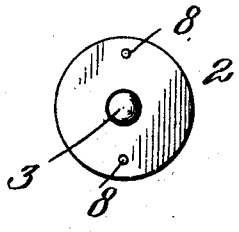


Fig. 6.

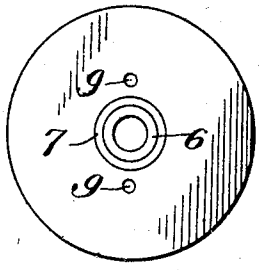
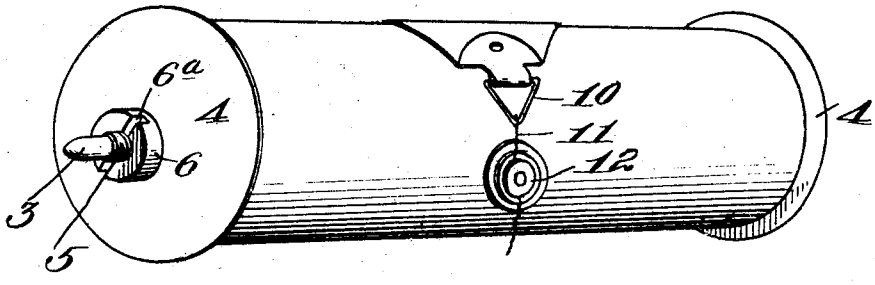


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK TAFT, OF MONTCLAIR, NEW JERSEY, ASSIGNOR TO THE AEOLIAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF CONNECTICUT.

SPOOL FOR PERFORATED MUSIC-SHEETS.

SPECIFICATION forming part of Letters Patent No. 767,722, dated August 16, 1904.

Application filed June 3, 1904. Serial No. 211,041. (No model.)

To all whom it may concern:

Be it known that I, FRANK TAFT, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Spools for Perforated Music-Sheets, of which the following is a specification.

My invention relates to improvements in spools for perforated music-sheets adapted for use in connection with automatic musical instruments or instrument-players, and has for its object to provide a novel means or arrangement whereby variation in the width of music-sheets due to climatic changes may be compensated.

It is desirable that the music-sheet shall fit accurately upon the barrel of the spool, the edges of the sheet contacting with the end flanges of the spool to avoid wabbling movement of the sheet, so that it will travel in a direct true path across the tracker-board. As is shown, climatic changes affect the music-sheet, the latter having a relative increase in width in damp weather and a relative contraction in dry weather. A satisfactory compensating roll to compensate for these variations is therefore desirable.

It is the object of my invention to provide a roll capable of such compensation, which will be of novel construction, arrangement, and mode of operation.

To the end stated my invention consists in a compensating roll for perforated music-sheets, as hereinafter described and claimed.

That which is regarded as new will be set forth in the clauses of claim appended to the following specification.

In the drawings illustrating the best-known embodiment of my invention as required by the statute, Figure 1 is a longitudinal sectional view partly in elevation; Fig. 2, an elevation of the roll with the parts in the position of adjustment shown in the sectional view of Fig. 1; Fig. 3, a partial sectional view showing a different adjustment of the parts; Fig. 4, a partial elevation showing the adjustment of the parts illustrated in Fig. 3; Fig. 5, an end view of the spool, one flange being removed; Fig. 6, an elevation of the flange looking at the inner face thereof, and Fig. 7 a perspective view illustrating a music sheet wound upon the roll and held closely wound thereon.

In the said drawings, the reference-numeral 1 designates the spool generally, consisting of a barrel 2, having studs 3, whereby the spool may be supported for rotation in suitable journals as usual.

The numeral 4 designates the end flanges of the spool, one of which in the illustrated example of my invention is adjustable with relation to the other to increase the distance between them, whereby the flanges may be brought nearer together to compensate for the contraction or shrinking of the width of the music-sheet or away from each other to compensate for increase in width of such sheet. To attain this adjustment, a stud 3 is provided with screw-threads 5, and the corresponding flange is in screw-threaded engagement with said stud, whereby it may be moved in or out upon the stud, as will be obvious. In the example of the invention illustrated this screw-threaded engagement is by means of a nut 6 threaded to correspond with the threads on the stud, upon which nut the flange 4 is loosely mounted, so that upon rotation of the nut the flange in being adjusted with respect to the flange on the opposite end of the spool will be drawn in and out without rotary movement. The flange is confined upon the nut in any suitable manner, as by a ring 7. By loosely mounting the flange upon the nut an unintentional disturbance of the adjusted position thereof is guarded against, because the flange may rotate upon the nut without rotating the latter, and to further guard against such an unintentional disturbance rotation of the flange may be prevented and the flange firmly held secured to the barrel of the spool and guarded against rotative movement by means of a flange-engaging device consisting in the present example of my invention of a plurality of pins 8, projecting from the barrel of the spool and adapted to pass into sockets 9, provided therefor in the inner face of the flange. These pins are designed to be of a length sufficient to engage the sockets in all practical adjustments of the flange, and in the

adjustment of the flange said flange slides in and out upon said pins. The engagement of the flange with the pins affords a firm and strong connection thereof with the barrel of the spool, so that in event the user of the device should, as is customary, after withdrawing a music-sheet roll from the instrument give it a turn or two to tighten the sheet on the roll rotation of the flange and a possible disturbance of its adjusted position will not occur. The nut is fashioned in a suitable way for manipulation by an implement whereby it may be turned to effect the adjustment of the flange or may be suitably formed to permit rotation thereof with facility by the hand of the operator. In the drawings I have illustrated the nut as being provided with recesses 6^a, adapted to receive a wrench or other suitable implement, and have also in Fig. 4 illustrated said nut as provided with a milled head 6^d for hand manipulation.

While I have illustrated but one of the flanges mounted in the manner described for adjustment, it will be obvious that the same manner of working may be carried out in respect of the opposite flange, if desired.

In order to maintain the music-sheet in a tightly-wound condition upon the roll, whereby it may be preserved from injury, such as would likely occur if it were loose and unsecured, a novel retaining means is provided consisting, as shown in the drawings, of a triangular ring 10, secured to the end of the music-sheet, and a flexible medium, such as a string 11, secured thereto, and a clip 12, attached to the music-sheet in proper relation to the said ring when the sheet is wound upon the spool, such clip in the present instance consisting of a button about and between which and the music-sheet the free end of the string will be wrapped and the sheet thus held in closely-wound condition. This novel retaining means is valuable in music-rolls of other specific construction than that hereinbefore described and is not claimed herein, same being reserved for a separate and independent application for Letters Patent.

Having thus described the invention, what I claim is—

1. A spool for a perforated music-sheet having studs by which it is supported for rotation, an element adjustable on one of said studs, and a flange loosely mounted upon said element.

2. A spool for a perforated music-sheet, having studs by which it is supported for rotation, a nut in screw-threaded engagement with one of said studs, and a flange loosely mounted upon said nut.

3. A spool for perforated music-sheets having studs by which it is supported for rotation, an element adjustably mounted upon one of said studs, a flange loosely mounted upon said element, and means engaging said flange to prevent rotation thereof.

4. A spool for perforated music-sheets having studs by which it is supported for rotation, a nut adjustably mounted upon one of said studs, a flange loosely mounted upon said nut, and means engaging said flange to prevent rotation thereof.

5. A spool for perforated music-sheets, having studs whereby it is supported for rotation, one of said studs being screw-threaded, a nut in screw-threaded engagement with said stud, a flange loosely mounted upon said nut, pins projecting from the barrel of the spool, and sockets in said flange adapted to receive said pins.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK TAFT.

Witnesses:
E. C. THOMPSON,
W. C. MANSFIELD.