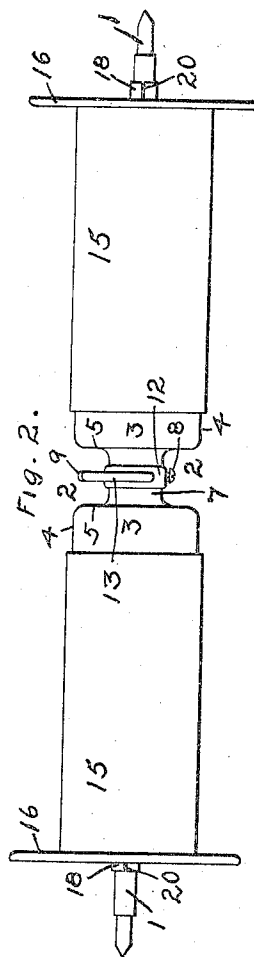
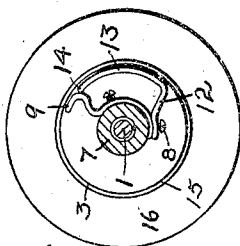
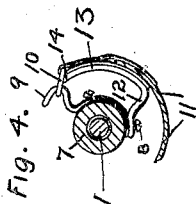
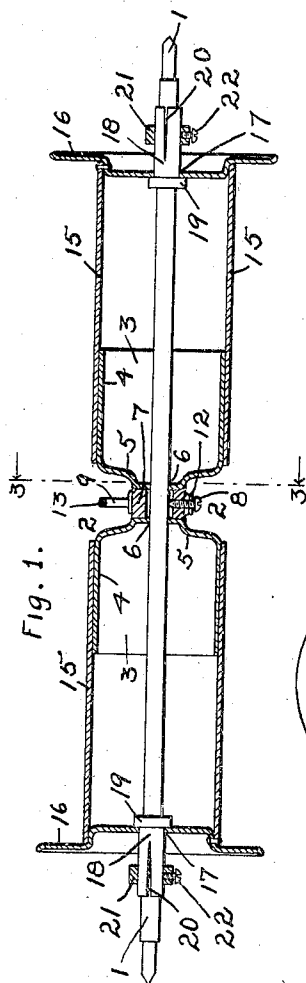


No. 822,280.

PATENTED JUNE 5, 1906.

G. B. KELLY.
MUSIC ROLL.

APPLICATION FILED MAR. 9, 1906.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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MUSIC-ROLL.

No. 822,280.

Specification of Letters Patent.

Patented June 5, 1906.

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To all whom it may concern:

Be it known that I, GEORGE B. KELLY, a citizen of the United States, and a resident of Boston, county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Music-Rolls, of which the following is a specification.

My invention relates to music-rolls, and particularly to the take-up rolls used in pianolas, pianola-pianos, and similar mechanical musical instruments and mechanical musical-instrument players. In these instruments and players the music-sheet is introduced wound upon a roll and during the operation of playing is passed over the face of a tracker and wound upon a take-up roll, from which it may be rewound onto the original roll after the music has been played. It is recently customary to adapt these musical instruments or players to be operated by rolls of two different standard widths.

The object of the invention is to provide a simple and economical take-up roll which can be readily adjusted for such music-sheets of different widths, such adjustment being possible while the take-up roll is in its operative position in the instrument.

A further object of the invention is to provide additional means for adjusting the width of the roll in either its narrowed or extended position.

A still further object of the invention is to provide means for preventing the crumpling or folding of the end of the music-sheet where this is attached to the take-up roll.

Further objects of the invention will appear in the specification and be pointed out in the claims.

Figure 1 of the drawings represents in longitudinal vertical section a music-roll or take-up roll embodying my invention. Fig. 2 is an elevation of the same, the roll being extended from the position shown in Fig. 1. Fig. 3 is a vertical section on the plane 3-3, Fig. 1. Fig. 4 is a partial vertical section similar to that shown in Fig. 3, showing a music-sheet attached to the device.

In the example of my invention illustrated in the drawings, 1 designates a shaft which in practice is mounted in bearings and provided with suitable means for its rotation and for thereby winding a music-sheet thereon. As neither the bearings nor the rotating means

form any part of the present invention, they are not shown in the drawings. Mounted on the shaft 1 and approximately midway of its effective length is a middle portion 2, shown as formed of two similar cups or shells 3, each of which consists of a cylindric portion 4 and a head 5, pierced at 6 for sliding engagement on the shaft 1. The cups 3 are spaced apart and united by an annulus or collar 7, which is provided with a set-screw 8, by means of which the middle portion 2 may be secured in any desired position longitudinally of the shaft 1. Secured to the collar 7 is the usual hook 9 for engaging a ring 10 at the end of a music-sheet 11. Also secured to the collar 7, in the present instance by means of the set-screw 8, is a strip 12, preferably of metal, the body portion of which is curved at 13 to approximately correspond with the circumference of the roll. This body portion 13, as shown, is symmetrically placed between the adjacent ends of the cylindric portions 4 of the shells 3. The free end 14 of the strip 12, as shown, bears against or is close to the hook 9.

Having sliding engagement, preferably frictional, with the cylindric parts 4 of the shells 3 are two similar cylindric shells 15, each of which is provided with a flanged head 16, perforated at 17. Preferably the shells 15 have considerable frictional engagement with the shells 3, while the apertures 17 have similar frictional engagement with sleeves 18 on the shaft 1; but it is sufficient to provide frictional resistance at either of these points. Each of the sleeves 18, as shown, consists of a split tube having a laterally-extending portion, shown as an annular collar 19, at its inner end, the slot 20 of the sleeve extending for a considerable distance of its length from its outer end. Mounted on the sleeve 18 is a set collar 21, provided with a set-screw 22.

The parts are assembled as follows: The middle portion 2 is first slid on the shaft 1 and secured by the set-screw 8, so that the hook 9 is in proper relation to the middle of the tracker of the musical instrument. The sleeves 18 are then slipped over the opposite ends of the shaft 1, and the outer shell portions 15, with the flanged heads 16 secured thereon, are then put in place with the inner ends of the shells 15 in the present instance sliding over the cylindric portions 4 of the

cups or shells 3 and the apertures 17 in the flanged head 16 sliding on the sleeves 18. The sleeves are then adjusted so that the inner stops or collars 19 thereon are in proper position to limit the inward movement of the shells 15, thereby fitting the take-up roll to receive the narrower width of music-sheet. The collars 21 are then adjusted in position to form stops for limiting the outward movement of the shells 15 when the music-roll is to be used for the wider music-sheet. The set-screws 22 are then turned to clamp the sleeves 18 firmly in position on the shaft 1. The music-roll is then placed in its proper position in the instrument and connected with the rotating apparatus. (Not shown.)

It will be seen that the operator may at any time slide the shells 15 inwardly or outwardly to adapt them to the narrower or wider music-sheet to be used and that the adjustment of the width of the music-roll in both directions may be accurately provided for by means of the collars 21 and set-screws 22.

The music-sheet, a portion of which is shown at 11, Fig. 4, is usually narrowed at its inner end, where it is provided with a ring 10 and is therefore liable, except for the presence of the strip 12, to be crumpled or drawn into the recessed portion between the edges 5 of the cups 3. The body portion 13 of the strip 12 acts to give the end of the music-roll a proper curvature and to prevent any crumpling or folding thereof.

It is obvious that certain mechanical changes may be made in my device without departing from the spirit of my invention.

What I claim is—

1. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and adjustable means for limiting the movement of said outer shell portion in both directions.

2. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and means on said shaft for limiting the movement of said outer shell portion in both directions.

3. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and a unitary means on said shaft for limiting the movement of said outer shell portion in both directions.

4. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and a part on said shaft passing through said flanged end and having a stop on each side thereof.

5. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and a part longitudinally adjustable on said shaft passing through said flanged end and having a stop on each side thereof.

6. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and a part on said shaft passing through said flanged end and having a stop on each side thereof, one of said stops being longitudinally adjustable with respect to said part.

7. In a music-roll, a shaft, a middle shell portion secured on said shaft, an outer shell portion provided with a flanged end and having frictionally-controlled sliding movement longitudinally of said middle portion and said shaft, and a sleeve longitudinally adjustable on said shaft and passing through said flanged end and forming a stop at one side of said flanged end, and a set-collar forming a stop at the other side of said flanged end and also operative to secure said sleeve on said shaft.

8. A music-roll having a central portion of reduced diameter, a music-sheet-engaging hook on said reduced portion, and a part secured on said reduced portion and having a portion of its periphery curved to approximately correspond with the circumference of the roll for giving the end of the music-sheet the proper curvature.

9. A music-roll having a central portion of reduced diameter, a music-sheet-engaging hook on said reduced portion, and a metal strip secured on said reduced portion and having its free end adjacent said hook, said strip being curved to approximately correspond with the circumference of the roll for giving the end of the music-sheet the proper curvature.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE B. KELLY.

Witnesses:

A. W. SPENCE,
W. O. MANSFIELD.