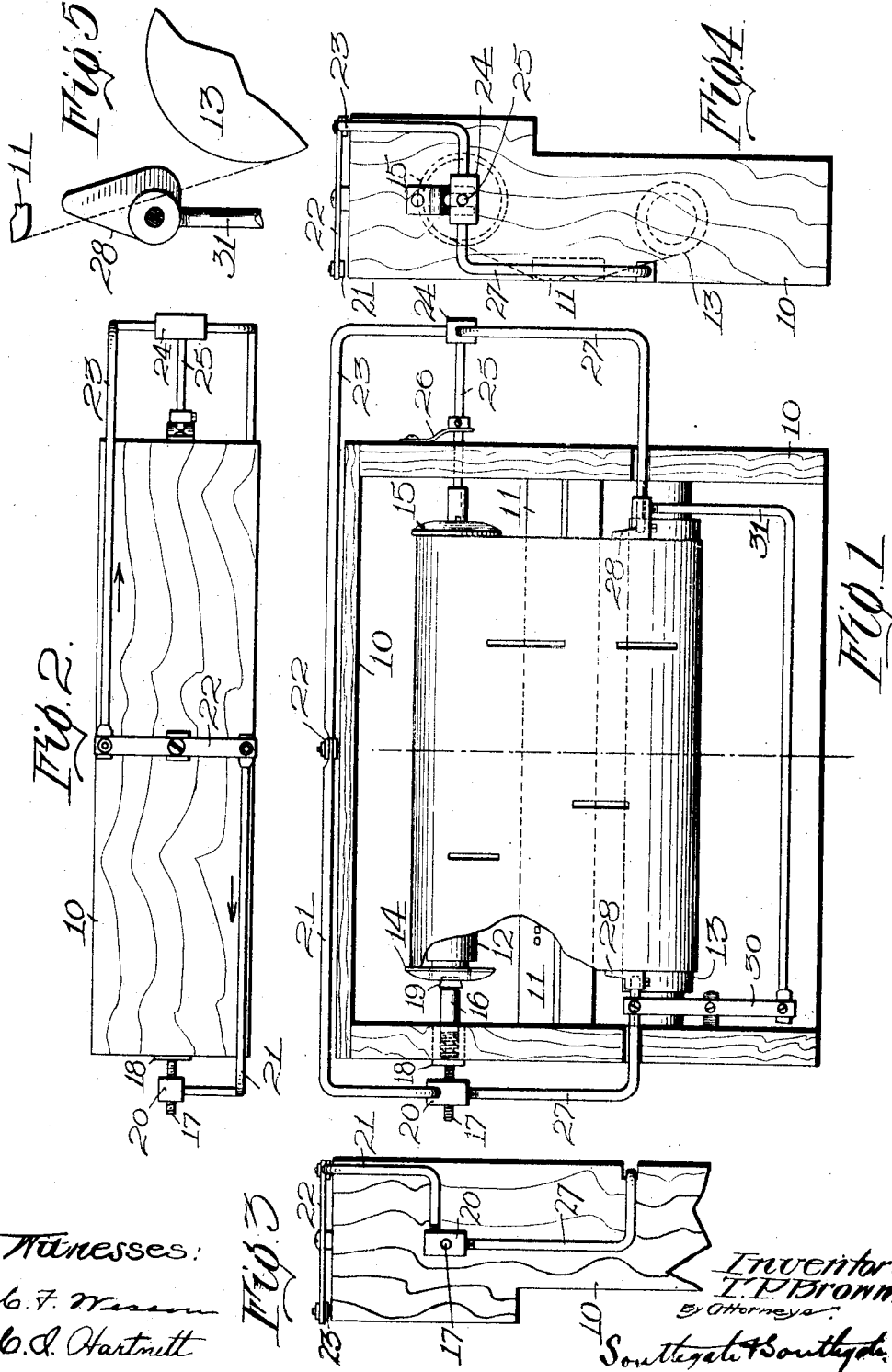


T. P. BROWN.
MECHANISM FOR GUIDING MUSIC SHEETS.
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942,956.

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UNITED STATES PATENT OFFICE.

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MECHANISM FOR GUIDING MUSIC-SHEETS.

942,956.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed June 7, 1909. Serial No. 500,648.

To all whom it may concern:

Be it known that I, THEODORE P. BROWN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Mechanism for Guiding Music-Sheets, of which the following is a specification.

This invention relates to that class of musical instruments in which the note sheet passes over a tracker.

The principal objects of this invention are to provide an exceedingly simple and inexpensive mechanism for keeping the music-sheet central with respect to the tracker, in which the parts are so constructed and arranged as to be capable of the necessary adjustments and yet be inexpensive to manufacture, and have a few parts that are likely to get out of order in use; also to provide means whereby the expansion and contraction of the sheet in width will automatically move both flanges of the spool equal distances in opposite directions so that the sheet will always remain central with respect to the tracker; and improved means whereby the sheet will also be kept exactly central as it is wound on the take-up spool, the variation in the width of the sheet itself being utilized for the purpose of automatically holding it in central position.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which,

Figure 1 is a front view of a tracker box showing a preferred embodiment of the invention applied thereto; Fig. 2 is a plan of the same; Figs. 3 and 4 are opposite end elevations; and Fig. 5 is an end elevation on enlarged scale of one of the guides in the tracker box.

The invention is shown as applied to an ordinary form of tracker box 10 having a stationary tracker 11, a music spool 12, and a take-up spool 13. The music spool is provided with a movable flange 14 and a fixed flange 15, and the take-up spool is shown as being entirely without flanges. The movable flange of the music spool is in contact with a spring-pressed plunger 16 connected with a movable rod 17 movable in a bushing 18 on the frame of the tracker-box. The plunger 16 has a bearing 19 at its end for the movable flange. The rod 17 extends

through the wall of the tracker-box and is provided with a screw thread on the outer end on which is adjustably mounted a screw-threaded member 20. To this member is fixed a rod 21 shown as extending up over the top of the box and connected with a lever 22 on the top having arms of equal lengths extending oppositely from its pivot. At the other end this lever is pivotally connected with a rod 23 which is secured to a member 24. A sliding rod 25 connected with the flange 15 and music spool to move therewith is pressed by a spring 26 against the member 24. It will be seen therefore that the music spool is longitudinally movable and that its motion is equal and opposite to that of the flange 14, the flange 15 going with the spool.

From the construction so far described it will be obvious that when the paper either contracts or expands, even if all this contraction should be upon one side of the center, the flange 14 will be moved either out or in, and this motion will be transmitted to one of the rods 21 or 23 directly, and indirectly to the other so that both flanges will be caused to move in or out equal distances and the spool will move with the flange 15 so as to be kept central. In this way the music sheet is kept central both with respect to the music spool and tracker.

Connected with the members 20 and 24 are rods 27 which extend freely through openings in the tracker box and have on the ends thereof a pair of guides 28 inside the box adapted to engage the edges of the music sheet just before it is wound upon the take-up spool as is indicated in Fig. 5. The guides 28 are operated with the flanges of the music spool and thus the sheet is caused to be wound up on the take-up spool evenly, uniformly and centrally. In order to give further assurance that the guides 28 will operate equally one of them is connected with a lever 30 and the other with a rod 31 which is connected with the opposite end of the lever, the two arms of the lever being of the same length.

While I have illustrated and described a preferred embodiment of the invention I am aware that many modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to all the

details of construction herein shown or described, but

What I do claim is:—

1. The combination with a tracker, of a
5 longitudinally movable music spool having
a relatively movable flange on one end, and
means connected with the movable flange
for shifting the music spool oppositely to
the motion of the movable flange and to the
10 same extent.
2. The combination with a tracker, of a
longitudinally movable music spool having
two flanges, one fixed thereto and the other
movable thereon, and means connected with
15 both of said flanges for transmitting the mo-
tion of each flange to the other in the oppo-
site direction.
3. The combination with a tracker box
and a tracker, of a music spool in the box
20 having two flanges, one movable thereon
and the other fixed thereto, said spool being
movable with the latter flange, rods extend-
ing beyond the tracker box from the two
flanges, and means outside the box for con-
25 necting the rods and transmitting motion
from each one to the other in reversed di-
rection.
4. The combination with a tracker box
and a tracker, of a music spool in the box
30 having two flanges, one movable thereon
and the other fixed thereto, said spool being
movable with the latter flange, rods extend-
ing beyond the tracker box from the two
flanges, members engaging the rods, one of
35 said members being adjustable, rods fixed to
said members, and a lever connected at its
ends with the last named rods, said lever
being pivoted at the center.
5. The combination with a tracker box
40 and a tracker, of a music spool in the box
having two flanges, one movable thereon
and the other fixed thereto, said spool being
movable with the latter flange, rods extend-
ing beyond the tracker box from the two
45 flanges, members engaging the rods, one of
said members being adjustable, rods fixed to
said members, a lever connected at its ends
with the last named rods, said lever being
pivoted at the center, and one of said mem-
50 bers being adjustably mounted on its rod,

and the other being loosely engaged by the
end of its rod, and a spring for movably
pressing the last named rod outwardly.

6. The combination with a tracker box
and a tracker, of a music spool in the box
55 having two flanges, one movable thereon and
the other fixed thereto, said spool being
movable with the latter flange, rods extend-
ing beyond the tracker box from the two
flanges, members engaging the rods, one of
60 said members being adjustable, rods fixed to
said members, a lever connected at its ends
with the last named rods, said lever being
pivoted at the center, and a pair of guides
for the music sheet connected with said
65 members to move therewith.

7. The combination with a tracker box
and a tracker, of a music spool in the box
having two flanges, one movable thereon and
the other fixed thereto, said spool being mov-
70 able with the latter flange, rods extending
beyond the tracker box from the two flanges,
means outside the box for connecting the
rods and transmitting motion from each one
to the other in reversed direction, and a pair
75 of music sheet guides on the opposite side
of the tracker mounted to move with the
flanges.

8. The combination with a tracker, of a
longitudinally movable music spool having
80 two flanges, one fixed thereto and the other
movable thereon, means connected with both
of said flanges for transmitting the motion
of each flange to the other in the opposite
direction, a pair of music sheet guides, and
85 means for simultaneously and automatic-
ally moving both guides toward or from
each other equal distances.

9. The combination with a tracker, of a
longitudinally movable music spool having
90 two flanges, one movable thereon, and means
for transmitting the motion of each flange
to the other in the opposite direction.

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

THEODORE P. BROWN.

Witnesses:

ALBERT E. FAY,
C. FORREST WESSON.