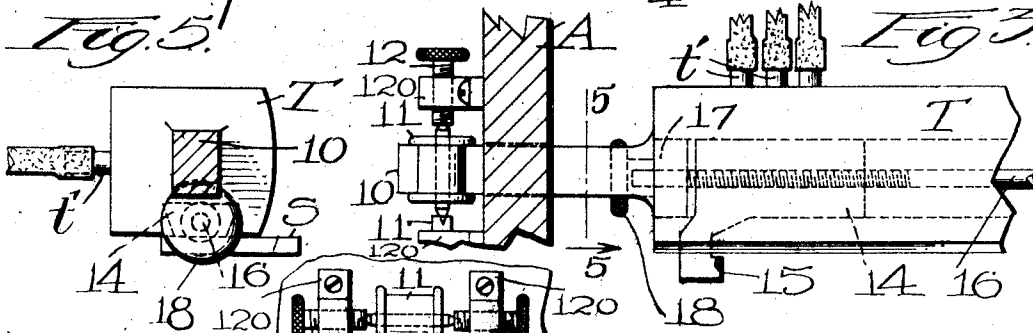
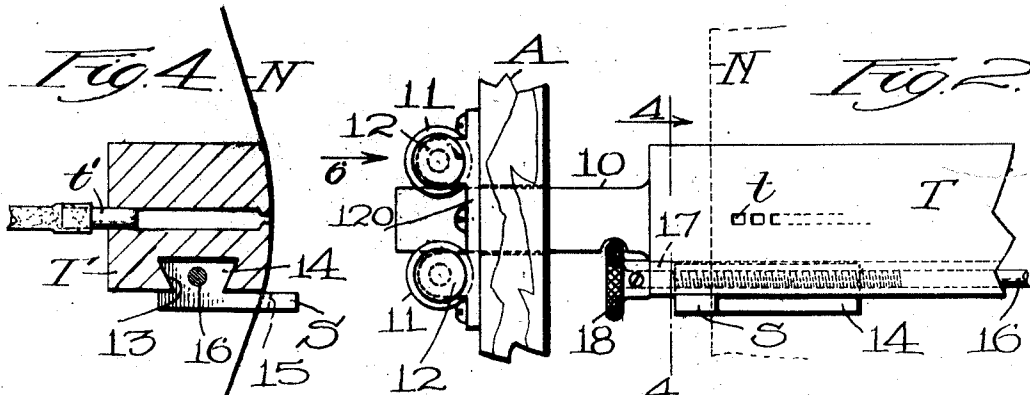
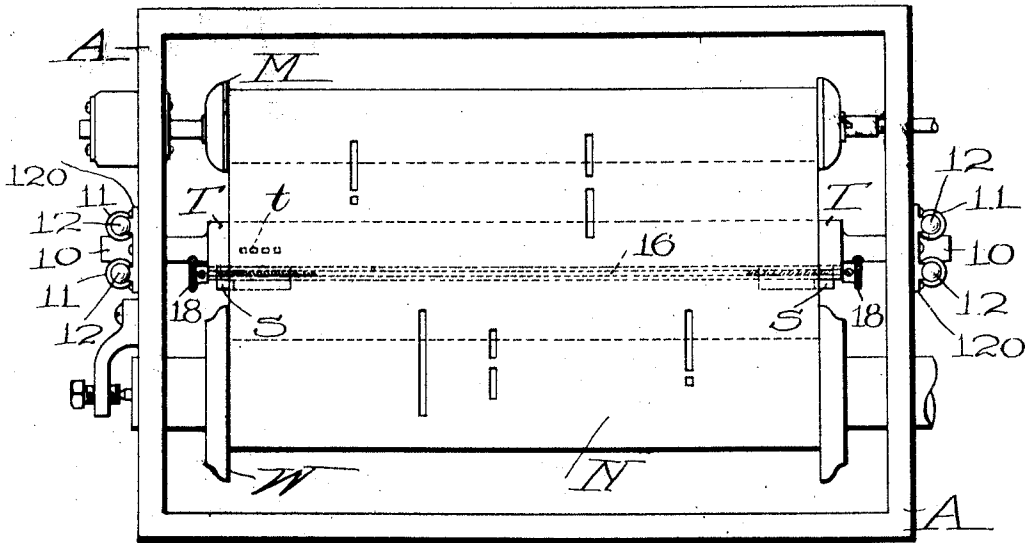


L. W. SOUTHGATE.
TRACKER MECHANISM.
APPLICATION FILED FEB. 26, 1910.

1,012,175.

Patented Dec. 19, 1911.

Fig. 1.



Witnesses:
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Fig. 6. Inventor:
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UNITED STATES PATENT OFFICE.

LOUIS W. SOUTHGATE, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO AUTO PNEUMATIC ACTION CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

TRACKER MECHANISM.

1,012,175.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed February 26, 1910. Serial No. 546,091.

To all whom it may concern:

Be it known that I, LOUIS W. SOUTHGATE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Tracker Mechanism, of which the following is a specification.

This invention relates to a tracker mechanism such as is employed in a musical instrument. A musical instrument is operated by drawing a perforated note-sheet over a tracker or tracker bar which has a number of holes which are uncovered by the perforations in the note-sheet. As the note-sheet has to be made of comparatively small width and as there are a large number of holes in the tracker bar, it is a difficult matter to keep the note-sheet in register laterally with the tracker bar as it is drawn over the tracker bar.

The object of this invention is to provide a simple and efficient mechanism for this purpose. To this end the tracker bar is supported so that it can be moved very easily, and is provided with sheet engaging fingers which engage the edge of the sheet. By this arrangement if the sheet tends to wander laterally, the tracker will follow the same and will always keep in proper register with the note-sheet so that the perforations in the note-sheet will register accurately with the holes in the tracker bar.

The sheet engaging fingers are adjustably mounted on the movable tracker and an adjusting means is provided such as a right and left-hand screw so that any adjustment of the fingers with respect to the sheet will always keep the center of the sheet in the center of the tracker. This adjustment is important for note sheets vary slightly in width and vary in width from atmospheric changes. By the above described arrangement, a simple device for the purpose stated is provided.

One embodiment of the invention is illustrated in the accompanying drawing in which,

Figure 1 is a front view of a tracker mechanism with my invention applied thereto. Fig. 2 is a partial elevation on an enlarged scale of one end of the tracker. Fig. 3 is a plan of the parts shown in Fig. 2. Fig. 4 is a sectional elevation taken on the line 4-4 of Fig. 2. Fig. 5 is a sectional elevation on the line 5-5 of Fig. 3, and Fig. 6

is a detail view showing the mounting of the tracker.

Referring to the drawing and in detail, A designates the box or frame in which the parts are contained; M the music roll on which the perforated note-sheet end is wound and which music roll is removably secured in bearings in the box; T designates the tracker; and W represents the winding roll which is driven to draw the sheet from the music roll over and across the face of the tracker T.

The tracker T is provided with a number of openings *t* with which the perforations in the note-sheet N cooperate. The tracker has at its rear end small tubes *t'* which are connected by flexible rubber tubes to the pneumatics or elements of the music instrument playing mechanisms. These parts may be of any of the ordinary constructions and need no further description.

The tracker T is provided at its ends with bars 10 which run between flanged rollers 11-11, the shafts of which have pointed ends and are journaled on screws 12-12 tapped in brackets 120-120 secured to the sides of the box, as shown in Fig. 6. By this arrangement the tracker is free to move laterally and this movement can take place very easily by the mounting of the same.

On the bottom of the tracker is cut a dove-tailed groove 13 fitting in which are dove tails 14 of the sheet engaging fingers S-S. These sheet engaging fingers are extended out beyond the bearing face of the tracker, as shown in Figs. 4 and 5, and are provided with small lips 15 under which the note-sheet N fits.

16 designates a screw which is housed in the dove-tail 13. The threads on the respective ends of the screw 16 are of the same pitch but are oppositely cut; that is to say, they are respective rights and lefts. The dove-tails 14-14 of the sheet engaging fingers S-S are threaded to receive these screw-threads. Blocks 17 are secured in the ends of the dove-tailed slot 13 and the screw is passed through holes in these blocks. Knobs 18-18 are secured on the ends of the screw, which knobs may have knurled heads. When the parts are adjusted, the sheet engaging fingers S-S are set so as to come exactly equally distant from the center of the tracker. Then when an adjustment is desired, all that is necessary is to turn one of

the knobs 18 which will equally move the sheet engaging fingers with respect to the central line of the tracker and will keep the sheet engaging fingers equally distant from the said center line. In operation, these sheet engaging fingers are set so that the sheet will run over the tracker just clearing the same. If the sheet tends to wander to one side or the other, it will engage one or the other of the sheet engaging fingers and will move the tracker laterally so as to preserve the register between the note-sheet and the tracker. Thus a simple mechanism for the purpose stated is provided.

The arrangements herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims.

Having thus fully described my invention, what I claim and desire to secure by Letters-Patent is:—

1. In a device of the class described, the combination of a tracker, means for supporting the tracker so that it can move laterally, and fingers on the tracker for engaging the sheet and keeping the tracker in register therewith.

2. In a device of the class described, the combination of a tracker, bearings for supporting the same so as to permit a free lateral play thereof, and sheet engaging fingers carried by the tracker for keeping the tracker in register with the sheet.

3. In a device of the class described, the

combination of a tracker, means for supporting the same so that it can move laterally, sheet engaging fingers carried by the tracker, and means for adjusting the sheet engaging fingers so that they will always be equally distant from the center of the tracker.

4. The combination of a tracker, means for supporting the same so that it is free to move laterally, sheet engaging fingers on the tracker for engaging the sheet and keeping the tracker in register therewith, said fingers being mounted so as to be adjustable lengthwise of the tracker, and a right and left-hand screw for adjusting the sheet engaging fingers.

5. In a device of the class described, the combination of a laterally movable tracker, and sheet engaging fingers thereon having lips under which the sheet passes.

6. In a device of the class described, the combination of a tracker mounted so as to be laterally movable, a dove tail formed in the tracker, sheet engaging fingers having dove-tails fitting in said slot, and a right and left-hand screw for adjusting the sheet engaging fingers.

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

LOUIS W. SOUTHGATE.

Witnesses:

C. FORREST WESSON,
E. M. ALLEN.