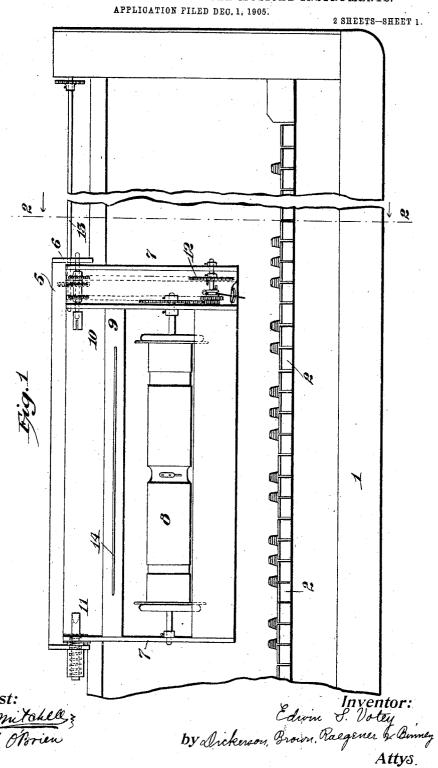
E. S. VOTEY.

## MOVABLE TRACKER FOR MECHANICAL MUSICAL INSTRUMENTS.



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APPLICATION FILED DEC. 1, 1905.

2 SHEETS-SHEET 2. 

Attest: a. L. oberien Les J. Mathy.

Edwin S. Voter by Dickerson, Brown, Raegener & Binney Attys,

## UNITED STATES PATENT OFFICE.

EDWIN S. VOTEY, OF SUMMIT, NEW JERSEY, ASSIGNOR TO THE AEOLIAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF CONNECTICUT.

## MOVABLE TRACKER FOR MECHANICAL MUSICAL INSTRUMENTS.

No. 829,186.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed December 1,1905. Serial No. 289,759.

To all whom it may concern:

Be it known that I, EDWIN S. VOTEY, a citizen of the United States, and a resident of Summit, in the county of Union and State of 5 New Jersey, have invented certain new and useful Improvements in Movable Trackers for Mechanical Musical Instruments, of which the following is a precifaction.

the following is a specification.

My invention relates to musical apparatus provided with means of automatically playing the same through the operation of perforated music-sheets. Its object is to secure compactness and simplicity of construction and convenience of operation by making some of the parts movable from their operative position to the position where they may be concealed from view when not in use, or where, at least, they will not interfere with the manual operation of the instrument. It consists of means to this end and of combinations of parts, which will be pointed out in the claims.

In the drawings, Figure 1 is a front elevation of so much of a grand piano as is necessary to illustrate my invention. Fig. 2 is a wortied section through the line 2.2 Fig. 1

vertical section through the line 2 2, Fig. 1. 1 designates the bottom of a piano, above which are mounted keys 2, which keys to-gether constitute the keyboard of the instru-30 ment. The mechanism by which these operate on the strings 3 is not shown, as it forms no part of the present invention. Pivotally mounted on a stationary part 4 of the piano is a bracket 5, to the free ends of the cheeks 6 of which is secured a depending frame 7, within which is supported a musicsheet-winding roll 8, commonly known as a "take-up" roll, a tracker 9, and shafts 10 and 11, which shafts together constitute a 40 music-roll support, the shaft 10 being provided with means for engaging the driving end of a music-roll (not shown) and the shaft 11 being provided with means for engaging a pin at the left end of the roll. The support 7 45 also carries suitable mechanism (designated as 12) for communicating motion from the shaft 13, which is in the axial line of the bracket 6, to rotate the winding or take-up

roll 8, as well as to turn the shaft 10, by

sic-roll (not shown) after playing. As this

driving mechanism for the winding-roll and the music-roll shaft are both well known and

form no part of the present invention it is

50 which the music-sheet is rewound on the mu-

unnecessary to elaborately illustrate or care- 55

fully explain them.

It will be seen that the bracket 5 has a pivotal motion of approximately one hundred and eighty degrees, so that in its forward position it extends over the manual keys of the 60 keyboard 2, and that the depending portion 7 has a pivotal motion of approximately ninety degrees on the bracket 5, so that it may in its operative position depend over the keys, so as to bring the tracker into convenent position for the operator, and may in its non-operative position be extended, with the bracket 5, rearwardly, as shown in dotted lines, Fig. 2, to a position which in the present instance is above the forward ends of the 70 strings 3.

It is of course evident that the ducts 14 in the tracker 9 are connected by flexible connections 15 to the pneumatic action, (not shown,) the connections 15 in the present 75 construction extending downwardly through the keyboard 2 and bottom 1 of the piano.

While I have shown the device as applied

to a grand piano, it is clear that it is applicable, with only mechanical changes, to other 80 forms of keyboard musical instruments.

What I claim is—

1. In musical apparatus, a keyboard and a tracker adjustably supported to move from an operative position above said keyboard to 85 a non-operative position above said keyboard and above and behind its operative position, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

2. In musical apparatus, a keyboard, and a tracker and a music-sheet-winding roll adjustably supported to move from an operative position above said keyboard to a non-operative position above said keyboard and 95 above and behind their operative position, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

3. In musical apparatus, a keyboard, and a 100 tracker, a music-sheet-winding roll and a music-roll support adjustably supported to move from an operative position above said keyboard to a non-operative position above said keyboard and above and behind their 105 operative position, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

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4. In musical apparatus, a keyboard, a tracker pivotally mounted above said keyboard to move from an operative position above and adjacent to the front end of said 5 keyboard upwardly and rearwardly to a nonoperative position, and flexible pneumatic connections leading from said tracker for

controlling the playing mechanism.

5. In musical apparatus, a keyboard, a to tracker and a music-sheet-winding roll pivotally mounted above said keyboard to move from an operative position above and adjacent to the front end of said keyboard upwardly and rearwardly to a non-operative 15 position, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

6. In musical apparatus, a keyboard, a tracker, a music-sheet-winding roll and a 20 music-roll support pivotally mounted above said keyboard to move from an operative position above and adjacent to the front end of said keyboard upwardly and rearwardly to a non-operative position, and flexible pneu-25 matic connections leading from said tracker for controlling the playing mechanism.

7. In musical apparatus, a keyboard, a tracker and a music-sheet-winding roll adjustably supported to move from an opera-30 tive position above said keyboard to a nonoperative position above said keyboard and above and behind their operative position, means for rotating said winding-roll connected thereto independently of its position, 35 and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

8. In musical apparatus, a keyboard, a music-sheet-winding roll, a tracker and a 40 music-roll support adjustably supported to move integrally from operative position above said keyboard to non-operative position above and behind their operative posi-tion, a driving-shaft in said music-roll sup-45 port, means for rotating said winding-roll and said driving-shaft connected to each of them independently of their position, and flexible pneumatic connections leading from said tracker for controlling the playing mechan-50 ism.

9. In a piano, manual keys, horizontallydisposed strings, and a music-sheet-winding roll adjustably supported to move from an operative position above and adjacent to 55 said keys to a non-operative position above

and adjacent to said strings.

10. In a piano, manual keys, horizontallydisposed strings, a music-sheet-winding roll and a tracker supported for integral move-60 ment from operative position above and ad-

jacent to said keys to non-operative position above and adjacent to the said strings, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

11. In a piano, manual keys, horizontallydisposed strings, a music-sheet-winding roll, a tracker and a music-roll support supported for integral movement from operative position above and adjacent to said keys to non- 70 operative position above and adjacent to the said strings, and flexible pneumatic connections leading from said tracker for controlling

the playing mechanism.

12. In a piano, manual keys, a casing, a 75 bracket pivoted on said casing above said keys and so as to swing forwardly thereover, a music-sheet-winding roll and a tracker pivoted on said bracket so as to swing from operative depending position above said keys 80 upwardly and rearwardly to non-operative position, and flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

13. In a piano, manual keys, a casing, a 85 bracket pivoted on said casing above said keys for movement in an arc of approximately one hundred and eighty degrees so as to extend forwardly above said keys, a tracker and a music-sheet-winding roll piv- 90 otally mounted at the free end of said bracket for integral movement in an arc of approximately ninety degrees to an operative position above said keys, and flexible pneumatic connections leading from said tracker for 95 controlling the playing mechanism.

14. In a piano, manual keys, a casing, a bracket pivoted on said casing above said keys for movement in an arc of approximately one hundred and eighty degrees so as 100 to extend forwardly above said keys, a musicsheet-winding roll, a tracker and a musicroll support pivotally mounted at the free end of said bracket for integral movement in an arc of approximately ninety degrees to a 105 depending position over said keys, connections on said bracket for rotating said winding-roll and said music-roll support, such connections remaining in engagement independently of the position of the parts, and 110 flexible pneumatic connections leading from said tracker for controlling the playing mechanism.

In testimony whereof I have signed this specification in the presence of two subscrib- 115 ing witnesses.

EDWIN S. VOTEY.

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m Witnesses}:$ 

D. C. Heins, W. C. Mansfield.