

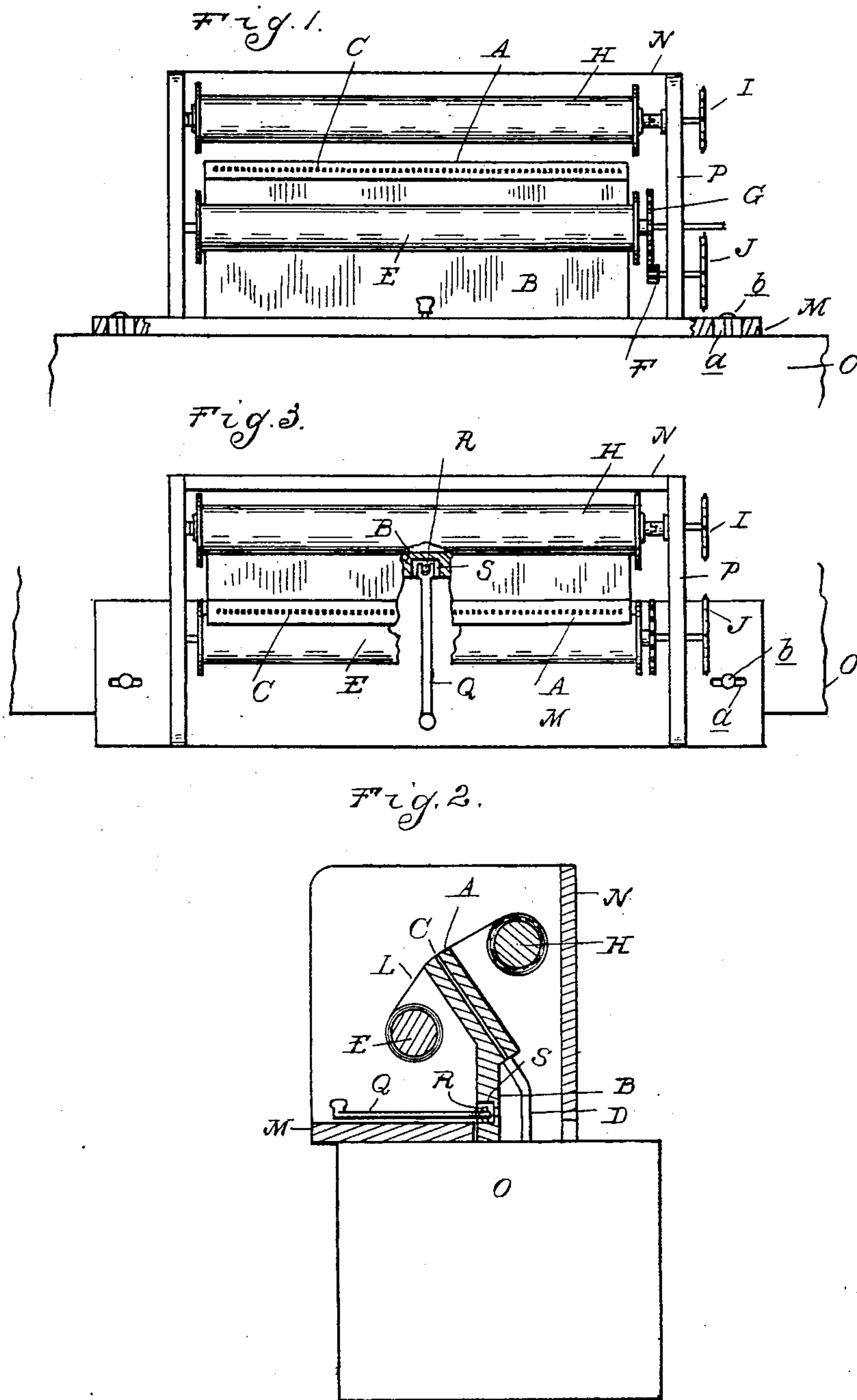
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TRACKER BAR FOR MECHANICAL MUSICAL INSTRUMENTS.

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NO MODEL.



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# UNITED STATES PATENT OFFICE.

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## TRACKER-BAR FOR MECHANICAL MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 762,986, dated June 21, 1904.

Application filed February 10, 1903. Serial No. 142,754. (No model.)

*To all whom it may concern:*

Be it known that we, JOSEPH COURVILLE and FRANCIS W. DRAPER, citizens of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Tracker-Bars for Mechanical Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention has particular reference to pneumatically-controlled mechanical musical instruments, the sounding devices of which are operated by the movement of a traveling perforated sheet over a member generally termed a "tracker-bar" and provided with a plurality of air-ducts leading to the pneumatic devices and with which the apertures in the sheet are adapted to cooperate. In musical instruments of this character it is essential that the perforation in the sheet should at all times register accurately with the corresponding openings in the tracker-bar, and the present invention consists in a means for effecting a relative adjustment between the tracker-bar and sheet to compensate for the variations in the width of the latter occasioned by the atmospheric changes, and the novel arrangement and combination of the parts, and in certain details of construction, as will be hereinafter described and illustrated.

In the drawings, Figure 1 is a front elevation of a portion of a mechanical musical instrument, illustrating an embodiment of our invention. Fig. 2 is a vertical section through the mechanism shown in Fig. 1, and Fig. 3 is a plan view.

In the drawings thus briefly described the reference-letter A designates the tracker-bar, which is of the ordinary construction and is provided with suitable support, such as B.

C represents the usual openings in the tracker-bar provided with the flexible ducts D, which lead to the sound-actuating devices. (Not herein shown.)

E represents the take-up roll journaled for rotary movement and actuated by means of

the usual driven pinion F, which engages with a gear-wheel G upon the roll.

H is a detachable music-roll, also mounted for rotary movement, adapted to be operated through the agency of the customary sprocket-wheels I and J, carried, respectively, by the music and take-up rolls.

L represents the apertured music-sheet secured at one end to the music-roll and adapted to be wound from said roll onto the take-up roll in the usual manner.

M designates a support on which both the music and take-up rolls are journaled and which is longitudinally adjustable relative to the tracker-bar, permitting the compensation previously described to be effected. In construction the preferable form of support is a roll-holding box N, mounted upon the instrument-casing—in this particular instance the wind-chest O. The rolls described are journaled in the sides P of the box, and the latter is adjusted in relation to the tracker-bar in a manner hereinafter set forth. To insure a longitudinal movement of this support in a plane parallel with the tracker-bar, we provide the roll-holding box with guide-grooves *a*, in which extend suitable guide-pins *b*, secured, preferably, to the wind-chest O.

Q is an operating-lever pivoted to the roll-box, as shown, and having its inner end forked to engage a pin R, arranged, preferably, in a notch S, formed in the tracker-bar support B. By shifting the lever in either direction a longitudinal movement will be imparted to the roll-support, and its direction of travel will be maintained in a plane parallel with the tracker-bar, due to the guide mechanism described. The roll-holding box will be held in its different positions of adjustment by the guide-pins *b*, which afford enough resistance for this purpose, but not enough to prevent the proper adjustment of the box, said support having grooves therethrough and guides engaging the grooves.

Attention is directed to the fact that by arranging and combining the parts as set forth the desired adjustment can be made without



the necessity of disturbing the tracker-bar, and thus disarranging the parts connected to it—namely, the flexible air-ducts, which are easily displaced and injured. It is to be understood, however, that our invention embraces a support for the music and take-up rolls adjustable relatively to the tracker-bar whether the latter is stationary or movable.

What we claim as our invention is—

10 1. In a mechanical musical instrument the combination with a longitudinally-adjustable box-frame, comprising back, bottom and end sections, of take-up and music rolls rotatively mounted between the end sections, a stationary  
15 tracker-bar, and an operating-lever pivoted intermediate its ends to the bottom section of the frame and at its inner end to the tracker-bar intermediate the ends of the latter.

2. In a mechanical musical instrument, the  
20 combination with a tracker-bar, of take-up and music rolls, a single support for both rolls adjustable longitudinally relative to the tracker-bar, grooves through the base of said support, pins engaging the grooves for insuring an ad-  
25 justment in a plane parallel with the tracker-bar, and an operating-lever pivotally secured to the support intermediate said grooves.

3. In a mechanical musical instrument, the combination of a stationary tracker-bar, of the  
30 take-up and the music rolls, a roll-holding box in which said take-up and music rolls are mounted for rotary movement, and means within said box and intermediate its ends for longitudinally adjusting said box in a straight  
35 line relative to the tracker-bar.

4. In a mechanical musical instrument, the combination with the stationary tracker-bar, of the take-up and music rolls, a roll-holding box in which said rolls are journaled for ro-  
40 tary movement, means intermediate the ends of said box for longitudinally adjusting said roll-holding box in a plane parallel with the tracker-bar, and means frictionally engaging said box to retain it in its different positions  
45 of adjustment.

5. In a mechanical musical instrument, the combination with a tracker-bar, of a roll-holding box, and means associated with said tracker-bar for longitudinally adjusting the box relative thereto, said means being entirely  
50 within the box and offering no obstruction therebeyond.

6. In a mechanical musical instrument, the combination with a tracker-bar, of a support for music-rolls, means for longitudinally ad-  
55 justing said support relative to the tracker-bar, including a lever having pivotal engagements with said tracker-bar and support, and guides for insuring a straight longitudinal movement of the support relative to the  
60 tracker-bar.

7. In a mechanical musical instrument, the combination with a longitudinally-adjustable box-frame, comprising back, bottom and end sections, the bottom section having a longitu-  
65 dinally-cut-away portion adjacent the back, a stationary tracker-bar passing through said cut-away portion, take-up and music rolls rotatably mounted between the end sections upon the respective sides of the tracker-bar, and an  
70 operating-lever having pivotal engagement respectively with the bottom section and the frame and the front of the tracker-bar.

8. In a mechanical musical instrument, the combination with a longitudinally-adjustable  
75 box-frame, comprising back, bottom and end sections, of take-up and music rolls rotatably mounted between the end sections, a stationary tracker-bar, and an operating-lever pivoted to said bottom section of the box and  
80 having a forked end loosely engaging a lug upon the tracker-bar.

In testimony whereof we affix our signatures in presence of two witnesses.

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Witnesses:

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