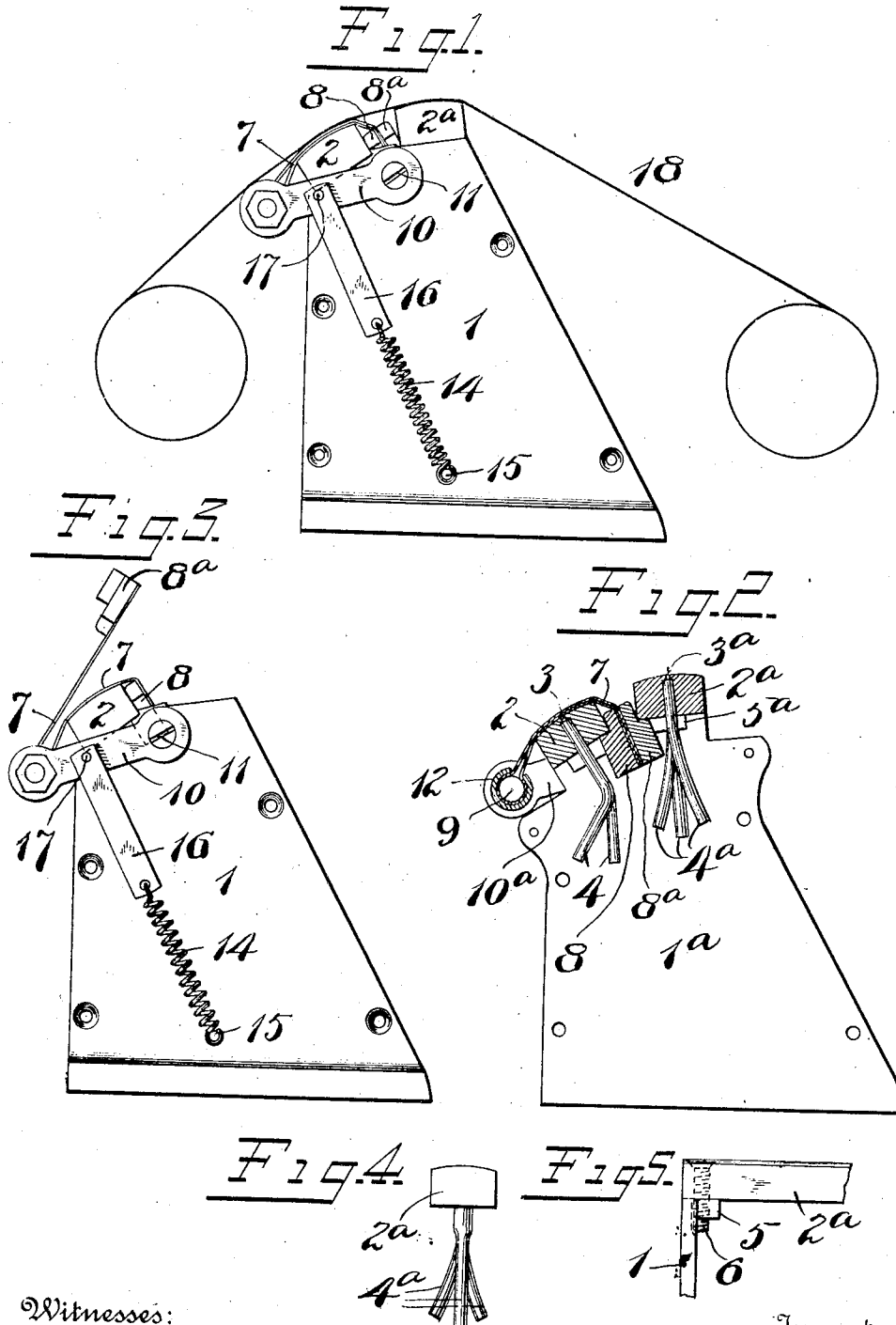


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 TRACKER CONSTRUCTION FOR MECHANICAL MUSIC PLAYING INSTRUMENTS.  
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# UNITED STATES PATENT OFFICE.

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TRACKER CONSTRUCTION FOR MECHANICAL MUSIC-PLAYING INSTRUMENTS.

968,221.

Specification of Letters Patent. Patented Aug. 23, 1910.

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To all whom it may concern:

Be it known that I, FRANK CORNWELL WHITE, a citizen of the United States, residing at Meriden, county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Tracker Construction for Mechanical Music-Playing Instruments, of which the following is a full, clear, and exact description.

My invention relates to improvements in tracker construction for pneumatic music playing instruments, the same being an improvement mainly upon my former patented construction set forth in U. S. Letters Patent, No. 939,178, of November 2, 1909.

My main object herein is to provide certain improvements aiming at economy of construction and convenience of assembling.

In the accompanying drawings—Figure 1 is an end elevation of my improved tracker construction; Fig. 2 is a cross section taken at a point between the end brackets, showing one of said brackets and certain other parts in elevation; Fig. 3 is a view similar to Fig. 1 with certain parts detached; Fig. 4 is a detached detail, and Fig. 5 is a fragmentary view of certain details of construction.

1—1<sup>a</sup> are end brackets or supports.

2—2<sup>a</sup> are independent tracker bars, each of said bars being provided with perforations in their upper faces to arrange to register with perforations in a traveling note sheet. One of these perforations in bar 2 is indicated at 3, Fig. 2, while one of the perforations in the bar 2<sup>a</sup> is indicated at 3<sup>a</sup>, Fig. 2. The bars 2—2<sup>a</sup> are provided respectively with short tubular extensions 4—4<sup>a</sup>, to which the pneumatic pipes, usually of rubber, may be conveniently connected by being merely slipped over said short tubular extensions in the manner customary and well known in the art.

The bracket 1 is preferably provided with a laterally offset supporting shoulder 5, while the bracket 1<sup>a</sup> is provided with a corresponding supporting shoulder 5<sup>a</sup>, these supporting shoulders being designed to support the bar 2<sup>a</sup>, said supporting shoulders being tapped to receive fastening screws, one of which is indicated conventionally at 6, by which the ends of the tracker bars are detachably secured to the end brackets 1—1<sup>a</sup>. The bars 2—2<sup>a</sup> when in place are spaced apart, as indicated in Figs. 1 and 2, and between them is located the anchored end of

an apron 7. The anchorage members for the apron comprise two separable and independent anchor strips 8—8<sup>a</sup>, preferably made of wood, and to which the opposite edges of the apron may be firmly attached, for example, by glue. The middle portion of the apron passes around a bearing rod 9 carried by swinging levers 10—10<sup>a</sup> pivoted respectively to the brackets 1—1<sup>a</sup> concentrically at 11. A tube 12, split longitudinally, may be slid over the bearing 9 to so embrace said bearing and that part of the apron thereon as to hold the latter smoothly in place, still permitting the bearing 9 to rotate in the apron so as to avoid the danger of cutting. The edges of the split tube are preferably rounded so as to provide a non-cutting edge where the apron leaves the bearing. The lever 10 is controlled by a spring 14, as shown in Figs. 1 and 3. This spring 14 is anchored at 15 to the end plate 1 and is connected with lever 10, preferably by a link plate 16, which in turn is pivotally connected at 17 to an intermediate part of the lever 10, so that said lever will be held on one side or the other of the pivot center 11, thereby causing the apron 7 to rest snugly against and cover the upper surface of the bar 2 or 2<sup>a</sup>, as desired, exposing the other for engagement by the traveling perforated note sheet conventionally shown at 18. The lever 10<sup>a</sup> is similar to lever 10 and is operated by a spring similar to spring 14.

In mechanical music playing instruments wherein it is customary to provide a tracker device having perforations of different spacing for two scales known as the sixty-five note scale and the eighty-eight note scale, it is obvious that only one set of perforations can be used at a time, hence by throwing the apron 7 into position to cut off one or the other row of perforations, the desired scale can be selected.

In manufacturing the parts the brackets 1—1<sup>a</sup> and the bars 2—2<sup>a</sup>, together with their short projecting tubes 4—4<sup>a</sup>, may be very economically constructed, so also said parts may be very economically assembled.

In assembling the parts, one of the bars, for example, 2, is secured at its ends to the brackets 1—1<sup>a</sup>, the apron 7 is then applied to the bearing 9, one of the angular anchorage strips being placed, as shown in Fig. 3, to project under the tracker bar 2, the other strip 8<sup>a</sup> is then brought down, into position

shown in Fig. 2, whereupon the second tracker bar 2<sup>a</sup> is secured to the brackets 1—1<sup>a</sup>, thus securing the two strips 8—8<sup>a</sup> against accidental displacement and thereby anchoring the apron at a point between the bars 2—2<sup>a</sup>. Should any accident happen to the apron or should it be desired to renew the same, it requires merely the removal of one of the bars 2—2<sup>a</sup> to permit the ready removal and renewal of this element, viz., the apron. It will be seen that the entire space between the brackets 1—1<sup>a</sup> is available for receiving a multitude of air pipes or tubes which lead from the tubular extensions 4—4<sup>a</sup> to the co-acting parts, not shown, of the pneumatic mechanism.

While in general operation after assembling the apparatus works in a manner corresponding to the operation set forth in my former patent, it will nevertheless be seen that structurally considered the present improvement embodies substantial features of superiority, aiming at economy of manufacture and simplicity and ease of assembling.

What I claim is:

1. In combination, two independent rigidly mounted perforated tracker-boards, a separate bracket support for each end of both bars, and movable means to close the upper ends of the perforations in either of said bars at will.

2. In a tracker mechanism for auto-pneumatic playing instruments, two independent rigidly mounted perforated tracker bars, a separate bracket support for each end of each bar, said bars being detachably connected thereto, a shiftable flexible apron anchored between said bars and means to shift the same into operative engagement with the upper surface of one bar or the other to close the perforations therein.

3. In a tracker mechanism for auto-pneumatic playing instruments, two independent rigidly mounted perforated tracker bars, a separate bracket support for each end of each of said bars, a plurality of short tubular extensions in the lower side of each bar, a flexible apron anchored at one edge between said bars, a shiftable support for the opposite edge of said apron, whereby the latter may be shifted to operably engage either one of said bars to close the perforations therein.

4. In a tracker mechanism for auto-pneu-

matic playing instruments, two stationary brackets spaced apart, two bars rigidly supported upon said brackets and means for independently securing said bars to said brackets, a flexible apron detachably anchored at one edge between said bars and means for shifting said apron from one bar to the other to close the perforations therein.

5. In a tracker mechanism for auto-pneumatic playing instruments, two stationary brackets spaced apart, two bars rigidly supported upon said brackets and means for independently securing said bars to said brackets, a flexible apron detachably anchored at one edge between said bars and means for shifting said apron from one bar to the other, said apron being of double thickness, a detachable anchorage including two separable and independent anchor strips, one part of said apron being secured to one strip and another part of said apron being secured to the other strip.

6. In a tracker mechanism for auto-pneumatic playing instruments, two stationary spaced brackets, two independent tracker bars rigidly mounted thereon, means for independently connecting said bars to said brackets, a shiftable flexible apron and means to shift the same from operative engagement with one bar to operative engagement with the other bar and vice versa.

7. In a tracker mechanism for auto-pneumatic playing instruments, two spaced brackets, two independent tracker bars, means for independently connecting said bars to said brackets, a shiftable flexible apron and means to shift the same from operative engagement with one bar to operative engagement with the other bar and vice versa, one part of said apron being anchored between said bars.

8. In a tracker mechanism for auto-pneumatic playing instruments, two spaced brackets, two independent tracker bars, means for independently connecting said bars to said brackets, a shiftable flexible apron and means to shift the same from operative engagement with one bar to operative engagement with the other bar and vice versa, one part of said apron being detachably anchored between said bars.

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