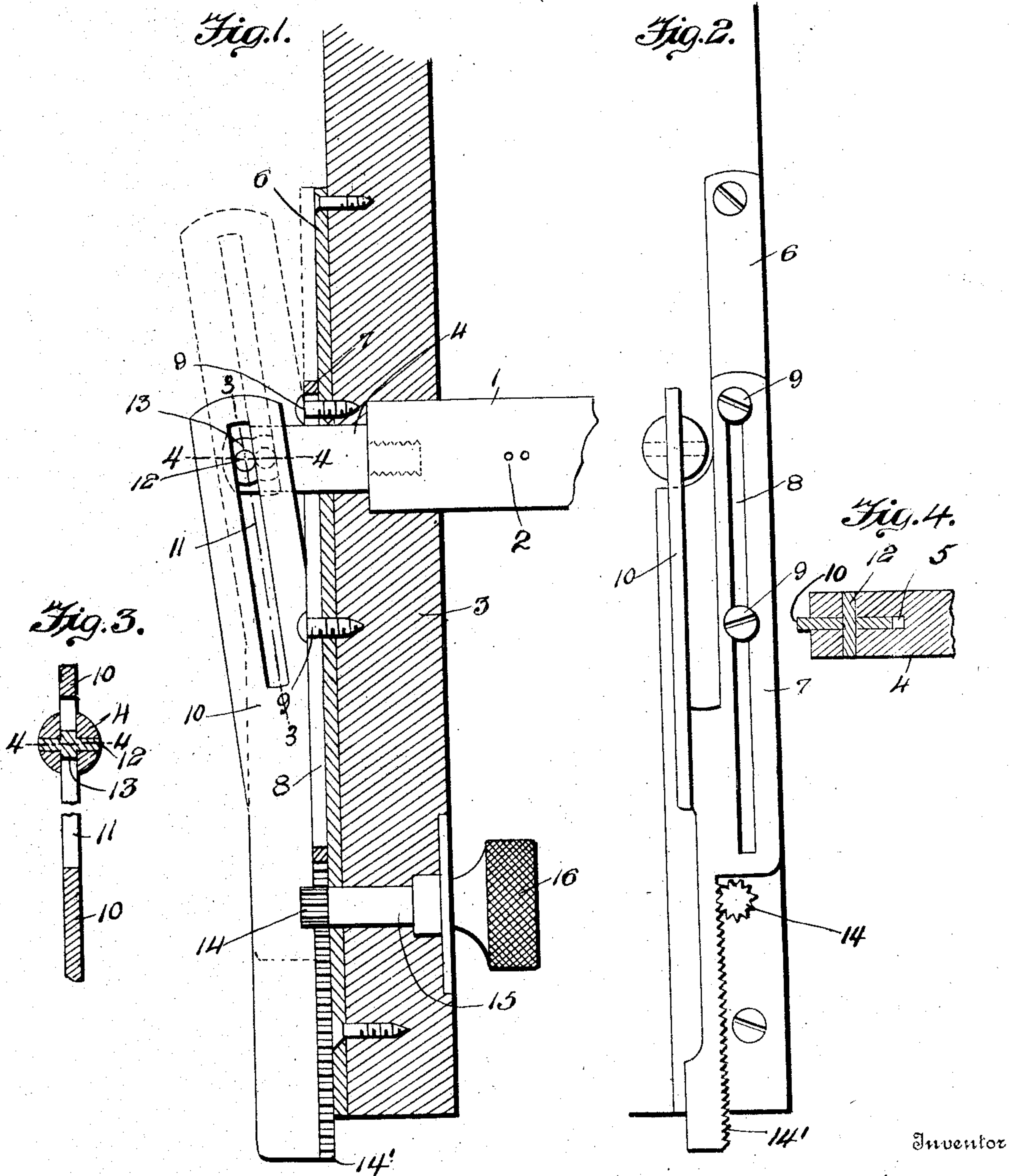


No. 883,206.

PATENTED MAR. 31, 1908.

A. KUHLE.
SHIFTABLE TRACKER BAR.
APPLICATION FILED OCT. 25, 1907.



Inventor

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Witnesses
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UNITED STATES PATENT OFFICE.

ARTHUR KUHLE, OF WEST NEW YORK, NEW JERSEY, ASSIGNOR TO HARDMAN, PECK & COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

SHIFTABLE TRACKER-BAR.

No. 883,206.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed October 25, 1907. Serial No. 399,157.

To all whom it may concern:

Be it known that I, ARTHUR KUHLE, a citizen of the United States, residing at West New York, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Shiftable Tracker-Bars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in tracker bars for musical instrument players, and is more particularly directed to means of adjustment for the bar for shifting the same relative to the music sheet for transposing purposes or merely for adjusting the apertures of the bar into exact alinement with the sheet music apertures.

The object in view is the facilitating of a close and accurate adjustment of the tracker bar which shall be accomplished with rapidity and ease.

With this and further objects in view, the invention comprises the combination with a slidingly mounted tracker bar, of a transversely sliding cam connected therewith, and means for shifting the cam.

The invention comprises certain other novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawing:—Figure 1 is a horizontal section through a fragment of a tracker bar support, parts being seen in plan and the preferred embodiment of the present invention being illustrated. Fig. 2 is a side view thereof. Fig. 3 is a detail, transverse section taken on the plane indicated by line 3, 3 of Fig. 1. Fig. 4 is a longitudinal, vertical section taken on the plane indicated by line 4, 4 of Fig. 1, and also on line 4, 4, of Fig. 3.

Referring to the drawing by numerals, 1 indicates a tracker bar provided with the usual exhaust ports 2, 2. The tracker bar 1 is preferably mounted in suitable supports 3 and is provided with a longitudinally alined shaft 4 projecting beyond the support 3 and is bifurcated at its outer end, as indicated at 5. A bearing plate 6 is preferably fixed to the support 3 above and at one side of the shaft 4 and slidingly supports a plate

7, the plate 7 being formed with a longitudinal slot 8 through which extends guiding and retaining pins or bolts 9, 9 which project laterally from the plate 6. Projecting laterally from and at an angle to the plate 7, and preferably formed integral therewith is a preferably flat bar 10 which may extend at any degree of angularity relative to the plate 7 as is found desirable. The bar 10 projects between the arms of the bifurcation 5 and is formed with a guiding slot 11 through which slot extends a pin 12 journaled transversely in the arms of the bifurcation. The pin 12 is preferably formed intermediate its length with an enlargement 13 which extends longitudinally of the slot 11 for serving as a guide, the pin 12 pivoting freely for accommodating movement of the bar 10 relative to the shaft 4.

Near one end of the plate 7, the edge thereof is preferably formed into a rack 14 which is engaged by a pinion 14 carried by a shaft 15 extending through a bearing in the support 3 and having at its outer end an operating milled head 16. While I have illustrated the gear 14 and rack 15 as being of the ordinary spur type, obviously a worm gear may be substituted for locking the parts at various points of adjustment.

When applying the sheet of music, if it is found that the ports 2 do not exactly register with the apertures of the sheet, the head 16 will be revolved which will cause the plate 7 to slide longitudinally and thus cause the bar 10, which in fact is a cam, to either push in or draw out the shaft 4 and correspondingly move the bar 1. When it is desired to transpose the music, it is only necessary to adjust the cam 10 to a sufficient extent for shifting the bar 1 the required distance for causing the new ports 22 to register with the given apertures in the sheet music.

What I claim is:—

1. In a device of the character described, the combination with a support and longitudinally shiftable tracker bar, of a cam slidably mounted for shifting the tracker bar, and means for moving said cam.

2. In a device of the class described, the combination with a support and a tracker bar shiftable mounted therein, of a cam connected with and adjustable transversely of the tracker bar for shifting the same, and gearing connected with said cam and ex-

tending beyond the support for enabling manual shifting of the cam.

3. In a device of the class described, the combination with a support and a tracker bar shiftably carried thereby, of a cam movable transversely of and connected to said bar for shifting the same when the cam is moved, a slide plate carrying said cam, and gears for actuating said slide plate.

4. In a device of the class described, the combination with a support and a tracker bar shiftably mounted therein, of a bar disposed in angular relation thereto and shiftably transversely of the tracker bar, means connecting the bars, a plate for shifting the tracker bar when the second mentioned bar is shifted, and means for shifting the second mentioned bar.

5. In a device of the class described, the combination with a support and a tracker bar shiftably mounted thereon, of a bar mounted to move transversely with respect to the tracker bar and having a guide disposed in angular relation to the tracker bar, means connecting said tracker bar with said guide, and means for shifting the second mentioned bar.

6. In a device of the class described, the combination with a support and a tracker bar shiftably mounted therein, of a bar movable transversely with respect to the tracker bar and formed with a slot disposed in angular relation to the tracker bar, a pin connected with the tracker bar and extending

through said slot, and means for shifting the second mentioned bar.

7. In a device of the class described, the combination with a support and a tracker bar shiftably mounted therein, of a slide plate arranged to slide transversely with respect to the tracker bar, a cam projecting from said slide plate in angular relation to the tracker bar, a slidable connection between the tracker bar and cam, and means for shifting said slide plate.

8. In a device of the class described, the combination with a support and a tracker bar shiftably mounted therein, and having an extending portion projecting beyond the support and bifurcated, a longitudinally slotted bar projecting between the arms of the bifurcation and shiftably transversely of the tracker bar, the longitudinal slot in the second mentioned bar being disposed in angular relation to the tracker bar, a pin pivotally mounted in the arms of the bifurcation and extending through the slot, a guide on said pin within said slot, and means for shifting the second mentioned bar.

9. In a device of the class described, a longitudinally shiftable bar, and a sliding cam adapted to shift the bar.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR KUHLE.

Witnesses:

E. A. SCHMITS,
JOHN E. CAPLEAS.