R. W. PAIN.

TRACKER BAR.

APPLICATION FILED NOV. 13, 1908.

916,584.

Patented Mar. 30, 1909.

3 SHEETS—SHEET 1.

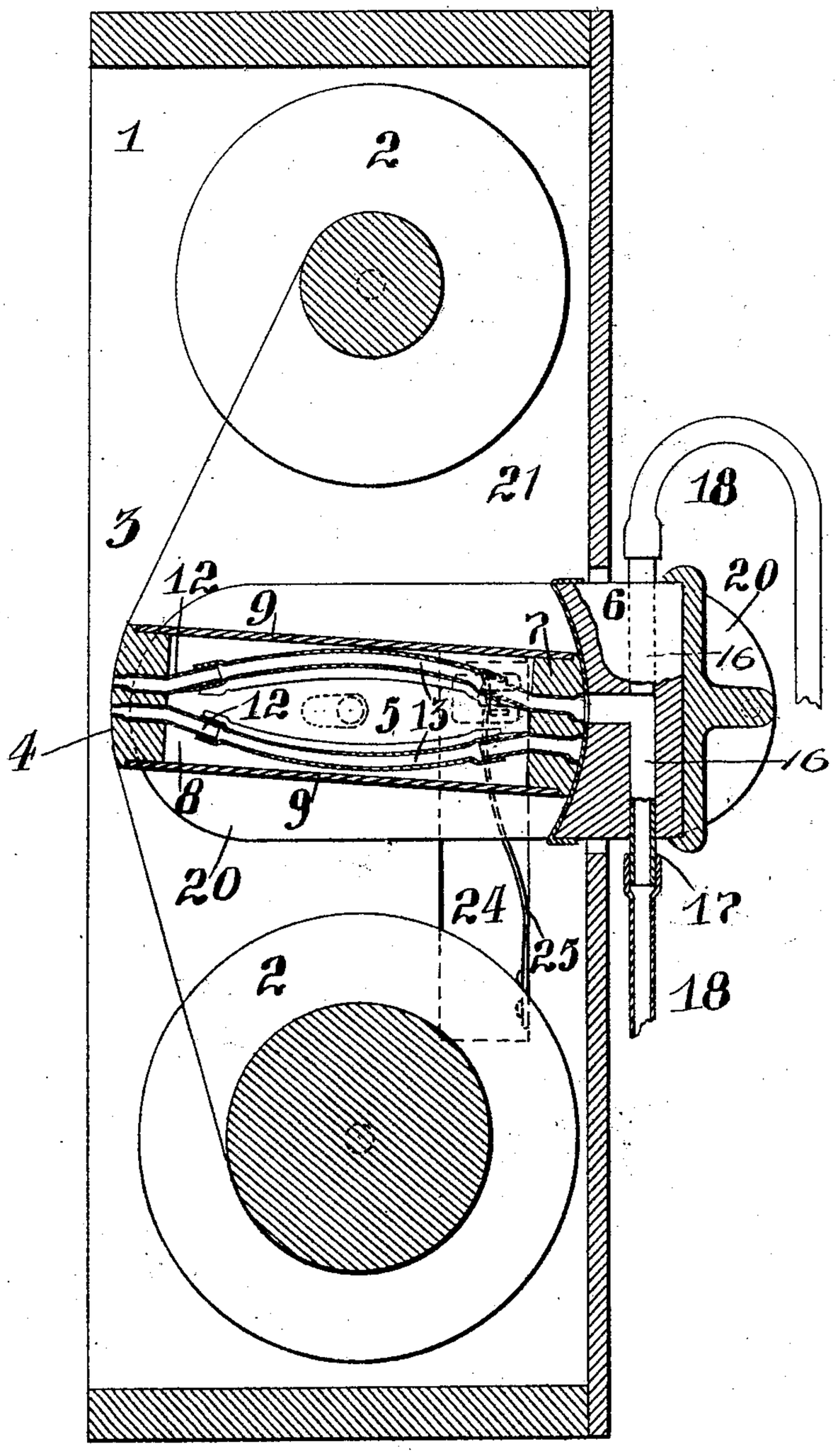

Fig I.

Witnesses
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B. S. Daniels

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3 SHEETS—SHEET 2.

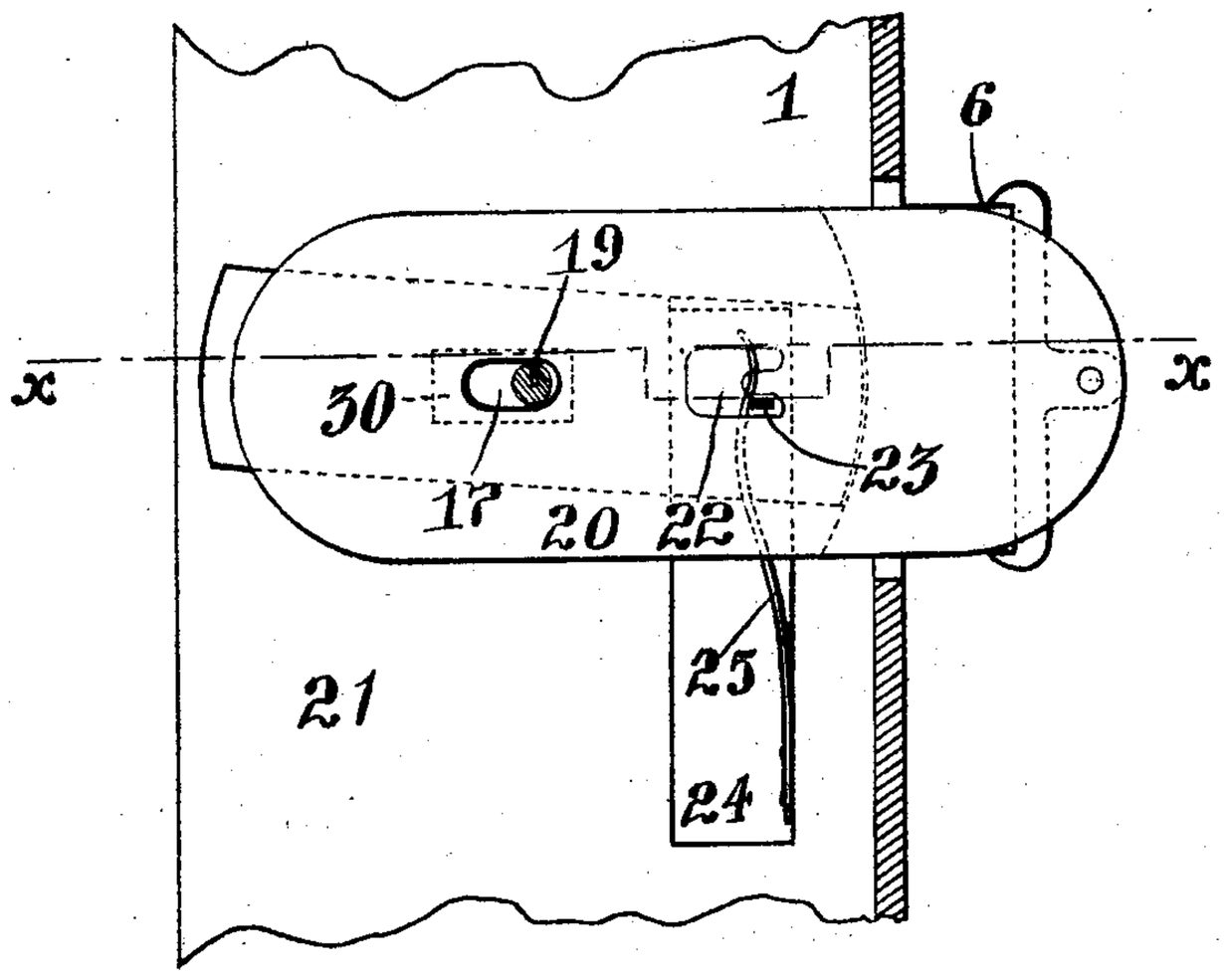

FIG 2.

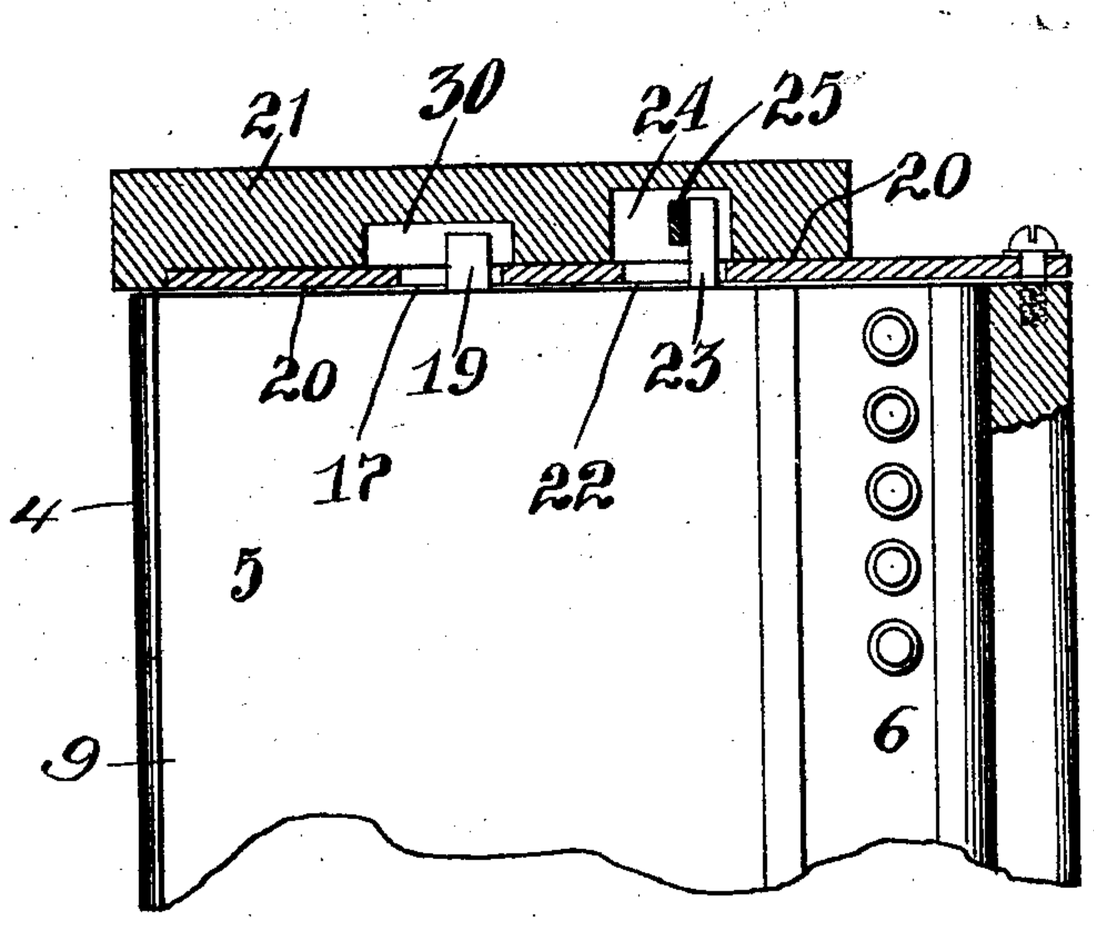

FIG 3.

Witnesses
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3 SHEETS—SHEET 3.

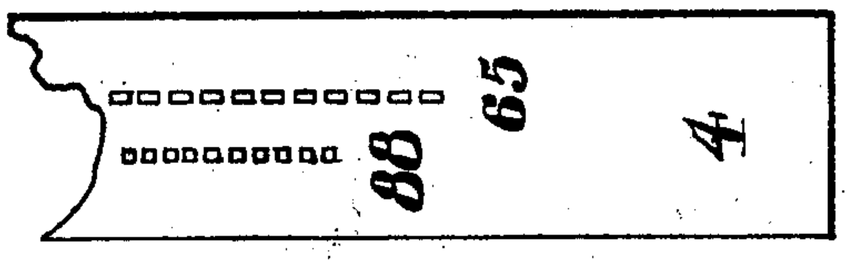


FIG 6.

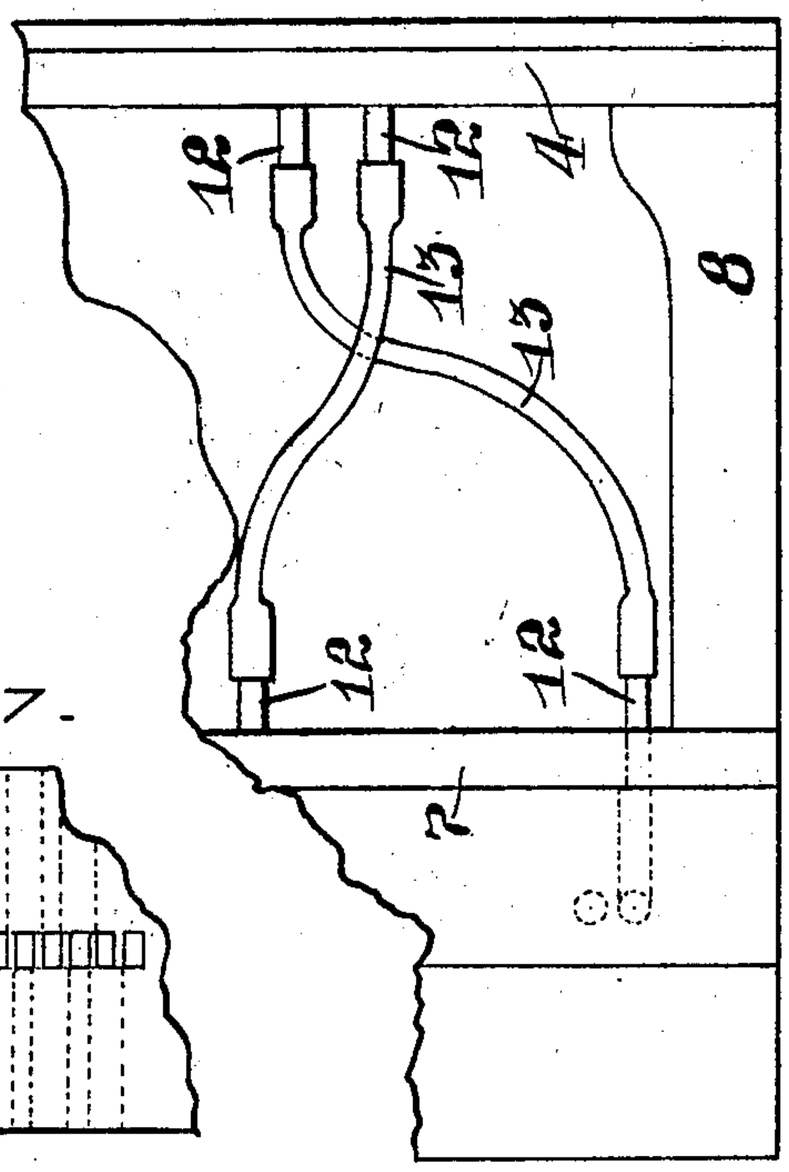
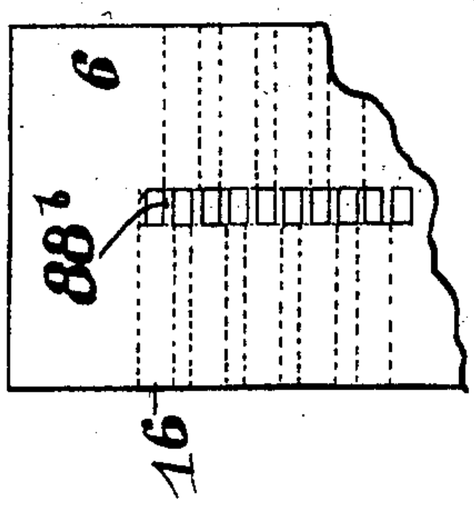


FIG 4.

FIG 7.



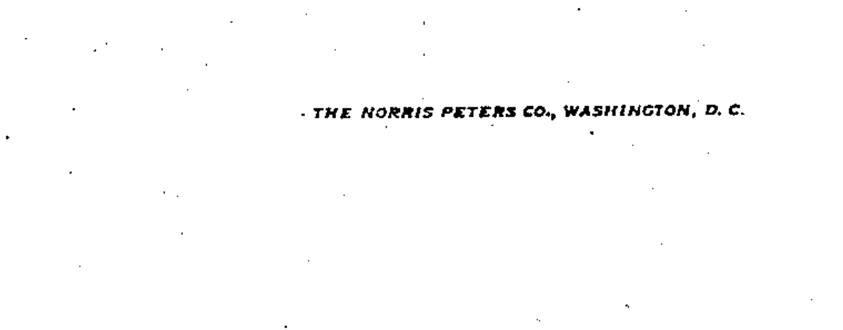


FIG 5.

Witnesses
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UNITED STATES PATENT OFFICE.

ROBERT W. PAIN, OF NEW YORK, N. Y., ASSIGNOR TO AEOLIAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF CONNECTICUT.

TRACKER-BAR.

No. 916,584. Specification of Letters Patent. Patented March 30, 1909.

Application filed November 13, 1908. Serial No. 462,386.

To all whom it may concern:

Be it known that I, ROBERT W. PAIN, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Tracker-Bars, of which the following is a specification.

The invention relates to improvements in tracker boards for pneumatic playing attachments for musical instruments and the object of this invention is to provide a new and improved tracker board with two rows of holes in its upper exposed edge, the number of holes in one row differing from the number of holes in the other row and this tracker board is combined with means for readily adjusting it, so that either of these two rows of holes become effective.

In the accompanying drawings in which like characters of reference indicate like parts in all of the figures, Figure 1 is a vertical transverse sectional view through the music box of a playing attachment for a musical instrument, provided with my new and improved tracker board. Fig. 2 is an end view of the music box showing parts in dotted lines, parts in section and others omitted. Fig. 3 is a sectional view on the line $x\ x$ of Fig. 2. Fig. 4 is an elevation of the movable and fixed part of the tracker board, parts being broken away, and others omitted. Fig. 5 is a plan view of the bottom edge of the movable section of the tracker board. Fig. 6 is a plan view of the upper or outer edge of the movable section of the tracker board. Fig. 7 is a plan view of the upper surface of the fixed section of the tracker board.

The tracker board is mounted in the music box 1 of conventional construction and containing two rollers 2 and 2 to which the perforated music sheet 3 is attached, said sheet passing over the outer edge of the tracker board. The tracker board is composed of a movable outer part or section 5 and fixed and permanent inner part or section 6. The movable outer section 5 is composed of a longitudinal outer bar 4 and a longitudinal inner bar 7, which two are parallel and are connected at their ends by the end pieces 8, so as to leave an open space between the bars 4 and 7. This space is inclosed by cover plates 9. The outer edge bar 4 is provided with the two rows of holes marked respectively 65 and 88 there being sixty-five holes in the row marked 65 and eighty-eight holes in the row marked 88. It will be observed that the holes of the 65 row have greater dimensions lengthwise of the bar than do the holes of the 88 row and this is done so as to bring them into conformity with the existing perforated music rolls. It will also be observed that the spacing of the holes in the 65 row is different from that of the 88 row and that no attempt is made to obtain register between the holes of the 65 row and the holes of the 88 row. In the bottom bar 7 of the movable section 6 of the tracker board conditions are quite different and it will be seen from Fig. 5 that there are also two rows of holes marked respectively 65^a and 88^a which rows are parallel. The openings of the two rows are of the same size and the spacing is the same and the corresponding holes of the two rows register and it thus follows that the 88^a row is correspondingly longer than the 65^a row. The connection between the corresponding holes of the 65 row in the plate 4 and the 65^a row in the plate 7 and the 88 row in the plate 4 and the 88^a row in the plate 7 is obtained by means of nipples 12 communicating with the respective holes of the bars 4 and 7 and projecting from the inner surface of the said bars, the corresponding nipples being connected by tubes 13 as shown in Figs. 1 and 4.

The fixed section 6 of the movable tracker board has but a single row of holes which row is marked 88^b and has as many holes as are in the row having the greatest number in the outer bar of the movable section of the tracker board, in this case 88 holes. These holes are all of the same size and are spaced uniformly and are made of such size and so spaced that they can register with the holes of the row 65^a and the holes of the row 88^a in the inner bar 7 of the movable section, according to the position of the movable section. From the holes of the row 88^b ducts 16 extend alternately to opposite sides of the part 6 and are connected by nipples 17^a with tubes 18 which extend to the respective sound producing mechanisms.

From each end of the movable section of the tracker board a pin 19 extends through the slot 17 in the plate 20, which plate is fastened through side wall 21 of the music box, said pin extending into a recess 30 in the wall 21 of the music box and between lower ends of the plates 20 the bottom fixed section 6 of

the tracker board is secured. Each plate 20 is also provided with a U shaped slot 22 into which a pin 23 projects from the end of the movable section 6 of the tracker board said pin extending into a recess 24 in the side wall 21 of the music box and in this recess a spring 25 is secured the free end part of which rests upon the pin 23. The upper edges of the fixed section 6 of the tracker board is curved concavely and the bottom edge of the movable section of the tracker board is curved convexly on the same radius.

When 65 note music is to be played the movable part 5 of the tracker board is so adjusted that the holes of the row 65^a register with the corresponding number of holes of the row 88^b in the fixed part 6 of the tracker board. Those holes of the row 88^b, in the fixed part 5 of the tracker board, that are not required, are closed by the solid portions of the bottom edge of the movable part 6 of the tracker board, between the ends of the row 65^a and the ends of the inner bar 7 of the movable part 5. When 88 music is to be played the movable part 5 is so adjusted that the holes of the row 88^a in the inner edge of the movable part 5 of the tracker board, register with the holes of the row 88^b in the fixed part of the tracker board, the holes of the row 65^a in the inner edge of the movable part 5 being closed by the solid portions of the fixed part at the sides of the row 88^b. For the purpose of so adjusting the tracker board, the movable part 5 is first moved outward, so as to remove the pin 23 from that leg of the slot 22 in which it rested and then the tracker board is swung on the pivots 19 until the pin 23 is above the other leg of the slot 22 whereupon the movable section or part is released and by the action of the springs 25, on the pins 23, the movable part is moved inward and its convex bottom edge is pressed firmly upon the concave upper edge of the fixed bottom part.

Having described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a tracker board for pneumatic playing attachments for musical instruments, the combination with a fixed section having a single row of holes, and a movable section having two rows of holes in its outer edge and two rows of holes in its inner edge, the holes in the outer edge being connected by ducts with the corresponding holes of the two rows in the inner edge of the movable section, the holes of the two rows in the inner edge being all of the same size and the same spacing and there being a greater number of holes in one row than in the other, the movable section being adjustable to bring the holes of either row at the inner edge of the movable section in register with a corresponding number of holes in the single row of holes, in the fixed section and means for moving the movable section bodily from the fixed section and then swinging it and then moving it back upon the fixed section and means for holding the movable section in its several operative positions in relation to the fixed section, substantially as set forth.

2. In a tracker board for pneumatic playing attachments for musical instruments, the combination with a fixed section having a single row of holes, and ducts communicating with said holes, of a movable section having two rows of holes in its outer edge, there being a greater number of holes in one row than in the other and the holes of said two rows being of different spacing and different dimensions, the inner edge of the movable section having two rows of holes, the holes of the two rows corresponding in number with the number of holes in the rows in the outer edge, ducts connecting the corresponding holes of the rows in the outer and inner edges, the holes in the rows in the inner edge being all of the same size and same spacing and adapted to register with the holes of the single row in the fixed section and a means for moving the movable section bodily from the fixed section and then swinging it and then moving it back upon the fixed section and means for holding the movable section in its several operative positions in relation to the fixed section, substantially as set forth.

3. In a tracker board for pneumatic playing attachments for musical instruments, the combination with a fixed section having a longitudinal row of holes and ducts connected therewith, of a movable section provided at its outer edge with two rows of holes of different spacing and in its inner edge with two rows of holes, ducts connecting the corresponding holes of the corresponding rows at the inner and outer edges, with each other, the holes of the two rows at the inner edge being so spaced that the holes of both rows in the inner edge can register with the holes of the single row in the fixed section and means for moving the movable section bodily from the fixed section and then swinging it and then moving it back upon the fixed section and means for holding the movable section in its several operative positions in relation to the fixed section, substantially as set forth.

4. In a tracker board for pneumatic playing attachments for musical instruments, the combination with a fixed section having a single row of holes and ducts connected therewith, of a movable section provided in its outer edge with two rows of holes, the number of holes of one of these two rows being greater in one row than in the other and the size of the holes of one row being greater than the size of the holes in the other row, two rows of holes in the inner edge of the movable section, which two rows have the same number of holes as the corresponding

rows in the outer edge, ducts connecting the corresponding holes of the two rows at the inner and outer edges, the holes of the two rows at the inner edge being so spaced that the holes of either of these two rows at the inner edge of the movable section can be brought to register with the holes in the row of the fixed section and means for moving the movable section bodily from the fixed section and then swinging it and then moving it back upon the fixed section and means for holding the movable section in its several operative positions in relation to the fixed section, substantially as set forth.

Signed this 11th day of November A. D. 1908.

ROBERT W. PAIN.

Witnesses:
E. R. JOHNSON,
D. C. HEINS.