No. 739,134. PATENTED SEPT. 15, 1903.

A. ANDERSON.

TRACKER BOARD ATTACHMENT FOR PNEUMATIC MUSICAL INSTRUMENTS.

APPLICATION FILED MAY 8, 1903.

NO MODEL.

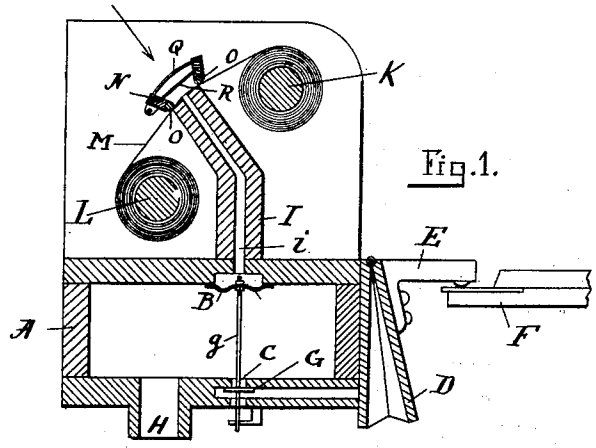


Fig. 1.

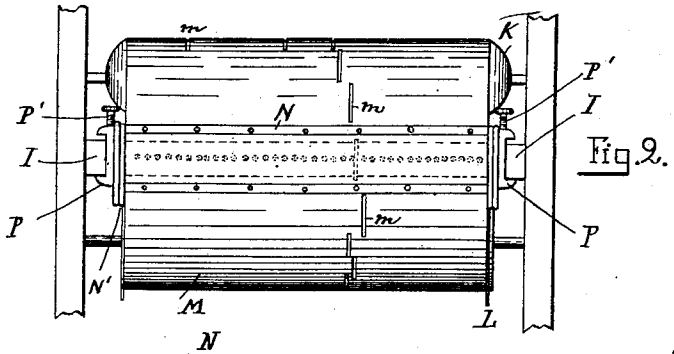


Fig. 2.

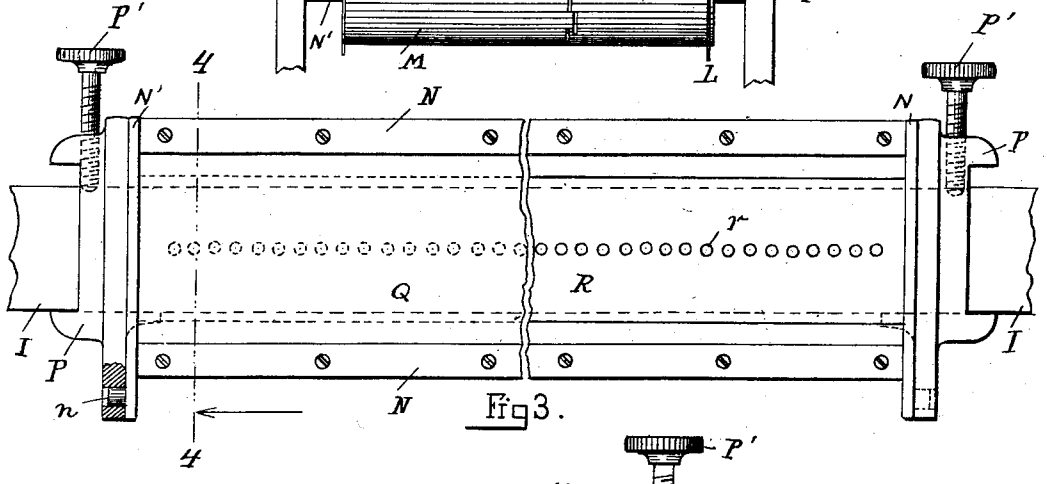


Fig. 3.

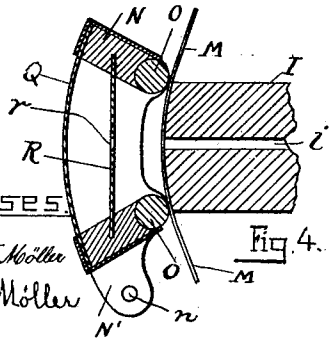


Fig. 4.

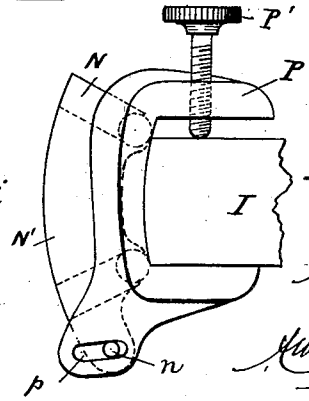


Fig. 5.

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No. 739,134. Patented September 15, 1903.

UNITED STATES PATENT OFFICE.

ALFRED ANDERSON, OF CAMBRIDGE, MASSACHUSETTS.

TRACKER-BOARD ATTACHMENT FOR PNEUMATIC MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 739,134, dated September 15, 1903.

Application filed May 8, 1903. Serial No. 156,226. (No model.)

To all whom it may concern:

Be it known that I, ALFRED ANDERSON, a citizen of the United States, and a resident of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Tracker-Board Attachments for Pneumatic Musical Instruments, of which the following is a specification.

This invention relates to an improved tracker-board attachment for automatic musical-instrument players of that kind wherein the music-playing mechanism is controlled by a perforated music-sheet.

The invention is particularly well adapted for piano and organ players, but may to equal advantage be used on other automatic musical-instrument players in which a perforated music-sheet is employed for controlling the music-playing mechanism.

The object of my improved tracker-board attachment is to exclude dust from the tracker-board channels, as well as from the primary and other pneumatics. It also serves to prevent the music-sheet from creasing or wrinkling while moving from one of the sheet-carrying rolls to the other. It also serves to automatically hold the sheet with proper friction against the tracker-board, and thereby preventing the unpleasant sizzling noise produced in instruments of this kind when the music-sheet is not held in proper frictional contact with the tracker-board; and it also has for its object means for properly guiding the music-sheet from one roll to the other during the operation of the musical instrument. It also acts as a frictional device to cause the music-sheet to travel with a uniform speed when traveling over the tracker-bar.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 is a vertical sectional view of a part of a piano-player for illustrating the application of my improved tracker-board attachment. Fig. 2 is a front elevation of the perforated music-sheet and the tracker-board attachment. Fig. 3 is a detail front view of said attachment. Fig. 4 is a cross-section on the line 4 4 shown in Fig. 3, and Fig. 5 is an end view of Fig. 3.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In Fig. 1 A represents the vacuum-chamber, in which are located the primary pneumatics B. The vacuum-chamber communicates by ports C with the key-pneumatics D. To the movable portion of the key-pneumatics D are secured fingers E, located over and arranged to operate the piano-keys F, as is usual in automatic musical-instrument players. Each port C is normally closed by a valve G, the stem *g* of which is connected with the corresponding primary pneumatic B, as shown, as is common in devices of this kind. From the vacuum-chamber A leads a wind-passage H, connected to any suitable air-exhausting device, as usual. On the top of the vacuum-chamber A is secured the tracker-board I, provided with a series of passages *i*, communicating with the primary pneumatics B.

K is the music-sheet-holding roll, and L is the receiving-roll on which the music-sheet M is wound as it is being drawn from the roll K.

m m are perforations in the music-sheet corresponding to the notes to be played and adapted to register with the tracker-board passages *i*.

The above-described construction forms no part of my present invention and is only shown and described for the better understanding of the construction and operation of my tracker-board attachment.

My improved tracker-board attachment consists of a skeleton frame N, made of wood, metal, or other suitable material, having end plates N′ N′, provided with pins or trunnions *n n*, by means of which said frame is loosely pivoted in slots *p p* on the guide-brackets P P, which are preferably made forked and provided with binder-screws P′ P′, by means of which said brackets are adjustably secured to the upper portion of the tracker-board adjacent to the opposite edges of the music-sheet, as shown.

In practice I prefer to provide the longitudinal lower edges of the frame N with cushions O O of suitable frictional material; but this is not essential, as such lower edges may

be made of wood, metal, or other suitable material without departing from the essence of my invention. The said frame is arranged so as to rest by gravity upon the music-sheet, where it passes over and lies in contact with the outer end of the tracker-board, as shown. The outer portion of the frame N is closed by a preferably transparent cover Q, so as to enable the operator to see the expression marks on the music-sheet as it passes over the tracker-board, and in practice I prefer to interpose about midway between said cover and the lower open end of the frame N a preferably transparent diaphragm R, provided with perforations *r*, in register with the tracker-board perforations *i*, as shown, the object of which is to entirely deaden the sizzling noise produced by the music-sheet passing the vents of the tracker-board. When the frame N is hung in position during the use of the instrument, as represented in Fig. 1, its lower edges O O are caused to rest with proper frictional resistance upon the perforated music-sheet M on opposite sides of the mouth of the tracker-board I, thus causing the music-sheet to be held in close contact with the mouth of the tracker-board, and thereby excluding dust from the tracker-board channels, as well as from the primary and other pneumatics. By such device the music-sheet is prevented from creasing or wrinkling while moving from one roll to the other. The music-sheet as it travels onward is properly guided in the line of its motion by means of the brackets P P, whereby the perforations in the music-sheet are caused to properly register with the tracker-board perforations. By the use of such frame, which holds the perforated music-sheet in close contact with the mouth of the tracker-board, the unpleasant sizzling noise produced in instruments of this kind is entirely obviated.

What I wish to secure by Letters Patent and claim is—

1. In an automatic musical-instrument player, the combination with a tracker-board and a perforated music-sheet, of a chamber having an open bottom adapted to rest against the music-sheet, guide-brackets adjustably secured to the tracker-board and pivotally connected to said chamber, substantially as and for the purpose set forth.

2. In an automatic musical-instrument player, the combination with a tracker-board, and a perforated music-sheet of brackets adjustably secured to said tracker-board, a chamber, pivotally connected to said brackets, and having its outer end closed by a cover Q substantially as and for the purpose set forth.

3. In an automatic musical-instrument player, the combination with a tracker-board and perforated music-sheet, of a chamber having an open bottom adapted to rest on the music-sheet, and having a cover Q, and intermediate perforated diaphragm R, and a pivotal connection intermediate said chamber and tracker-board substantially as and for the purpose set forth.

4. In an automatic musical-instrument player, the combination with a tracker-board and a perforated music-sheet, of guide-brackets adjustably secured on the tracker-board, and having pivotally connected to said brackets a hollow frame or case open at its under side and adapted to rest against the music-sheet between said brackets substantially as and for the purpose set forth.

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

ALFRED ANDERSON.

Witnesses:
ALBAN ANDRÉN,
LAURITZ N. MÖLLER.