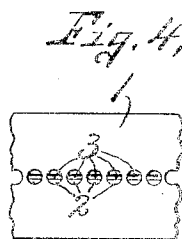
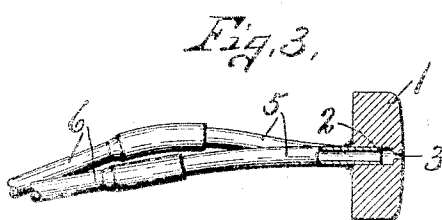
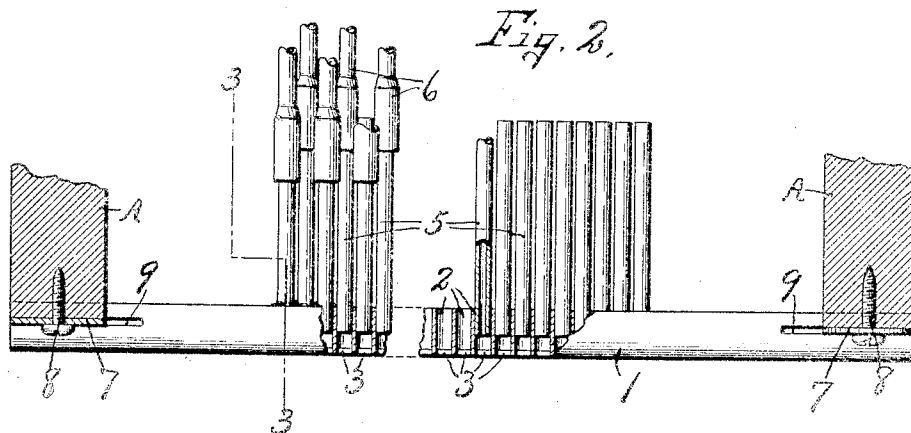
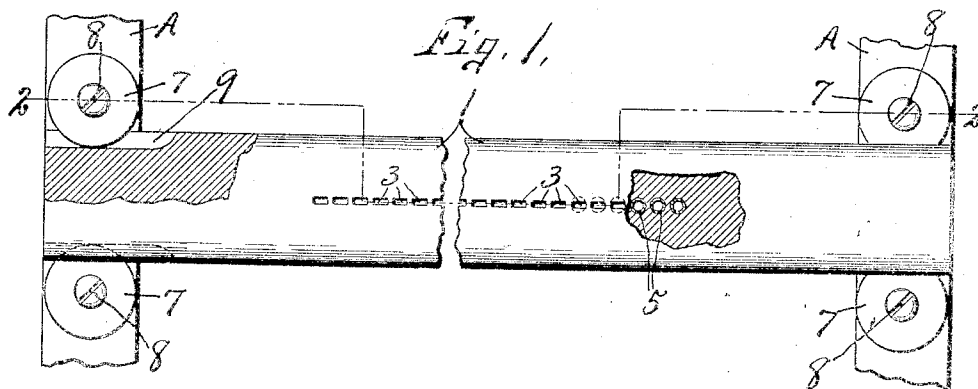


L. B. DOMAN.
 TRACKER BAR FOR SELF PLAYING MUSICAL INSTRUMENTS.
 APPLICATION FILED SEPT. 4, 1906.

1,039,658.

Patented Sept. 24, 1912.



WITNESSES.

R. C. Thomas
H. B. Shaw

Inventor
L. B. Doman

By
Howard P. Smith
 Attorney.

UNITED STATES PATENT OFFICE.

LEWIS B. DOMAN, OF ELBRIDGE, NEW YORK.

TRACKER-BAR FOR SELF-PLAYING MUSICAL INSTRUMENTS

1,039,658.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed September 4, 1906. Serial No. 333,213.

To all whom it may concern:

Be it known that I, LEWIS B. DOMAN, of Elbridge, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Tracker-Bars for Self-Playing Musical Instruments, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to improvements in metal tracker-bars of the class set forth in pending applications No. 249,250, filed March 9, 1905, and No. 329,692, filed August 8, 1906, both of which applications refer to
15 the general structure of the self-playing musical instrument.

The essential object is to provide a solid metal tracker-bar, as distinguished from sectional bars, in which the joints are always
20 more or less subject to leakage of air.

Another purpose is to provide the tracker-bar with a series of vent ducts, portions of which opening from the inner face, are cylindrical, while other portions opening from
25 the outer face, are elongated, or in other words, the cylindrical openings terminate in the outer face in elongated slots of substantially the same length as the diameters of their respective bores, but considerable
30 narrower transversely of the tracker-bar.

A still further object is to permanently fit into the cylindrical bores suitable metal tubes having their outer ends disposed in diverging planes to permit them to be ar-
35 ranged close together and still be able to receive the flexible tubes or ducts which lead to the primary pneumatics, not shown, of the sound-producing action.

In the drawings—Figure 1 is a face view, partly broken away, and partly in section of the tracker-bar embodying various fea-
40 tures of my invention. Figs. 2 and 3 are sectional views taken respectively on lines 2—2, Fig. 1, and 3—3, Fig. 2. Fig. 4 is an inner face view of a portion of the tracker-bar, showing particularly the cylindrical
45 bores as terminating in elongated slots at the outer face of the bore.

This tracker-bar, as —1—, is especially
50 adapted for use with a perforated music-sheet for self-playing musical instruments, and is preferably made of solid metal, of uniform cross sectional area from end to end so that it may be readily rolled in long bars
55 and cut the desired length for use in the self-playing instrument. The inner or back

face of the bar is preferably flat, while the outer face is slightly curved transversely, from edge to edge to conform to the position of the bar with reference to the winding
60 and rewinding rollers, and at the same time cause the perforated music-sheet to lie closely against said face at the vent openings. These vent openings are made trans-
65 versely through the bar, side by side, in a plane substantially parallel with the opposite edges of the bar, each opening consisting of a cylindrical bore —2— opening from the inner or back face and an elongated
70 slotted portion —3— opening from the front face of the bar. The cylindrical bores —2— are drilled from the back to a point close to the front face of the bar after which a
75 suitable drift or punch is inserted into the bore and pressure applied thereto to punch or press the thin remaining portions of the
80 stock in line with the bore through the front face of the bar to produce a slot elongated in the direction of length of the bar so that when this thin front wall of the bore is
85 punched through the front face of the bores of the bar, said bar has a series of narrow vents or slots extending through the longitudinal center of its front face in the same
lengthwise plane parallel with the sides of the bar, and centrally with reference to their
central bores —2—.

The particular structural feature which applicant wishes to emphasize in this bar, is that it is made of solid metal and pro-
90 vided with a series of cylindrical bores centrally therein and extending from the back to a point in proximity to the front, leaving a comparatively thin front wall to each
95 bore through which narrow slots —3— are punched, or otherwise formed, so that the bores are comparatively long, forming extra long bearings or sockets for the reception
100 and retention of a series of metal tubes or ducts —5—, said bores terminating in narrow slots or vents in the front face of the tracker bar. The tubes —5— are inserted
105 with a comparatively tight fit within their respective bores or sockets and are permanently soldered to said bar at the joints to prevent leakage of air. Another advantage
is that the tracker-bar proper being made in one piece, is entirely free from joints, particularly at the vents where there is always
110 more or less liability to leakage if the bar is made in sections and channeled in the usual manner to form the vents. It is now

clear that the ends of the tubes which are inserted in the sockets —2— are disposed in a longitudinal plane parallel with the opposite edges of the bar —1— and protrude some distance beyond the back face of the tracker-bar, the free ends of the adjacent tubes being deflected in opposite directions so that alternating tubes are disposed in different longitudinal planes to permit the flexible tubes or ducts, as —6—, to be readily attached thereto, or removed therefrom.

In Figs. 1 and 2 I have shown the specific means of attaching the tracker-bar to the side pieces —A— of the case for the music-roll, said means consisting essentially of washers —7— which are rotatably mounted upon pivotal screws —8— and adapted to be turned to bring portions of their peripheries into suitable slots 9, in the opposite edges of the tracker-bar. This forms a convenient means for readily attaching the tracker-bar to the music-roll-case and at the same time permits said tracker-bar to be adjusted a limited distance lengthwise to bring the

tracker ducts into alinement with the perforations in the music-sheet, the pivotal screws —8— and their disks —7— serving as a clamping means to retain or hold the tracker-bar in its operative or adjusted position.

What I claim is—

1. In combination, a one-piece metal tracker bar having slots in its opposite edges, fastening disks inserted in said slots to hold the bar in place and supports for the disks.

2. A tracker-bar having its opposite edges provided with lengthwise grooves, supporting disks entering said grooves to permit longitudinal movement of and to guide said tracker-bar and supports for the disks.

In witness whereof I have hereunto set my hand this 31st day of August, 1906.

LEWIS B. DOMAN.

Witnesses:

C. L. HAMLIN,
M. ELLIOTT.