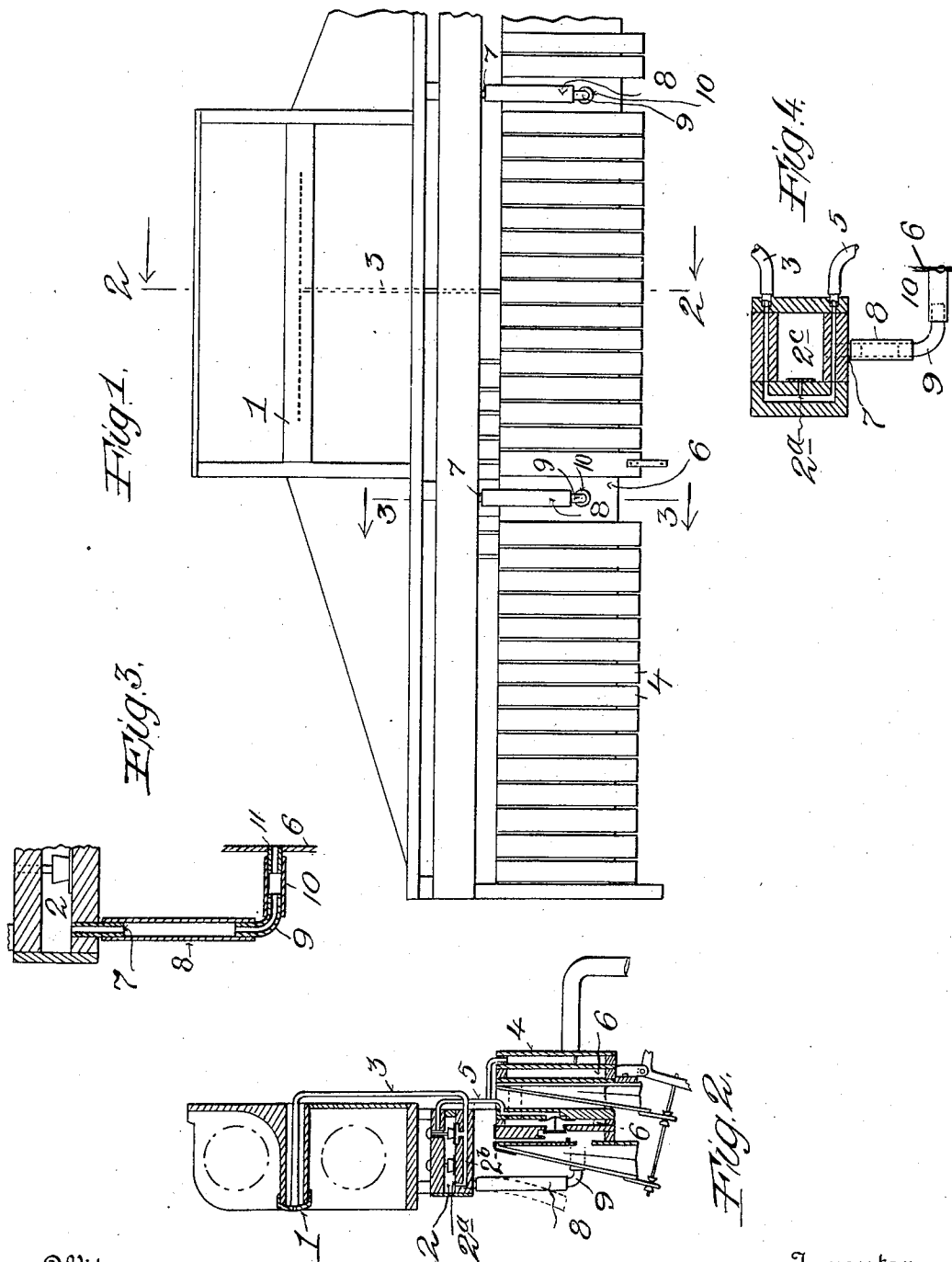


L. H. MAIER.
 AUTOMATIC MUSICAL INSTRUMENT.
 APPLICATION FILED OCT. 19, 1910.

1,003,483.

Patented Sept. 19, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

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AUTOMATIC MUSICAL INSTRUMENT.

1,003,483.

Specification of Letters Patent. Patented Sept. 19, 1911.

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To all whom it may concern:

Be it known that I, LOUIS H. MAIER, a citizen of the United States, and resident of New York city, borough of Bronx, in the county of New York and State of New York, have invented certain new and useful Improvements in Automatic Musical Instruments, of which the following is a specification.

In pneumatically controlled musical instruments, such as player pianos, piano players and the like, having a tracker for the music sheets, the bleeds for the valves are liable to become more or less clogged with dust, whereby the proper action of the valves is interfered with.

The object of my invention is to provide means for at will clearing the bleeds from the accumulation of dust and the like in a simple and efficient manner.

My invention comprises novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claim.

Reference is to be had to the accompanying drawings forming part hereof, wherein,

Figure 1 is a face view of a portion of player mechanism embodying my invention; Fig. 2 is a section on the line 2, 2, in Fig. 1; Fig. 3 is a detail section on the plane of the line 3, 3, in Fig. 1, and Fig. 4 is a detail section of a single valve player.

Referring to Figs. 1, 2 and 3 the tracker 1 of any suitable or well known construction, communicates with the primary valve chest 2 in usual manner, as by the pipes 3, said primary chest being connected with the secondary chests 4 by pipes 5 or in other usual manner. The bleeds 2^a for the primary valve pouches or diaphragms communicate, as usual, with the pipes 3, as by means of the channels 2^b. The chest 2 is connected with the suction chest 6 by a suitable conduit or conduits, indicated in detail in Fig. 3, and by means of my invention one of said conduits may be temporarily disconnected from chest 6 in order that air may be blown directly into chest 2. In the arrangement shown I provide chest 2 with nipple 7 to which a flexible pipe 8 is attached, said

pipe being shown detachably connected with an elbow 9 connected by pipe 10 with nipple 11 communicating with chest 6. When it is desired to blow the dust etc. out of the bleeds pipes 8 are disconnected from elbows 9 and may then be swung outwardly, as shown in dotted lines in Fig. 2, in order that air may be blown through one pipe 8, in any suitable manner, the other pipe 8 being then closed, as by squeezing it, whereby chest 2 will be charged with air which will flow through the bleeds and pipes 3 and out through the orifices of the tracker, reversely to the normal operative action of air through the tracker thereby dislodging from the bleeds the dust etc. that has collected thereon, and forcing said dust out through said tracker orifices. By this means air may be blown directly into chest 2 under suitable pressure without reference to the secondary valves or chest 6, whereby by means of a relatively limited quantity of air the dust may be dislodged from the bleeds.

In a single valve player mechanism, which dispenses with the usual primary valves, the bleeds are located in a chest that is substituted for the usual primary valve chest, such as illustrated at 2^c in Fig. 4, the pipes 3 communicating with the tracker and the pipes 5 communicating with the pouches or diaphragms of chests 6 in usual manner. In this case the pipe 8 is connected with chests 2^c and 6 as shown in Fig. 4, and by disconnecting pipe 8 dust may be dislodged from the bleeds 2^a as before described.

The particular arrangement of pipes, elbows and nipples connecting the chests 2 and 6 may be changed from that shown without departing from the spirit of my invention.

Having now described my invention what I claim is:

The combination of a tracker, a primary valve chest below the tracker and provided with bleeds, tubes providing communication between the primary valves and the orifices of the tracker, a chest below the primary valve chest and provided with secondary valves, means providing communication between the primary and secondary valves, vertically disposed power pneumatics

mounted upon the secondary chest and a
 conduit connecting said primary and sec-
 ondary chests and detachable from one of
 said chests to enable air to be blown into
 5 the primary chest to force dust from the
 bleeds through the tracker orifices.
 Signed at New York city, in the county of

New York, and State of New York, this
 15th day of October, A. D. 1910.

LOUIS H. MAIER.

Witnesses:
 T. F. BOURNE,
 RALPH H. RAPHAEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
 Washington, D. C."
