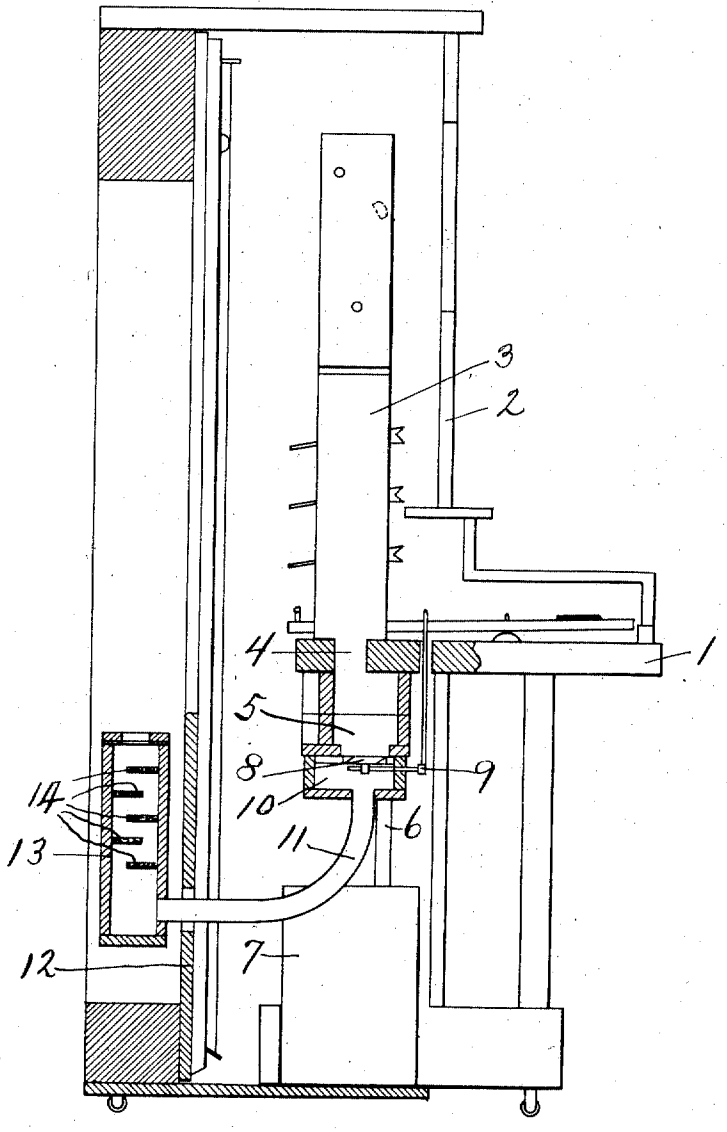
R. A. GALLY.

MUSIC PLAYER EXHAUST MUFFLER.

APPLICATION FILED JULY 27, 1917.

1,252,373. **Patented Jan. 1, 1918.**



WITNESSES:

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MUSIC-PLAYER EXHAUST-MUFFLER.

1,252,373. Specification of Letters Patent. Patented Jan. 1, 1918.

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To all whom it may concern:

Be it known that I, ROBERT A. GALLY, a citizen of the United States, and residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Music-Player Exhaust-Mufflers, of which the following is a specification.

Various safety blow-outs and similar means have heretofore been used with both foot and power pumped wind inducing apparatus, but an improved position of muffling the disposal of surplus air service is now shown, being especially adapted for use with the expression controller of my prior application #179,414, where all the excess air service of a power driven pumper means is disposed of by a limiting valve opening from the air chests to the outer air.

In the drawing is shown a view from the left end of a player piano, the left end or so called "side" of the case and one "post" of the "back" having been removed to expose the important parts of the present invention and the related parts of the piano; the piano action being also removed.

Above the keybed 1 of the piano case 2 is a music playing action 3 having its air service supplied through a hole 4 in the keybed 1, an air chest 5 below said hole having air connection by a pipe 6 to an air pumper means as 7, here shown as a box such as is commonly used when a power drive is used, as an electric motor.

An air service limiting device is shown, consisting of a rocking valve 8 adapted to release any overstrain or suction of the air supply induced by the pumper 7, allowing such extra suction to be drawn through said valve 8 from the outer air, being controlled by any suitable means connected to the arm 9 of the shaft of said valve 8.

To reduce the noise of intake of air through valve 8, and also to deaden the sound of the operation of the pumper, which sound is carried through wind ways 6 and 5, a box 10 is built around the lower side of the valve 8 and a pipe 11 attached to a hole in the bottom of said box, and preferably extended through a hole in the sound board 12 of the piano, and the other end of said pipe 11 is connected to a muffler box or silencer 13.

The muffler box 13 is preferably made with a number of flexible and flaccid soft felt riffles 14 alternately extended from two opposite sides of the box but not entirely across the box, thus leaving a zigzag passage for the air, the turns of said air in said passage being around sound deadening soft corners. An entry at the top of the box 13 admits the surplus air to satisfy the demands of the pumper 7 beyond the needs of the operation of the player action 3.

The muffler 13 now shown is very useful for quieting the air flow when placed in any other position than to the rear of the sound board, but this muffler, or any other, or any waste air connection from the air service means, avoids noises better when extended to the rear of the piano, where it is diffused against the wall of the house, and shielded from the listener by the bulk of the piano.

What I claim as my invention is:—

1. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board to the rear of said sound-board, and an air inlet to the said air connection, said inlet positioned at the rear of said sound-board, and a muffling means combined with said inlet.

2. A piano including a vertical sound-board; wind inducing devices in front of said sound board, and air connection from said wind inducing devices in front of said sound board, through said sound-board to the rear thereof, and an inlet to said connection positioned at the rear of said sound-board, and a muffling means combined with said inlet.

3. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board to the rear of said sound-board, and a surplus air relief port to the said wind inducing devices, said surplus air relief port combined with said air connection that leads to the rear of said sound-board.

4. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board through said sound-board to the rear thereof, and a surplus air relief port to the said wind inducing devices, said surplus air relief port combined with said

air connections that leads to the rear of said sound-board.

5. A piano including a vertical sound-board; wind inducing devices in front of said sound board, and an air surplus valve combined with said wind inducing devices in front of said sound-board, and air connection from said air surplus valve and led to the rear of said sound-board and a port to said connection at the rear of said sound-board.

6. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board, through said sound-board to the rear thereof, an air surplus valve combined with said wind inducing devices in front of said sound-board, and air connection from said air surplus valve to the rear of said sound-board.

7. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board, through said sound-board to the rear thereof, an air surplus valve combined with said wind inducing devices in front of said sound-board, and air connection from said surplus valve and led to the rear of said sound-board, and a muffling means combined with said air connection at the rear of said sound-board.

ROBT. A. GALLY.

Witnesses:
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