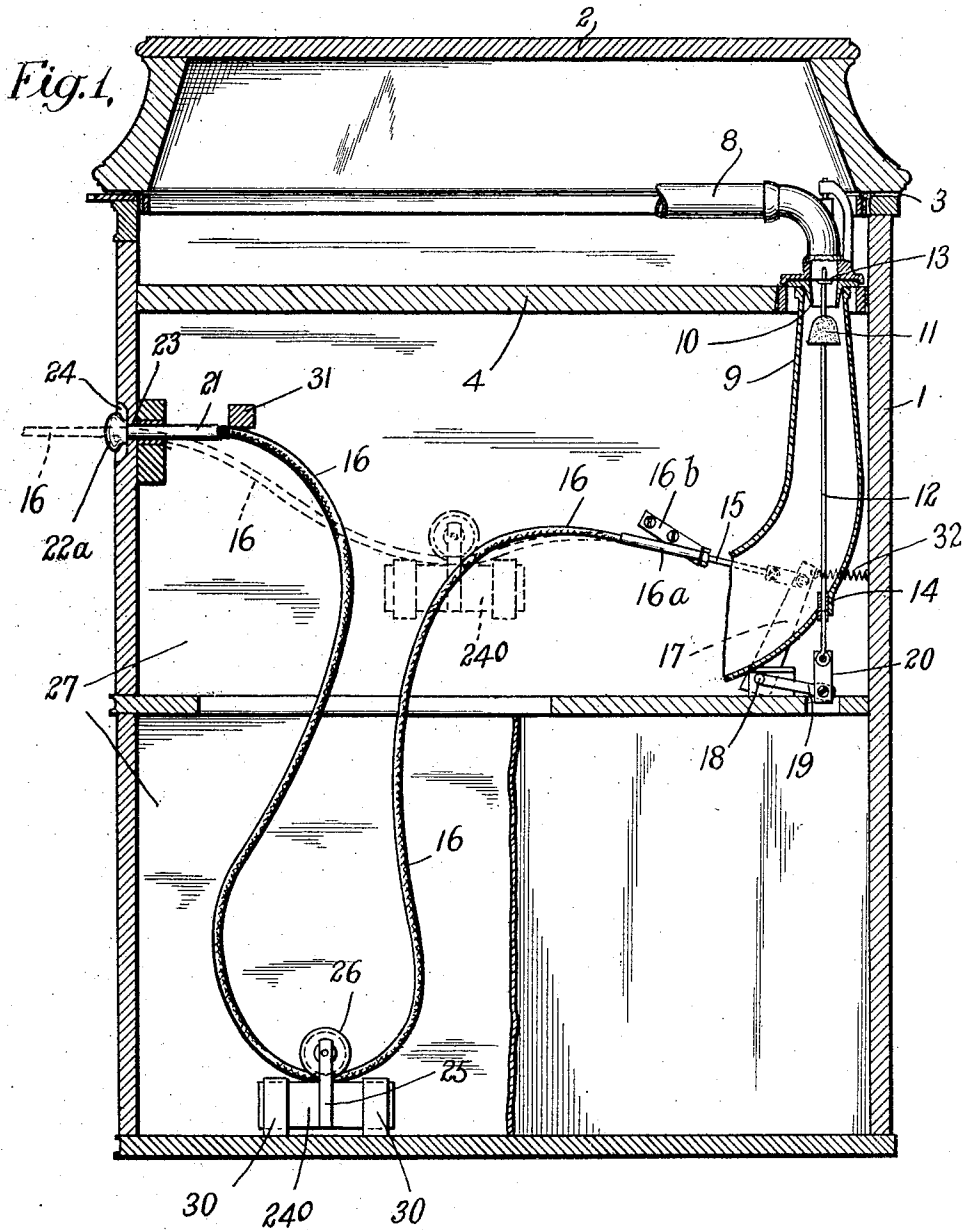


J. H. DICKINSON.
MUSICAL INSTRUMENT.
APPLICATION FILED JAN. 29, 1915.

1,237,179.

Patented Aug. 14, 1917.

2 SHEETS—SHEET 1.



WITNESSES

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J. F. Watkins

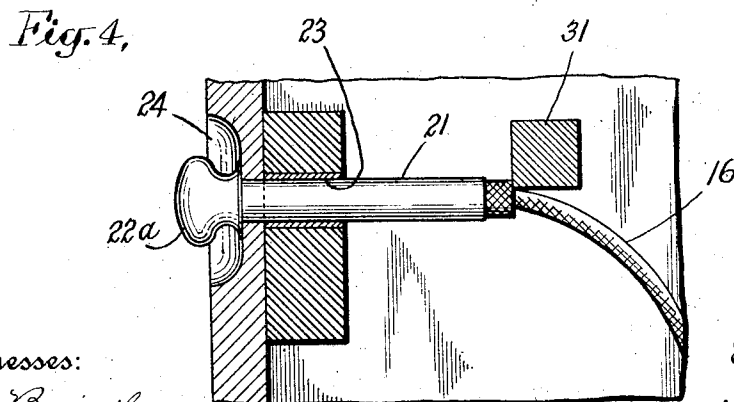
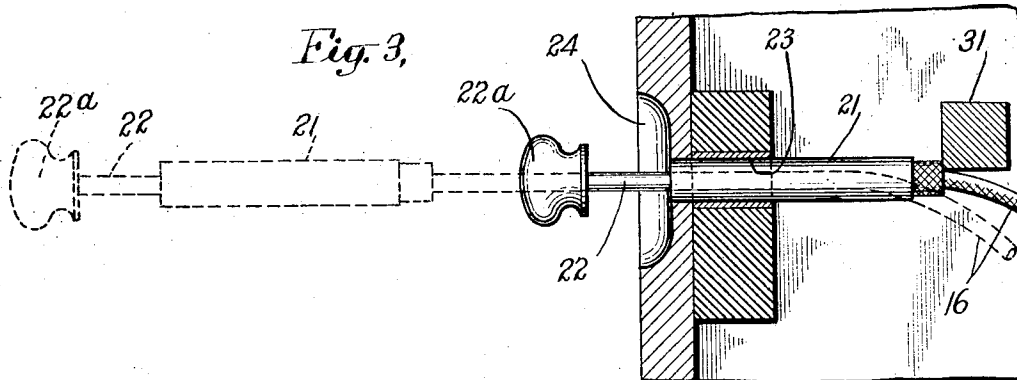
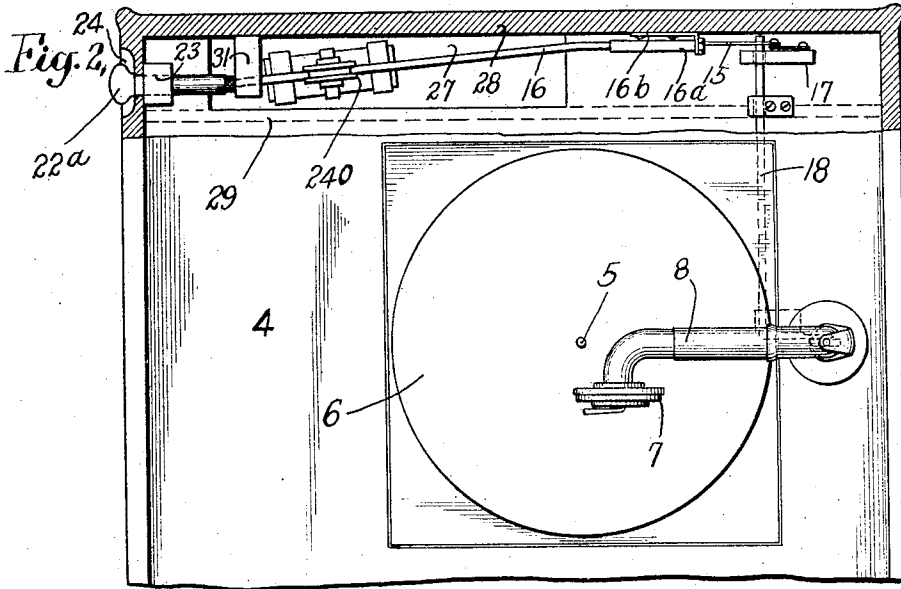
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Patented Aug. 14, 1917.

2 SHEETS—SHEET 2.

1,237,179.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MUSICAL INSTRUMENT.

1,237,179.

Specification of Letters Patent.

Patented Aug. 14, 1917.

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To all whom it may concern:

Be it known that I, JOSEPH H. DICKINSON, a citizen of the United States, residing at Cranford, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification.

My present invention relates to automatic musical instruments having expression means operable by a flexible control in the hands of the player of the instrument, and particularly relates to means and adaptations for the housing of said control when not in use without interfering with its ready withdrawal for use. In the drawings I have illustrated my invention in connection with a phonograph. Figure 1 is a vertical front to back section partly in elevation through a talking machine embodying my invention; Fig. 2 is a horizontal section partly in plan of the same; Figs. 3 and 4 are enlarged views of a detail in Fig. 1, showing the control handle withdrawn and its different positions assumed in the act of seating it in the opening provided for it in the cabinet, Fig. 4 showing its fully seated position.

Describing now the specific devices of the drawings, 1 is the cabinet of a phonograph, 2 its lid hinged at 3 to the back of the cabinet, and 4 is the top shelf through which as usual projects the motor spindle 5 bearing the record turn-table 6. 7 is the reproducer, 8 the tone-arm connecting with the neck of the horn 9 wherein is located an expression device comprising a flexible throat 10 and valve 11, the latter supported on a valve stem 12 for reciprocal movement relatively to the throat 10. For this purpose the upper end of the valve-stem is received and guided by an opening in a narrow cross-piece 13, whereas its lower end projects slidingly through an opening 14 in the horn. The valve-stem is reciprocated by flexible control means comprising a wire 15 slidably in a sheath 16. The inner end of the sheath is fixed, being secured to a sleeve 16^a attached by a bracket 16^b to the inside of the cabinet. The wire 15 continues through the sleeve 16^a for pivotal connection with a crank-arm 17 on rock-shaft 18 having another crank-arm 19 connected by link 20 with the valve-stem. An operating handle is provided comprising a sleeve 21 secured to the free or outer end of the sheath 16 in

continuation thereof; and a headed rod 22 secured to the end of the wire 15. It will be apparent from the described mechanism, elsewhere claimed, that the valve may be adjusted relative to the throat by reciprocating the handle parts 21 and 22 on each other.

When out of play the flexible control is invisible to any one looking at the instrument, it being housed within the cabinet as shown by the full lines in Fig. 1 with its operating handle located in a hole or opening 23 through the cabinet and only projecting sufficiently therefrom to be conveniently grasped by the player to draw out the handle, followed by the flexible control though the opening 23 preparatory to playing the instrument by manipulating the handle to adjust the expression-valve 11.

The opening 23 is shown through the front of the cabinet at the left side (*cf.* Fig. 2) surrounded by a circular recess or cup 24. This minimizes the extent to which the knob or head 22^a of the handle projects in non-playing position and at the same time makes it easier for the player to grasp it for withdrawal.

The flexible control may be re-housed simply by pushing it back endwise through the hole 23 or means may be provided for making this operation more automatic. Such means is shown in Fig. 1 comprising a weight 240 having a strap 25 providing bearings for a pulley 26 which runs on the flexible control. When the flexible control has been drawn out through the hole for playing the instrument, this weight is lifted to the top of the pocket 27 in which it works and is housed. The horizontal section of this pocket is shown in Fig. 2 and its sides consist of the side 28 of the cabinet and an adjacent spaced vertical partition 29. When through playing the weight automatically pulls the flexible control back into the cabinet. 30—30 are felt bands around the weight to prevent noise as it strikes the side and bottom of the pocket.

The handle consisting of the described headed rod 22 telescoping in the sleeve 21 is so connected with the valve 11 that when the rod is fully telescoped into the sleeve, the valve is widest open for loudest playing as shown in Fig. 1. To prevent the handle from being housed in its opening in the cabinet in any other than said fully telescoped

condition for loudest playing, a stop 31 is provided (*cf.* Figs. 1, 3 and 4) which contacts with the sleeve when in fully housed position and stops its further motion through the hole 23. Further housing movement of the handle is therefore possible only for the rod 22 whose movement accordingly continues until its head 22^a strikes the end of sleeve, in which condition the parts are fully telescoped for loudest playing. Ordinarily the valve or other expression device could be connected so that, when the handle parts have been fully telescoped on each other whether by the stop or otherwise, the playing shall be soft instead of loud as just described.

A spring 32 (Fig. 1) may also be provided tending to maintain the handle parts in telescoped condition.

Having thus described my invention, what I claim is:

1. In a musical instrument, the combination, with a casing and an expression device therewithin; of a flexible control means for actuating said expression device at a point remote from the instrument, normally housed within the casing when not in use, and adapted to be drawn outwardly from said casing preparatory to operation; and means for automatically retracting said control means into said casing at the conclusion of operation.

2. In a musical instrument, the combination, with a casing having a hole in one of its sides, a tone arm, and a horn within the casing connected with said tone arm, said tone arm and horn constituting a continuous

sound conduit; of an expression device disposed within said conduit; and a control means for actuating said expression device at a point remote from the instrument, arranged entirely exterior to the sound conduit and normally housed within the casing, and adapted to be drawn outwardly from said casing through said hole preparatory to operation; said control means being operatively connected with said expression device.

3. In a musical instrument, the combination, with a casing having a hole in one of its sides, and a continuous sound conduit within said casing; of an expression device disposed within said conduit; a flexible control means for actuating said expression device at a point remote from the instrument, arranged entirely exterior to the sound conduit and normally housed within the casing, and adapted to be drawn outwardly from said casing through said hole preparatory to operation; said control means being operatively connected with said expression device, and having a terminal handle which is supported in said hole when the control means is not in use; and means for automatically retracting said control means into said casing at the conclusion of operation.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 27th day of January 1915.

JOSEPH HUNTER DICKINSON.

Witnesses:

J. F. MEADE,

E. W. SCHERR, Jr.

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