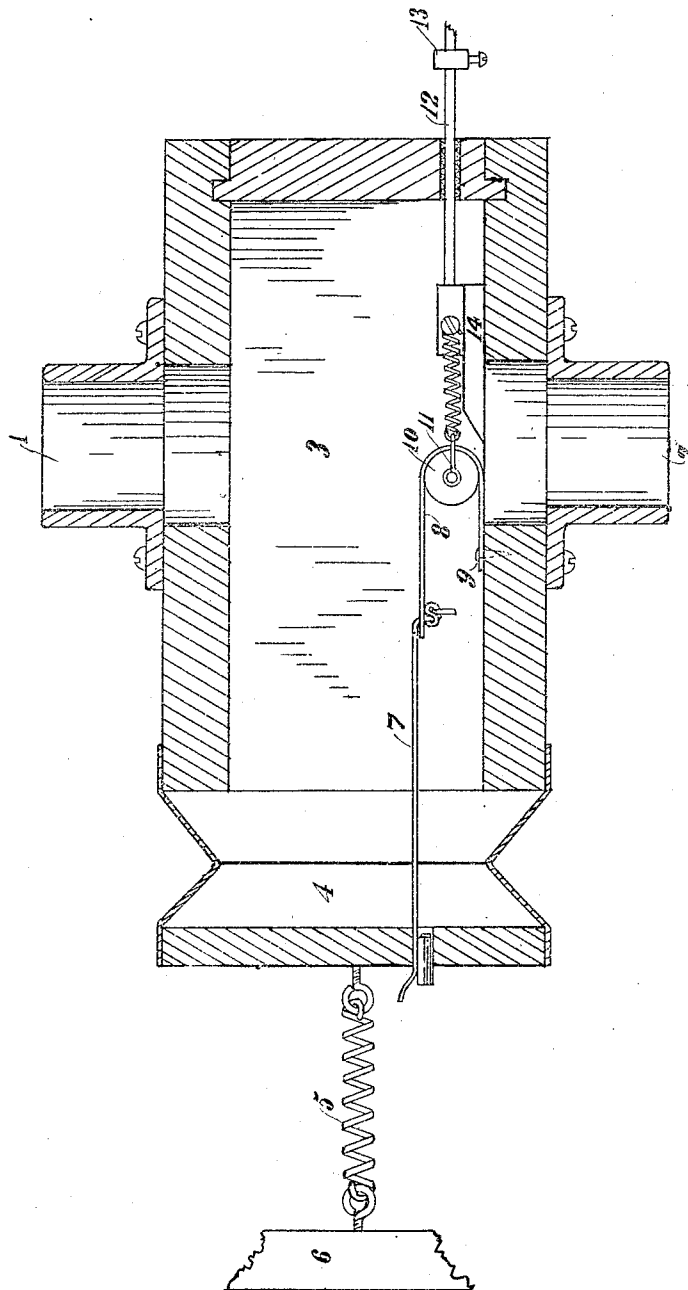


R. W. SCOTT.
VALVE.

APPLICATION FILED MAR. 22, 1909.

1,013,075.

Patented Dec. 26, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

RAY W. SCOTT, OF BROOKLYN, NEW YORK.

VALVE.

1,013,075.

Specification of Letters Patent.

Patented Dec. 26, 1911.

Application filed March 22, 1909. Serial No. 484,876.

To all whom it may concern:

Be it known that I, RAY W. SCOTT, a citizen of the United States, residing at the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Valves, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in valve mechanism and is particularly adapted for use in controlling the tone values or pressure in the so-called automatically operated pianos.

Referring to the accompanying drawing I have illustrated an application of my invention as adapted for use in combination with piano players.

1 is the inlet communicating with the pneumatic action and 2 the outlet connection with the pumps.

3 is the main valve chamber provided at one extremity with an expandible chamber such as 4 connected by suitable resilient means such as 5 to a fixed part of the apparatus 6 and provided with a suitable pull such as 7 connected to the curtain valve 8 preferably attached to the valve chamber at 9. This valve curtain is operated upon the roller 10 axially mounted in the tension spring retained bearing 11 which may be adjusted by moving the rod 12 having a suitable stop 13. To this rod is also attached the slide valve 14 which may be suitably mounted upon the bottom of the main valve chamber so that by sliding the rod 12 in or out by any suitable means, the slide valve 14 and curtain valve 8 may be adjusted to control the outlet of the main valve.

Assuming now that the piano is being played, when a chord is sounded after a single note more air naturally passes from the pneumatic action into the chamber 3 of the valve with the result that the chamber 4 is expanded and the curtain valve 8 accordingly rolls clear of the pump exit 2, allowing for a discharge of the additional

air in the chamber 3 and when a single note is sounded after the chord has been sounded, the reverse occurs, that is to say less air entering from the pneumatic action causes the expandible chamber 4 to close in thereby enabling the curtain valve under the influence of its resilient bearing to partly close the opening to the exhaust pumps thereby maintaining an equal pressure within the chamber 3.

The rod 12 may be suitably placed within the reach of the operator so that when the operator desires to accentuate or increase the tone values it is only necessary to draw the rod 12 away from the chamber 3, that is to say rightwardly with the result that the slide valve 14 enlarges the capacity of the exhaust to the pumps and the curtain valve control responds to the variations of pressure in the chamber 3 the same as before. To reduce the tone value the reverse action upon the rod 12 may be applied so that by pushing in the valve 14 the exhaust is partially cut off and the tone value accordingly reduced.

Various modifications may be made without departing from the spirit of the invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent is:

1. In valve mechanism, an internal chamber, an inlet thereto and an outlet therefrom, valve mechanism controlling said outlet and an expansion chamber having a movable portion co-acting therewith whereby said outlet is opened as the pressure at said inlet is increased, said last mentioned valve mechanism comprising a curtain, a slide valve and resilient means, said curtain attached to said slide valve by said resilient means, and said curtain being also connected to said movable portion of said expansion chamber.

2. In valve mechanism, an internal chamber, an inlet thereto and an outlet therefrom, valve mechanism controlling said outlet and an expansion chamber having a

movable portion co-acting therewith where-
by said outlet is opened as the pressure at
said inlet is increased, said last mentioned
valve mechanism comprising a curtain, a
5 slide valve and resilient means, said cur-
tain attached to said slide valve by said re-
sili-ent means, and said curtain being also
connected to said movable portion of said

expansion chamber, and means for varying
the tension of said resilient means. 10

In testimony whereof I affix my signa-
ture in presence of two witnesses.

RAY W. SCOTT.

Witnesses:

LOUISE ENDERLE,
THOMAS A. HILL.