

C. E. PETERSON.
PNEUMATIC PLAYER ACTION FOR PIANOS.
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1,330,340.

Patented Feb. 10, 1920.

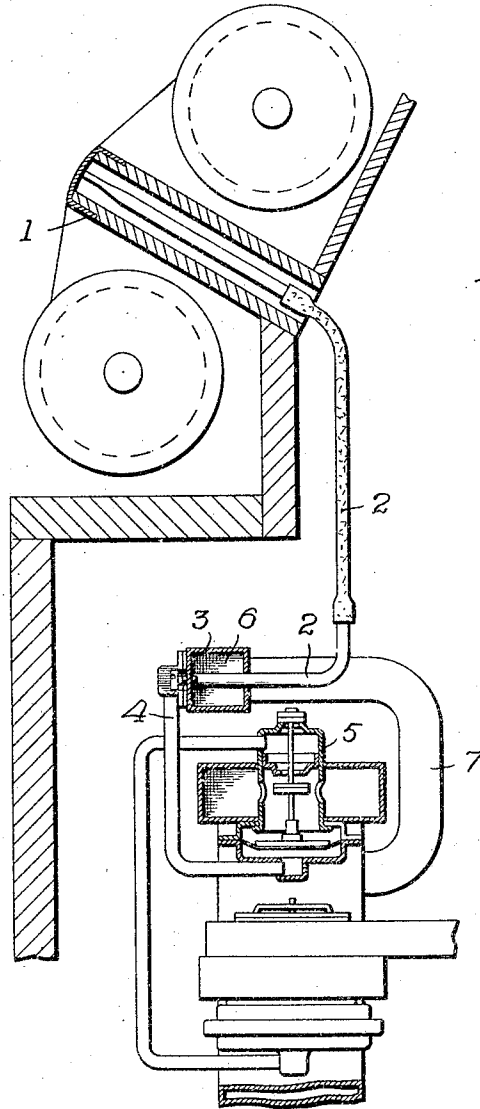


Fig. 1.

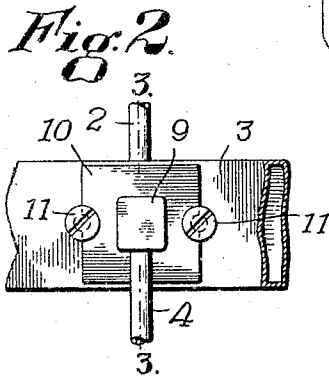


Fig. 2.

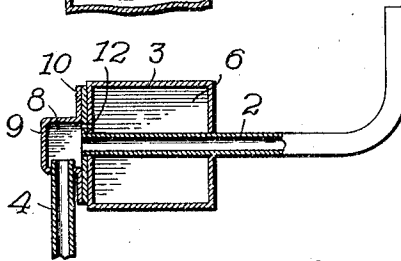


Fig. 3.

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PNEUMATIC PLAYER-ACTION FOR PIANOS.

1,330,340.

Specification of Letters Patent.

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Application filed May 23, 1919. Serial No. 300,284.

To all whom it may concern:

Be it known that I, CLAUS E. PETERSON, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Pneumatic Player-Actions for Pianos, of which the following, together with the accompanying drawings, is a specification.

My present improvement relates particularly to the construction of a bleed device for the pneumatic player actions of pianos, as hereinafter described, the features of novelty being pointed out in the appended claims.

Referring to the accompanying drawings,

Figure 1 represents so much of a pneumatic player action for pianos as is necessary to illustrate the nature of my present invention, portions being shown in sectional view.

Fig. 2 is a front view of the bleed mechanism.

Fig. 3 is a sectional view on the plane of the broken line 3—3, Fig. 2.

Similar reference characters refer to similar parts in the different figures.

Referring to Fig. 1 of the drawings, 1 denotes a tracker bar of the usual form of construction, shown in sectional view. 2 is a pipe leading from the tracker bar to the bleed device, shown at 3. 4 is a pipe leading from the bleed device of a pneumatic valve mechanism, represented at 5, Fig. 1. The bleed device consists of a tube preferably rectangular in cross section and inclosing a chamber 6 connected with an air exhausting mechanism, not shown, through a pipe 7, whereby a partial vacuum is maintained in the chamber 6. The pipe 2 passes through the chamber 6 with its end attached to one of the side walls of the chamber. The interior of the pipe 2 communicates with a chamber 8 inclosed in a cap 9 provided with a flange 10, which is attached to the side of the tube by screws 11, 11, held in the tube 3 and having their heads overlapping the edges of the flange 10. The pipe 4 enters the chamber 8, as shown in sectional view

in Fig. 3, and an opening 12 in the side wall of the rectangular tube 3 establishes communication between the chamber 8 inclosed in the cap 9 and the vacuum chamber 6.

When an opening in the tracker bar is uncovered by a perforation of the music sheet, air passes through the pipes 2 and 4 to actuate the pneumatic valve mechanism, in the manner common to devices of this class. When the opening in the tracker bar is closed by the music sheet, the air remaining in the tubes 2 and 4 passes through the restricted bleed opening 12 into the vacuum chamber 6.

I claim,

1. The combination with a pneumatic player action for a piano, of a bleed device comprising a closed vacuum tube, a pipe passing through said tube and having an open end terminating outside said tube, a cap covering the open end of said pipe and attached to said tube, a restricted opening in said tube communicating with the interior of said cap, and a pipe leading from said cap to the valve mechanism of the player action.

2. In a pneumatic player action, a bleed device comprising a pipe having an open end, a cap inclosing a chamber and covering the open end of said pipe, a vacuum chamber, and a communication between the chamber inclosed in said cap and said vacuum chamber.

3. In an apparatus of the class described, a tracker bar, a tube inclosing a vacuum chamber, a pipe leading from the tracker bar and passing through said vacuum chamber and having an end opening outside the vacuum chamber, a cap inclosing the open end of said pipe, and a restricted opening between the vacuum chamber and the interior of said cap.

Dated this 23rd day of May, 1919.

CLAUS E. PETERSON:

Witnesses:

NELLIE WHALEN,
PENELOPE COMBERBACH.