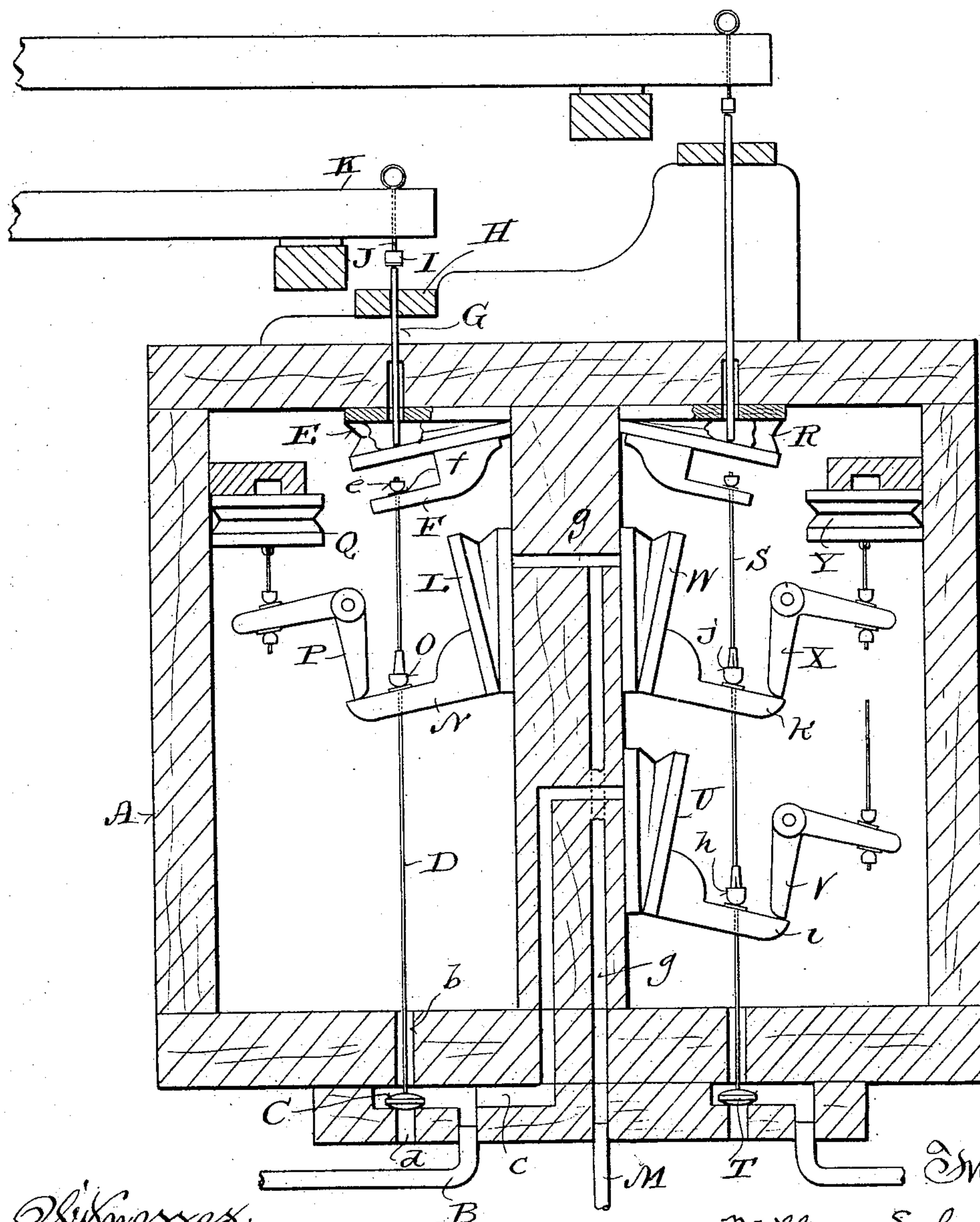


(No Model.)

W. SCHUELKE.
ORGAN.

No. 572,130.

Patented Dec. 1, 1896.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM SCHUELKE, OF MILWAUKEE, WISCONSIN.

ORGAN.

SPECIFICATION forming part of Letters Patent No. 572,130, dated December 1, 1896.

Application filed April 20, 1896. Serial No. 588,277. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHUELKE, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Organs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to simplify and cheapen the manufacture of church and concert organs, as well as to facilitate playing of the same; and it consists in certain peculiarities of construction and combination of parts having especial reference to key and coupling actions, as hereinafter fully set forth with reference to the accompanying drawing and subsequently claimed.

The drawing for the most part represents a sectional view of an organ key-box and illustrates the application of my improvements, certain of the parts being broken away.

Referring by letter to the drawing, A represents the key-box of an instrument embodying my improvements, this key-box being divided by a central vertical partition into great and swell organ compartments that have a constant supply of wind when the bellows of the instrument is in operation.

A port *b* is shown leading from one of the key-box compartments into a passage *c*, that has an exhaust-port *d* in register with the port aforesaid, and a pipe B, leading from said passage, constitutes part of a pneumatic system employed for controlling a reed or pipe of the great organ in the instrument to which my improvements are applied. As pneumatic systems for the purpose named are various and well understood, in general terms, it has not been deemed necessary to illustrate any one of such systems in full.

In practice the ports, passage, and pipe above specified are multiplied as many times as there are keys in the great-organ manual, and each pair of registering ports is controlled by a valve C to regulate the supply and exhaust of wind necessary to the action of the pneumatic system controlling a corresponding reed or pipe in said organ.

The stem D of the valve C is connected to a diminutive bellows or pneumatic E, located in the great-organ compartment of the key-box. As herein shown, the pneumatic may

have a depending bracket F, apertured to permit loose engagement of the valve-stem D, a button *e* being made fast on said stem above the bracket. The bracket is of such contour as to permit lift of the valve-stem when the great organ is coupled with a pedal-organ, as hereinafter more fully set forth, and a buffer *f* may be interposed between said bracket and the button *e* on said valve-stem.

A sticker G extends through a guide-bar H and the top of the key-box into pneumatic E, against the bottom of the latter, and the upper end of the sticker is opposed by a cushioned block I on the end of a stem J, herein shown as having screw adjustment in the inner end of a key K, belonging to the great-organ manual. By employing adjustable block-stems compensation may be had for irregularities in the length of stickers.

From the foregoing it will be understood that the valve C is normally seated to close port *d*, and thus leave port *b* open, so that wind from the key-box may fill passages *c* and B and the pneumatic system in communication therewith, the pneumatic E being distended against wind-pressure in said box by the sticker G, that is held down as a result of the key K being also in normal position. It also follows that if key K be played, the wind-pressure in the key-box will cause compression of pneumatic E to thereby lift valve C, thus cutting off port *b* and permitting exhaust of wind from the aforesaid pneumatic system through the port *d*, the speaking of a predetermined reed or pipe in any open stop of the great organ being the result of this action.

Another pneumatic L in the great-organ compartment of the key-box communicates with a passage *g*, and a pipe M, leading from the latter passage, constitutes part of a pneumatic system pertaining to a pedal-organ. The valve-stem D is loose in an apertured arm N, extended from pneumatic L, and a resistance device O, fast on said stem, opposes the upper surface of said arm. A bell-crank check P has one arm thereof normally opposed to pneumatic-arm N, and the other arm of this check is linked to a pneumatic Q, also located in the great-organ compartment of the key-box. The latter pneumatic is controlled by a draw-stop action, (not shown,) and be-

ing deflated the check P is swung out of the way of the arms N, pertaining to a series of pneumatics L, although only one of the latter is herein illustrated. This operation being accomplished, the great and pedal organs of the instrument are coupled, and each pneumatic L of the instrument deflating through a corresponding passage *g* of the key-box will cause a lift of a key-valve when a predetermined pedal is played.

A key-and-sticker-controlled pneumatic R, similar to that above specified, is shown in connection with the stem S of a swell-organ valve T, having a function similar to the valve C aforesaid.

A resistance device *h*, fast on valve-stem S, opposes the upper surface of an arm *i*, extending from a pneumatic U, that communicates with passage *c* aforesaid to thus provide for coupling of great and swell organs, the latter pneumatic being held distended by a check V similar to the one P above specified. The latter check is for link connection with another pneumatic (not shown) that has its inflation and deflation controlled by a suitable draw-stop action. Another resistance device *j*, fast on valve-stem S, opposes the upper surface of an arm *k*, extending from a pneumatic W, that communicates with passage *g* aforesaid, to thus provide for coupling of swell and pedal organs, said pneumatic being held distended by a check X similar to those previously set forth, and a pneumatic Y, controlled by a draw-stop action, is linked to said check.

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

1. The combination of the key-box wherein wind-pressure is constant, a pneumatic in said box, a valve having its stem connected to the

pneumatic, and a key-sticker extended into said pneumatic to normally distend the same against wind-pressure thereon.

2. The combination of the key-box wherein wind-pressure is constant, a pneumatic in said box, a valve having its stem connected to the pneumatic, a sticker extended into said pneumatic to normally distend the same against wind-pressure thereon, a key, a stem adjustable in the key, and a block on the stem in opposition to the sticker.

3. The combination of the key-box wherein wind-pressure is constant, a pneumatic in said box, a valve having its stem connected to the pneumatic but movable independent of the same as well as therewith, a key-sticker extending into said pneumatic to normally distend the same against wind-pressure thereon, and a coupling action coöperative with the valve-stem.

4. The combination of the key-box wherein wind-pressure is constant, a pneumatic in said box, a valve having its stem connected to the pneumatic but movable independent of the same as well as therewith, a key-sticker extending into said pneumatic to normally distend the same against wind-pressure thereon, a coupling-pneumatic having an arm loosely engaged by the valve-stem, a resistance device on said stem opposing lift of the pneumatic-arm, and a pneumatically-controlled check for said arm.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WILLIAM SCHUELKE.

Witnesses:

N. E. OLIPHANT,
B. C. ROLOFF.