

UNITED STATES PATENT OFFICE.

GEORGE S. SHEPARD, OF CANAAN, NEW HAMPSHIRE.

IMPROVEMENT IN MUSICAL REED-INSTRUMENTS.

Specification forming part of Letters Patent No. **13,365**, dated July 31, 1855.

To all whom it may concern:

Be it known that I, GEORGE S. SHEPARD, of Canaan, in the county of Grafton and State of New Hampshire, have invented a new and useful Improvement in Reed Musical Instruments; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

Figure 1 is a top view of a sufficient portion of a reed-instrument to enable my improvements thereto to be understood; Fig. 2, a longitudinal vertical section in the line *t t* of Fig. 1; Fig. 3, a transverse section in the line *x x* of Fig. 1; Fig. 4, a transverse section in the line *y y* of the said Fig. 1; and Fig. 5 is a view of a detached portion of the instrument.

Similar letters indicate like parts in all the figures.

I make the supporting frame-work of my improved reed-instruments of any shape and size that may be required to give the proper support to the instrument. The socket-board *c* divides the valve-chamber I from the reed-chamber J. The valve-chamber I is divided from the sounding-chamber A by means of a partition *i*, which is perforated with the apertures *d d*, which apertures are closed by the outwardly-opening valves *e e*, that are connected to the levers *f* and *k* and to any suitable pedal in such a manner that said valves may be opened at pleasure. The said valves *e e* are closed by the action of the spring *l* on the lever *k* or by any other suitable means. The said valve-chamber I is also connected to the sounding-chamber B, which is suspended below it and communicates with it by means of suitable openings in the partition *s*, as represented in Figs. 3 and 5.

The reeds *b b* and the valves *h* are connected to the socket-board *c* in any well-known or usual manner, and the said valves may be operated in any well-known manner. The air to act upon the reeds is made to enter each end of the reed-chamber J through the oblong openings *g g* from any desired form or arrangement of bellows. Sounding-posts *n n* are inserted between the socket-board *c* and the bottoms of the valve-chamber I, which serve a purpose similar to what they do in stringed instruments. By opening to their full extent the valves *e e*, and thereby allowing the air to escape freely from the valve-chamber into the sounding-chamber A, tones of great fullness and power will be produced, and by nearly closing said valves the softest possible tones will be produced.

The auxiliary sounding-chamber B adds greatly to the vibrating surface of the instrument and prevents the air in the valve-chamber from reacting against the reeds when the valves *e e* are nearly closed, and thereby adds greatly to the fullness and evenness of the tones produced.

Having thus fully described my improvement in reed-instruments, what I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the auxiliary sounding-chamber B and the swell-chamber A with the valve-chamber I, substantially in the manner and for the purpose herein set forth.

The above specification of my new and improved reed-instrument signed and witnessed this 19th day of June, 1855.

GEORGE S. SHEPARD.

Witnesses:

WM. P. WEEKS,
WM. C. WEBSTER.