

C. Austin
Imp^t in Melodeons
No. 61305
Patented Jan. 22, 1867

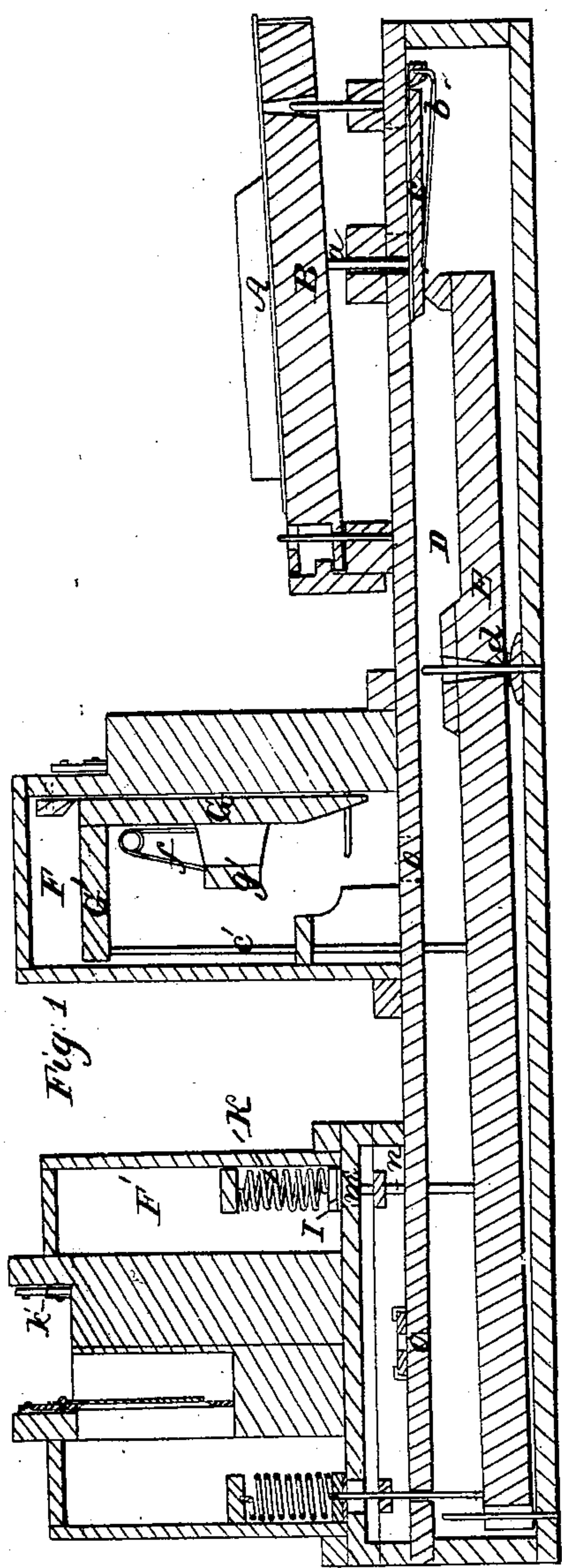


Fig. 1

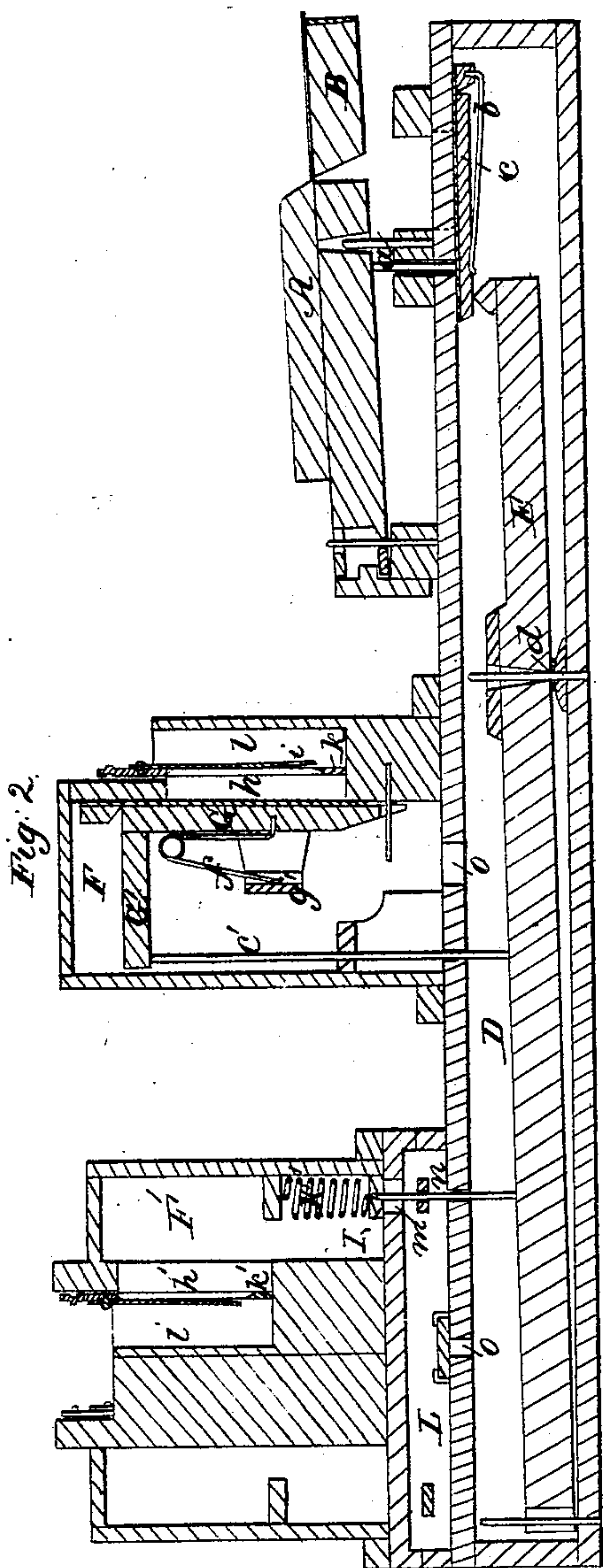


Fig. 2

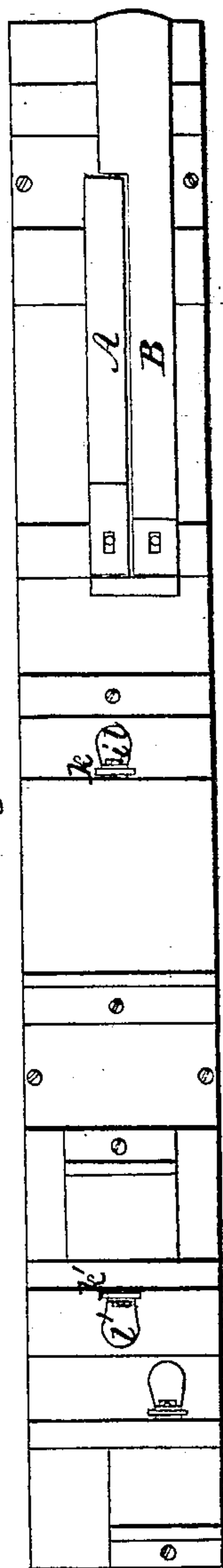


Fig. 3

Witnesses;
Samuel N. Piper.
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Inventor;
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R. W. Raby

UNITED STATES PATENT OFFICE.

CHARLES AUSTIN, OF CONCORD, NEW HAMPSHIRE.

IMPROVEMENT IN MELODEONS.

Specification forming part of Letters Patent No. **61,305**, dated January 22, 1867.

To all whom it may concern:

Be it known that I, CHARLES AUSTIN, of Concord, of the county of Merrimack and State of New Hampshire, have invented a new and useful Improvement in Melodeons; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a section taken through one of the keys and reeds, and Fig. 2 is a section taken through the other key and reeds of two next adjacent keys of a melodeon. Fig. 3 is a top view of the said keys and the vertical reeds and reed-plate arranged over the exhaust-chamber, to be hereinafter described.

In the drawings, the two keys are represented at A and B, each being placed, in the usual manner, directly over a reed-valve, and having a projection, *a*, for depressing the valve when the key is depressed. A spring, *b*, applied to the valve operates to close it. Each valve is to be supposed to have a reed-opening and reed arranged over it, and in the upper part of the exhaust-chamber D, in the usual manner.

In carrying out my invention, I arrange in the exhaust-chamber, in rear of each valve *c*, one of a series of levers, the same being as shown at E in each of the figures, such lever having its fulcrum at *d*. Each of these levers is intended to operate one or more other reed-valves, each of which is arranged in a chamber, F or F', made to communicate freely with the exhaust-chamber D, and being separated from it or arranged above it, in manner as represented.

In the chamber F the reed-valve G is exhibited as arranged vertically, and provided with an arm, G', extending from it and over and upon a wire, *e*, projecting upward from the lever E. A spring, *f*, bearing against a cross-bar, *g*, and the valve G, serves to close the valve G on the valve-opening *h*, provided with a reed-plate, *k*, and a reed, *i*, arranged vertically within a passage, *l*, for conducting air to the said reed. By this arrangement of the reed-plate *k*, access can readily be had to such plate for the purpose of removing it for tuning the reed.

Instead of the valve G and its arm G', a disk-valve, I, fixed on the top of a stem, *n*, which rests on the lever E, may be used, in which case the said valve I should cover an opening, *m*, leading through the bottom of the chamber F'. A spring, K, placed in the

chamber F', serves to return the valve to its seat.

The reed-plate of the chamber F' is exhibited at *k'* as arranged in an air-passage, *l'*, open at top, and communicating with the chamber F' by a passage, *h'*. The chamber F' leads into a chamber, L, arranged below it, and opening into the exhaust-chamber D by a passage, *o*. A similar passage, *o*, also leads from the chamber F into the exhaust-chamber D. The said chamber D is to be connected with the bellows, which are applied to it in the manner in which the same is usually accomplished in melodeons, such bellows serving to extract air from the chamber, in order that when the reed-valves are opened air may be caused to rush through the reed-openings, and into the chambers D and the auxiliary reed-chambers combined therewith, and so as to set the reeds in vibration.

If desirable, there may be a valve applied to each or either opening *o*, so as to close it as occasion may require. The drawings represent two upright valve-chambers to one, and one of such chambers to the other, of the levers E E. To each of the said levers there may be any desirable number of such valve-chambers, each being provided with a reed and reed carrier or plate, arranged so as to be capable of being raised upward out of an air-passage disposed alongside of the air-chamber, each of the reed-chambers being provided with a reed-operative mechanism, as described.

My invention is very advantageous, both for increasing the power of an instrument, as well as for affording facilities for ready access to the additional reeds for the purpose of tuning them.

I claim as my invention—

The arrangement, as well as the combination, substantially as above specified, of a lever, E, and one or more additional reeds, *i*, *i*, and the operative apparatus thereof, as explained, with the exhaust-chamber D and a main reed-key, A or B, thereof, the same being so that, on pressing down the said key for the purpose of opening the main reed-valve thereof, the lever E shall be moved so as to put in operation each additional reed-operative apparatus, whereby its reed or reeds may be sounded simultaneously with the main reed.

CHARLES AUSTIN.

Witnesses:

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