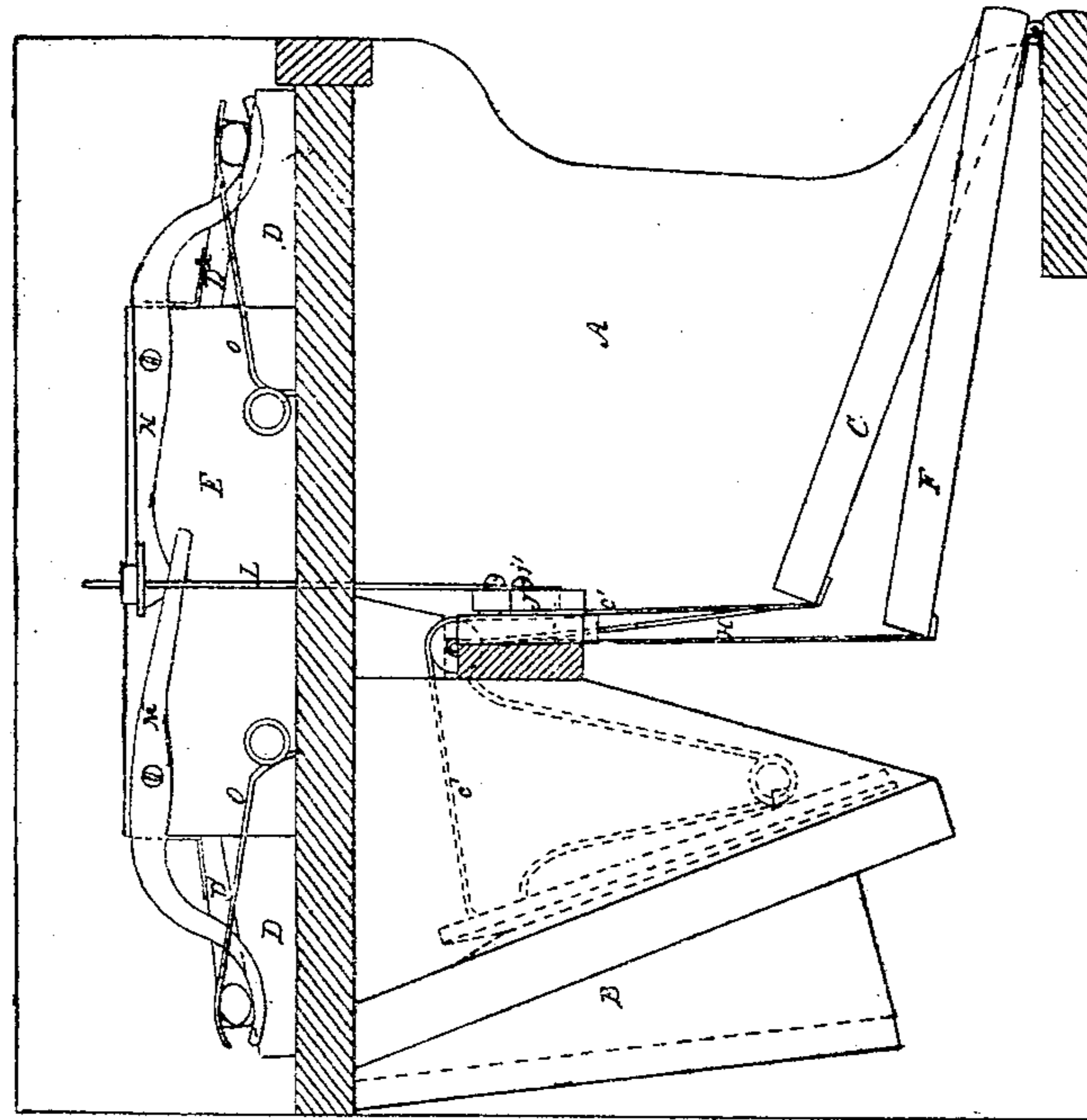
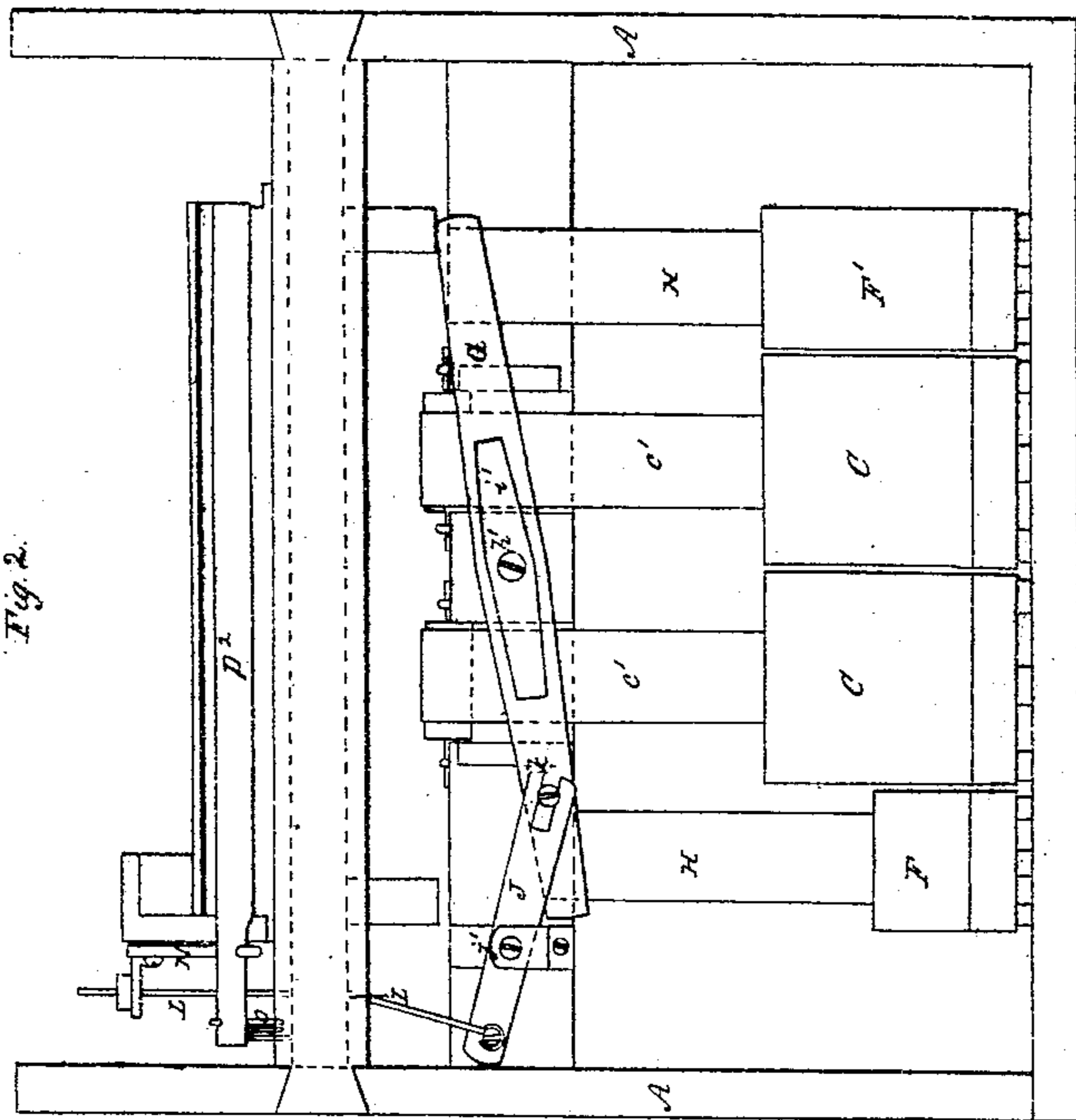


C. E. Bacon.

Operating Swell in Melodeons.

N^o 71947

Patented Dec. 10, 1867.



Witnesses

C. P. Forbush
B. H. Muehle

Inventor

C. E. Bacon

United States Patent Office.

CHARLES E. BACON, OF BUFFALO, NEW YORK, ASSIGNOR TO HIMSELF, GEORGE A. PRINCE,
AND CALVIN F. S. THOMAS, OF THE SAME PLACE.

Letters Patent No. 71,947, dated December 10, 1867.

MODE OF OPERATING SWELLS IN MELODEONS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES E. BACON, of the city of Buffalo, county of Erie, and State of New York, assignor to GEORGE A. PRINCE, CALVIN F. S. THOMAS, and CHARLES E. BACON, (myself,) composing the firm of GEORGE A. PRINCE & Co., of the same place, have invented an Improvement in the Mode of Operating the Swell of Melodeons, and other 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, in which—

Figure I is a transverse section of a melodeon, or so much thereof as is sufficient to represent my improvement.

Figure II is an interior front elevation.

The nature of this invention consists in the application and use of distinct and separate foot-pedals, for operating the swell of melodeons and other reed musical instruments, arranged contiguous to the bellows-pedals, so that the operator can with his foot open or close the swell in whole or in part, independently and conjunctively with the movements of the bellows-pedals.

Letters of like name and kind refer to like parts in each of the figures.

The outside case is represented at A; the bellows at B; the bellows-pedals at C; and the straps and cords which connect the pedals to the bellows at c'. The swell is shown at D, and the swell-valve at D¹ D², one on opposite side of the wind-chest E. F F' represent the swell-pedals. These are placed side by side with the bellows-pedals, and parallel therewith, so that the operator can easily place his foot in such manner as to operate them independently of the movement of the bellows-pedal, or in conjunction therewith. The swell-pedals are each connected to the opposite ends of the swell-lever G, by means of the straps H. The swell-lever G has a fulcrum-pin, h', at the centre, and a pressure-spring, i. There is a shorter lever, J, pivoted at the centre, as shown at j', which has a slot at one end connecting with a pin on the swell-lever, as shown at k. The opposite end of this short lever connects with the rod L, which also connects with the valve-levers M N. Springs are represented at O, which bear upon the rounded and projecting ends of the valves, for the purpose of closing the valves in conjunction with the proper movement of the swell-pedal. The swell-valves are opened and closed simultaneously. A depression of the pedal F' will act through the arrangement of the levers G J M N, and rod L will have the effect to open both of the valves of the swell simultaneously and equally. The bent ends of the levers M and N catch under the round projecting ends of the valves, and lift the valves open. A depression of the pedal F will remove the pressure of the levers M and N from the valves, so that the springs O will easily and quickly close them.

I am aware that a patent was granted to Daniel Clark and Thomas Stephenson, on the 14th day of February, 1865, for an improvement in the mode of operating the swell of melodeons, by means of the bellows-pedals, which patent is now owned by the assignees herein. That improvement, although successful as a whole, has some difficulties which the present improvement avoids. For instance, in that improvement the swell cannot be fully opened, only at the extreme limit of the movement of the bellows-pedal; and it often happens in practice that the swell needs to be fully and quickly opened when the bellows is full of wind, and the pedal at nearly its highest position, and hence a further downward movement of the pedal cannot be quickly had, nor until the wind escapes from the bellows sufficiently to allow the pedal to move to its extreme limit. This retards the operator, and prevents the full and perfect action of the instrument.

My improvement remedies difficulties of this character, and enables the operator to fully develop the powers of the instrument. If it be required to open the swell fully at any time, whether the bellows be full of wind or otherwise, or whether the bellows-pedal be at the lowest or highest point in its movement, the swell may be opened with equal facility. By a depression of the toe of the foot, or of the side of the foot of the operator, the swell-pedal may be carried down in advance of the bellows-pedal, or independently thereof, in a manner to open or close the swell at such time and to such extent as may be required.

The mode of operating the swell is wholly independent of the bellows, or of the movements of the bellows-pedals.

In the construction of melodeons and other reed musical instruments, I claim as my invention—

The arrangement of the swell-pedals side by side with the bellows-pedals, and contiguous to, and parallel therewith, for the purpose and substantially as described.

CHAS. E. BACON.

Witnesses:

E. B. FORBUSH,

B. H. MUEHLE.