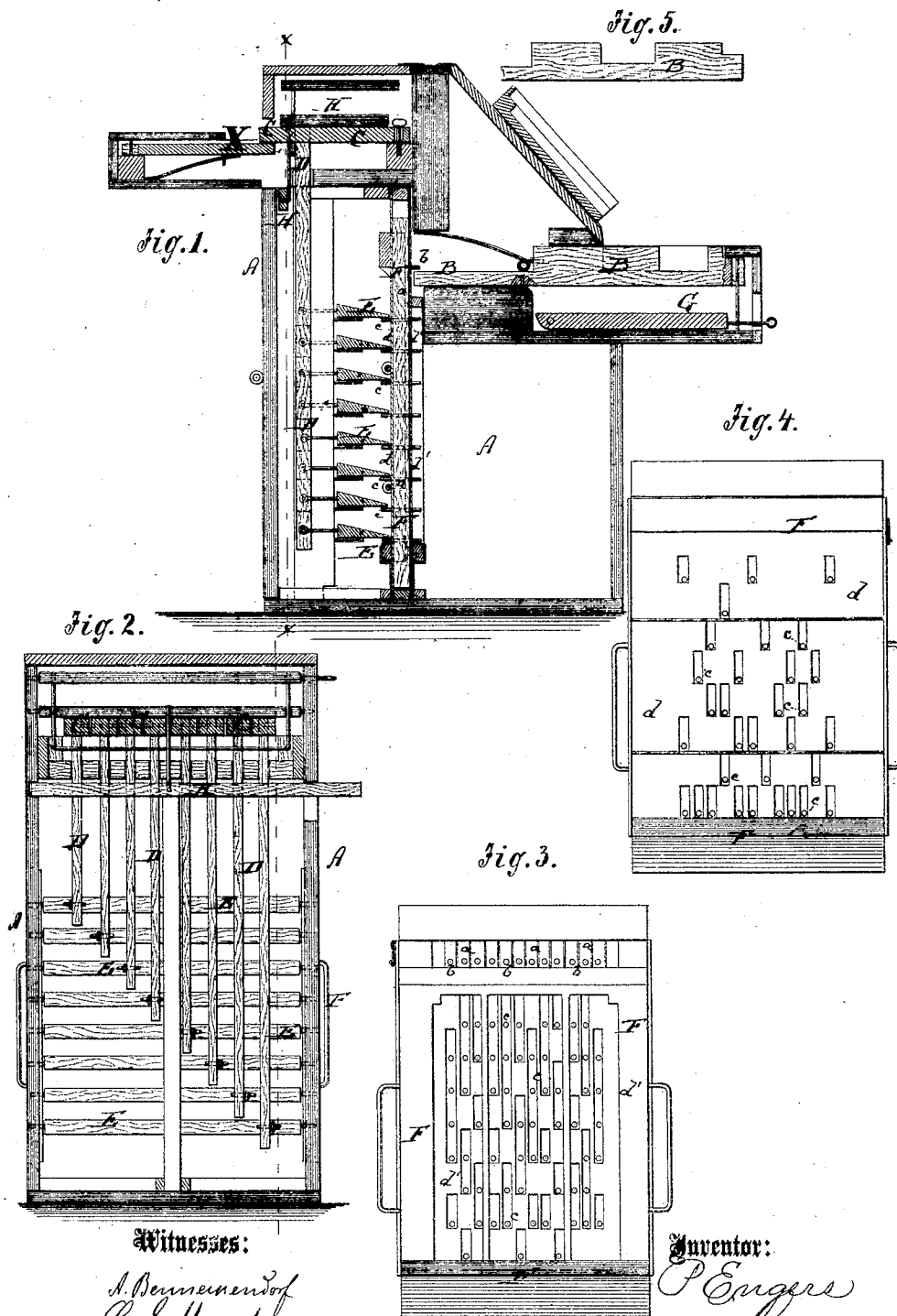


PETER ENGERS.  
Improvement in Melodeons.

No. 113,994.

Patented April 25, 1871.



Witnesses:

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PETER ENGERS, OF JEFFERSON FURNACE, PENNSYLVANIA.

Letters Patent No. 113,994, dated April 25, 1871.

## IMPROVEMENT 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, PETER ENGERS, of Jefferson Furnace, in the county of Clarion and State of Pennsylvania, have invented a new and improved Melodeon; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a longitudinal section of my improved melodeon.

Figure 2 is a vertical transverse section of the same taken on the plane of the line *x x*, fig. 1.

Figure 3 is a face view of the register used in the melodeon.

Figure 4 is a view of the same.

Figure 5 is a detail side view of one key.

Similar letters of reference indicate corresponding parts.

My invention pertains to that class of musical wind-instruments which is designed to be used by those having no knowledge of the notes and principles of music, the keys being arranged to be played or pressed in succession, so as to require little or no manual skill or knowledge of chords and music in the performer.

The invention consists in an instrument adapted either to an ordinary melodeon or other analogous instrument, or to be operated without or independently of it, as hereinafter described.

A in the drawing represents the frame-work or casing of my improved musical instrument.

B is the key-board of the same.

I prefer to use only white keys, but to cut recesses into the same alternately, as indicated in figs. 1 and 5, so that they can be rapidly played in succession by means of but two fingers.

X represents the key-board, with which a bellows, reed-board, &c., may be suitably connected. When this is used the instrument is complete in itself; but by detaching it and placing the bars or valves C C on the key-board of a melodeon instead, the latter may be played equally well.

In practice I design to furnish the complete instrument, with its own key-board, reeds, bellows, &c., or to furnish it without said key-board, the construction and arrangement of all the parts for operating on the key-board being in each case the same, and the keys in each case also constituting spring supports of the bars or valves C C, which project through the transverse slot in the rear wall or side of the instrument sufficiently far to overlap or rest upon said keys.

Each bar or valve C is connected with a vertical pendant, D, and each pendant with a transverse plate, E, pivoted in the case A.

The several plates E, of which there must be as

many as there are valves, are all pivoted in a straight row, one above the other, as is clearly shown in fig. 1.

The pendants D vary in length, as shown in fig. 2, there being one pendant or connection between each plate E and valve-rod.

F is the play-register. It consists of an outer rectangular frame-work containing as many loose upright bars *a a* as there are keys B.

The bars *a a* are vertically adjustable. They carry near their upper ends and at their front faces each a projecting pin, *b*.

When the frame F is fitted into the case through a slot or opening in the side of the same the pins *b* of its slides will rest on the rear ends of the several keys B, respectively, as indicated in fig. 1.

Whenever a key, B, is played, the bar *a*, thus connected with it, will be elevated.

From the rear face of each bar *a* project pins *c c*, which are so disposed as to fit under those particular plates E which are to be played by the several keys.

Thus, if by one key one bar *a* is raised as aforesaid, said bar may, by its three projecting pins, *c*, swing the three plates E under which such pins are placed, and thereby draw the three valves with which such plates are connected. One key will thereby play a suitable number of notes at once.

The music is, in accordance with the notes, previously arranged on the bars *a*, either by placing the pins *c* into the appropriate places, which would be the simpler plan, or by using pattern-cards *d d'*, on opposite sides of the frame F.

The two pattern-cards would have to be slotted in reverse order, so that the pins *c* pushed back by the forward card will project through slots in the back card, to serve as playing-pins, while those projecting forward through slots in the front card will be out of action.

In this manner every piece of music can be played by touching or depressing the keys B in alternate succession in the same order in which they are placed, without any regard to the written music.

Every owner of an instrument of the stated kind will be able to play every desired piece of music by properly arranging the pins *c*.

The details of the construction of the keys, arrangement of valves, &c., may be varied at pleasure.

Under the keys B may be arranged a pivoted plate or bar, G, for holding them up and their back ends down, to facilitate the removal and insertion of the frame G.

For the purpose of swinging the plates E clear of the pins *c*, there is a pivoted bar or lever, H, under the valve-rods C.

I desire to be understood as laying no claim,

broadly, to so arranging a series of transverse and vertical bars that, when raised or otherwise operated in regular order or succession, musical harmony will be produced by their operation upon the keys of a wind-instrument, since this has been done before.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The bars or valves C C, arranged as shown and

described, whereby they may be operated in connection with a key-board, as set forth.

2. The bars or valves C C, pendants D D, plates E, slides *a*, pins *b* and *c*, and keys B, as herein shown and described, to operate as set forth.

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Witnesses:

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