R. BURDITT & H. P. GREEN.

MELODEON, &c.

No. 16,786. Patented Mar. 10, 1857.

Fig: 2

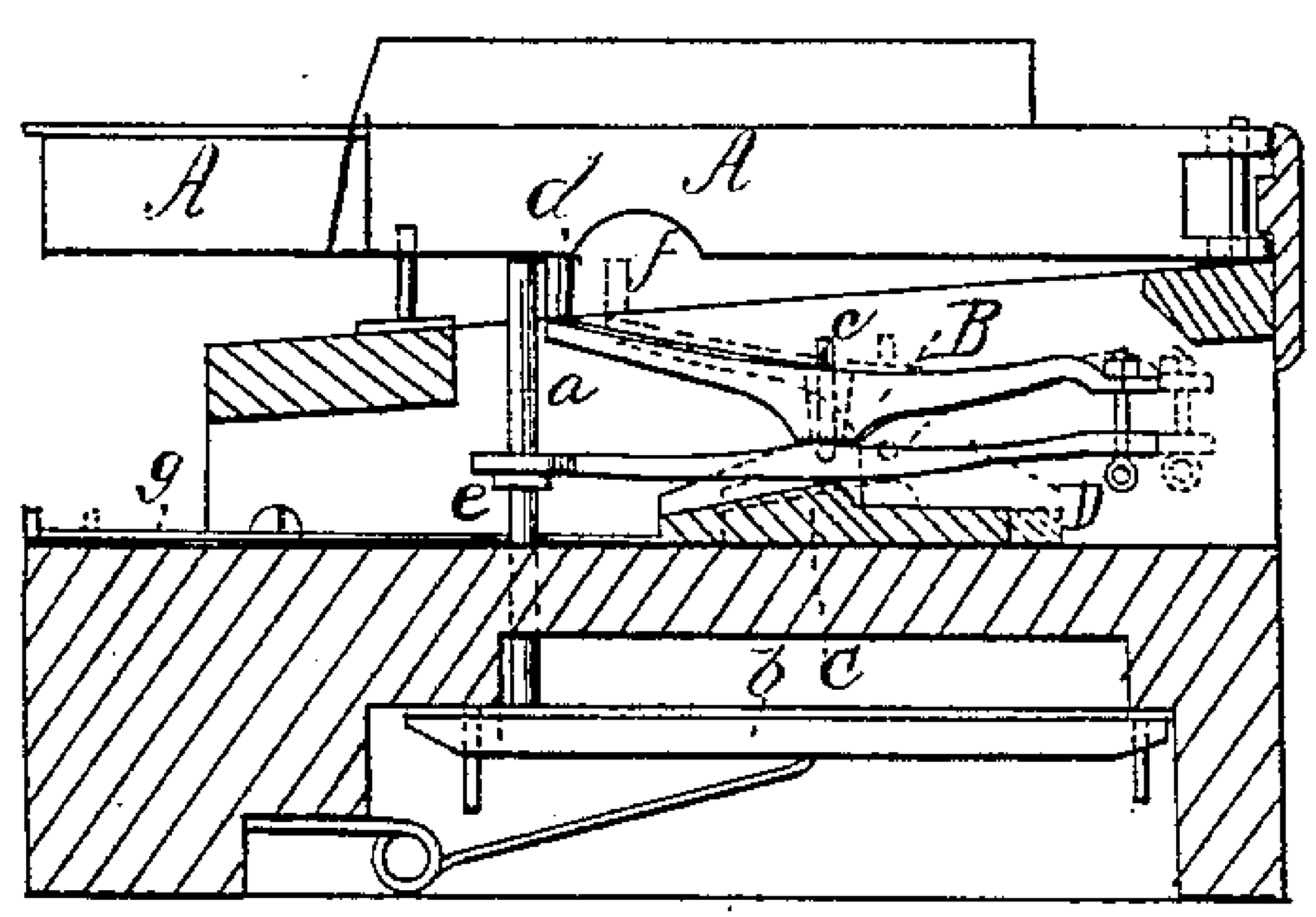
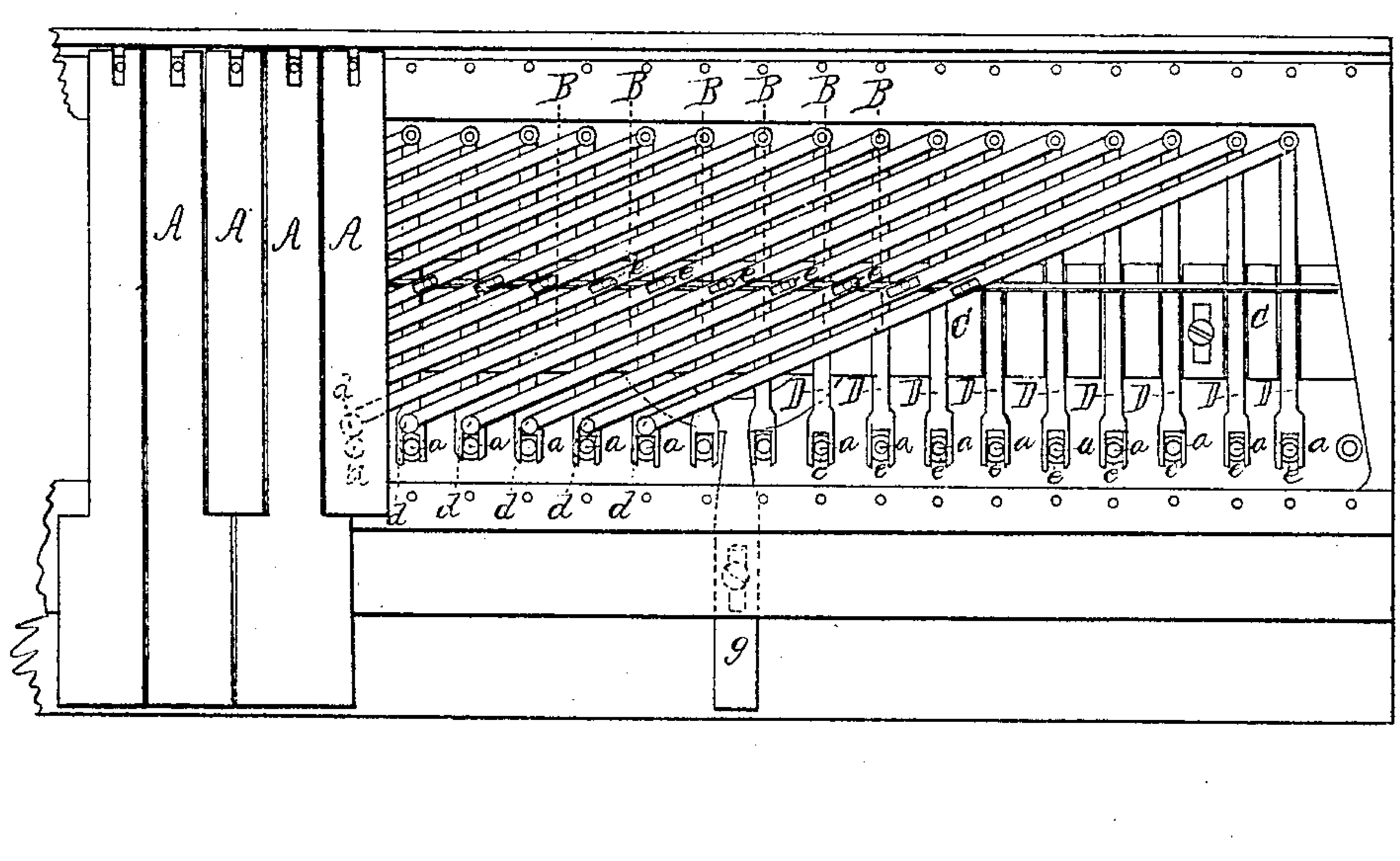


Fig: 1



UNITED STATES PATENT OFFICE.

RILEY BURDITT AND HATSEL P. GREEN, OF BRATTLEBORO, VERMONT.

MELODEON.

Specification of Letters Patent No. 16,786, dated March 10, 1857.

To all whom it may concern:

Be it known that we, RILEY BURDITT and HATSEL P. GREEN, of Brattleboro, in the county of Windham and State of Vermont, have invented a new and useful Improvement in Melodeons and other Musical Instruments of Similar Character; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Our improvement consists in having the fulcra of all of the connecting levers, located upon a single movable fulcrum board.

Figure 1, in the drawing, is a plan view of a part of the keyboard of a melodeon with some of the keys removed to show the arrangement of levers for playing the upper octaves. Fig. 2, is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts in both figures.

A, A, represent the keys of the instrument.

a, *a*, are push-down pins arranged in the usual manner below the keys to push down the valves proper to the several keys.

The arrangement of the valves, one of which is shown at *b*, Fig. 2, and of the reeds, which are not shown, may be the same as in any of the melodeons in common use, one, two or more sets of reeds, and one, two or more sets of valves being acted upon by each key through its respective push down pin *a*, in the usual manner.

B, B, are a series of light levers placed below the keys upon fulcrum pins *c*, *c*, which are secured in a board C, which extends the whole or any suitable portion of the length of the instrument. These levers run in a direction oblique to the keys A, A, and the front end of each is bent upward and stands behind the push down pin of one of the keys while the back end stands under the rear portion of a key in the octave above. D, D, are a second series of levers placed under the levers B, B, and arranged parallel with the keys. These levers work on fulcra in the board C. They have their rear ends connected with the rear ends of the levers B, B, in any way that will admit of the movements of the two sets of levers on their fulcra, and their front ends are forked to receive the push down pins *a*, *a*, which are furnished with tight collars *e*, *e*, below the said forked portion of the levers. The above arrangement of levers communicates motion from the keys of the lower octaves to the valves of the octaves above as well as to their own valves, for as the first-named keys are depressed they press down the front ends of the levers B and consequently raise the rear ends thereof and also the rear ends of the levers D, D, thus depressing the forked front ends of the latter levers upon the collars of their respective push down pins.

In order to provide for the playing of one or two octaves at pleasure, all the keys that are intended to play two notes are furnished each with a notch *f*, a short distance behind the push down pins and the board C, is made capable of being pushed back and drawn forward a short distance by a knob or tongue *g*, which stands out from under the key board. By drawing the board C, forward, with the attached levers B, B, and D, D, the ends *d*, *d*, of the levers B, B, are brought nearly close up to the push down pins, as shown in black outline in Fig. 2, and entirely in front of the notches *f*, of the keys, so that the levers are in a condition to be operated upon by the keys. But by pushing back the board C, the ends *d*, *d*, of the levers are caused to stand under the notches *f*, *f*, of the keys, as shown in red outline in Fig. 2, and the consequence is that when the keys are played upon they act only on their own push down pins and only play in one octave.

We do not claim to be the first inventors of musical instruments in which two or more notes, in different octaves, are sounded by pressing a single key; for we are aware that organs, melodeons, pianos, &c., having such features, have long been known. The patent of Whipple and Bowe, 1855, is an example in point. In their instrument each set of connecting levers has its own fulcrum board; one of said boards is hinged and rendered movable, so that its set of levers may be thrown in or out of connection with their corresponding keys, by raising or lowering the fulcrum board. The employment of double fulcrum boards involves increased expense in construction and want of compactness. Besides, the end convections between the levers and the keys, require to be flexible to a certain extent, which is expensive, lacks accuracy, is liable to become loose, cannot be adjusted readily, nor conveniently removed or applied to the instrument. But by our arrangement the levers are all fulcrumed on one and the same fulcrum board, which slides, and thus brings the levers into

or out of connection with the keys. Our plan is simpler, more compact, cheaper, and more easily applied, than the invention above described. The ends of our levers are united by means of ridged adjusting screws, by which the levers may be adjusted with the utmost accuracy and convenience. But we do not claim such adjusting screws, as they are seen in J. F. Thornton's device, 1857. Our fulcrum board and levers may also be removed and replaced readily, without the necessity of putting the end of each individual lever one by one into its loop, by hand, as in Whipple and Bowe's device. We do not claim the combination of levers with push down pins that have shoulders or collars upon them. This is seen in H. N. Goodman's melodeon, patented 1853. Neither do we claim any part or feature of the within described invention, which is seen in any other analogous instrument. But to the best of our knowledge and belief it is new to have all the levers fulcrumed upon a single movable board, as herein set forth; and

Therefore what we claim as new and desire to secure by Letters Patent, is,

Having the fulcra of the connecting levers B, D, located upon a single movable board C, substantially as described.

RILEY BURDITT.
HATSEL P. GREEN

Witnesses:
BENJ. HUNT,
E. KIRKLAND.