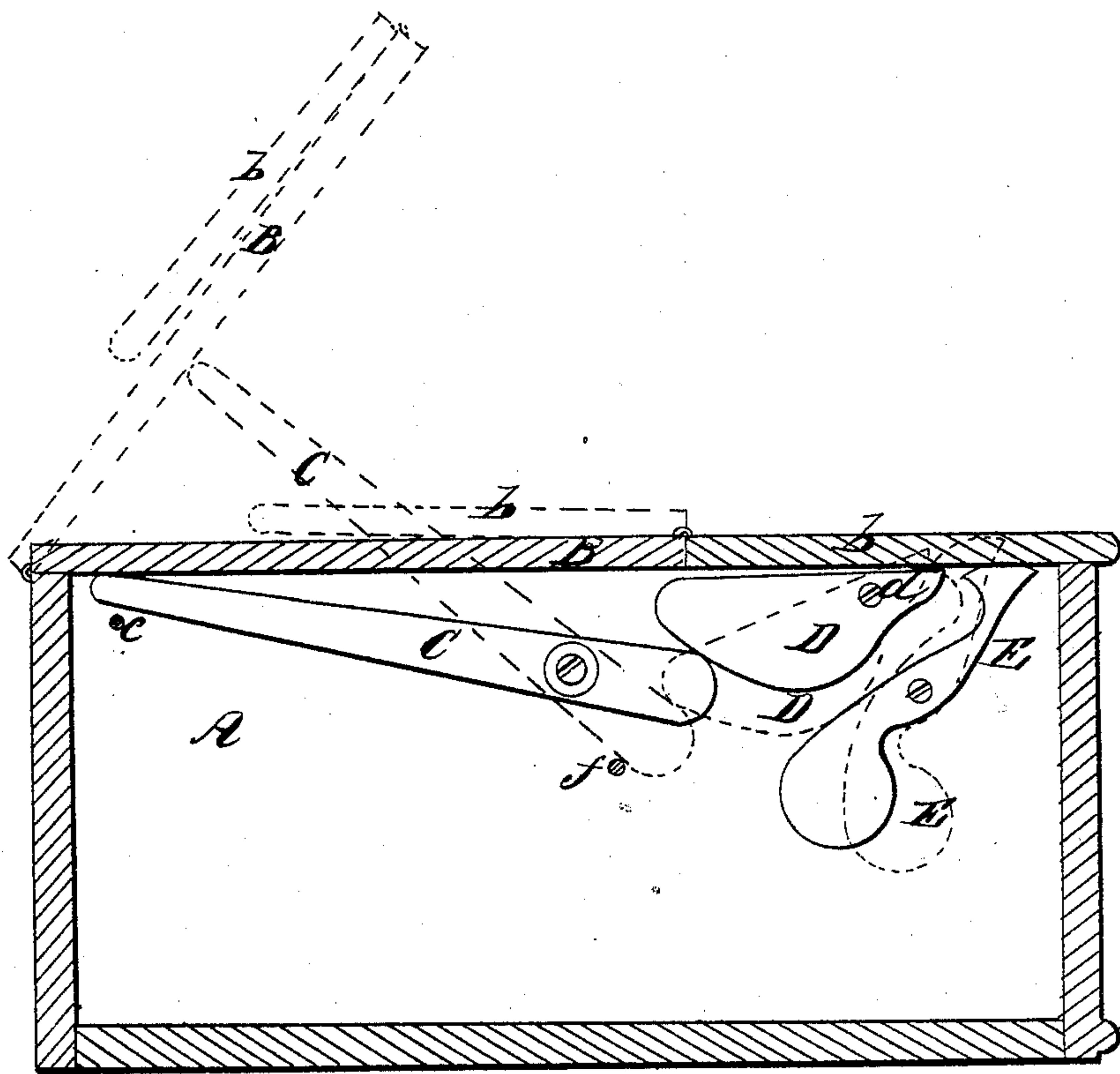


C. E. McDonald,

Piano Attachment.

N^o 63546.

Patented Apr. 2, 1867.



Witnesses:

*J. M. Coombs
G. W. Reed*

Inventor:

Charles E. McDonald

United States Patent Office.

CHARLES E. McDONALD, OF BROOKLYN, NEW YORK.

Letters Patent No. 63,546, dated April 2, 1867.

IMPROVEMENT IN PROP-STICKS FOR PIANO-FORTES.

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, C. E. McDONALD, of the city of Brooklyn, in the county of Kings, and State of New York, have invented a certain new and useful Improvement on Prop-Sticks to Piano-Forte Case Lids or Tops, applicable also to other musical instruments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and which represents a transverse section of a piano case with its lid or top having my improvement applied to it.

The object of my invention is to facilitate raising and lowering, with protection against sagging, breakage, or injury, the lids or tops of piano-fortes and other like musical instruments, by means of a peculiar automatic action of the prop-sticks, which, as ordinarily arranged, require, in raising or lowering the lid, to be adjusted, first the one and then the other, at opposite ends of the instrument, that, in case of a long and heavy lid, is attendant with no little labor, risk, and inconvenience, alike exposing the lid to sagging and injury or breakage.

The nature of my invention for accomplishing the end in view consists in a combination, with the hinged props, of weights, or weights and catches so arranged as that, on lifting the lid, they serve to automatically raise the props simultaneously at both ends to their proper position for support of the lid, and when it is desired to lower said lid, accomplishing the same by first relieving and securing the weights from lifting pressure on the props, and then slightly lifting on or easing the lid, when the props at both ends simultaneously drop.

Referring to the accompanying drawing, A indicates a piano-forte case with its main lid, B, and key lid *b*. C is one of the end props, there being a similar one with pertaining devices at the opposite end. This prop C is pivoted or hinged as at *c*, and may have its raised or lowered position controlled by stops *e f*. D is a weight, which may be pivoted as at *d* to the case, and is so arranged for operation in connection with the prop as that, on lifting the lid B, the weight acts on the prop to raise it to its proper position for support of the lid, the drawing representing, in red lines, such adjustment of these parts which is or should be the same at both ends of the case. To lower the lid, the weight or weights must first be relieved from a lifting pressure on the prop or props, when, by slightly easing or raising the main lid, the prop or props fall, which then admits of the lid being shut. It is obvious that, by this arrangement, the hands in raising or lowering the lid may be applied to the centre of it, which is a protection against sagging or straining; also, that there is but little liability to damage or breakage by the untimely falling of the lid. To secure the weight or weights D from exercising any lifting pressure on the props when it is desired to lower the lid, various expedients might be resorted to; but the following, amongst others, is preferred, as, while serving to relieve the props from action of the weights at such time, they are automatically adjusted on closing the main lid, and, say, front one, *b*, to leave them free again to act on the props to follow up the lid on raising it. Thus, E is a pivoted hook or catch, one to either prop or weight thereof, so constructed and arranged, as represented by black and blue lines in the drawing, as that, prior to and during the act of closing the lid, it holds the weight from lifting action on the prop, but on closing the lid or outer portion, *b*, the catch is released from its grip on the weight, which is thus automatically, as it were, left free to operate with a lifting effect on the prop on again raising the lid.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the hinged prop or props C, and lid or top B, of a weight or weights, D, for action in the manner and for the purposes substantially as herein set forth.

2. The combination, with the hinged prop or props C, lid or top B, and weight or weights D, of a catch or catches, E, so constructed and applied as, on closing to the lid, the weight or weights are automatically released and left free to exercise a lifting action on the props, substantially as specified.

CHARLES E. McDONALD.

Witnesses:

HUBBARD HENDRICKSON,
W. H. McDONALD.