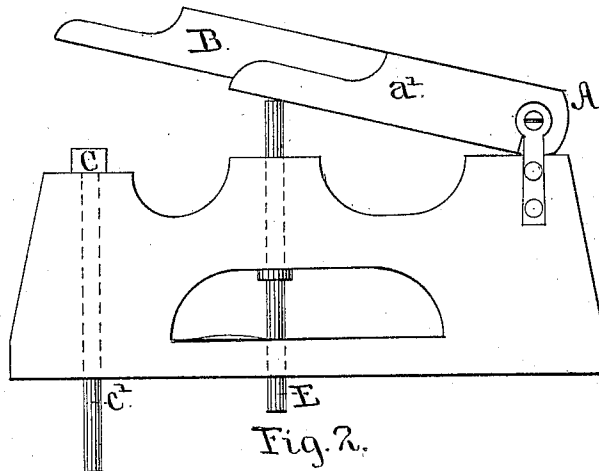
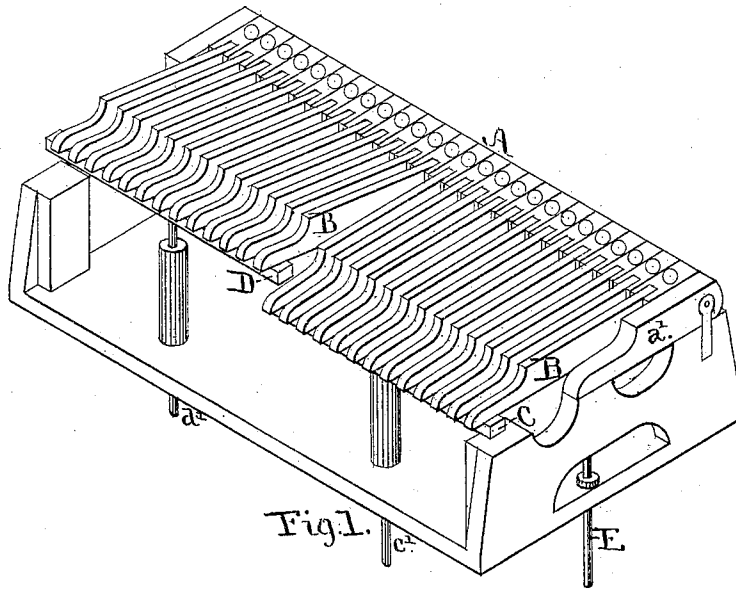


PIANOFORTE.

Patented Feb. 15, 1876.



Witnesses.

Witnesses.
William H. Long.

A. F. Low

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UNITED STATES PATENT OFFICE.

WILLIAM McCAMMON, OF ALBANY, NEW YORK.

IMPROVEMENT IN PIANO-FORTES.

Specification forming part of Letters Patent No. **173,414**, dated February 15, 1876; application filed January 20, 1875.

To all whom it may concern:

Be it known that I, WILLIAM McCAMMON, of the city and county of Albany, and State of New York, have invented an Improvement on Piano-Fortes, of which the following is a full, clear, and exact description:

My invention relates to the modern form of dampers called "over dampers," for stopping the vibrations of the strings of the piano; and consists in the mechanism for operating them in sections, as herein shown and described, and in such manner that either section may be raised independently, or the whole series of them raised at once.

The object of my invention is to give to the instrument greater power by prolonging the sounds of a portion of its tones when required, thereby producing certain brilliant and powerful effects that cannot be obtained by the action of the dampers as commonly constructed and applied.

In the accompanying drawing, which makes a part of this specification, Figure 1 is a perspective view of my invention, showing the section of dampers intended to bear upon the treble-strings of the instrument in a raised position; and Fig. 2, an end elevation, showing all the dampers raised.

As shown in the drawing, A represents a damper-frame of the ordinary construction, and attached to the piano in the usual manner. To this frame is attached a series of over dampers, B, constructed and hinged to the frame in the common and well-known manner. The lifter C is placed under the dampers, bearing upon the bass-strings of the piano, for the purpose of lifting them when it becomes necessary to prolong the tones produced by the vibrations of any of these strings. It is secured to the lifter-rod *c'*, which is connected by the ordinary trap-work to one of the pedals by which it is operated. D is a lifter, placed beneath the dampers for the treble-strings, for the purpose of lifting them when necessary. It is secured to the lifter-rod *d'*, which is also connected by trap-work to its pedal. E is a lifter-rod, connected by trap-work to a third pedal. It bears against the arm *a'* of the damper-frame, for the purpose of raising all of the dampers at one time

when required, and operating them in the manner commonly adopted.

By my invention, when it is desirable to prolong the tones of either the treble or bass note sections independently of each other, it can be effected by striking the keys for the notes required while the section of dampers affecting those notes is raised clear from the strings, and the sound of these tones may be retained during the pleasure of the performer, leaving both of his hands free during the retention of these tones to strike the notes of the other part of the piano from which the dampers are not raised, thereby adapting the instrument to the purpose for executing staccato effects, that cannot be produced on a piano where all the dampers are raised and all the notes prolonged.

It will be seen that this arrangement requires the use of three pedals for operating the dampers—one for the treble-dampers, another for the bass-dampers, and the third for raising all of the dampers by means of the damper-frame A; but, when desirable to do so, the third pedal may be dispensed with by placing the pedals for raising the treble and bass sections of dampers close enough together to permit of their being worked by one foot of the performer, thereby causing both sections to be raised at once.

The sections of dampers herein described may each consist of a sufficient number to bear upon one or more octaves of the treble and bass strings, each section being so arranged as to be operated independently of the other.

I am aware that the old forms of dampers of pianos have heretofore been raised in sections by devices connected with their under levers; but

What I claim as my invention is—

The improvement in piano-fortes herein shown and described, and consisting of the over dampers B, arranged in sections and operated by the lifters C D, in the manner and for the purpose herein specified.

WILLIAM McCAMMON.

Witnesses:

WILLIAM H. LOW,
A. F. LOW.