

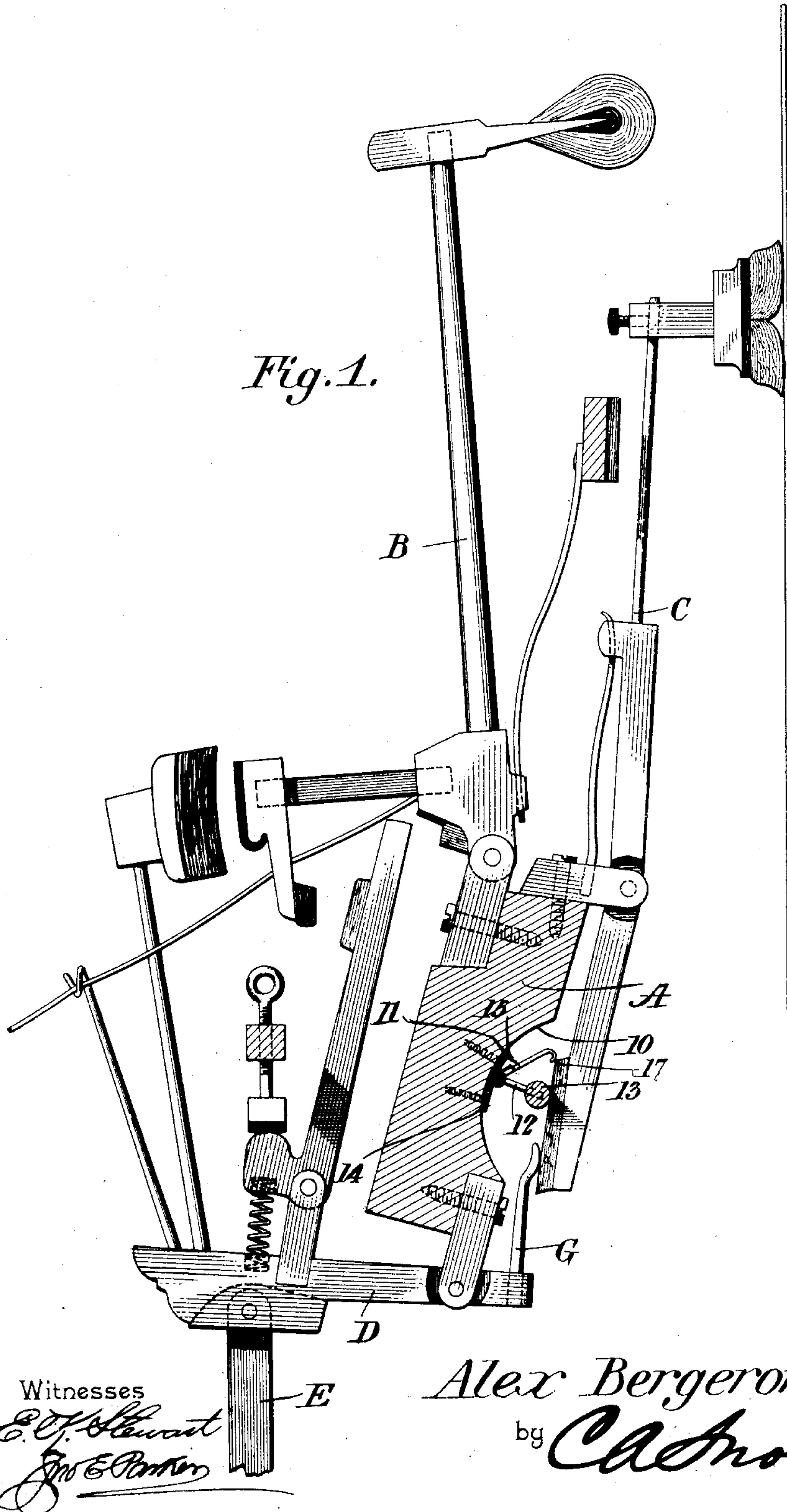
No. 791,399.

PATENTED MAY 30, 1905.

A. BERGERON.
PIANO ACTION.

APPLICATION FILED DEC. 7, 1904.

2 SHEETS—SHEET 1.



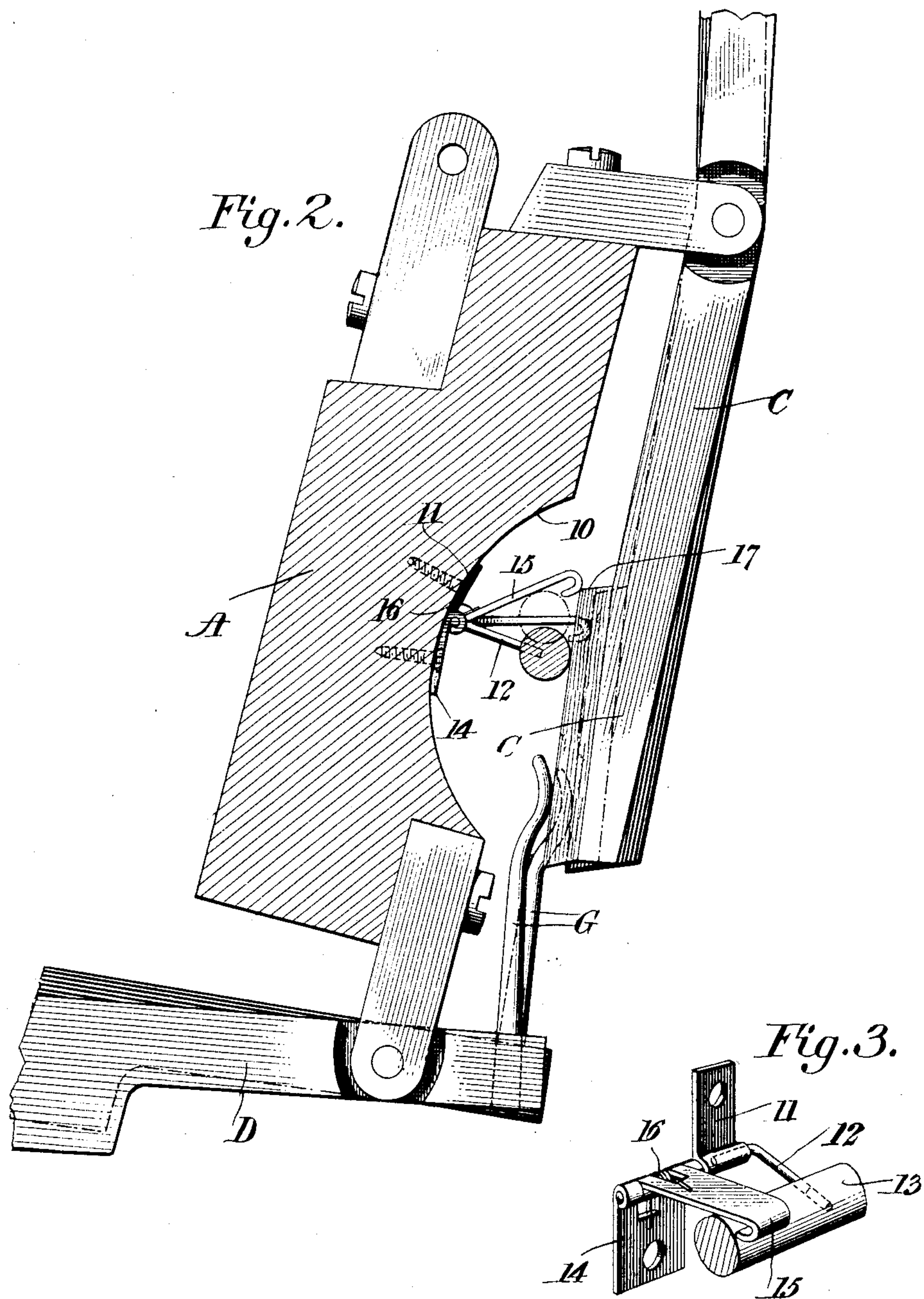
No. 791,399.

PATENTED MAY 30, 1905.

A. BERGERON.
PIANO ACTION.

APPLICATION FILED DEC. 7, 1904.

2 SHEETS—SHEET 2.



Witnesses

E. F. Stewart
Jno E Parker

Alex Bergeron, Inventor.
by *Chas. H. Knowlton*
Attorneys

UNITED STATES PATENT OFFICE.

ALEXANDER BERGERON, OF GRAND JUNCTION, COLORADO.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 791,399, dated May 30, 1905.

Application filed December 7, 1904. Serial No. 235,841.

To all whom it may concern:

Be it known that I, ALEXANDER BERGERON, a citizen of the United States, residing at Grand Junction, in the county of Mesa and State of Colorado, have invented a new and useful Piano-Action, of which the following is a specification.

This invention relates to improvements in pianos, and has for its principal object to provide an improved action in which single notes or chords may be sustained at any point in the scale without danger of sympathetic vibration of adjacent strings and the consequent rumbling sound which occurs when the usual forte-pedal bar is depressed.

A further object of the invention is to provide an action of the most simple construction and to so arrange the note-sustaining means that it may be applied at small cost to existing pianos.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a transverse sectional elevation of sufficient of a piano-action to illustrate the invention. Fig. 2 is a similar view of a portion of the same drawn to an enlarged scale. Fig. 3 is a detail perspective view of one of the sustaining-arms detached.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The action-rail A is of the ordinary construction and carries a hammer B and damper-lever C, the hammer and damper being actuated from a jack-rocker D and extension E in the usual manner. In the rear face of the action-bar is a longitudinal groove 10, and within the groove are arranged pivot-plates

11 for the reception of arms 12, that carry the pedal-operated release-bar 13, the latter being moved from the dotted-line position to the full-line position of Fig. 2 when the pedal is depressed, without, however, moving the damper from the strings. Immediately to the rear of the damper-lever the action-rail carries a series of small pivot-plates 14, to each of which is pivoted a sustaining-arm 15, preferably in the form of a hook-shaped plate, one end of which is turned to form a hinge-joint, and at the hinge-joint both plates 14 and 15 are recessed for the reception of a coiled spring 16, that fits over the pivot-pin and at its opposite ends bears, respectively, on the plates 14 and 15. The spring tends normally to depress the sustaining-arm; but said sustaining-arm will normally be held in elevated position with its free end resting lightly against the upper edge of the cushion 17 of the damper-lever C.

When it is desired to sustain any particular note either in the bass or the treble scale, the pedal-operated release-rod is depressed, and by preference there are two of such rods, one in the bass scale and the other in the treble scale, and these are connected to a split pedal, so that either or both may be depressed, as required. When the pedal-operated release-rod is depressed, it moves from the dotted-line position (shown in Fig. 2) to the full-line position (shown in Figs. 1 and 2) without, however, moving the dampers from the strings. When any key is struck, the damper of that key is opened, the damper-lever being operated in the usual manner by the arm G. As soon as the lower end of the damper-lever is moved outward the sustaining-arm of that lever will fall to the lowest position immediately to the front of the damper-lever and will prevent the closing of the damper, so that the string or strings will continue to vibrate so long as the pedal-rod is held in its depressed position. When released, the pedal-operated release-bar moves upward and carries with it all of the arms which have moved to the lowest position, and thus closes all of the dampers. By this means it is possible to sustain any particular note without the discord and

rumbling sound which always results from sympathetic vibration when one or more keys are struck while the pedal-rod is depressed.

It is obvious that the invention may be applied at very small cost to existing piano-actions without change in the construction of any of the parts of said action.

Having thus described the invention, what is claimed is—

- 10 1. A piano-action having a separate and independently-movable sustaining-arm for each damper, and normally supported by the damper-lever in inoperative position, said arm being movable to bear against the damper-lever when the latter is in inoperative position, and to sustain it there, and means for engaging those arms which may have been moved to sustaining position, and restoring the same to the initial inoperative position.
- 20 2. A piano-action having a plurality of independently-movable spring-pressed arms arranged one in alinement with each of the damper-levers, each arm normally resting in inoperative position against its damper-lever,

and constrained to bear against the damper-lever when the latter is in inoperative position, and to sustain it there, and a release-bar serving to engage those arms which have been moved to operative position and restore the same to the initial inoperative position.

3. In a piano-action, the combination with an action-rail and damper-levers, of a plurality of plates secured to the rear face of the rail, arms pivoted to said plates and having end portions engaging the cushions of the damper-levers, springs tending normally to move the arms into engagement with the levers, and a pedal-operated release-bar normally holding all of the arms in inoperative position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALEX. BERGERON.

Witnesses:

B. P. BLAIR,

J. ERNEST LEAVERTON.