

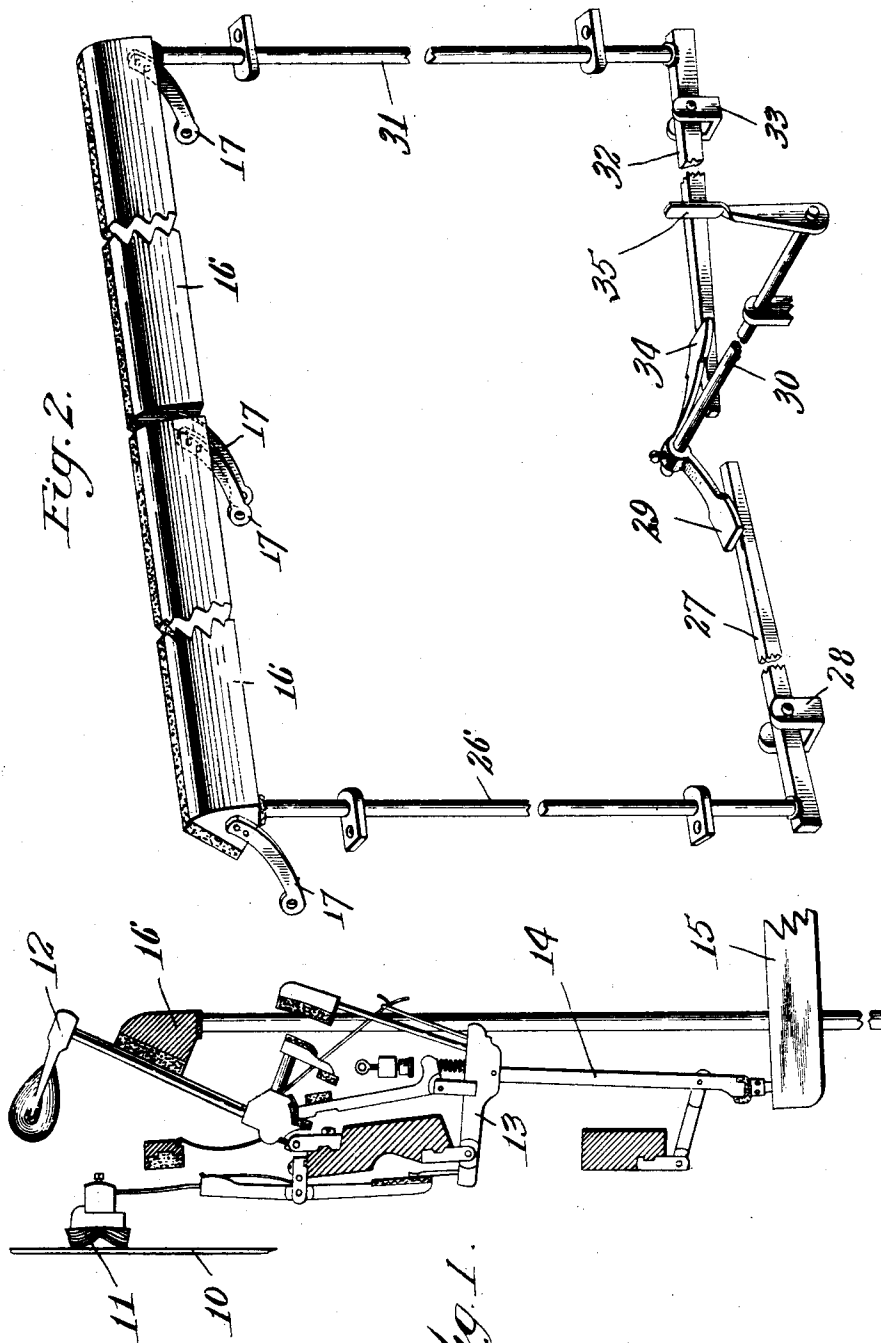
No. 865,994.

PATENTED SEPT. 17, 1907.

T. P. BROWN.

MODULATING CONNECTION FOR PIANOS.

APPLICATION FILED SEPT. 23, 1904.



Witnesses:

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UNITED STATES PATENT OFFICE.

THEODORE P. BROWN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO SIMPLEX PIANO PLAYER COMPANY, OF WORCESTER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

MODULATING CONNECTION FOR PIANOS.

No. 865,994.

Specification of Letters Patent.

Patented Sept. 17, 1907.

Application filed September 23, 1904. Serial No. 225,589.

To all whom it may concern:

Be it known that I, THEODORE P. BROWN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have
5 invented a new and useful Modulating Connection for Pianos, of which the following is a specification.

This invention relates to automatic piano players.

The especial object of this invention is to provide simple and efficient means for controlling the striking
10 mechanism of a piano so as to produce accented or modulated effects from a piano player.

To this end this invention consists of the parts and combinations of parts as hereinafter described and more particularly pointed out in the claims at the end
15 of this specification.

In the accompanying two sheets of drawings, Figure 1 is a sectional view of sufficient parts of a piano action to illustrate the application of this invention thereto, and Fig. 2 is a perspective view illustrating the con-
20 nections for operating parts of the hammer-rail from a hand-lever.

In the use of piano players of the class to which this invention relates in order to produce accented or modulated effects it has been proposed to operate the striking
25 devices of the player itself with different degrees of air tension. For example, in one form of construction it has been proposed to throttle or restrict the air tensions which will sound the bass notes when it is desired to produce accented or modulated effects from
30 the treble notes, and to throttle the air supply for sounding the treble or high notes when it is desired to produce modulated or accented effects in the bass.

In an apparatus constructed according to this invention instead of throttling or controlling the air tensions to produce accented or modulated effects, I employ
35 manually controlled connections for producing accented or modulated effects from an automatic piano player by a regulation of the piano action.

In the use of an apparatus constructed according to this invention all the devices of the piano player operate under uniform air tensions; while modulated or accented effects are secured by a direct control of the piano action, whereby differentiated effects may be produced between notes sounded on different parts of
40 the action. For example, in order to accent the treble or high notes of a musical composition, means are provided for softening the bass or lower notes, which means are controlled by manually controlled connections to be operated by the person using the piano
50 player.

Referring to the accompanying drawings and in detail Fig. 1 shows parts of an ordinary piano action comprising sounding devices for each note, consisting of the wire or string 10, the damper 11 which normally

prevents the string from sounding and the hammer or
55 striker 12. The damper 11 is released and the hammer is operated by connections from a wippen 13 which may be lifted by an abstract 14 from the key-lever 15. These parts may be of any of the ordinary or usual constructions and need not be herein described at
60 length. The connections from the piano player may be made to strike the key-levers 15, or operate upon other parts of the piano action. When in their ordinary position, the hammers 12 are supported by a hammer-rail 16. The hammer-rail 16 instead of being made
65 in the form of a single piece or bar as in ordinary pianos, is made in two or more independent pieces which are pivotally supported by arms or links 17. In this construction one part of the hammer-rail 16 may be lifted by a rod 26 which extends down into position to be engaged by a lever 27 which lever 27 may be mounted in
70 a bracket 28 immediately below the key-board and inside of the piano casing. Engaging the lever 27 is an arm 29 extending from a rock-shaft 30. The other piece of the divided hammer-rail 16 may be lifted by a
75 rod 31 which extends down into position to be engaged by a lever 32 pivoted on a bracket 33 at the other side of the piano casing, and also below the key-levers. The lever 32 is engaged near its other end by an arm 34 also
80 extending from the rock-shaft 30. At its front end the rock-shaft 30 is provided with a hand-lever 35 which is located at the front of the piano keys, and in position to be manipulated by a person who is using an inclosed automatic piano player.

By means of the last described construction the same
85 lever may be employed for softening either the bass or treble notes, as desired. For example, when the lever is operated in one direction the bass notes are softened or modulated; while when the lever is turned in the opposite direction the treble notes will be softened or
90 modulated.

So far as I am advised, pianos have heretofore never been constructed with a lever finger-button or other manually operated part for controlling the pianissimo
95 devices of the piano action. In fact the pianissimo devices used in connection with piano actions have all heretofore been controlled from the foot-pedals. By my construction, however, I am enabled to secure a manually controlled pianissimo device for the piano action which especially adapts the same for use in
100 connection with the piano playing instrumentalities, more especially of the class of piano-players which are housed within the piano casing.

I am aware that changes may be made in practicing my invention by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. That is to say, the particular
105 object of my invention is to provide means for control-

ing a piano action so that the uniform striking effects of a piano player may be made to produce accented or modulated effects.

I do not wish, therefore, to be limited to the particular construction I have herein shown and described, but

What I do claim and desire to secure by Letters Patent of the United States is:—

1. The combination of a piano comprising a two-part hammer rest-rail, connections for lifting the parts of the hammer rest rail comprising two lifting rods, inwardly extending levers for said lifting rods, a rock shaft having arms engaging the levers, and an operating lever extending up from the rock-shaft at the front of the key-board,

whereby part of the striking devices of the piano action will be modulated when the lever is moved in one direction, and another part of the striking devices will be modulated when the lever is moved in the opposite direction. 15

2. In a piano, the combination of a two-part hammer rest-rail, each part being independently pivoted, two rods for swinging said parts independently, and a device for operating either of the rods without operating the other. 20

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

THEODORE P. BROWN.

Witnesses:

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