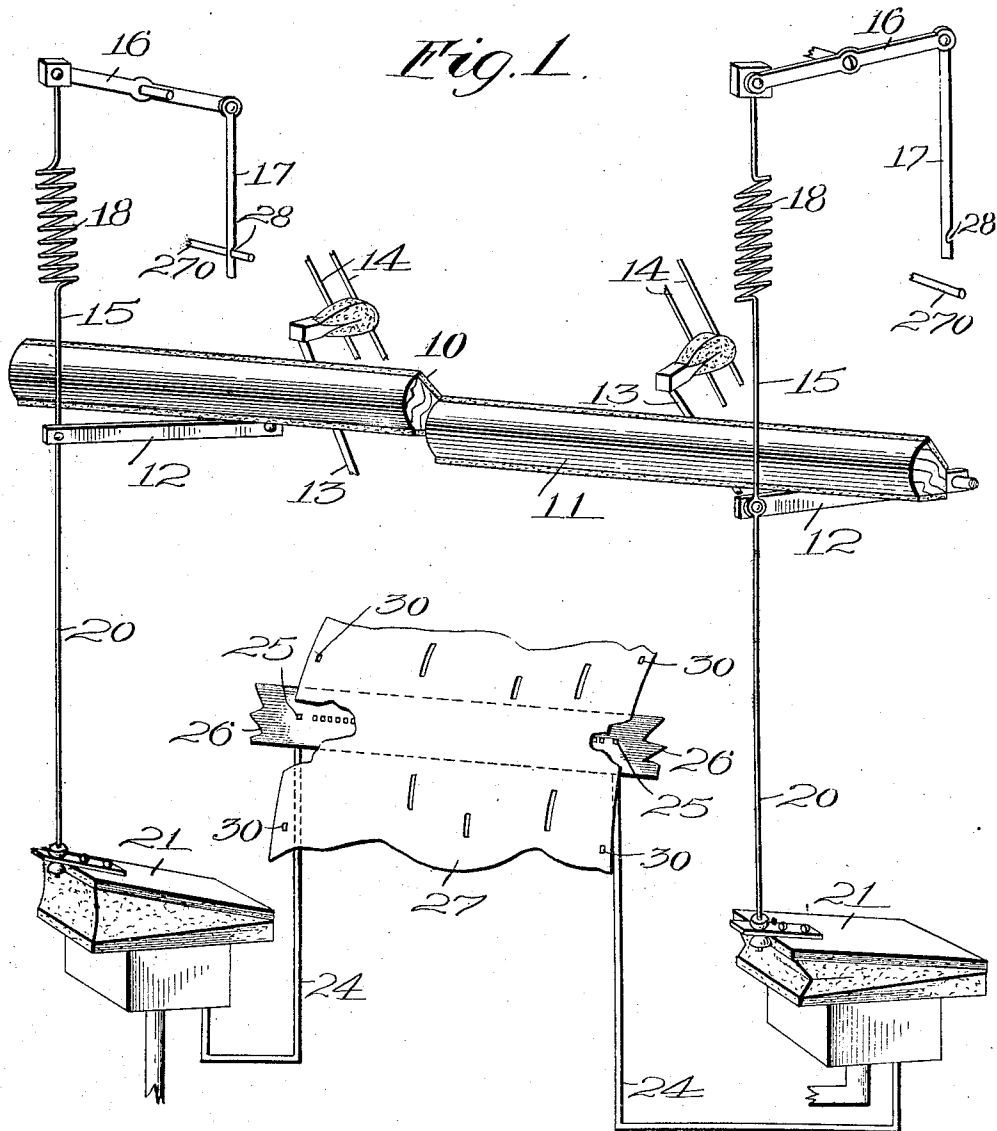


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NOTE ACCENTING DEVICE FOR MUSICAL INSTRUMENTS.
APPLICATION FILED APR. 24, 1909.

941,491.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 1.



Witnesses:

C. F. Messon
E. M. Allen

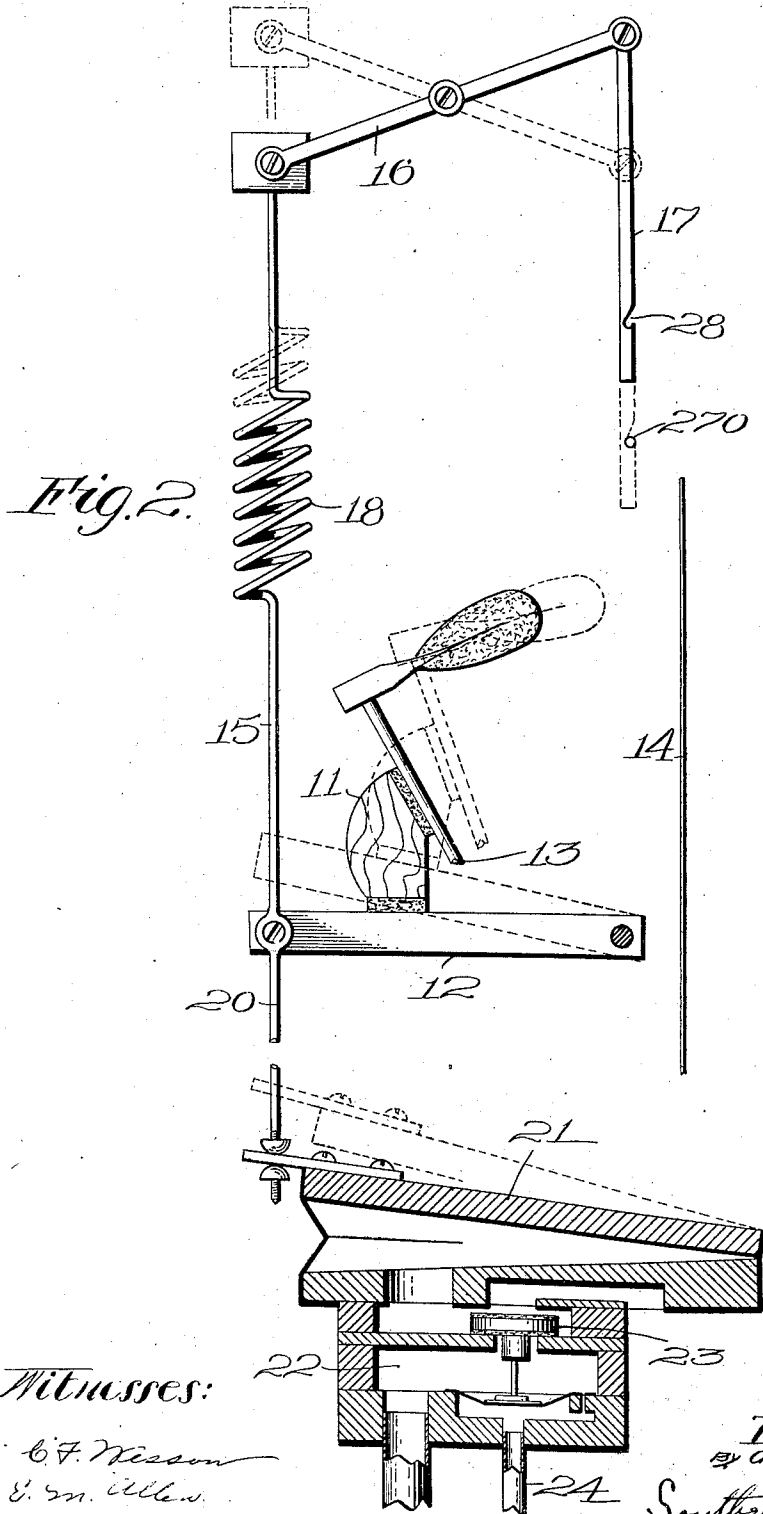
Inventor:
T. P. Brown
by Attorneys

Southgate & Southgate

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UNITED STATES PATENT OFFICE.

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

NOTE-ACCENTING DEVICE FOR MUSICAL INSTRUMENTS.

941,491.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed April 24, 1909. Serial No. 491,958.

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 invented a new and useful Note-Accenting Device for Musical Instruments, of which the following is a specification.

This invention relates to a device for accenting notes of a pneumatic musical instrument.

The principal objects of the invention are to provide means depending upon the control of the length of the hammer stroke to determine the force of the blow in connection with the selection of the time by means of perforations in the music sheet.

To this end the invention comprises a construction in which the hammer rail either as a whole or in sections is movably mounted so as to control the length of the strokes of the hammers, and in which when a special music sheet adapted for this instrument is to be used, the rest rail is moved up, preferably by manual means, and held in position to shorten the strokes of the hammer.

Pneumatic means controlled from extra channels in the tracker are used for restoring the rest rail to normal position when the extra perforations come over the extra channels so as to accent single notes.

While other constructions may be employed, it is preferred to have the hammer rail divided in two parts, one for the treble and the other for the bass, and to have two extra tracker channels, one to control each section of the rail.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a perspective view of certain portions of a pneumatic musical instrument showing how this invention can be applied thereto; and Fig. 2 is a side elevation partly in section of one end of the same on enlarged scale.

The hammer rest rail in the present instance is shown as being divided into two sections 10 and 11, one for the bass and the other for the treble. Each of these sections is mounted on pivoted arms 12 and they are intended to be normally in the position shown in Fig. 2 in dotted lines so as to allow

the hammers 13 to give a stroke of full length on the strings 14.

In order to raise one of the sections or the whole hammer rest-rail if the latter is not divided, a link 15 is connected with one of the arms 12 and is in turn connected with the lever 16 which is operated by a rod 17. In the link 15 is a spring 18. Extending below the arms 12 is a rod 20 connected with the movable leaf of a pneumatic 21. This pneumatic is shown as provided with a suction chamber 22 and valve 23 controlled from a conduit 24 which communicates with an extra channel 25 in a tracker 26.

The operation of the device is as follows:—When a music roll 27 adapted for use on this instrument is put in the instrument the rod 17 is pulled down in any desired way and held in its lowermost position. Any desired mechanism can be used for this purpose, and for the sake of simplicity a stationary pin 270 is shown entering a notch 28 in the rod. This holds the arms 12 up in dotted position in Fig. 2 so as to shorten the stroke of all the hammers controlled by that section of the rest rail, but when an extra perforation 30 in the music sheet registers with the channel 25, air will be admitted to operate the valve 23 and allow the pneumatic 21 to communicate with the suction chamber. This will draw the rod 20 down and bring the hammer rest rail section back to normal position as indicated, in full lines in Fig. 2, thus accenting all the notes which are played while that perforation is in communication with the channel 25. In this way the hammer rest rail momentarily resumes its normal position so as to permit a hard blow to be struck, the rod 17 all the time retaining its position as shown in dotted lines. This motion is permitted by the yielding of the spring 18 which is distended by the pneumatic 21 at this time. When the perforation in the music-sheet passes beyond the channel 25 the spring 18 elevates the arms 12 to the dotted line position.

Although this device is shown as applied to a hammer rest rail divided so that the bass and treble are operated separately, it will be understood that it can be applied to a continuous rest rail or one divided up in any other way.

While I have illustrated and described a

preferred embodiment of the invention, I am aware that many modifications may be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details of construction shown and described, but

What I do claim is:—

10 1. In a musical instrument, the combination with the hammers, a movable hammer rest rail, of yielding means positively connected with the rest rail for holding said rest rail in position to shorten the stroke of the hammers, and pneumatic means controlled from the tracker for moving the rest rail back to increase the length of the stroke.

2. In a musical instrument, the combination with the hammers, strings, and a movable hammer rest rail, of manually operated means for moving said rest rail toward the strings to shorten the stroke and holding it in that position, said means having a yielding connection, and a pneumatic for positively moving the rest rail back to lengthen the stroke.

3. In a musical instrument, the combination of a movable hammer rest rail, a link connected therewith and having a spring therein, a lever connected with said link be-

yond the spring, and means connected with the lever for holding the link and rest rail in elevated position.

4. In a musical instrument, the combination of a movable hammer rest rail, a link connected therewith and having a spring therein, a lever connected with said link beyond the spring, means connected with the lever for holding the link and rest rail in elevated position, and a pneumatic connected with the rest rail and adapted to pull it down in opposition to the spring when the pneumatic is collapsed.

5. In a musical instrument, the combination of a movable hammer rest rail, means positively connected with the rest-rail for yieldingly holding it up in position to shorten the stroke, and a pneumatic positively connected with the rest-rail and adapted to depress it when the pneumatic is collapsed.

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

THEODORE P. BROWN.

Witnesses:

A. E. FAY,
C. F. WESSON.