July 14, 1936. C. D. SAPPENFIELD 2,047,332

EXTENSION PEDAL FOR PIANO PEDALS

Filed March 21, 1935

Fig. 1.

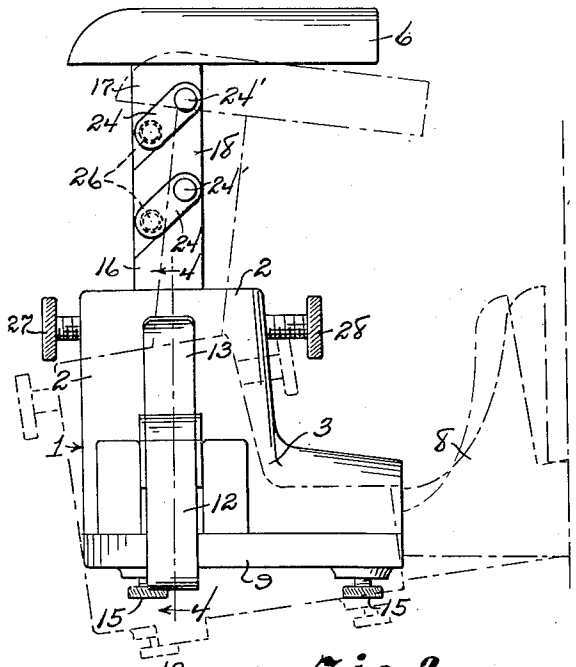


Fig. 2.

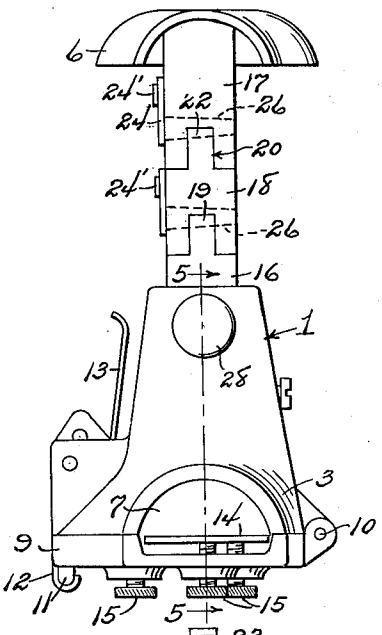


Fig. 3.

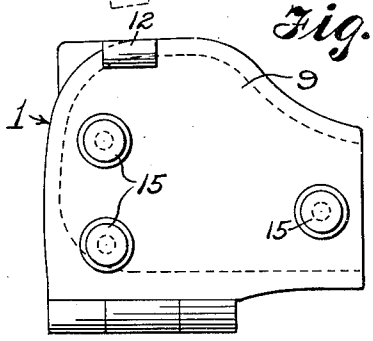


Fig. 4.

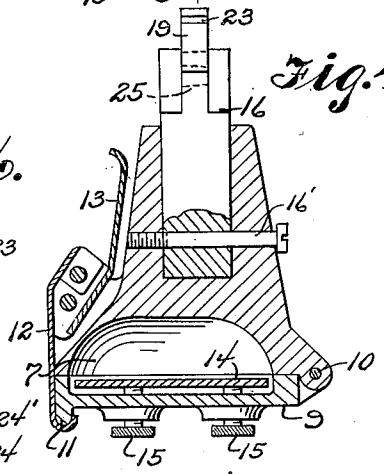


Fig. 6.

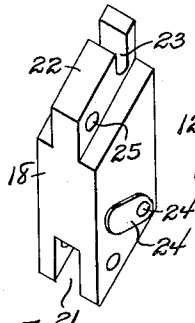
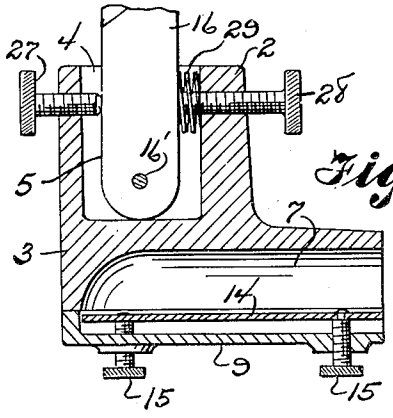


Fig. 5.



Inventor

Charles D. Sappenfield

By Burnett & Jance

Attorneys

Patented July 14, 1936 2,047,332

UNITED STATES PATENT OFFICE

2,047,332

EXTENSION PEDAL FOR PIANO PEDALS

Charles D. Sappenfield, Oakland, Calif.

Application March 21, 1935, Serial No. 12,295

7 Claims. (Cl. 84—231)

This invention relates to an extension pedal for the pedals of pianos and other similar musical instruments.

One object of the invention is to provide an extension pedal which may be applied to a piano pedal in order to enable children and others of less than average height to conveniently operate the pedal.

Another object of the invention is to provide an extension pedal which may be applied to a piano pedal of any standard type without in any manner mutilating or changing the construction of the latter.

Another object of the invention is to provide an extension pedal which may be adjusted as to length or height and as to its position, whether vertical or at an angle to the vertical, in order to position the extension pedal for proper engagement by the foot of the child or other performer.

Still another object of the invention is to provide an extension pedal which is simple of construction, capable of being quickly adjusted in the respects stated for studio use to suit different persons, capable of tilting as the pedal is depressed to adjust itself to a proper angle to accommodate itself to the movement of the foot of the operator, and adapted to be manufactured and sold at a reasonable cost.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being made to the accompanying drawing, in which:

Figure 1 is a side elevation of an extension pedal embodying my invention, showing the same applied to a piano pedal, the latter appearing in dotted lines.

Figure 2 is a view in rear elevation of the extension pedal.

Figure 3 is a bottom plan view of the same.

Figure 4 is a transverse section on line 4—4 of Figure 1.

Figure 5 is a front to rear section on line 5—5 of Figure 2.

Figure 6 is a view of one of the interchangeable standard sections.

In carrying my invention into practice, I provide an extension pedal comprising an L-shaped fitting, attaching member or holder 1 having a vertical portion 2 and a horizontal portion 3. The vertical portion 2 is provided with a socket 4 to receive a standard 5, of the construction hereinafter described, which standard carries at its upper end a toe piece or extension pedal member 6.

The horizontal portion 3 of the fitting or holder 1 is formed with a forwardly extending socket 7 of suitable shape to receive any standard or conventional form of piano pedal 8, one such form being shown in dotted lines in Figure 1. This socket 7 is open at its forward end and base and is adapted to be closed at its base by a bottom or closure plate 9. The said bottom or closure plate 9 is hinged at one side to one side of the part 3, as indicated at 10, so as to be swung to an open position to permit the holder 1 to be applied to the pedal 8 and swung to closed position to clamp the holder 1 to the pedal 8. At its side opposite the hinge 10, the bottom plate 9 is formed with a keeper lug or projection 11 adapted to be engaged by the hooked end of a pivoted latch plate 12 carried by the part 3 and adapted to be swung into and out of latching position by means of an operating lever 13. The upper side of the bottom plate 9 is preferably hollowed out or recessed to receive a clamping plate 14 of sufficient surface area to engage and clamp any size or shape of pedal 8 against the top wall of the socket 7, so that the holder 1 may be applied to any of the standard forms of pedals 8 in use. Adjusting screws 15, of any suitable number and arrangement, are provided on the plate 9 to engage the plate 14 whereby the latter may be adjusted to suit any thickness of pedal 8 to be clamped.

The standard 5 may be of a fixed length or height, or extensible, namely, longitudinally adjustable or adjustable as to height. In the present instance, I have shown a standard which is extensible and, as shown, formed of bottom and top sections 16 and 17 and an intermediate section 18, which intermediate section is employed to lengthen the standard, and in practice any number of these extension sections, of the same or different lengths, may be employed to lengthen the standard 5 to any extent desired. In order to make such a sectional standard firm and rigid, a novel construction and interfitting connection between the parts 16, 17 and 18 is provided. As shown, the section 16 is formed with an upstanding tongue 19, while the section 17 is formed in its bottom with a slot 20, disposed at a diagonal angle, while the section 18 is formed with a slot 21 and a tongue 22 to respectively receive the tongue 19 of the section 16 and engage the slot 20 of the section 17. The tongue 19 of the standard section 16 and tongue 22 of the standard section 18 are formed with transverse slots

or recesses 23 to receive and engage fixed retaining and hinge pins 24' on the sections 17 and 18, each of which hinge pins carries at one end a pivoted latch member 24. Each tongue 19 and 22 is also provided with an opening 25, preferably of tapered form, to register with correspondingly shaped openings in the side walls of the slots 20 and 21 so as to receive tapered latch pins 26 adapted to be inserted thereinto to hold the standard sections detachably connected. These latch pins, after being fitted in position, are held from displacement by shifting the latches 24 into position to prevent their withdrawal. The abutment surfaces of the sections are preferably disposed at a diagonal angle, as shown, so as to relieve the pins from undue pressure in the action of the pedal and thereby effect a firmer and more rigid connection between the standard sections. By the use of interchangeable standards of different lengths or of sectional standards with extension pieces 18 of the character described, the length or height of the standard may be varied to easily and quickly adapt the extension pedal for use to suit varying degrees of reach of different children or persons under normal height operating the pedal 8 at different times.

The socket 4 in the portion 2 of the socket or holder 1 receives the lower end of the standard and is preferably of the same width or distance from side to side as the standard, but of greater depth or distance than the standard in a forward and rearward direction. The standard rests on a pin 16' so as to be tiltable forwardly and rearwardly in the socket 4. To control the extent of this tilting movement adjustment and to clamp the standard in adjusted position, an adjustable slot member or screw 28 is provided at the front of the socket and an adjustable stop member or screw 27 is provided at the rear of the socket. Arranged concentrically about and for cooperation with the screw 28 is a coiled cushioning spring 29. The function of the screw 28 is to limit the tilting movement of the standard in a forward direction and the function of the screw 27 is to limit the tilting movement of the standard in a rearward direction.

The spring 29 is centered about the inwardly projecting end of the screw 28 and is thereby retained in position against displacement. Its function is to hold the standard 5 in a normal position and pressed backward against the screw 27, while permitting the standard to tilt so that the toe piece 6 may have movement in an arc in a downward and forward and inward and rearward direction. In the use of the device, the foot of the operator is supported with the heel of the foot resting on a stool or other support (not shown) arranged adjacent to and in rear of and with its upper surface on a level with the upper surface of the toe piece 6, and with the toe or forward portion of the foot of the operator resting on the toe piece 6. When the toe piece 6 is depressed by movement of the foot of the operator to depress the pedal 8 in a playing action, the extension pedal as a whole moves downward with the pedal 8, but the toe piece 6 and standard 5 are permitted to tilt downwardly and forwardly, as indicated in dotted lines in Figure 1, to permit the foot of the operator to tilt on the stool as an axis and the toe piece to tilt as shown to compensate for the variations in angularity of movement between the operator's foot and the extension pedal in its movement with the pedal 8. This degree of tilting movement, as will be readily understood, may be varied by adjustment of one or both screws 27 and 28 and to the extent permitted by the spring 29, to suit all circumstances under which the extension pedal is used, whereby an easy and non-fatiguing foot action on the part of the operator is provided for.

It will be understood that, in practice, the extension pedals may be made in rights and lefts for application to the piano pedals, and that by their use the pedals may be adapted to be operated by children of various ages and sizes and by juveniles and adults of less than normal height and leg reach, thus enabling them to operate the piano pedals not only with greater ease and convenience, but without fatigue and in such manner as to give a more finished and perfect pedal action. The extension pedals may be adapted for use on pianos in the home or in studios where the extension pedal standards may be either permanently fixed as to length or adjusted to suit different purposes for which uses it is equally well adapted. The construction is also such that the various adjustments allowed adapt the extension toe piece 6 to be disposed for operation to suit any reach and peculiarities of motion of different persons operating the piano pedal.

From the foregoing description taken in connection with the drawing, the construction, mode of use and advantages of my invention will be readily understood and appreciated by those versed in the art without a further and extended description. While the construction shown for purposes of exemplification is preferred, it will, of course, be understood that changes in the form, proportions and details of construction of the parts may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim:

1. An extension pedal for piano pedals comprising a fitting to engage the piano pedal, said fitting having a socket, a standard pivotally mounted in said socket for adjustment to different positions at an angle to the vertical, and a pedal member carried by the standard.

2. An extension pedal for piano pedals comprising a fitting to detachably engage the piano pedal, said fitting having a socket, an extensible standard pivotally mounted in said socket for adjustment to different positions at an angle to the vertical, and a pedal member carried by the standard.

3. An extension pedal for piano pedals comprising a fitting to detachably engage the piano pedal, said fitting having a socket, a standard comprising detachably connected sections, said standard being pivotally mounted in the socket so as to be adjustable to stand in a vertical position or at different angles to the vertical, and a pedal member carried by said fitting.

4. An extension pedal for piano pedals comprising a fitting to detachably engage the piano pedal, said fitting having a socket, a standard pivotally mounted in the socket so as to be adjustable to different angles to the vertical and formed of top and bottom members, one having a tongue and the other having a slot, an extension piece fitted between the members and having a tongue and slot to respectively receive the tongue and the slot of said members, locking means to secure said members and extension piece together, locking means for holding the standard in a vertical position or in any position to which it is adjusted at an angle to the vertical, and a pedal member carried by the standard.

5. An extension pedal for piano pedals comprising a fitting having a horizontal socket open at its bottom and one end and adapted to receive the piano pedal, a closure plate on the fitting for closing the bottom of said socket, a latch device for holding the closure plate in closed position, adjustable clamping means carried by the closure plate, a standard carried by the fitting, and a pedal member carried by the standard.

6. An extension pedal for piano pedals comprising a fitting to detachably engage the piano pedal, said fitting having a socket therein, a standard loosely fitted and pivotally mounted at its lower end in said socket for tilting movements at different angles to the vertical, means on said fitting and engaging the standard for adjustably clamping the standard in the socket, and a pedal member carried by the standard.

7. An extension for piano pedals comprising a fitting to detachably engage the piano pedal, said fitting having a socket therein, a standard loosely fitted at its lower end in said socket pivoted on a pin for forward and backward shifting movements and tilting actions, an adjustable clamping member at the front of the socket to engage the standard, an adjustable stop member at the rear of the socket, and a clamping spring disposed in the socket about said clamping member and cooperating with the adjustable stop member for yieldingly clamping the standard in the socket, and a pedal member carried by the standard.

CHARLES D. SAPPENFIELD.