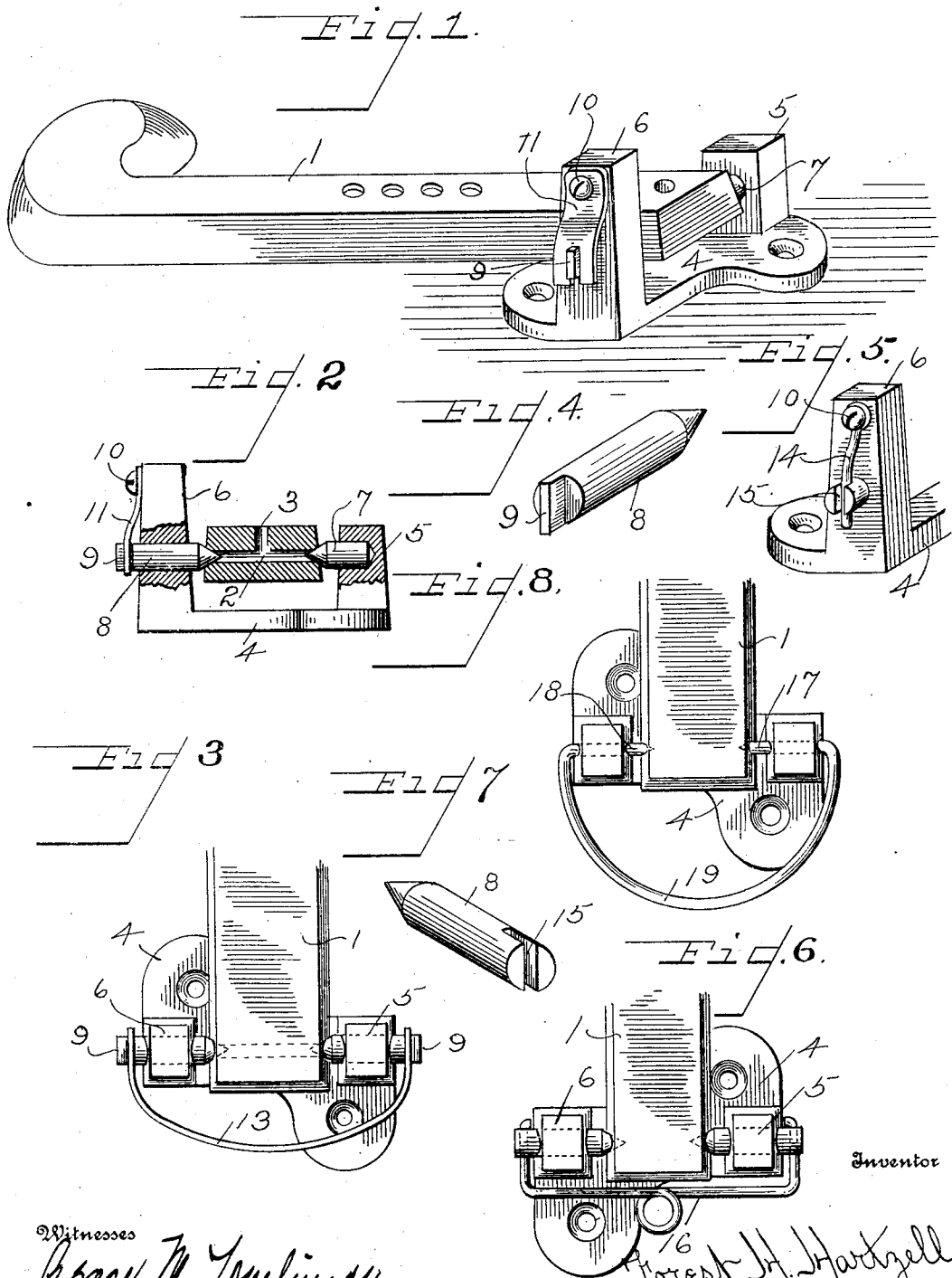


F. H. HARTZELL.
 PEDAL MOUNTING.
 APPLICATION FILED OCT. 9, 1908.

961,442.

Patented June 14, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

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PEDAL-MOUNTING.

961,442.

Specification of Letters Patent. Patented June 14, 1910.

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To all whom it may concern:

Be it known that I, FOREST H. HARTZELL, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Pedal-Mountings, of which the following is a specification.

My invention relates to piano pedals, and particularly to an improved mounting for the pedals of pianos, organs, and similar uses.

The object of the invention is to simplify the structure of pedal mountings whereby they will not only be cheapened in construction, but will be more efficient and durable in use, and unlikely to get out of repair.

Further objects are to provide a constant supply of lubricant for the bearings of the pedal and to provide means for automatically compensating for wear, to prevent the rattling of the parts, facilitate the removal and replacement of the pedal and to render the parts interchangeable without the necessity of close fitting or fine adjustments.

With the above primary and other incidental objects in view, as will more fully appear in the specification, the invention consists of the features of construction, the parts and combinations thereof, or their equivalents, as hereinafter described and set forth in the claims.

Referring to the drawings, Figure 1 is a perspective view of an assembled pedal. Fig. 2 is a detail transverse sectional view of the pedal lever and mounting. Fig. 3 is a plan view of the pedal mounting similar to that of Figs. 1 and 2, but showing both the trunnions spring pressed. Fig. 4 is a detail perspective view of the adjustable trunnion employed in the construction shown in Figs. 1, 2, and 3. Fig. 5 is a detail perspective view illustrating the use of a wire spring in place of the flat spring shown in Fig. 1. Fig. 6 is a plan view of a modified construction in which both trunnions are spring pressed. Fig. 7 is a detail perspective view of the trunnion employed in the construction shown in Figs. 5 and 6. Fig. 8 is a further modified construction.

Like parts are indicated by similar characters of reference throughout the several views.

Referring to the drawings, 1 is the pedal lever which may be of any suitable propor-

tions and shape. Adjacent to one end of the lever there is provided a transverse conduit 2 intersected by a central vertical conduit 3 which conduits are adapted to contain oil or other lubricant; the lubricant being introduced through the vertical conduit 3; the transverse conduit 2 conveying same to the trunnions and forming a supply reservoir therefor.

The pedal lever 1 is journaled in a supporting bracket or mount comprising a base 4 having arms 5 and 6 preferably formed integral therewith and projecting on opposite sides of the lever 1. In the arm 5 is located a stationary trunnion 7, while in the arm 6 is located a longitudinally movable trunnion 8, which trunnions engage the opposite ends of the transverse conduit 2 in the pedal lever 1. The ends of the conduit are slightly countersunk to provide bearings for the trunnions 7 and 8. The outer end of the movable trunnion 8 is provided with a projecting spline 9. Secured to the arm 6 by a screw 10 is a flat spring 11, the end of which is bifurcated, through which bifurcation projects the spline 9 of the trunnion 8. The spring 11 constantly presses on the outer end of the trunnion 8 and tends to force the trunnion inward, compensating for wear of the parts and automatically taking up play and preventing rattling. Also by pressing the trunnion upon the pedal lever 1, the opposite ends of the conduit 2 are effectually closed, which prevents undue loss of lubricant and always keeps the bearings tight.

In Fig. 3 is shown a similar construction in which both the trunnions are longitudinally movable in the arms 5 and 6, and are yieldingly pressed toward each other by the resilient yoke 13. The opposite ends of the yoke 13 are bifurcated and engage the spline 9 of the respectively movable trunnions in the manner before described, and similar to that illustrated in Fig. 1.

In Fig. 5 is shown a construction in which a spring 14 of wire is substituted for the flat spring 11. In using this construction the end of the movable trunnion is preferably bifurcated as at 15, within which slot or bifurcation the spring 14 rests.

In Fig. 6, which is a plan view, there is illustrated a similar construction applied to two movable adjustable trunnions, the outer ends of which are bifurcated as shown in

Fig. 7, within which bifurcations or slots engage the opposite ends of a spring yoke 16 which tends to press the trunnions toward each other.

5 In Fig. 8 is shown a modification in which the trunnions 17 and 18 are formed integral with the resilient yoke 19. The trunnions 17 and 18 project through openings in the arms 5 and 6, within which they are both
10 longitudinally movable, and engage the pedal lever, as hereinbefore described.

From the above description it will be apparent that there is thus produced a mounting for pedals in which the wear will be
15 automatically compensated for by the movement of the spring pressed trunnion and which possesses the other features of advantage before enumerated as desirable, and which obviously is susceptible of modification in its form, proportion, detail construction, and arrangement of parts, without departing from the principle involved, or
20 sacrificing any of its advantages.

Having thus described my invention I
25 claim:

1. A pedal mounting, comprising, in combination, a pedal lever, a bracket comprising a base and upstanding arms on each end of
30 said base trunnions carried in apertures formed in each arm and supporting said pedal lever upon their opposing ends, and a spring member carried by one of said arms and having a loose connection with one of said trunnions to maintain a loose connec-

tion between the pedal lever and said trunnions. 35

2. A pedal mounting, comprising, in combination, a pedal lever, a bracket comprising a base and upstanding arms on each end of said base, trunnions carried in apertures
40 formed in each arm and supporting said pedal lever upon their opposing ends, and a spring member carried by one of said arms and having a slotted connection with one of said trunnions to maintain a resilient
45 connection between the pedal lever and said trunnions.

3. A pedal mounting, comprising, in combination, a pedal lever, a bracket comprising a base and upstanding arms on each end of
50 said base, trunnions carried in apertures formed in each arm and supporting said pedal lever upon their opposing ends, and a spring member carried by one of said arms and having a loose connection with one
55 of said trunnions, said spring having a slot formed in its depending end which embraces a projection formed on said trunnions, whereby said spring exerts a lateral pressure to maintain a resilient connection between
60 said trunnion and said pedal.

In testimony whereof, I have hereunto set my hand this 30th day of September A. D. 1908.

FOREST H. HARTZELL.

Witnesses:

HARRY F. NOLAN,
MABEL B. CARR.