A. F. & C. H. NORRIS.

PEDAL.

APPLICATION FILED JAN. 23, 1905. RENEWED JUNE 4, 1909.

946,260. Patented Jan. 11, 1910.

Fig. 1.

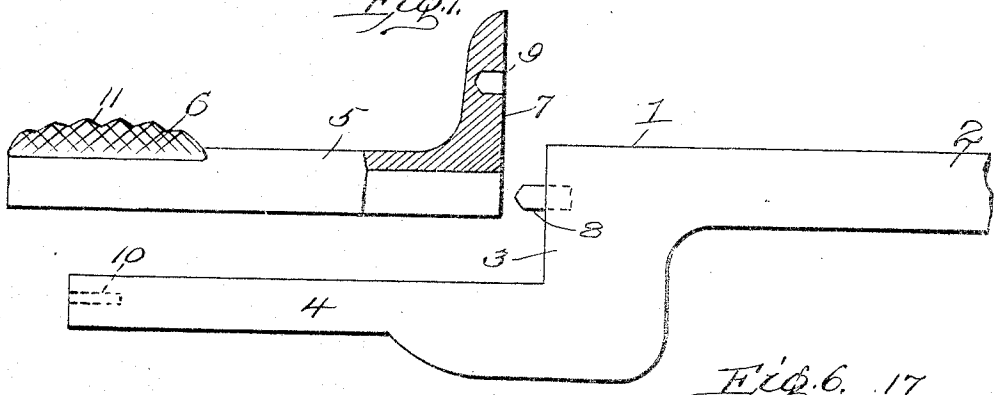


Fig. 6.

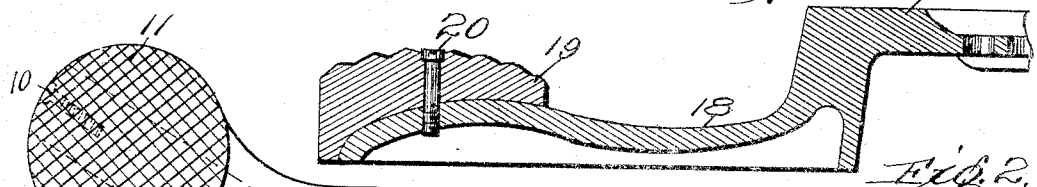


Fig. 2.

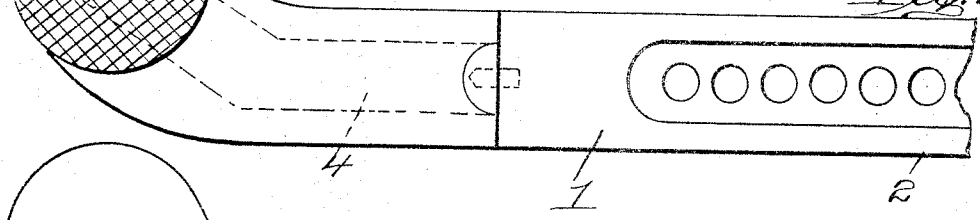


Fig. 3.

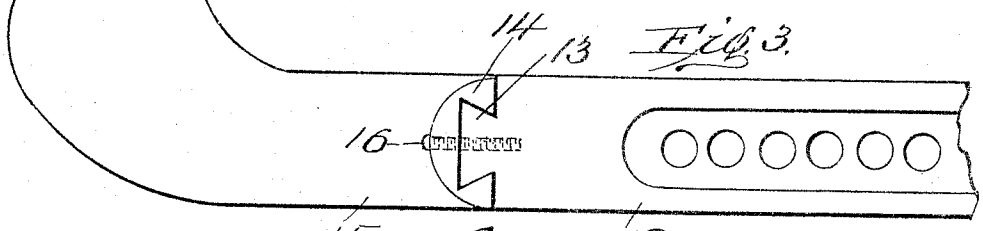


Fig. 4.

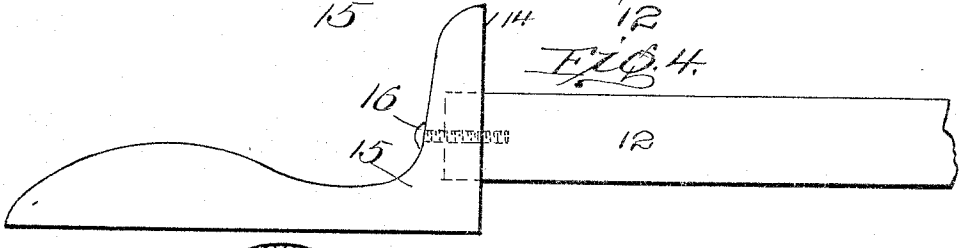
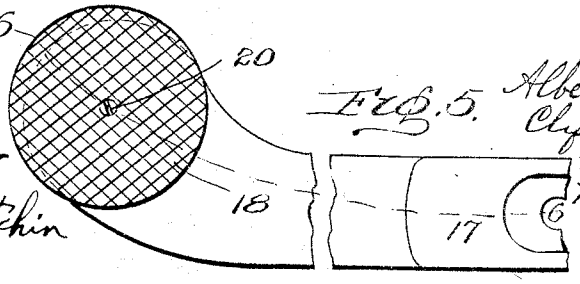


Fig. 5.



Witnesses
J. M. Fowler
Edgar M. Kitchin

Inventor
Albert F. Norris
Clifton H. Norris
By Mason, Fenwick & Lawrence
Attorneys.

UNITED STATES PATENT OFFICE.

ALBERT F. NORRIS AND CLIFTON H. NORRIS, OF BOSTON, MASSACHUSETTS.

PEDAL.

946,260. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed January 23, 1905, Serial No. 242,400. Renewed June 4, 1909. Serial No. 500,126.

To all whom it may concern:

Be it known that we, ALBERT F. NORRIS and CLIFTON H. NORRIS, citizens of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Pedals; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in pedals, and particularly to pedals adapted for use in connection with musical instruments.

One of the objects in view is the provision of means for concealing wear of the parts.

Another object is facilitating the removal of worn parts; and a further object is the facilitating of the altering of the style of a pedal.

With these and further objects in view, the invention comprises certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawing: Figure 1 represents a view in side elevation of a pedal embodying the features of the present invention with the parts detached, parts being broken away. Fig. 2 represents a top plan view thereof. Fig. 3 represents a top plan view of a modified form of the same. Fig. 4 represents a view in side elevation of the parts seen in Fig. 3. Fig. 5 represents a top plan view of a further modification. Fig. 6 represents a longitudinal, vertical-central section taken on the plane of line 6—6 of Fig. 5.

It is well known in the art that pedals used for pianos and other musical instruments become worn, and, as the same are usually plated with nickel, or other suitable material, the tips of the pedals show the wear as soon as the plating has been penetrated. In order to conceal the wear upon the plating and to facilitate the renewal of the parts when worn, and also to secure other advantages, we propose to employ a structure involving the invention several embodiments of which are disclosed in the accompanying drawing.

In Figs. 1 and 2 of the drawing, 1 indicates the lever or body portion of a pedal having an inwardly projecting arm 2 designed to be mounted pivotally, as usual, and to engage any suitable lifter rod for actuating the same. The body portion 1 of the pedal is formed with a shoulder 3 and a forwardly extending arm 4, said arm 4 being preferably relatively narrow, as indicated in dotted lines in Fig. 2, and being formed with such angle as may be desired. The arm 4 is adapted to receive a removable tread consisting of a casing 5 and a tip 6, said casing 5 being formed with an abutting portion 7 adapted to abut against the shoulder 3. A pin 8 projects outwardly from the shoulder 3 in position for entering an aperture 9 in the abutting portion 7 when the parts are assembled. The casing 5 snugly fits over the arm 4, when the parts are brought to their assembled relation, and a screw 10′ is passed through the end of the tip 6 into a threaded aperture 10 in the end of the arm 4 in position for preventing movement of the casing 5 independently of the arm 4. Of course, the screw 10′ may be placed at any convenient position other than the point indicated, and, in fact, the casing 5 may be removably secured in place by any preferred means.

The tip 6 may be made circular, or given any preferred form, and is provided with serrations 11 on its exposed face, said serrations producing points designed to be engaged by the foot of the operator, which points expose but a minimum amount of the plating on the tip, so that wear of the plating is not readily apparent.

It will be observed that the arm 4 might serve the function of a tread for the pedal and that the casing 5 is only a preferred form of tread, said casing being constructed with any desired contour.

For altering the type of a pedal, it is only necessary to remove one casing and substitute another of a different shape from the first. The removal of the casing may readily be effected by simply removing the pin 9 and lifting the casing out of contact with the arm 4. Thus it will be seen that, in operation, a worn pedal may have its tread renewed without necessitating the dismantling of the piano, or other instrument to which the pedal is connected. The form of casing 5 applied, in each instance, will, of course, govern the style or type of pedal, and such type or style may readily be altered by the substitution of one casing 5 for another.

In Figs. 3 and 4 we have illustrated.

another embodiment of the present invention involving a body portion 12 formed with an under-cut bead 13, at its outer end, adapted to be engaged by the shoulder 14 carried by the tread portion 15, said shouldered portion 14 being formed with a dove-tailed or undercut groove corresponding to the bead 13 for receiving the same. A suitable screw or pin 16 may be passed through the shouldered portion 14 and into the body portion 12 for removably securing the tread to the body portion.

When employing the construction illustrated in Figs. 3 and 4, the tread 15 may or may not be provided with a serrated tip, and is adapted to be removed and replaced simply by the removal and application of the screw 16, the tread 15 being removed simply by vertical movement transversely of the body portion 12.

A further embodiment of the invention is disclosed in Figs. 5 and 6, in which the body portion 17 is illustrated as being formed integral with the tread portion 18. A cap 19 is removably connected with the tread 18 and adapted to be removably secured thereto by any preferred arrangement of attaching screw 20. The cap 19 may be of any size and shape for giving the tread the desired appearance, as, for instance, the cap may be made disk-shaped for producing a ball tread when applied to the pedal. The tread 18, for instance, may be elongated, as indicated in dotted lines in Fig. 5, and its contour completely changed and its type altered by the application of the cap 20. It will be observed that the cap 20 involves the principle present in the casing 5, in that the same may be readily applied and removed, and its application may occur without in any wise affecting the operative condition of the pedal. If desired, the cap 19 may be removed and the pedal used with the tread 16 bare. Thus, if the cap 19 becomes worn to a sufficient extent for showing the material beneath the metal plate, the cap may be removed, replated, and replaced without removing the pedal from the piano or interfering with the operation of the piano.

We have found by experience that the casing or cap, such as seen at 5, must be firmly locked in place or it will loosen slightly and produce rattling or other undesirable sounds. To effectually obviate a loose condition of the parts through wear or through a failure to properly tighten the retaining screw, we have arranged a securing screw or pin 10′ at the extreme outer end of the casing 5 and the arm 4. This position of the securing screw or pin is such with respect to the remaining parts of the structure that when the pin 8 is introduced in the recess 9 and the pin or screw 10′ is inserted in the aperture 10, the casing or cap 5 cannot have lateral play until the pin or screw 10′ is removed. Even if the pin or screw 10′ should be left in a somewhat loose condition, the parts would still be held in place against lateral play owing to the point of engagement of the screw with the casing 5. We have found that in actual practice the positioning of a screw through the horizontal portion or top of the casing 5 is impractical as the slightest loosening of the screw will permit undesirable play of the casing. This also appears true of a structure involving the positioning of the screw through the side of the casing 5. The most effectual preventing of lateral displacement of the casement is accomplished only by the use of a securing pin or screw passed through the vertical portion of the casing at the outer end thereof, and this, of course, only in combination with some form of securing means disposed at the inner end of the casing, as, for instance, the pin 8.

It is to be observed that the pin 10′ is passed horizontally into the body portion of the pedal, so that any lifting strain on the casing 5 is exerted transversely of the screw and a loosened condition of the screw will, therefore, not have the effect upon the casing which would result from a loosened condition of the vertical disposed screw.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A pedal, comprising a body portion susceptible of use as a complete pedal, and formed with a shouldered portion intermediate its length, a casing removably mounted upon said body portion and formed with an abutting portion abutting against the shouldered portion of said body portion, and means arranged at the shouldered and abutting portions for connecting them together, the casing being designed when applied to the body portion to give the finished appearance thereto, different from the otherwise general appearance of the body portion.

2. A pedal comprising a body portion formed with a shoulder intermediate its length, a pin projecting from said shoulder, a casing adapted to be applied to the body portion beyond the shoulder, for giving a finished appearance to the body portion, said casing being apertured for receiving said pin, and means for removably connecting the casing with the body portion.

3. A pedal, comprising a body portion formed with a shouldered portion intermediate its length, a casing adapted to be removably connected with said body portion and formed with an abutting portion designed to contact with the shouldered portion of the body portion, and means projecting from one of the contacting elements into the other for connecting them together.

4. A pedal, comprising a body portion formed with a shoulder portion intermediate

its length, a casing formed with an abutting portion designed to abut against the shouldered portion of the body portion, said casing being of a length sufficient to extend to the outer end of the body portion, and means connecting the casing to the outer end of the body portion.

5. A pedal, comprising a body portion formed with a shoulder intermediate its length, a removable casing formed with an abutting portion adapted to abut against the shoulder of the body portion, means for connecting said shoulder and abutting portion together, and means for connecting the outer end of the casing to the outer end of the body portion.

6. A pedal, comprising a body portion formed with a shoulder intermediate its length, a casing adapted to be removably applied to the body portion and formed with an abutting portion designed to abut against the shoulder of the body portion, means for removably locking said shoulder and abutting portion together, and a screw or pin passed through the outer end of the casing into the outer end of the body portion.

7. A pedal, comprising a body portion formed with connecting means intermediate its length, a casing for said pedal formed with detachable connecting means at one end adapted to engage the connecting means of the body portion, and a second means for detachably connecting the casing to the body portion.

In testimony whereof we affix our signatures in presence of two witnesses.

ALBERT F. NORRIS.
CLIFTON H. NORRIS.

Witnesses:
ISIDORE ROSENKRANZ,
HERBERT B. BAILEY.