A. F. & C. H. NORRIS.

PEDAL.

APPLICATION FILED NOV. 20, 1908.

969,650.

Patented Sept. 6, 1910.

4 SHEETS—SHEET 1.

Fig. 1.

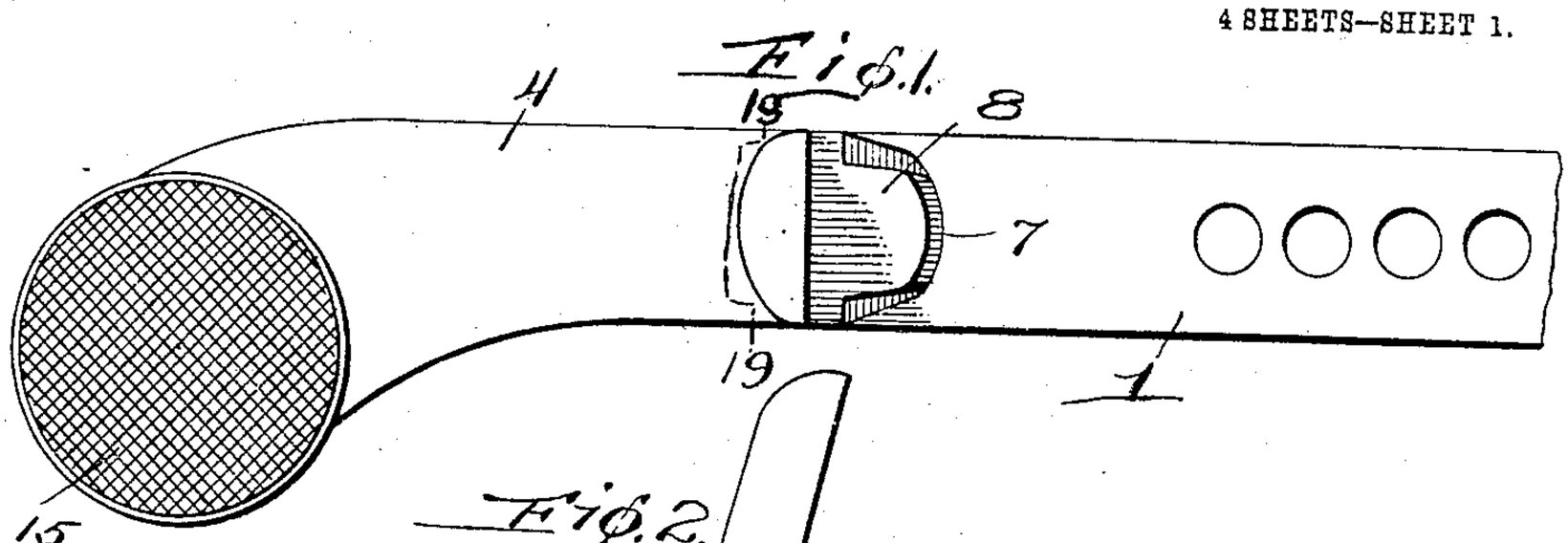
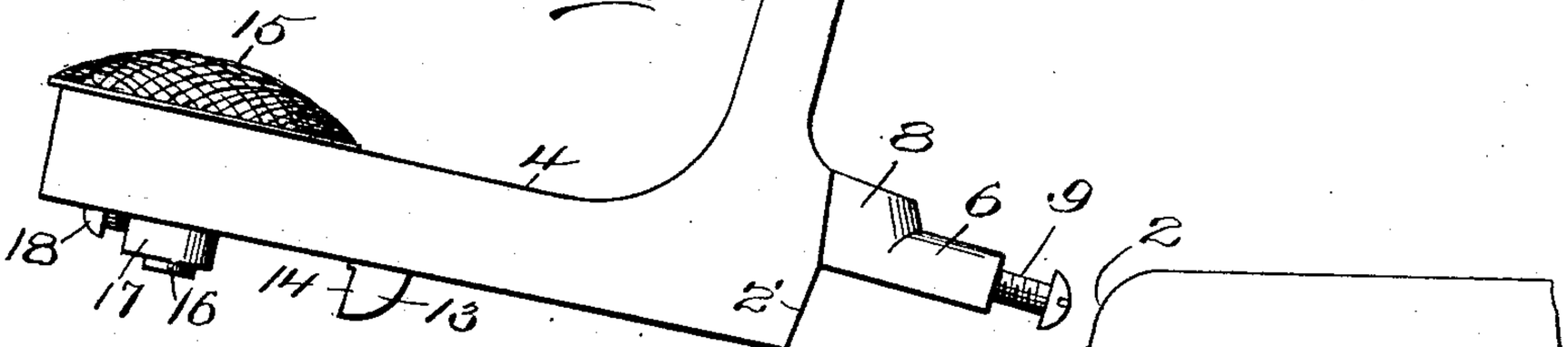


Fig. 2.



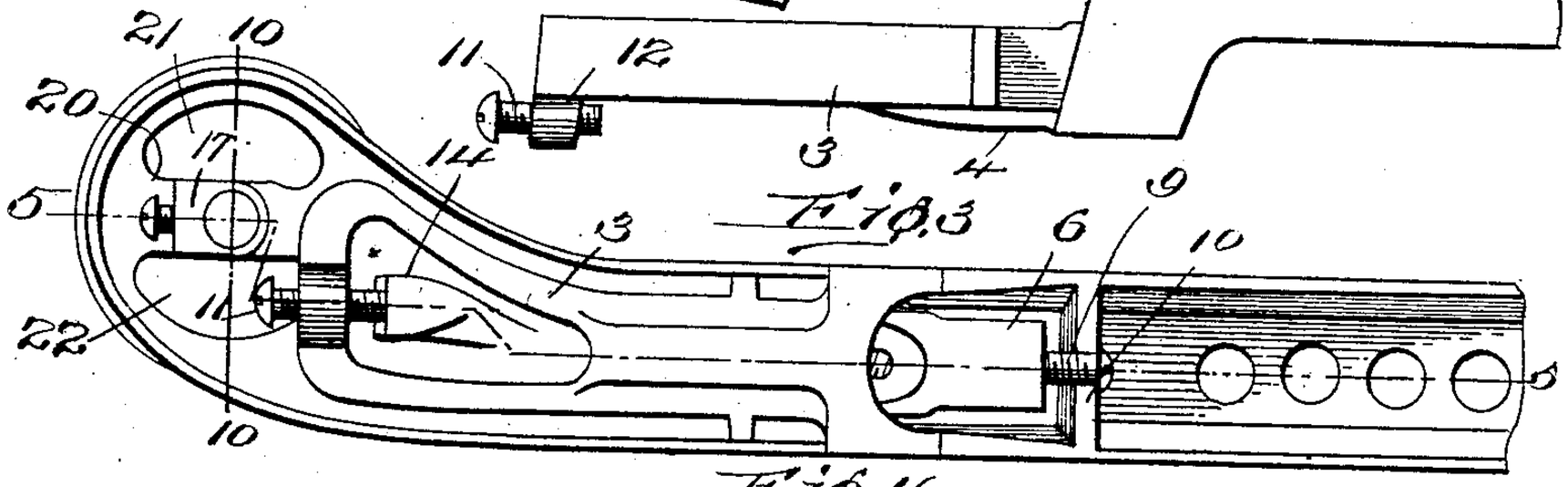


Fig. 3

Fig. 4.

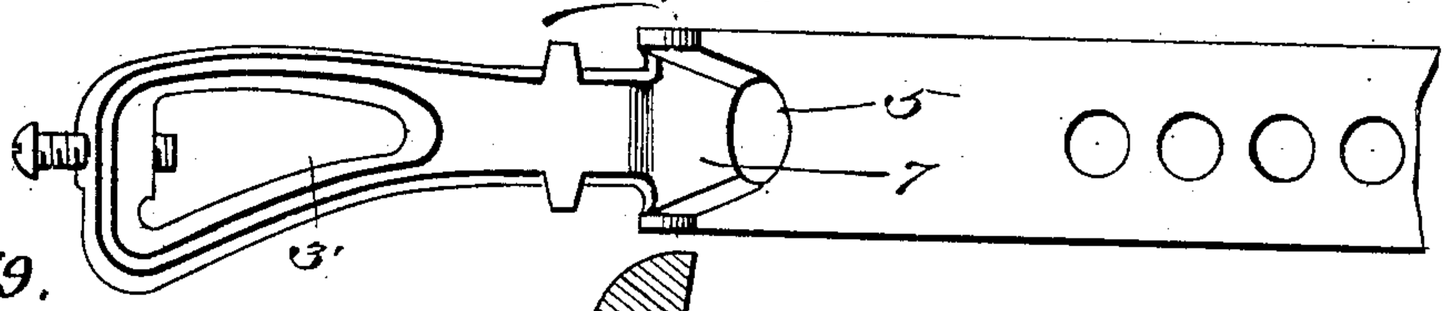


Fig. 19.

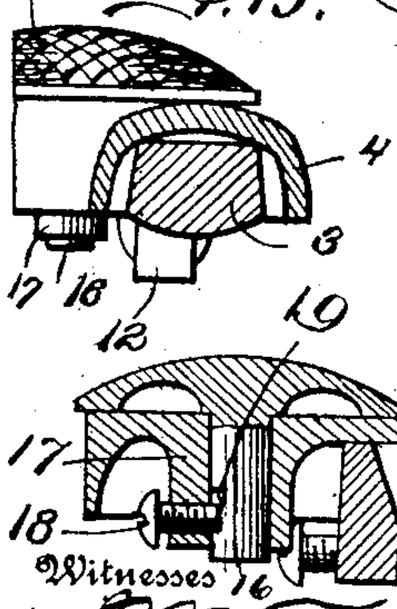


Fig. 5.

Witnesses

J. N. Fowler Jr.

W. L. Ritchin.

Inventors

Albert F. Norris

and Clifton H. Norris

By Wilson Fenwick & Lawrence

their Attorneys

A. F. & C. H. NORRIS.

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4 SHEETS—SHEET 2.

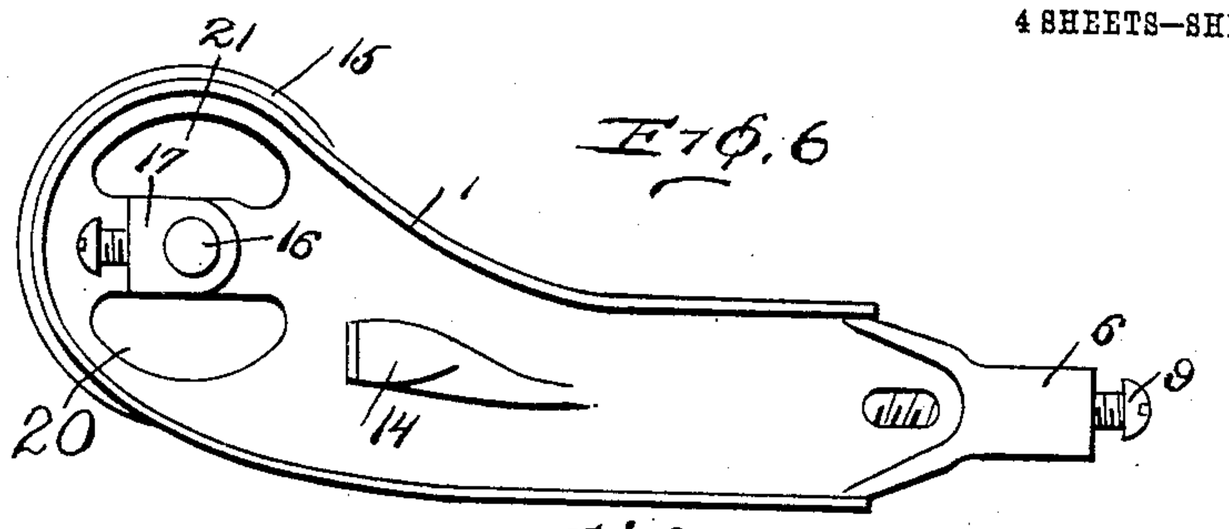


Fig. 6

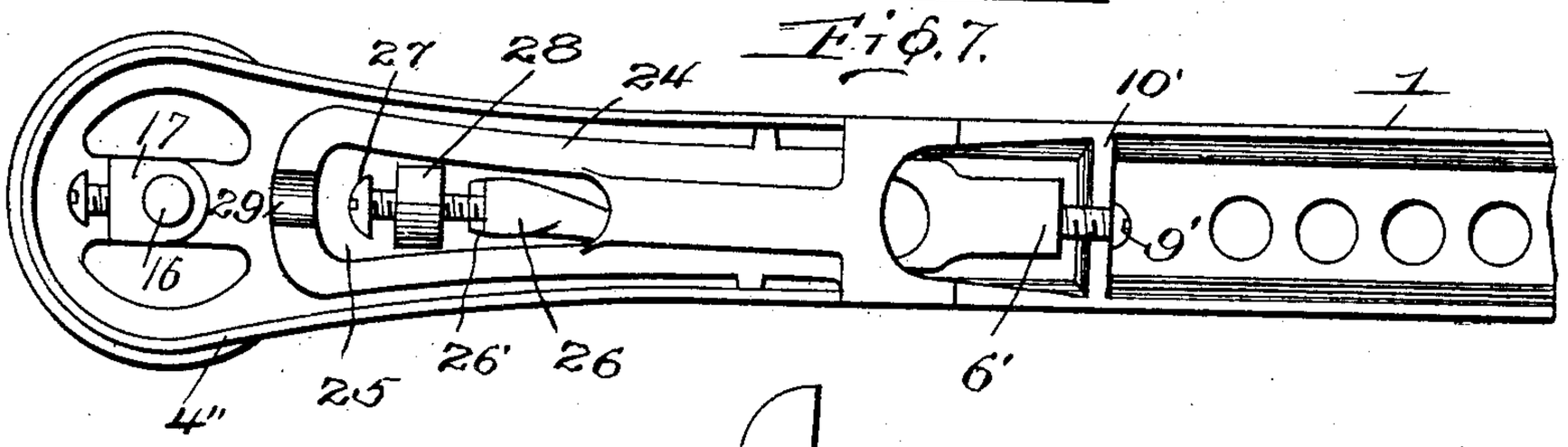


Fig. 7.

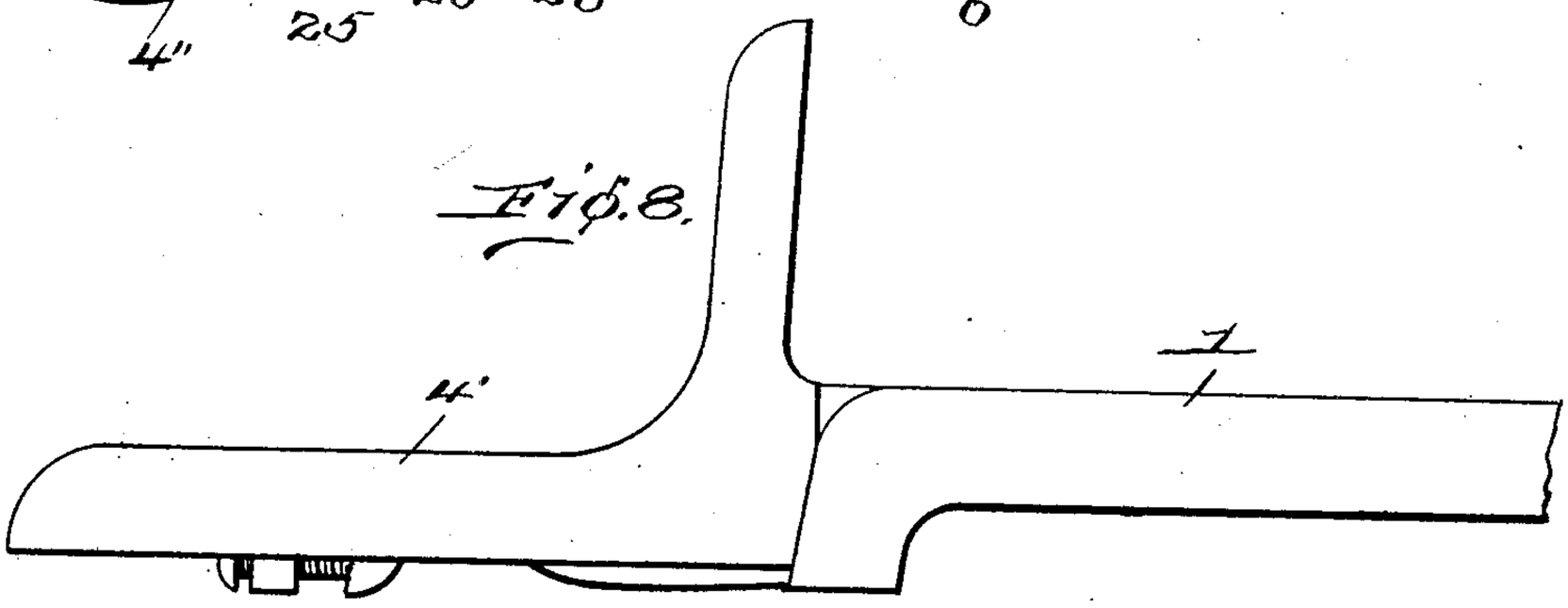


Fig. 8.

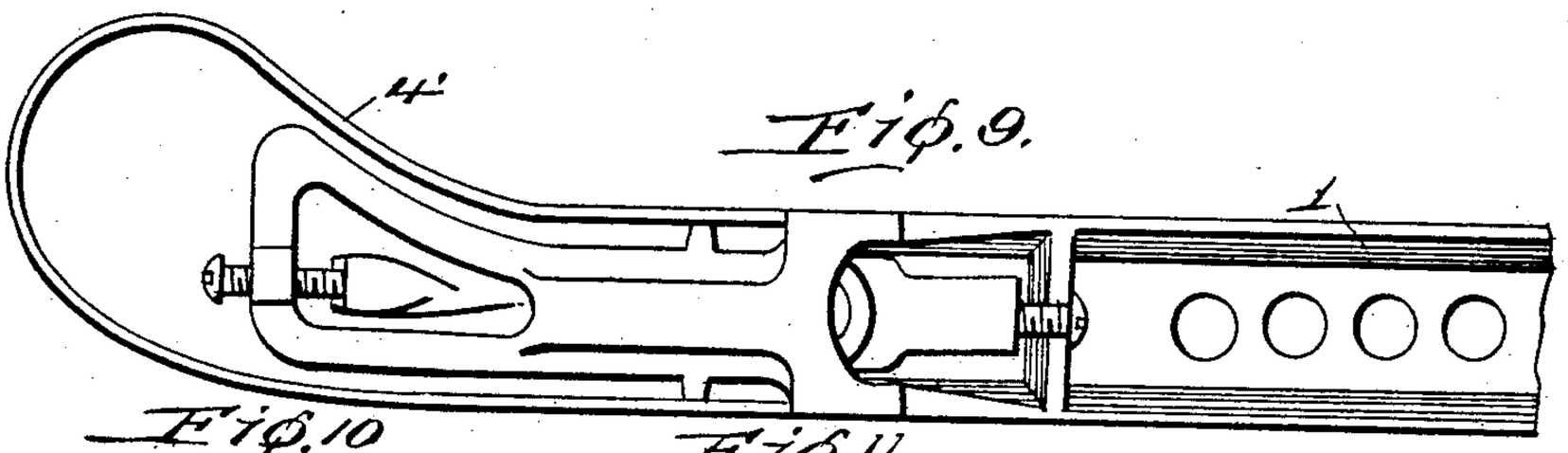


Fig. 9.

Fig. 10

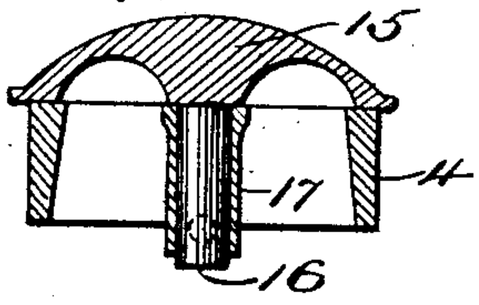
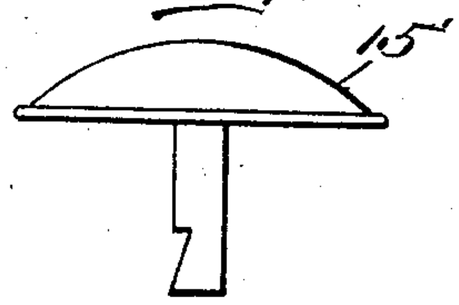


Fig. 11



Witnesses

J. M. Fowler Jr.

A. L. Hutchins

Inventors

Albert F. Norris

and Clifton H. Norris

By Mason Fenwick & Lawrence

their Attorneys

A. F. & C. H. NORRIS.

PEDAL.

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4 SHEETS—SHEET 3.

Fig. 12

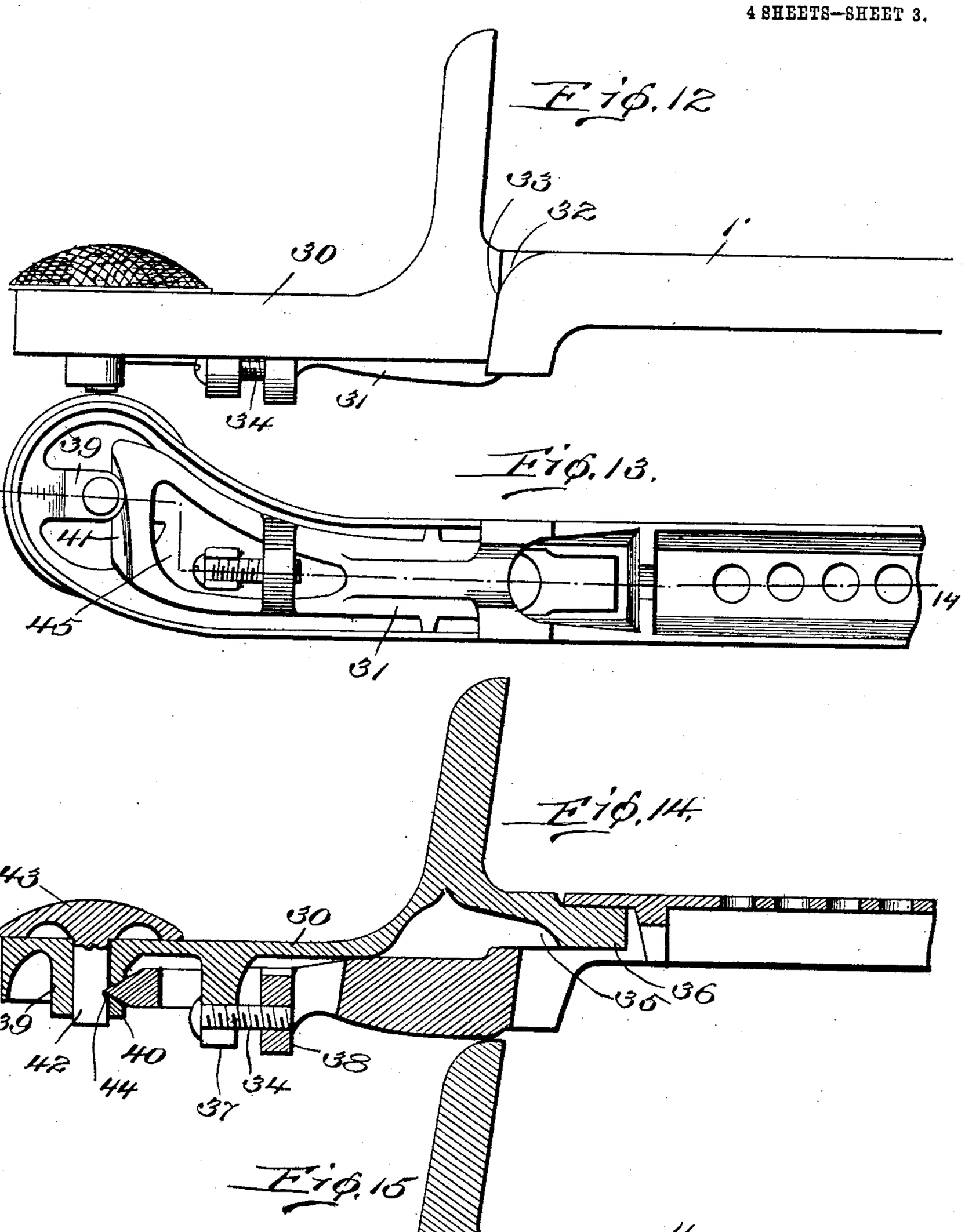

Fig. 13.

Fig. 14.

Fig. 15

Witnesses 46 47

J. M. Fowler Jr

A. L. Ritchin

Inventors

Albert F. Norris

and

Clifton H. Norris

By Mason Fenwick & Lawrence

their Attorneys

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A. F. & C. H. NORRIS.

PEDAL.

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4 SHEETS—SHEET 4.

Fig. 16.

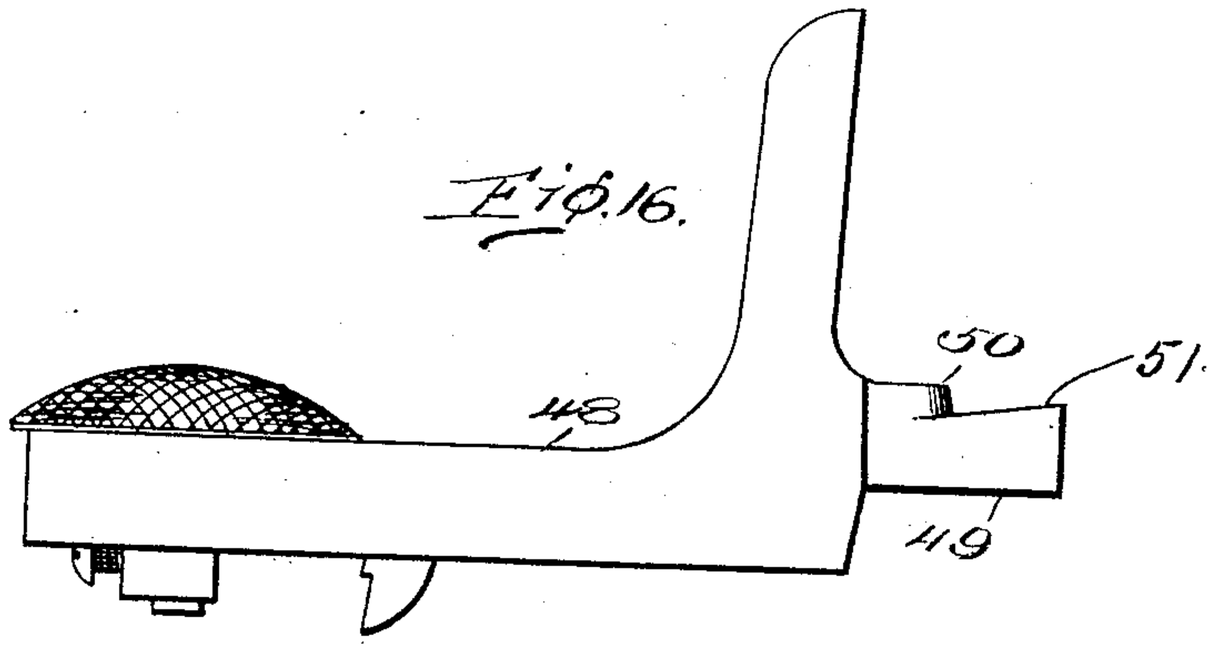


Fig. 17.

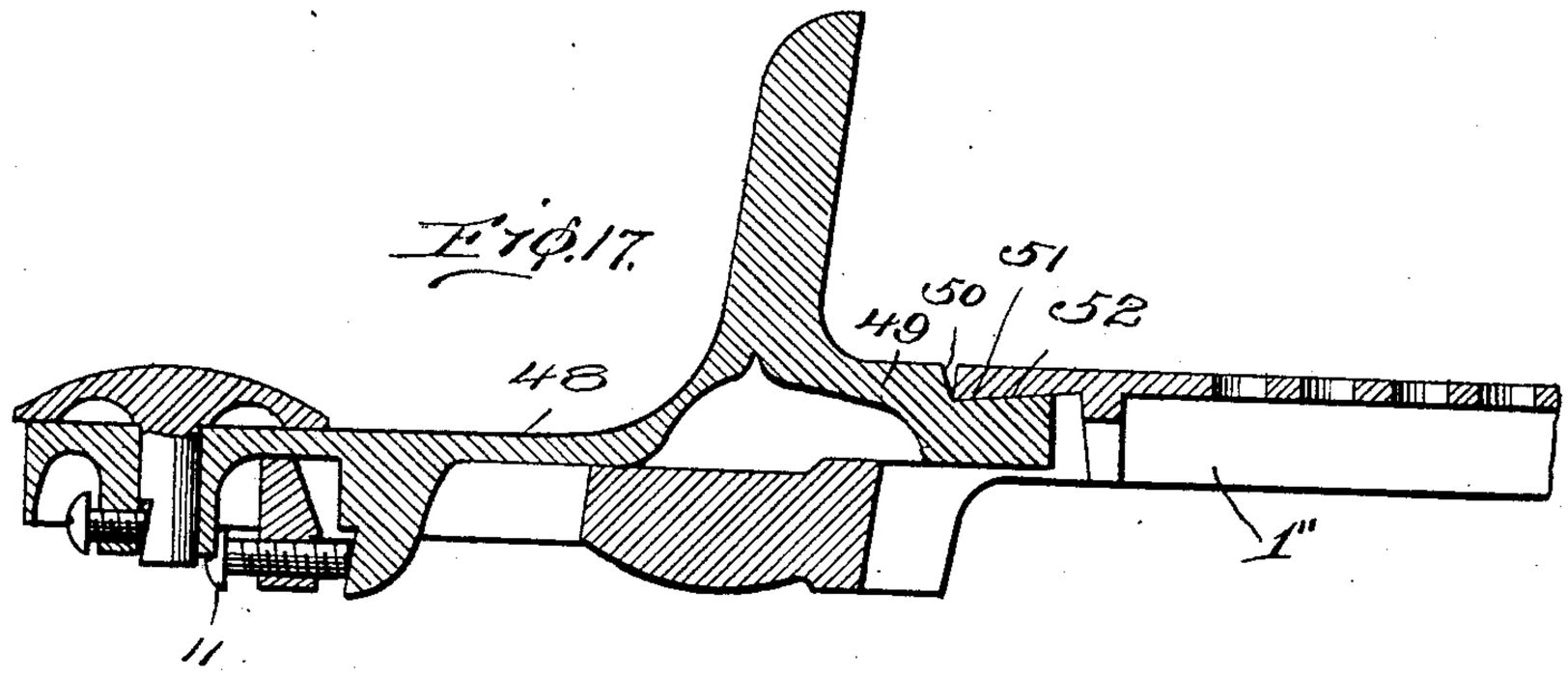
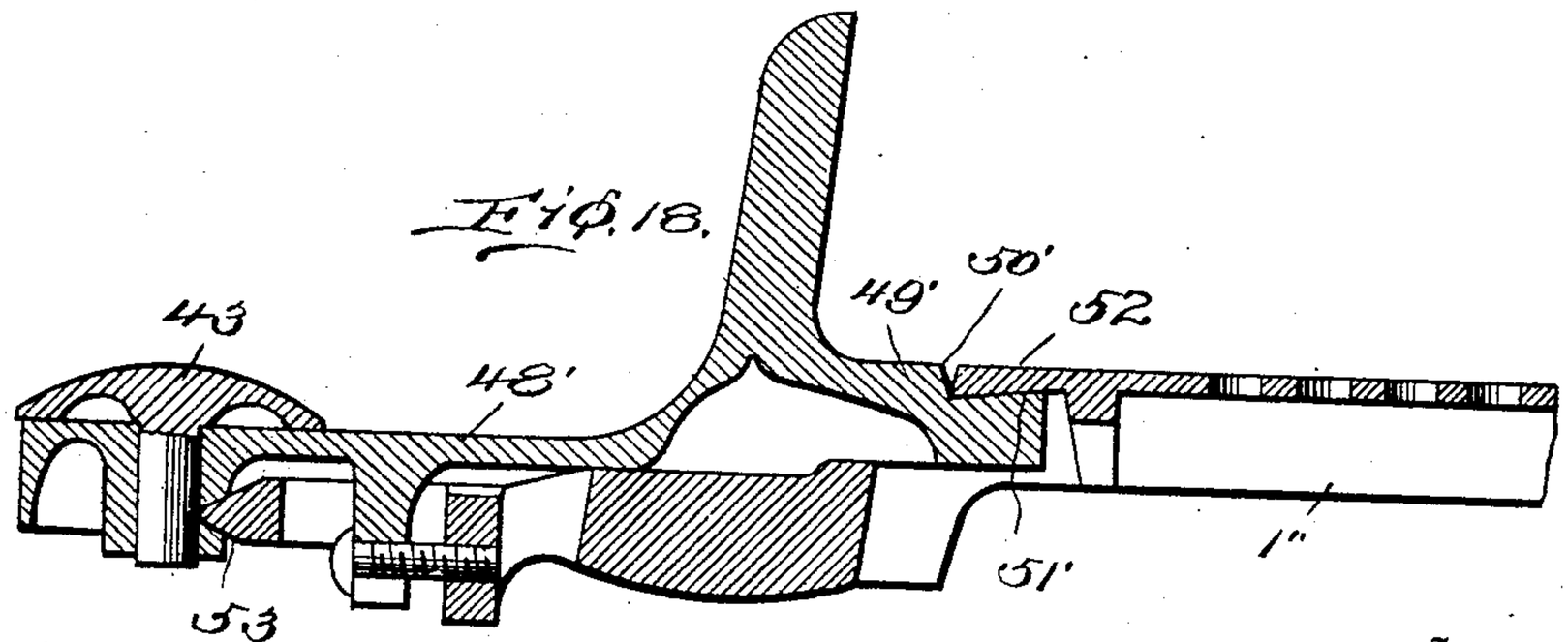


Fig. 18.



Witnesses

J. M. Fowler Jr.

A. L. Kitchin

Inventors

Albert F. Norris

and Clifton H. Norris

By Mason Fenwick & Lawrence

their Attorneys

UNITED STATES PATENT OFFICE.

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

PEDAL.

969,650. Specification of Letters Patent. Patented Sept. 6, 1910.

Application filed November 20, 1908. Serial No. 463,668.

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 pedals used with musical instruments, and has for an object the provision of means for covering or concealing the outer end of the pedal by an auxiliary plate or cover secured thereto.

Another object of the invention is the construction of a removable cap for the end of a pedal, and means for securing the same rigidly to the pedal for permitting a ready removal at any time without disturbing the securing of the pedal to the musical instrument to which it is attached.

A still further object of the invention is the construction of a cover for the outer end of a pedal and a cap therefor arranged with a clamping member acting in conjunction with the end of the pedal for clamping the cover and cap in position, but capable of being removed at any time without disturbing the connection of the pedal with the instrument to which the pedal is attached.

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

In the accompanying drawings: Figure 1 is a top plan view of a pedal, cover and cap formed according to the present invention, one end of the pedal being broken away. Fig. 2 is a side elevation of the structure shown in Fig. 1 with the covering member and cap raised at a slight angle for the purpose of showing how the same may be removed from the pedal. Fig. 3 is a bottom plan view of the structure shown in Fig. 1. Fig. 4 is a top plan view of the pedal with the cover and cap removed. Fig. 5 is a longitudinal section through Fig. 3 on line 5—5. Fig. 6 is a bottom plan view of a cover having the cap secured thereto. Fig. 7 is a bottom plan view of a slightly modified form of pedal and cover. Fig. 8 is a further slightly modified form of pedal showing a smooth cover. Fig. 9 is a bottom plan view of the structure shown in Fig. 8. Fig. 10 is a section through Fig. 3 approximately on line 10—10. Fig. 11 is an edge view of a removable cap having a smooth upper surface. Fig. 12 is an edge view of a further modified form of pedal and cover therefor. Fig. 13 is a bottom plan view of the structure shown in Fig. 12. Fig. 14 is a section through Fig. 13 approximately on line 14—14. Fig. 15 is a longitudinal vertical section through a slightly modified form of cover to that shown in Fig. 14, the same being constructed without a removable cap. Fig. 16 is a side elevation of a slightly modified form of interchangeable cover. Fig. 17 is a longitudinal vertical section similar to the section shown in Fig. 5, but with the removable cap shown in Fig. 16 applied in position on the pedal. Fig. 18 is a longitudinal vertical section similar to the section shown in Fig. 14 except that a slightly modified form of cover is applied to the pedal. Fig. 19 is a section through Fig. 1 approximately on line 19—19.

In the construction of pedals used on pianos and other musical instruments the same often become worn and disfigured which necessitates the removal of the pedal and renickeling or otherwise repairing the same. In forming the present invention it has been aimed to overcome the necessity of removing the pedals when any of the same become worn or disfigured, by simply removing a cover or a cap and the replacing of a new cover or cap.

In constructing the pedal the main body portion that is positioned within the piano or other instrument is formed in any usual or desired manner and the outer end or extension which is preferably offset is arranged with means for receiving a cover and means for securing the cover thereto. The cover by its construction and arrangement is adapted to partially encircle and entirely cover the outer end of the pedal and to form in appearance a continuation of the main body portion, and when rigidly clamped thereto actually forms a mechanical continuation of the pedal so that any movement on the cover will be communicated to the pedal. In addition to the cover that is arranged to protect the outer end of the pedal and to form readily removable means is pro-

vided a movable cap that occupies a position that ordinarily receives the pressure of the foot of an operator and consequently will ordinarily receive the wear on the cover. When the cap that is positioned at the outer end of the cover has been worn or disfigured in any manner the same may be easily removed without affecting the pedal, and again replaced which will give the appearance of an entirely new pedal.

In the present invention the arm or skeleton portion of a pedal is adapted to project beyond the front of the piano and may be used by the workmen in adjusting and testing the pedal action, and after the piano has finally been completed the casing of nickel or brass or any other material of any style may be put on, either with the cap or without it, as may be most desirable.

In the accompanying drawings have been disclosed several forms of the invention all of which embody the same principle, but several forms have been shown to more clearly indicate the adaptability of the invention.

Referring to the drawing, and more particularly to Figs. 1 to 5 inclusive 1 indicates a pedal that is formed with a shoulder or offset portion 2 and an extension or arm 3 having a slot 3′ through which a lug or extension 13 is adapted to project as hereinafter more fully described. The main body portion of the pedal 1 is adapted to be positioned within the piano or other instrument to which it is secured while the arm or extension 3 projects beyond the edge of the piano in a position to be pressed by an operator. A pedal constructed in this manner would operate successfully and properly but would not present an inviting appearance, and in order to overcome this feature a removable casing or cover 4 is provided that is removably clamped to pedal 1. In order to clamp cover 4 properly in position and yet permit a quick assembling and removal of the cover from pedal 1, pedal 1 is formed with an opening or passage way 5 through which a lug or extension 6 is adapted to pass. In addition to opening 5 is arranged a cut out portion 7 that is adapted to receive an enlarged portion 8 of projection 6 so that when the clamping screw 9 which is threaded into projection 6 is tightened up against stop 10 cover 4 will be rigidly clamped against the shoulder 2 and to the pedal. In order to prevent any pivotal movement of the cover 4 a second clamping screw 11 is provided that is threaded into a lug or extension 12 projecting from arm 3. This clamping screw is adapted to engage a stop 13 that is preferably formed with a cut out portion 14 slightly beveled so that after screw 11 has been forced against the same the outer end of cover 4 can not be raised. By thus arranging a clamping screw on the cover 4 and a clamping screw on the end of arm 3 a plurality of means are provided for clamping the cover in position and so arranged that any strain on the cover will be evenly distributed to the pedal 1. The cover 4 is substantially U shaped in cross section in order to surround arm 3 and thereby give a finished appearance to the pedal.

In the construction of covers for the outer ends of pedals the same may be varied as occasion may require, from a pedal as shown in Fig. 2 having a removable cap 15 to a smooth cover 4′ shown in Figs. 8 and 9. The smooth cover 4′ is constructed exactly like the preferred structure shown in Figs. 1 to 5 inclusive, with the exception of the elimination of cap 15 and associated parts, and therefore will need no further description. Referring more particularly to the construction of cap 15 and the surrounding parts that permit of the use of the same it will be observed that the cap is formed with a central extension 16 that projects downward through a lug 17 when in operation and is held in place by a set screw 18 engaging the same at a cut out portion 19. The cut out portion 19 is beveled so as to positively prevent any removal of the cap 15 when the clamping screw 18 is tightened against extension 16. The lug 17 projects from a cross bar 20 (Fig. 3) which has arranged on each side thereof openings 21 and 22 which are provided for lightening the pedal. Cap 15 when in position covers these apertures as clearly seen in Figs. 1 and 5, and in addition presents means for receiving an impact of the foot of the operator when the pedal is moved, and consequently receives substantially all of the wear on the pedal so that all that is necessary in order to cause the pedal to have a substantially new appearance is to remove the old cap 15 and insert a new cap in place thereof. If any of the remaining parts of the cover 4 should become worn it would be necessary in that instance to remove the entire cover and insert a new cover or casing, which would be the same in regard to the structures shown in Figs. 8 and 9 where the casing is smooth and formed without cap 15. Cap 15 is preferably formed with a roughened surface to prevent any slipping of the foot when the pedal is pressed, but if desired a cap 15′ (Fig. 11) may be used having a smooth surface. When it is desired to remove casing 4 (Fig. 5) all that is necessary is to loosen clamping screw 9 and clamping screw 11 until a sufficient movement will be permitted casing 4 for lifting the same off of pedal 1 as seen in Fig. 2. When it is desired to replace a cover as 4 on pedal 1 projection 6 is passed through opening 5 and clamping screw 9 is hooked over stop 10 and then the remaining part of the cover is pressed down

against arm 3. Clamping screws 9 and 11 are then both tightened until the cover is held rigidly against movement. In tightening up the clamping screws 9 and 11 the same will draw shoulder 2′ against shoulder 2, and by reason of the fact that clamping screw 9 is positioned beneath pedal 1 and clamping screw 11 engages the beveled notched out portion 14 the casing is rigidly held from any movement except such as is given to pedal 1.

In constructing pedals as shown in Figs. 1 to 5 the same may be constructed so as to be bent or extended to the right or left as may be desired, or if desired may be made straight as seen in Fig. 7. When the same are made straight the same structure may be used as seen in Figs. 1 to 5, though preferably the same is slightly changed as shown in Fig. 7. Referring more particularly to this figure, 24 indicates an arm extending from pedal 1 that is arranged with a slot 25 positioned centrally of the arm through which projects a stud or projection 26 formed integral with the cover 4″. Projection 26 is formed with a notched out portion 26′ that is constructed similar to the cut out portion 14 of the preferred structure for accommodating a clamping screw 27 that passes through a connecting strip 28 formed integral with arm 24. Threaded into projection 6′ that is formed at the end of cover 4″ similar to projection 6 is a clamping screw 9′ for engaging a slot 10′. The cover 4″ is adapted to be secured to pedal 1 and removed therefrom in a similar manner to the way the cover 4 of the preferred structure is applied and removed; namely, by causing clamping screws 9′ and 27 to engage their respective stops. The outer end of arm 24 is formed with a depression 29 for accommodating screw 27 when placing the same in position on member 28. Aside from the depression 29 and the straightening of arm 24 the structure is the same as seen in the preferred form, though the cover 4″ can not be substituted for cover 4′ by reason of the straight construction of the same.

In Figs. 12 to 14 inclusive will be seen another slightly modified form of pedal in which only one clamping screw is used and auxiliary clamping means are provided for holding a wearing cap in position. Referring more particularly to these figures, 1′ indicates a pedal having a cover 30 fitted to the arm or outer end 31 which is adapted to give the outer end of the pedal a finished and complete appearance and at the same time afford means that may be readily applied and removed for renewal, repair and the like or for changing the appearance of the pedal if desired. The pedal 1′ is formed with a shoulder or abutment 32 and cover 30 is formed with a shoulder or abutment 33 that is adapted to engage shoulder or abutment 32 when the clamping screw 34 clamps the cover in position. Pedal 1′ is formed with an aperture 35 through which extension or lug 36 extends in order to engage the under surface of the pedal for assisting in holding the cover in position. The clamping screw 34 passes through a lug 37 formed integral with the cover 30 and engages a lug 38 formed integral with arm 31 so that when the screw is rotated cover 30 will be forced toward the body portion of pedal 1′ so that shoulders or abutments 32 and 33 will engage and lug or extension 36 will press against the under surface of pedal 1′, the action of the abutments 32 and 33 which are formed at an angle to the pedal 1′ causing such clamping action. Also in order to assist the clamping action of the screw 34 in holding the cover 30 in position a lug or extension 39 is formed with a notch 40 into which the beveled end 41 of arm 31 projects. Through the lug or extension 39 passes an extension 42 of cap 43. The extension 42 is formed with a notch 44 which is engaged by the beveled end 41 of arm 31 at the same time that the beveled end engages notch 40 so that the cap is firmly locked in position when clamping screw 34 is tightened for clamping casing 30 in position. In order to accommodate lug 37 which extends from cover or casing 30 the arm 31 is formed with an opening 45 through which the lug extends for engaging the lug or extension 38 of arm 31. By this construction and arrangement only one movable clamping member is necessary to clamp the casing to the pedal, and also the cap to the casing, but by the construction of pedal, casing and cap auxiliary clamping members are provided near each end of the casing, and the main clamping member or screw 34 is arranged at any convenient point, preferably as shown, substantially centrally of the casing.

In Fig. 15 will be seen a slightly modified form of casing to that disclosed in Figs. 12 to 14. Referring more particularly to this figure, 30′ indicates the casing having an extension or lug 46 formed with a notch 47 that is preferably beveled for accommodating a beveled end 41 of pedal 1′. In this form of casing the cap 43 is eliminated.

Referring more particularly to Figs. 16 and 17 a further slightly modified form of interchangeable casing is disclosed in which a casing 48 is provided similar in all respects to casing 4 shown in Fig. 2, except the extension 49 is formed with a stop 50 and a beveled portion 51. The beveled portion 51 is adapted to engage a beveled portion or end 2 of pedal 1″. By this construction and arrangement when the removable casing 48 has been placed in position so that the beveled portions 51 and 52 engage as shown in

Fig. 17 the same will form locking means at that end while binding screw 11 will form the securing means near the opposite end. In fact, this construction will provide a positive securing means at each end of the removable and interchangeable casing, but will only necessitate one removable clamping member as screw 11. Casing 48 may be applied to pedal 1 shown in Figs. 1 to 5 inclusive and be held in place by its tension screw 11, though preferably the same is used with a pedal having a beveled portion 52. The reverse is also true of casing 4 which may be used with pedal 1'' shown in Fig. 17 and be firmly secured in position, though a pedal as shown in Figs. 1 to 5 inclusive is preferable.

In Fig. 18 will be seen a slightly modified form of cover 48' which is provided with a lug or extension 49' having a slot 50' and a beveled portion or surface 51' that is adapted to engage the beveled surface or portion 52 of pedal 1''. At the opposite end to lug or extension 49' a cap 43 is positioned and is held in place by the beveled end 53 of pedal 1' in a similar manner to the way cap 53 is held in place by the structure shown in Fig. 14, the difference between the structures shown in Figs. 14 and 18 being simply the addition in Fig. 18 of the beveled portions 52 and 51', and therefore the structure in Fig. 18 will not need any further description.

What we claim is:

1. A pedal comprising a body portion, a tread portion, a removable casing for the tread portion formed with a projecting end adapted to pass through the juncture of the body portion with the tread portion, and means for securing said casing in position and said projecting end against movement.

2. A pedal comprising a body portion arranged with a shoulder at one end, a tread portion extending from said shoulder, a casing formed with a projection and a shoulder, said casing inclosing said tread portion, said projection passing through said shouldered portion of said body portion, and means for securing said casing in position and the shoulder on said casing against the shoulder on said body portion.

3. A pedal comprising a body portion formed with a shoulder and an aperture passing through the body portion at the shoulder, a tread portion projecting from said body portion, a removable casing inclosing said tread portion, said casing being formed with a projection passing through said opening in said body portion, and means engaging said casing for securing said casing in position on said tread portion.

4. A pedal comprising a body portion formed with a shoulder and an opening, a tread projecting from said shoulder, a casing removably inclosing said tread, said casing being also formed with a projection adapted to pass through said opening in said body portion, and means for forcing said casing against the shoulder on said body portion and at the same time clamping said casing in position.

5. A pedal comprising a body portion, a tread formed with a beveled end and a removable casing for said tread portion having a notched out extension for receiving said beveled end whereby said casing is held in contact with said tread.

6. A pedal comprising a body portion, a tread, a removable casing for said tread, a removable cap positioned on said casing and formed with a notched extension, and clamping means for clamping said casing to said tread and for causing the end of said tread to engage said notch for locking said cap in position.

7. A pedal comprising a body portion susceptible of being used as a complete pedal and formed with a shouldered portion intermediate its length, a casing removably mounted on said body portion and also formed with a shouldered portion abutting against the shouldered portion of said body portion, a lug projecting from the shouldered end of said casing through the body portion at the shouldered portion thereof, and a clamping screw for clamping said casing in position and holding said abutting shoulders together.

8. A pedal comprising a body portion formed with a shoulder having an aperture passing therethrough, a tread portion, a casing formed with an abutting portion designed to abut against said shoulder and cover said tread portion, means positioned beneath the casing for connecting the casing to the tread portion, and means for bracing the casing at the opposite end.

9. A pedal comprising a body portion, a tread portion, a removable casing covering said tread portion, a toe cap for said tread portion formed with an extension arranged to be engaged by said tread portion for holding the cap in position, and a binding screw passing through said tread portion and engaging said casing for holding the casing in position.

10. A pedal comprising a body portion, a tread portion, a removable casing mounted on said tread portion and formed with a beveled end adapted to engage said body portion, and means for clamping said casing to said tread portion.

11. A pedal comprising a body portion formed with a beveled portion, a tread portion, a casing for covering said tread portion, said casing having formed thereon a beveled extension adapted to engage the beveled portion of said tread portion, and means for removably securing said casing to said tread portion.

12. A pedal comprising a body portion formed with a shouldered portion and a beveled surface adjacent the shouldered portion, a tread portion extending from said body portion, a removable casing for inclosing said tread portion, said removable casing being formed with a projection having a beveled surface adapted to engage the beveled surface on the body portion and interlock therewith, and a binding screw for holding said casing in position.

13. A pedal comprising a body portion formed with a shoulder, a tread portion, a casing formed with an abutting portion designed to abut against said shoulder, said casing being of a length sufficient to extend from said shoulder to the outer end of said tread portion, and a clamping screw arranged entirely beneath the casing for connecting said casing to the tread portion.

14. A pedal comprising a body portion, a tread portion, a casing removably secured to said tread portion, a toe cap, and a binding screw for removably securing said cap to said casing.

15. A pedal comprising a body portion, a tread portion, a casing inclosing said tread portion, means for removably securing said casing to said tread portion, a cap for said casing, and means independent of said cap for removably securing the cap to said casing.

16. A pedal comprising a body portion, a tread portion, a removable casing for said tread portion, a single adjustable member arranged beneath the casing for securing the casing in position, and means for bracing said casing in position.

17. A pedal comprising a body portion, a tread formed with a threaded projection extending at substantially a right angle to the general direction of said tread, a casing for said tread formed with a projection arranged to be positioned opposite the projection on said tread and extending parallel to the threaded extension on said tread, and a clamping screw arranged substantially parallel with the casing and passing through the projection of said casing and engaging the threaded projection on said tread for drawing said projections together and for clamping the casing to the tread.

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

ALBERT F. NORRIS.
CLIFTON H. NORRIS.

Witnesses:
ALBERT L. WYMAN,
MICHAEL GOODMAN.