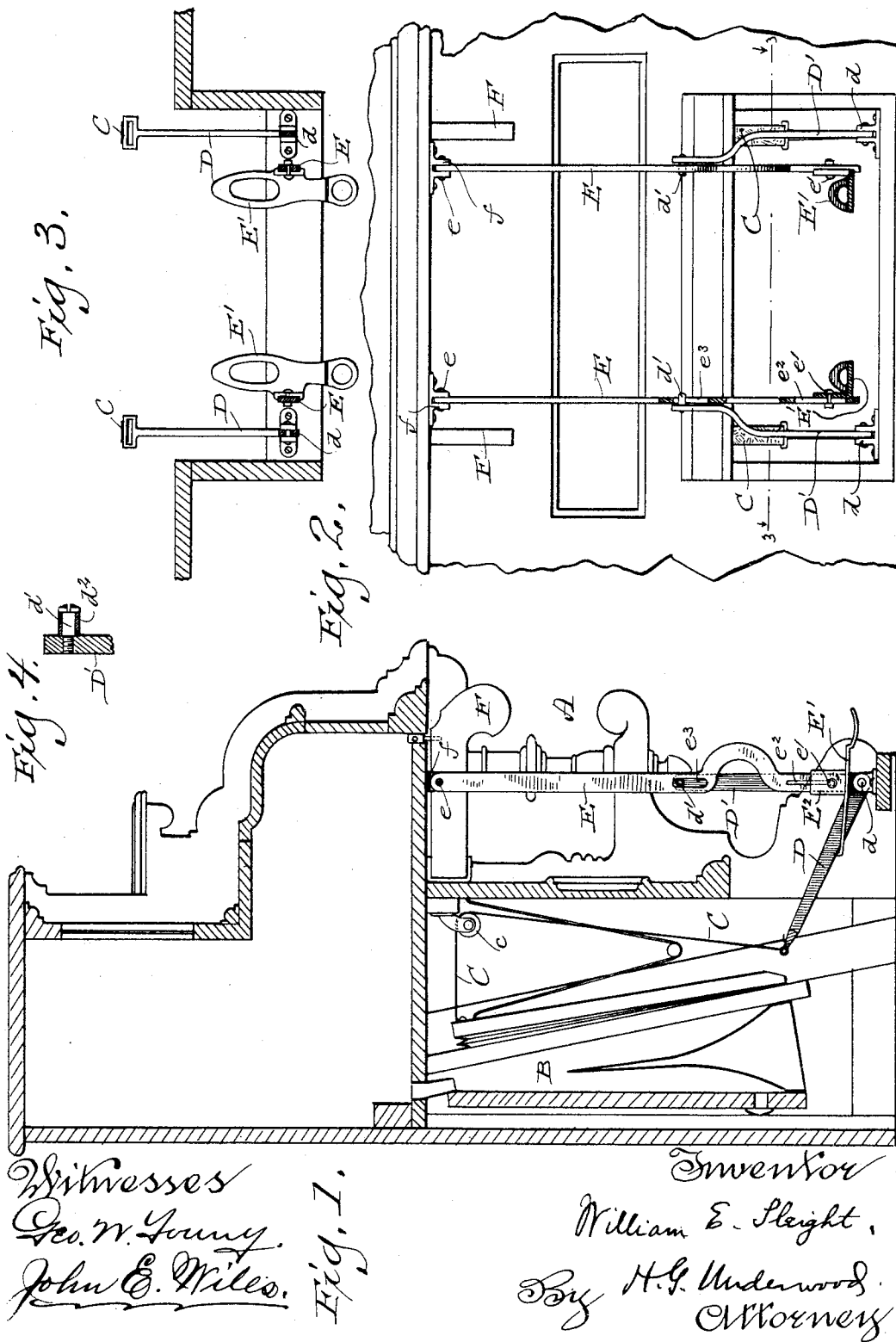


(No Model.)

W. E. SLEIGHT.
SWINGING TREADLE FOR ORGANS.

No. 481,976.

Patented Sept. 6, 1892.



Witnesses
Geo. W. Young.
John E. Miles.

Fig. 1.

Inventor
William E. Sleight,
By H. G. Underwood,
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM E. SLEIGHT, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE
UNITED STATES SWING TREADLE COMPANY, OF SAME PLACE.

SWINGING TREADLE FOR ORGANS.

SPECIFICATION forming part of Letters Patent No. 481,976, dated September 6, 1892.

Application filed January 19, 1892. Serial No. 418,563. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SLEIGHT, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Swinging Treadles for Organs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in pumping apparatus for organs, and relates more particularly to a swinging treadle for actuating the bellows.

The various features of my invention will be more fully hereinafter described, and pointed out in the appended claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a central vertical section of an organ-casing provided with my improved treadle mechanism. Fig. 2 is a front elevation of a portion of the same. Fig. 3 is a horizontal sectional view taken on line 3 3 of Fig. 2. Fig. 4 is a detail sectional view of one of the parts.

In said drawings, A represents the casing of an organ, B the bellows, and CC the usual straps or cords connecting the bellows with the treadle mechanism, said straps being passed over suitable pulleys *c c* adjacent to the upper portions of the bellows and carried down and engaged with the treadle mechanism at the lower front part of the organ.

The treadle mechanism consists, preferably, of two independent bell-crank levers *D D*, pivotally secured to the lower part of the organ-casing, as at *d d*, and to the inner ends of these levers are connected the lower ends of the straps *C C*. Hanger-arms *E E* are pivotally engaged at their upper ends with the organ-casing, as at *e e*, by means of attaching devices *f f*, and at their lower ends are provided with suitable foot-pieces *E' E'*, preferably adjustably secured in position by means of bolts *e' e'*, passed through upwardly-extending ears *E² E²* on said foot-pieces and engaged within slots *e² e²* in the lower ends of the arms *E E*. The upwardly-extending arms *D' D'* of the bell-cranks are movably engaged with the hanger-arms *E E* in any desired manner—as, for instance, by means of laterally-extending pins or projections *d' d'*, lo-

cated upon the upper ends of said arms *D' D'* and arranged to engage with slots *e³ e³* in said hanger-arms. Antifriction-rollers *d² d²* are conveniently provided upon these lateral pins or projections and serve to render the working of the parts together at this point smooth and noiseless.

As illustrated in the drawings, the hanger-arms *E E* may be located at any convenient points between the knee-swells *F F*, being of course connect with the lower side of the top part of the casing in such a manner as to permit said knee-swells to project sufficiently beyond them to be readily accessible to the knees of the player.

The operation of my improved treadle is as follows: The player places his feet upon the foot-pieces *E' E'* and by an easy swinging movement vibrates the hanger-arms *E E* about their pivotal connections *e e* with the casing. This movement of said foot-pieces and hanger-arms operates to oscillate or vibrate the bell-crank arms about their pivotal connections *d d* by reason of the engagement of the upper ends of the arms *D' D'* with the slotted portions of the said hanger-arms, and the consequent up-and-down motion of the inner ends of the bell-cranks serves to operate the bellows of the organ in the usual manner through the mediums of the straps *C C*.

By my improved construction the player is enabled to pump the organ with very little exertion, and the laborious rocking movement of the feet is entirely done away with, the only movement necessary on the part of the player that is necessary being the free swinging movement of the feet. This movement does not interfere with the operation of the knee-swells in the ordinary manner, as the positions of the knees of the player are unchanged by the operation of the treadles.

By the adjustable connections of the foot-pieces *E' E'* with the hanger-arms *E E* the height of the foot-pieces may be regulated as desired to suit the convenience of the player.

My improved form of swinging treadle may be adapted to any of the different styles of organs by slight changes in the shape of the hanger-arms or other parts, as may become necessary.

Any desired form of attaching devices may

be employed to secure the upper ends of the hanger-arms E E to the casing, and said attaching devices may be secured to the organ-casing at any convenient points in order to
 5 bring the hanger-arms E E into proper position beneath the upper part of the said casing.

Various modifications may obviously be made in the details of construction of my improved treadle without in any way affecting
 10 the merits of my invention, and I would therefore have it understood that I do not desire to limit myself to the exact form of construction and arrangement herein described.

Having thus described my invention, what
 15 I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the casing and bellows of an organ, of suitable levers pivotally connected with the lower part of the casing and operatively connected with the bellows, swinging hanger-arms pivotally connected with the casing at their upper ends and provided at their lower ends with suitable foot-pieces, and operative connections
 20 between said levers and said swinging hanger-arms, substantially as and for the purposes described.

2. The combination, with the casing and bellows of an organ, of suitable bell-crank levers pivotally engaged with the lower part of the casing and operatively connected with the bellows, swinging hanger-arms pivotally connected with the casing at their upper ends and provided at their lower ends with suit-
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able foot-pieces, and movable connections between said hanger-arms and said bell-crank levers, substantially as and for the purposes described. 35

3. The combination, with the casing and bellows of an organ, of independent bell-crank levers, each pivotally engaged with the lower part of the casing and having one of its arms operatively connected with the bellows, independent swinging hanger-arms pivotally connected at their upper ends with the casing and provided at their lower ends with suitable foot-pieces, lateral pins or projections upon said bell-cranks, and slots in said hanger-arms operatively engaged with said pins or projections, substantially as described. 40 45 50

4. The combination, with the casing and bellows of an organ, of suitable levers pivotally connected with the lower part of the casing and operatively connected with the bellows, swinging hanger-arms pivotally connected at their upper ends with the casing and operatively engaged with said levers, and suitable foot-pieces adjustably engaged with the lower ends of said hanger-arms, substantially as described. 55 60

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WILLIAM E. SLEIGHT.

Witnesses:

JOHN E. WILES,
 N. E. OLIPHANT.