

(No Model.)

2 Sheets—Sheet 1.

J. W. TRAINER.
REED ORGAN.

No. 527,467.

Patented Oct. 16, 1894.

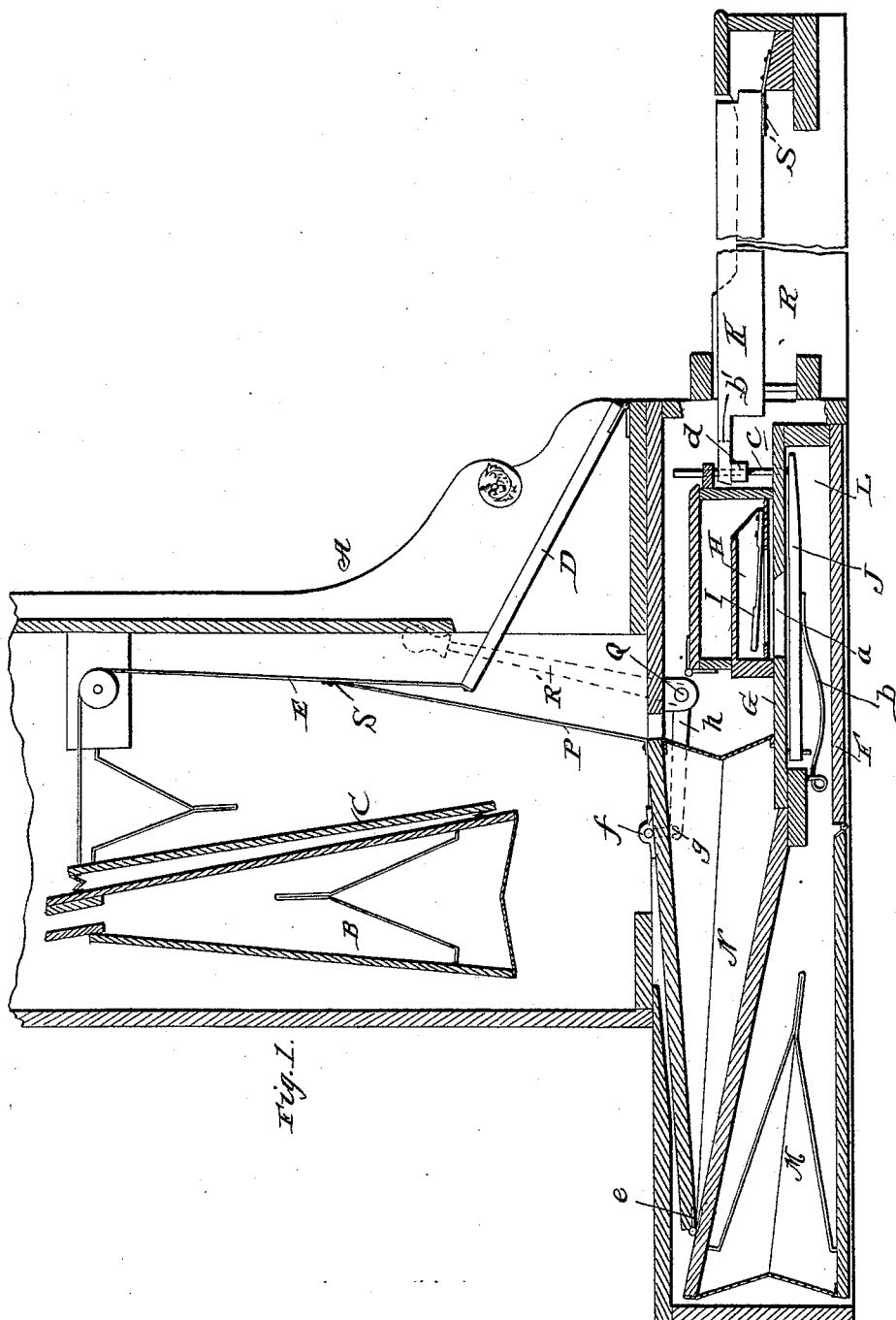


Fig. 1.

Witnesses:

E. Paeder

N. F. Matthews

Inventor

J. W. Trainer

By

James J. Shuey

Attorney

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2 Sheets—Sheet 2.

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Fig. 2.

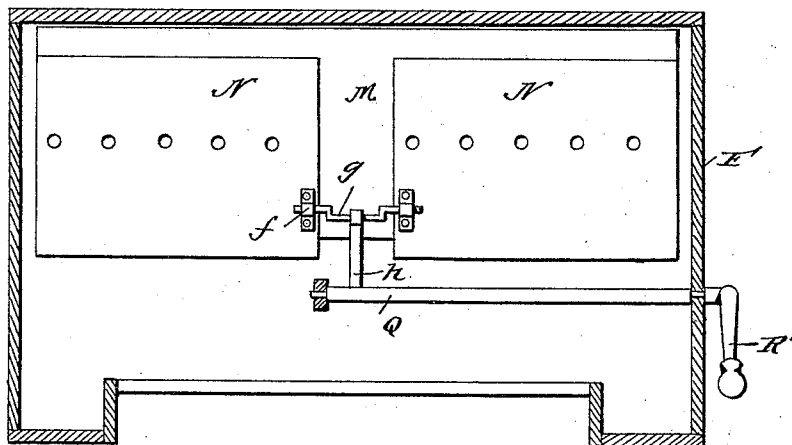
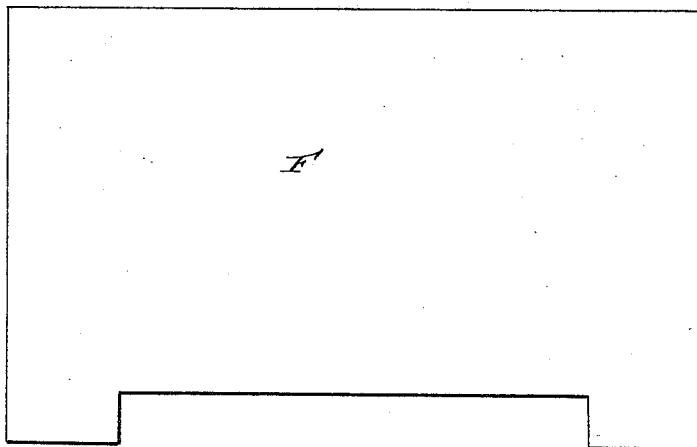


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN W. TRAINER, OF FORT WAYNE, INDIANA.

REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 527,467, dated October 16, 1894.

Application filed July 6, 1894. Serial No. 516,744. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. TRAINER, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Reed-Organs; and I do 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.

My invention relates to improvements in reed organs; and it has for its general object to provide a pedal bass attachment for such organs embodying a bellows, exhausters therefor, a pumping apparatus, a series of sub-bass reeds and foot keys, &c.; the said attachment being adapted to be placed under any ordinary reed organ and the exhausters of the bellows being so arranged that their straps may be readily connected with the pedal straps of the organ without the employment of skilled labor, in order that the bellows and exhausters of the organ as well as the bellows and exhausters of the bass attachment may be worked through the medium of the pumping apparatus of said attachment.

Other objects and advantages of the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a vertical, sectional view of a portion of a reed organ with my attachment under and connected with the same. Fig. 2, is a detail, plan view of a portion of the attachment, and Fig. 3, is a plan view of the attachment casing.

Referring by letter to the said drawings: A, indicates an ordinary reed organ embodying the usual bellows B.

C, indicates exhausters; D, pedals; E, straps connecting the pedals and exhausters; and F, indicates the casing of my improved attachment which is preferably of the proportional height illustrated in Fig. 1, and of the configuration in plan shown in Fig. 3, so as to conform to the ordinary organ case. The said casing F, is provided in its forward portion with a horizontal reed board G, having a series of apertures *a*; and on this board and over the apertures *a*, are arranged a series of thirty (more or less) reed cells H, in which are placed a corresponding number of

sub bass reeds I, which are caused to speak when the valves J, are opened as will be presently described. The valves J, which correspond in number to the reed cells and reeds, are arranged below the board G, and they are backed and held normally closed by springs as *b*, and are provided at their forward ends with vertically-disposed pins *c*, which extend loosely through the board G, and are provided with collars or enlargements *d*, for a purpose presently described.

K, indicates the foot or pedal keys of my attachment. These keys K, are suitably mounted in a frame R, in alignment with their respective valves J, as shown, and they are provided at their inner ends with bifurcations or slots *b'*, to engage the pins *c*, of the valves whereby it will be seen that while they will serve, when depressed, to open the valves J, they may be readily disconnected from the pins *c*, by drawing them outwardly or away from said pins. The said keys K, may also be as readily placed in engagement with the pins *c*, it being simply necessary to arrange them in alignment with the pins and push them toward said pins until their bifurcations or slots engage the same above the collars or enlargements *d*, as illustrated.

Communicating with the chamber L, formed beneath the reed cells by the reed board G, and the bottom of the casing F, is the bellows M, of my improved attachment. This bellows M may be of the ordinary or any approved construction and it is arranged in the rear portion of the casing F, and is provided upon its upper side with the exhausters N. These exhausters N, are hinged or flexibly connected to the bellows M, as shown at *e*, and they are provided with straps as P, which are designed to be connected with the straps E, of the organ in a manner presently described. The said exhausters N, are also provided on their upper sides with bearings as *f*, (see Fig. 2,) and in these bearings are journaled the ends of the bail *g*, to which is connected the crank arm *h*, of the exhauster-operating rock shaft Q. This rock-shaft Q, is journaled in the side walls of the casing F, above the exhausters N, as better shown in Fig. 2, and it has one of its ends extended through the wall of the casing and provided with a crank handle R', whereby it will be

seen that the exhausters N, may be conveniently operated by a person stationed at the side of the organ. The bail *g*, intermediate of the crank arm *h*, of the shaft Q, and the exhausters, is designed and adapted to prevent binding of the parts as the exhausters are opened and closed.

In order to connect the exhausters of my improved attachment with those of the organ, it is simply necessary, after the organ has been placed upon the attachment, to suitably connect the straps P, of the exhausters N, with the straps E, of the exhausters C, as shown at S, in Fig. 1. In doing this however, care must be taken to have the exhausters of the attachment expanded or open and the exhausters of the organ collapsed or closed or vice versa, in order that when the rock shaft Q, of the pumping apparatus is rocked in one direction, the exhausters N, will be opened and the exhausters C, closed, while when said shaft is rocked in the opposite direction, the exhausters N, will be closed and the exhausters C, opened. Thus it will be seen that by simply connecting the straps P, and E, the bellows and exhausters of both organ and attachment may be worked, through the medium of the pumping apparatus of the latter, by a person stationed at the side of the organ, and the organist may use his feet to depress the keys K, and give voice to the sub-bass set of reeds.

The pedal frame R, of my improved attachment is preferably of the form shown in Fig. 1, and it has its side contiguous to the casing F, open for the passage of the bifurcated ends of the keys K, which engage the pins *c*, as before described, and also has springs as S', which are connected to the keys and are designed to return the same to their normal position when they have been depressed. By the provision of the pins *c*, and the keys having their ends slotted or bifurcated to engage the pins, it will be perceived that the keys can be detached from the said pins and the pedal action, by simply drawing the keys forwardly or away from the pins. The said keys may also be as readily connected with the pedal action, it being simply necessary to place them so that each key will be in alignment with its respective pin *c*, and then push them toward the pins until their bifurcated ends engage said pins as shown in Fig. 1.

The original cost of my improved attachment is small as compared to the cost of an organ, and since no expense is entailed in attaching it to an ordinary reed organ, it will be seen that such an organ may be provided

with the attachment with but a slight addition to its original cost. It will also be appreciated that my improved attachment is advantageous, even when it is not desired to use the sub-bass set of reeds, inasmuch as it affords a means whereby the organ may be pumped by a person other than the organist. Having described my invention, what I claim is—

1. The combination with a reed organ comprising a bellows, exhausters therefor, pedals and straps connecting the pedals and exhausters, of the attachment arranged beneath the organ and comprising a suitable casing, a set of reeds and reed cells, a set of valves controlling the passage of air through the reed cells, a set of keys for operating said valves, a bellows, and exhausters connected with the bellows and having straps as P, adapted to be connected with the straps between the pedals and exhausters of the organ, whereby the exhausters of both organ and attachment may be operated by a common means, substantially as specified.

2. The combination with a reed organ comprising a bellows, exhausters therefor, pedals, and the straps connecting the pedals and exhausters; of the attachment arranged beneath the organ and comprising a suitable casing, a set of reeds, and reed cells, a set of valves controlling the passage of air through the reed cells, a set of keys for operating said valves, a bellows, exhausters connected with the bellows and having straps as P, adapted to be connected with the straps between the pedals and exhausters of the organ, a rock shaft journaled in the casing and having one end extended through the same and also having a handle on its extended end and a crank arm as *h*, and a suitable connection between the crank arm and the exhausters, substantially as specified.

3. The combination with a casing as F, and a series of valves arranged therein and having the pins *c*, provided with collars or enlargements; of a frame as R, keys arranged therein and having one of their ends notched or bifurcated to engage the pins *c*, of the valves, and springs connecting the rear ends of the keys and the casing and adapted to return the keys to their normal position when they have been depressed, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. TRAINER.

Witnesses:

A. S. BOND,
PAUL F. KUHNE.