C. SCHALLBERG.

Organ-Couplers.

No. 152,694. Patented June 30, 1874.

Fig. 2.

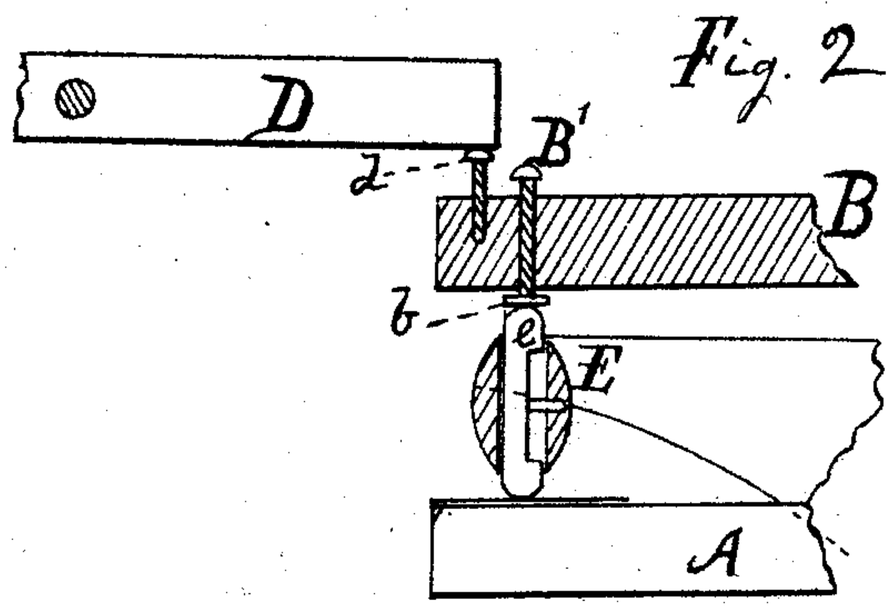
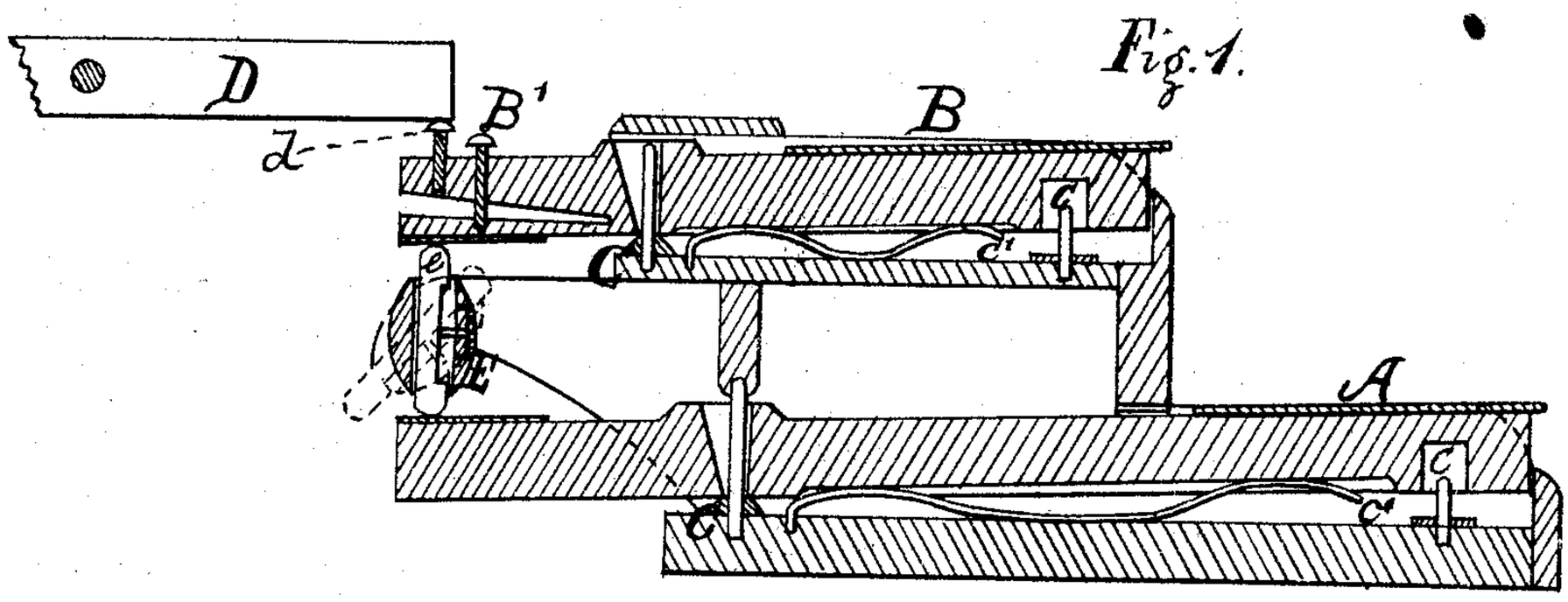


Fig. 1.



Witnesses

Henry Orth

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UNITED STATES PATENT OFFICE.

CHARLES SCHALLBERG, OF SYRACUSE, NEW YORK, ASSIGNOR TO HORATIO N. GOODMAN, OF SAME PLACE.

IMPROVEMENT IN ORGAN-COUPLERS.

Specification forming part of Letters Patent No. **152,694**, dated June 30, 1874; application filed March 11, 1874.

To all whom it may concern:

Be it known that I, CHARLES SCHALLBERG, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Actions for Organs; and I 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 pertains to make and use it, reference being had to the accompanying drawings which form part of this specification.

In the manufacture of instruments like melodeons or organs, which have one or more banks or manuals of keys, couplers are frequently employed to connect either the manuals with each other, or keys which are an octave apart in the same key-board. In such cases it has been found desirable to use a device for adjusting the coupler to the key, in order to produce a closeness and elasticity of touch under all of the varying conditions and relations incident to the shrinking, swelling, and warping of the wood, growing out of the difference in the temperature and the atmospheric changes to which an instrument is subjected.

The object of this invention is to make a cheap, durable, and effective adjustable coupler, which can be accurately regulated by the use of an ordinary screw-driver; and to this end the invention consists in combining, with the keys and arms or levers of the coupler, adjusting-screws, as will be hereinafter explained.

Figure 1 represents a vertical transverse section of so much of an organ-action as is necessary to illustrate my invention, and Fig. 2 represents another method of carrying it out.

A is the key of the lower bank, and B a key of the upper bank or manual, both being mounted, by preference, on balance-rails C, and provided with steady-pins *c* and recoil-springs *c'*. D is a lever, which communicates the motion of the upper key to the valve in the wind-chest or reed-board; and suitable connections should be made between key A and another reed-valve. E is a rocking shaft mounted at each end in suitable bearings, so as to rotate therein freely. *e* is a pin or stem arranged to slide in a mortise cut for its reception through rock-shaft E. This pin may have a head at its upper end, made too large to pass through the mortise in the shaft; or it may have a recess cut in one side, and a pin inserted in one wall of the mortise to prevent it (the pin) from being accidentally removed from the rock-shaft.

It will, of course, be understood that the rock-shaft is of sufficient length to extend between all of the keys in the two banks which it is desired to couple, and that there is a pin, *e*, for each pair of such keys.

B′ (see Fig. 2) is an adjusting-screw extending through the upper key, and provided at its lower end with a pad or plate, *b*, adapted to rest upon and support the upward thrust of the pin *e*.

In Fig. 1, screw B′, instead of having a pad, bears upon a tongue formed on the key B, by sawing a kerf in the end, or made in a separate piece, and hinged to the lower side of the key, or made of an elastic strip and attached to the key by screws or their equivalents. *d* is a screw, which I generally call a "dip-screw," from the fact that by turning it up or down I can regulate the amount of play or "dip" of key B.

The rock-shaft is operated by means of a common pull-stop, and it will be readily seen that when it is in the position indicated by the full lines in the drawing, the upper key B will be actuated from the lower key A; but if the rock-shaft and pin *e* be moved by the pull-stop into the position represented by the dotted lines in Fig. 1, the connection between the two keys will be broken, and the lower one may be operated independently of the upper one.

Of course, this coupler may be arranged to actuate the levers of an ordinary octave coupler in substantially the same manner that it does the upper key B.

Having thus described my invention, what I claim is—

1. The combination of the rock-shaft E, pin *e*, and set-screw B′ with the keys A and B, substantially as set forth.

2. The combination of the lever D, set-screws B′ *d*, keys A B, rock-shaft E, and pin *e*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of January, 1874.

CHARLES SCHALLBERG.

Witnesses:
C. W. SMITH,
JAMES C. MIX.