I. T. Packard,

Coupler for Musical Instruments,

No. 54,395. Patented May 1, 1866.

Fig. 2.

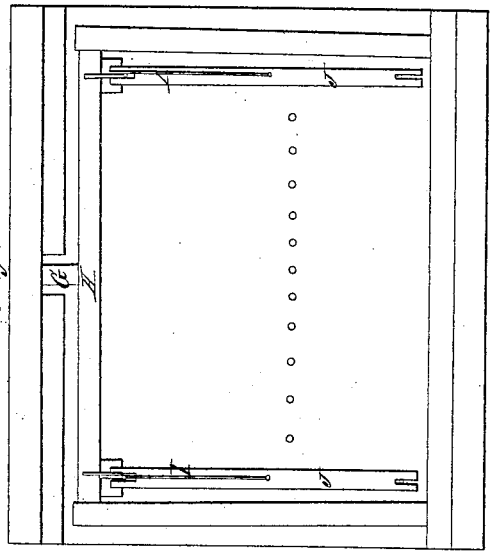


Fig. 1.

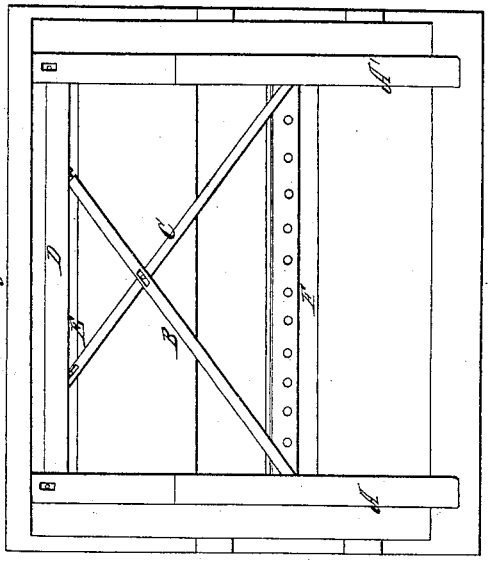
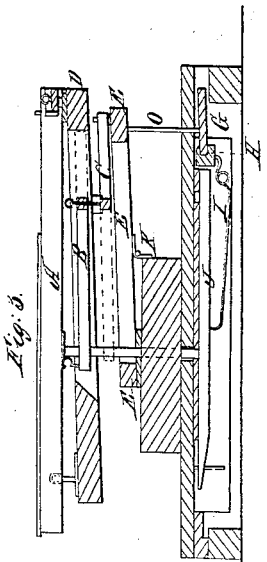


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ISAAC T. PACKARD, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN REED MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **54,395**, dated May 1, 1866.

To all whom it may concern:

Be it known that I, ISAAC T. PACKARD, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Reed Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters and figures marked thereon, which form a part of this specification, in which—

Figure 1 represents a top view of my invention; Fig. 2, a bottom view of the same, and Fig. 3 a vertical sectional view at the red line *x* in Fig. 1.

The nature of my invention consists in coupling keys of a reed musical instrument by means of two levers crossing each other with their fulcrums at their rear ends as they are placed in the instrument; also, in a device so arranged that when the said levers do not act as couplers there is an additional pressure put upon the valves, so as to make a uniformity of pressure necessary to operate the keys whether the couplers are in operation or not.

To enable those skilled in the art to manufacture and use my invention, I will proceed to describe the same with particularity.

A and A′ are octave keys of a reed musical instrument. B and C are the coupling-levers crossing each other, as shown, B having its fulcrum in D, and C having its fulcrum in the movable or hinged frame E.

The lever C passes beneath the lever B in such a manner that when the key A is pressed down the lever B presses down the lever C, which carries down the key A′ and sounds the octave note. When it is desired to disconnect the coupling-levers, so as not to sound the octave note, the rear part of the frame E is pressed down by turning it on the hinges K, which lowers the lever C at its fulcrum and removes it so far from the lever B as not to be operated by it.

Beneath the rear of the frame E there is a rod, O, which extends down to the lever G, which is attached to the spring-rail H. The springs I are so attached to the spring-rail H and the valves J that when the said spring-rail H is turned, by means of the frame E pressing the rod O onto the lever G, or is turned in any other way, they give an additional pressure to the valves.

The spring-rail H may be made movable in any way, so as to accomplish the result of increasing the tension of the springs on the valves, and it may be operated in connection with the frame E or independently. It could be used to cause a light or heavy action of the keys when the couplers are not used; but it is used, as here shown, more particularly to make the pressure required to operate the keys nearly or quite the same, whether the coupler is in operation or not, and this can be the more readily accomplished by having the same power which dislocates the coupling-levers operate the spring-rail H.

I claim as the merits of my invention cheapness of manufacture, compactness, simplicity, and durability.

The coupling-levers may be displaced and the springs I operated by means of a foot-pedal or any other suitable device.

Having described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

1. An octave coupler for reed musical instruments constructed with the levers B and C, the fulcrums of which are at or near their rear ends and their connection with each other is between their fulcrums and the keys and tracker-pins, upon which they operate.

2. The movable spring-rail H, when constructed and operating substantially as and for the purpose herein set forth.

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Witnesses:

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