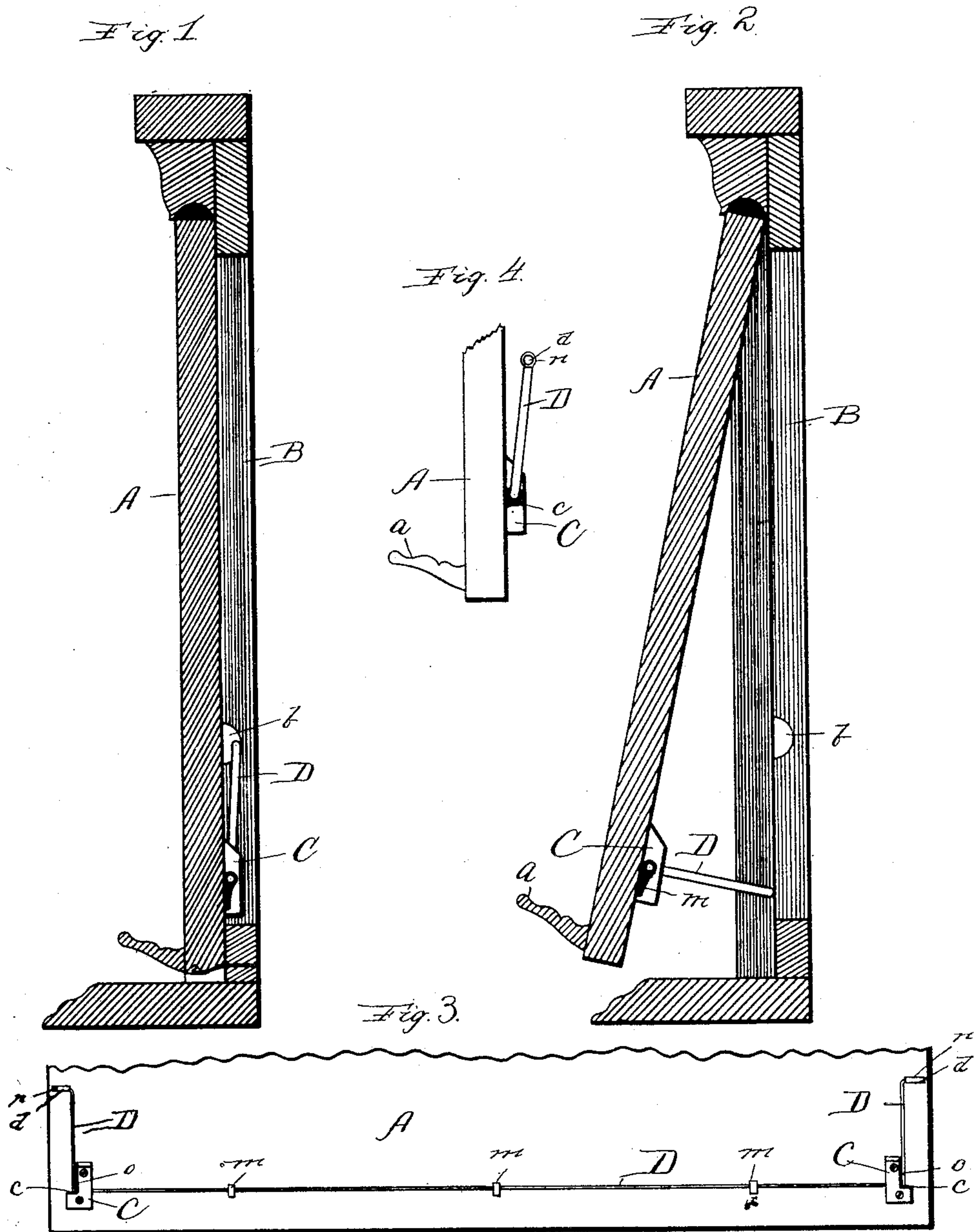


(No Model.)

D. L. RICE.
MUSIC RACK.

No. 427,614.

Patented May 13, 1890.



Witnesses:
Mack A. Clapham,
Law. S. Curtis.

Inventor:
Duane L. Rice.
By Munday Evans & Adcock
his Attorneys:

UNITED STATES PATENT OFFICE.

DUANE L. RICE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE W. W. KIMBALL COMPANY, OF SAME PLACE.

MUSIC-RACK.

SPECIFICATION forming part of Letters Patent No. 427,614, dated May 13, 1890.

Application filed January 14, 1889. Serial No. 296,225. (No model.)

To all whom it may concern:

Be it known that I, DUANE L. RICE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Music-Racks, of which the following is a specification.

This invention is designed to supply to the movable music-racks of pianos and other instruments a means for sustaining the lower edge of said racks when swung outwardly upon the hinges at their tops. It has been customary heretofore to devolve this function upon a device operating much like an ordinary knife-blade—that is to say, a pivoted arm and a spring acting thereon. I purpose so changing the construction as to dispense entirely with springs and to render the device at the same time easily operable and simple in construction.

The invention consists in the combination, with a stationary hinged rack and the piano-lining immediately behind said rack, of the devices hereinafter described for supporting the bottom of the rack when swung outward.

The drawings show at Figures 1 and 2 vertical transverse sections of a piano-rack and the adjacent part of the instrument, Fig. 1 showing the rack closed, and Fig. 2 showing it moved out or opened. Fig. 3 is a rear elevation of that portion of the rack carrying the supporting device. Fig. 4 is an edge view of the part shown at Fig. 3.

In said drawings, A represents the rack, and *a* the music-supporting ledge at the bottom thereof.

B represents the lining or frame-work immediately behind the rack. The rack is hinged at its upper corners in the usual manner, which is not illustrated, but is familiar to all piano-makers. Secured to the back of the rack near its lower edge is one or more blocks C. These blocks form pivotal bearings for the gravity-arms D, and they are also provided with ledges *c*, which serve to limit the downward swing of said arms. The arms D are formed of wire, and where more than one is employed are connected together, preferably by extending their pivotal portions from one to the other or making them of one piece of wire, as plainly indicated at

Fig. 3. This connecting portion may be provided with retaining-staples *m* at intervals between the blocks. The arms D should also have lateral bends *d* at their free ends, which may be armed with rubber buffing, as shown at *n*. It is also desirable to surround the pivotal parts of the arms within the blocks C with felt *o* or other equivalent material to prevent rattling. When closed, the outer bends of the arms may rest in recesses *b* in the lining B, and it is desirable that the arms should be free from friction in their bearings, so that their swing may not be interfered with.

With this construction the operation is simple and easily understood, the arms automatically swinging away from the rack and into engagement with the lining, as indicated at Fig. 2, as the rack is pulled out and assumes an inclined position. The inclining of the rack assists in the movements of the arms, as it also inclines the arms and gives them greater freedom to swing on their axis. When in the position of Fig. 2, the arms effectually hold the rack open, and to close it is only the work of an instant, it being simply necessary to extend a finger behind the rack and lift one of the arms to the vertical position and then push the rack back. This operation will lift all the arms simultaneously, if they are united, as suggested.

Of course the gravity-arms may be separate from each other, or a single one may be employed; but I prefer the construction shown as being the best form, answering all requirements.

I claim—

The combination, with a piano-rack fixedly hinged at the top and the piano-lining, of a block or blocks secured to the back of the rack near its lower edge and one or more gravity-operated arms freely pivoted in said block or blocks, so as to swing outwardly when the rack is moved outward, said blocks being also provided with stops to limit the movement of the arms, substantially as set forth.

DUANE L. RICE.

Witnesses:

EDW. S. EVARTS,
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