

No. 791,710.

PATENTED JUNE 6, 1905.

R. MOE.

FALL BOARD ACTUATED MUSIC DESK ACTUATING DEVICE FOR PIANOS, &c.

APPLICATION FILED APR. 12, 1905.

Fig. 2

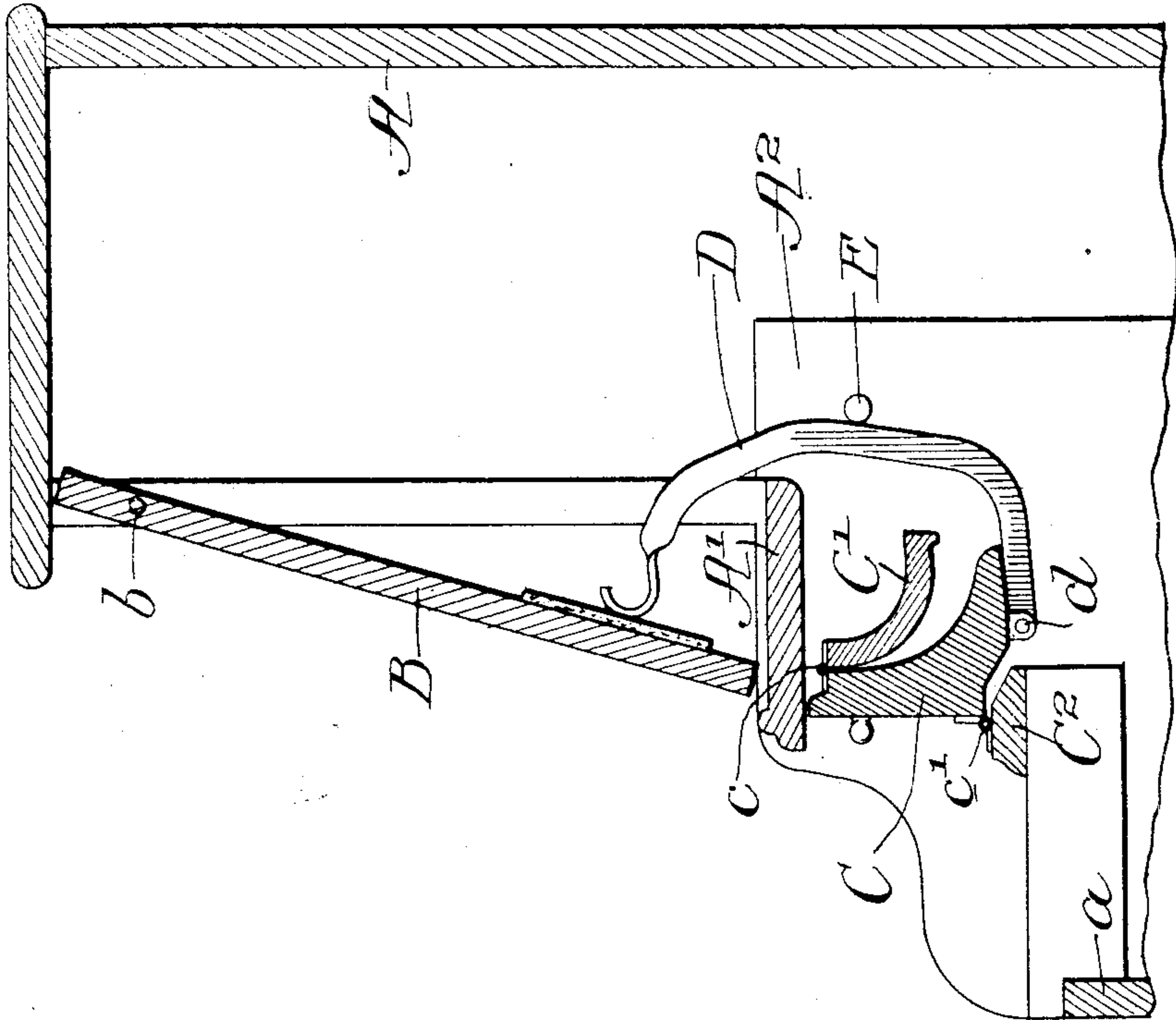


Fig. 1

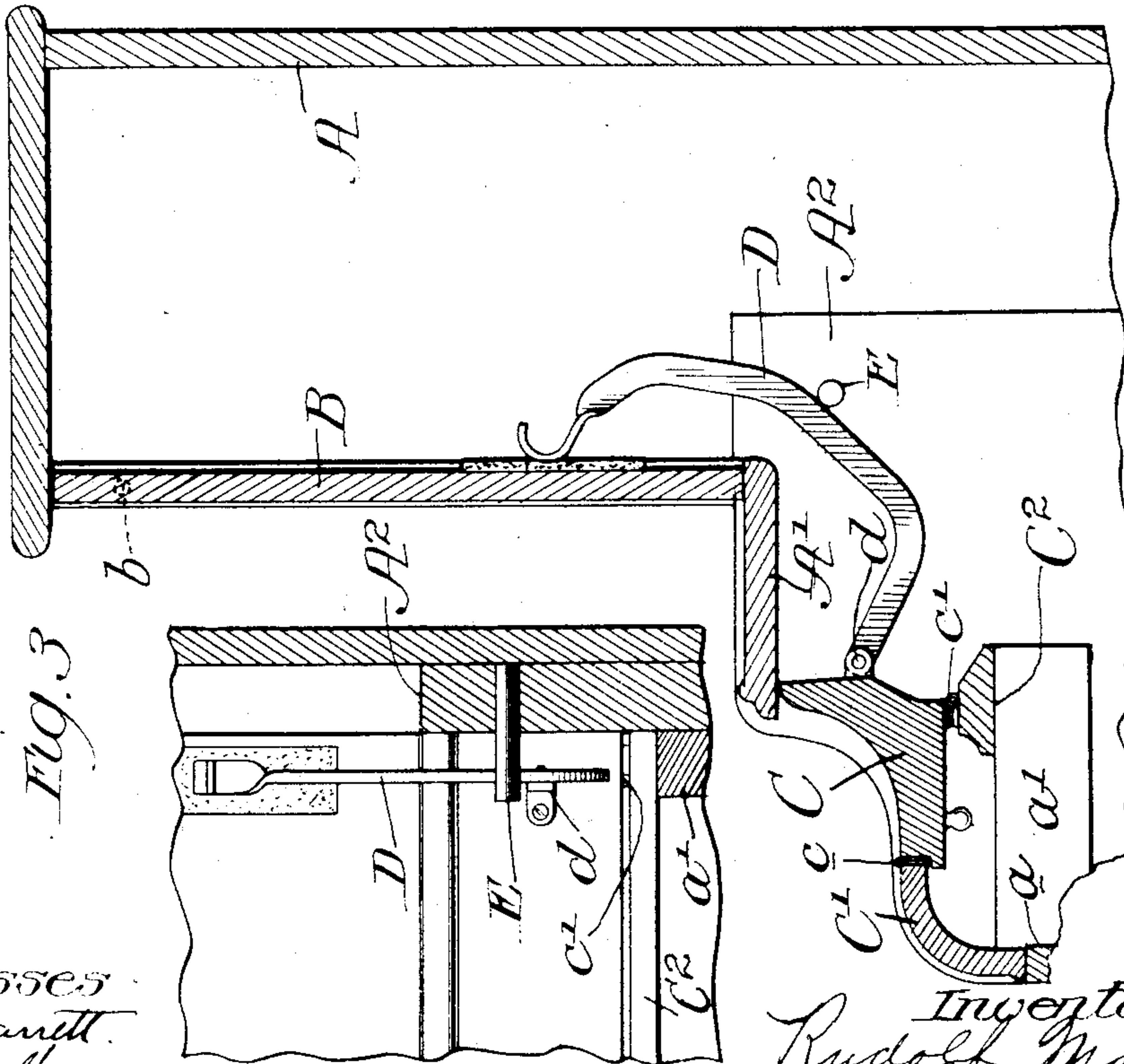
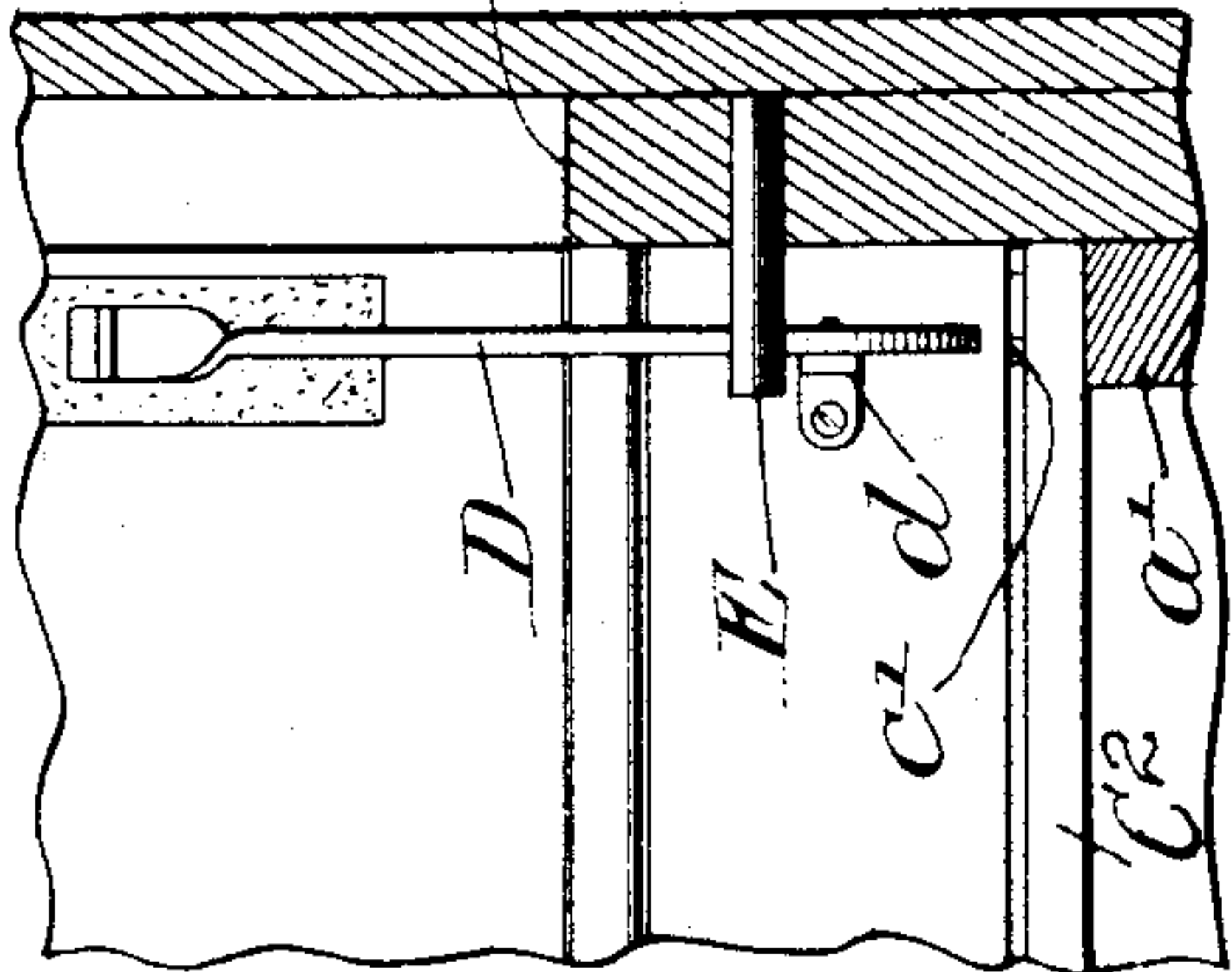


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

RUDOLF MOE, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN INDUSTRIAL COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FALL-BOARD-ACTUATED MUSIC-DESK-ACTUATING DEVICE FOR PIANOS, &c.

SPECIFICATION forming part of Letters Patent No. 791,710, dated June 6, 1905.

Application filed April 12, 1905. Serial No. 255,151.

To all whom it may concern:

Be it known that I, RUDOLF MOE, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fall-Board-Actuated Music-Desk-Actuating Devices for Pianos, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in cases for pianos and like musical instruments; and the invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

The invention refers more specifically to an improved device, commonly known in the trade as a "kicker," which constitutes a connection between the fall-board and the music-desk and operates in such manner that the music-desk is automatically swung forwardly when the fall-board is swung into its open position and permits the music-desk to retire or swing back to its closed position when the fall-board is moved into its closed position to cover the playing-keys of the instrument.

Among the objects of my invention is to provide an exceedingly simple and efficient device of this character and one whose construction permits its ready attachment to and use with cases for pianos or like musical instruments of varying constructions.

In the drawings, Figure 1 is a cross-section taken through a piano-case, showing my improvements applied thereto. Fig. 2 is a like view showing the parts in changed position. Fig. 3 is a rear view of the parts immediately associated with my improvements.

As shown in the drawings, A designates as a whole the case of an upright piano having the usual shelf or ledge A' at the front thereof.

B designates the music-desk, which is hinged near its top to the case in a manner permitting the lower side thereof to swing outwardly in a familiar manner to constitute an inclined support or rest for the music.

The fall-board consists of two parts C C', the part C being shown as made of L shape and adapted to close the opening between the keys and the shelf or ledge A' in both the open and closed positions of the fall-board. The front curved section C' of the fall-board is hinged to the rear section thereof by hinges c and fits when closed upon the front a of the case. The L-shaped section C of the fall-board is shown as hinged at its angle by hinges c' to a transverse bar C², commonly known as the "small cove," which extends transversely across the playing-keys and is supported at its ends on ledges a' of the cheeks A' at the end walls of the piano-case. When the fall-board is to be swung into its open position, the front curved section C' thereof is first folded backwardly into the concave part of the L-shaped section, after which both parts are swung backwardly on the hinges c' to the position shown in Fig. 2.

D designates a curved lever, commonly known as a "kicker," which is hinged at its lower end to the rear part of the fall-board, or a part attached thereto above the level of the hinges c' of the fall-board, by means of any suitable hinge connection d. Said lever bears at its upper end against the rear face of the music-desk B, but is not connected therewith. The lever bears intermediate its ends against a suitable abutment E, located in rear of the fall-board, such abutment constituting a fulcrum about which the lever swings when the fall-board is moved to its open or closed position. The parts are so constructed that when the fall-board is in its closed position, as shown in Fig. 1, the music-desk is in a vertical position and closes the opening in the front of the case in which the desk is fitted. At this time the upper end of the lever bears against the music-desk and the convex edge of the curved lever bears, intermediate its ends, against the fulcrum or abutment E. The shape of the lever is such that when the fall-board is swung rearwardly to expose the playing-keys motion is transmitted through the lever to advance the lower side of the music-desk to the position shown in Fig. 2, thereby constituting an inclined rest or sup-

port for the music. Conversely, when the fall-board is swung forwardly to close the piano, the upper end of the lever D is retracted to permit the music-desk to retire or to swing into its vertical position, and thereby close the opening in the case, which is shaped to receive the same. During the opening and closing movements of the fall-board, as stated, the lever slides on its fulcrum and also slides at its upper end against the rear face of the music-desk. The stationary fulcrum thus operating with the shifting lever constitutes, in effect, a shifting fulcrum for the lever during the operation of the same. The fulcrum E may consist of any part suitable for engagement with the lever for the purpose described, whether it be a specially-provided pin, as herein shown, or a part of the casing already at hand for such purpose. In the present instance the pin E is attached to the adjacent cheek-piece A² of the case. Ordinarily but one lever, located at one end or intermediate the ends of the fall-board, need be employed. If desired, however, two levers, one at each end of the fall-board, may be used. The lever is preferably made of a thin metal bar, which is twisted at its upper end to afford a desirably wide bearing against the music-desk.

In Fig. 1 the music-desk and fall-board are shown in their closed positions. When the fall-board is swung rearwardly, the lower end of the lever D is swung rearwardly and downwardly, thereby throwing the upper end thereof forwardly and advancing the lower side of the music-desk to the inclined position shown in Fig. 2. It will be observed that when the fall-board is in its open position, as shown in Fig. 2, the hinged connection of the kicker or lever D is located below the level of the hinged connection of the L-shaped section of the fall-board with its support. Pressure exerted rearwardly against the music-desk at this time, therefore, has no tendency to effect the closing of the fall-board.

I claim as my invention—

1. In a case for a piano or like musical instrument, the combination with the hinged fall-board and a swinging music-desk, of a lever hinged at its lower end to the fall-board and bearing at its upper end against the rear face of the music-desk and a fulcrum in rear of the fall-board with which the intermediate part of said lever has sliding engagement, whereby, when the fall-board is opened, the lever acts to automatically advance the lower side of the music-desk.

2. In a case for a piano or like musical instrument, the combination with a swinging music-desk and the fall-board which is hinged to swing rearwardly into the case, of a curved lever which is hinged at its lower end to said fall-board and slidably engages at its upper end the rear face of the music-desk, and a fulcrum in rear of the fall-board against which

the convex edge of said lever bears and in contact with which it slides when the fall-board is swung into and out of the piano, whereby the opening and closing movements of said fall-board act, respectively, to advance the music-desk from its normally closed position and permits it to retire to its closed position.

3. In a case for a piano or like musical instrument, the combination with a swinging music-desk and a fall-board which is hinged to swing rearwardly into the case, of a curved lever which is hinged at its lower end to said fall-board and engages at its upper end the rear face of the music-desk, and a fulcrum in rear of the fall-board against which said lever bears and in contact with which it slides when the fall-board is swung into and out of the piano, whereby movement of said fall-board acts to advance the music-desk from the case or permits it to retire to its normal position, the hinged connection between the lever and fall-board, when the fall-board is in its open position, being below the hinge of the fall-board.

4. In a case for a piano or like musical instrument, the combination with a swinging music-desk, and a fall-board including a substantially L-shaped part hinged at its angle to the case, of a curved lever hinged at its lower end to said fall-board, and slidably engaging at its upper end the rear face of the music-desk, and a fulcrum in rear of the fall-board against which the lever bears, and with which it has sliding engagement whereby the opening and closing movements of the fall-board automatically effect the advancement and retirement of the music-desk.

5. In a piano or like musical instrument, the combination with a case provided with a ledge or shelf and a music-desk, of a fall-board having a substantially L-shaped section that is hinged near its angle within the case below the said shelf, each leg of the L-shaped board being adapted to swing under the ledge in such manner as to close the space between the ledge and the hinged support for said board when opened or closed, a lever having hinged connection with one arm of said fall-board, and having sliding bearing against the rear face of the music-desk, and a fulcrum in rear of the fall-board with which the lever has sliding engagement, whereby the opening and closing movements of the fall-board automatically effect the advancement and retirement of the music-desk.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 5th day of April, A. D. 1905.

RUDOLF MOE.

Witnesses:

WILLIAM L. HALL,
G. R. VILKINS.