

H. T. LOGAN.
MECHANICAL PIANO PLAYER.
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910,932.

Patented Jan. 26, 1909.

Fig. 1

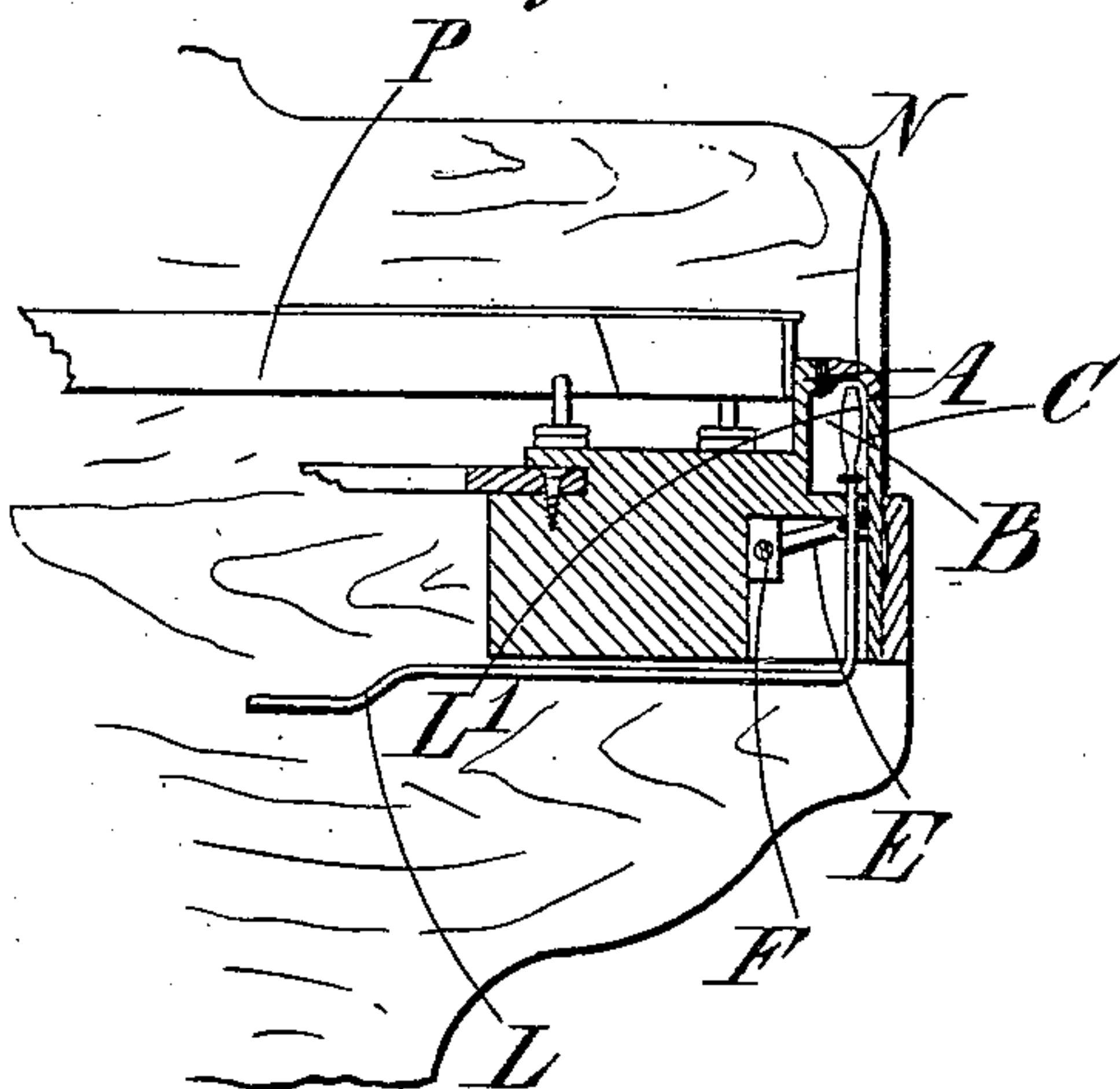


Fig. 2.

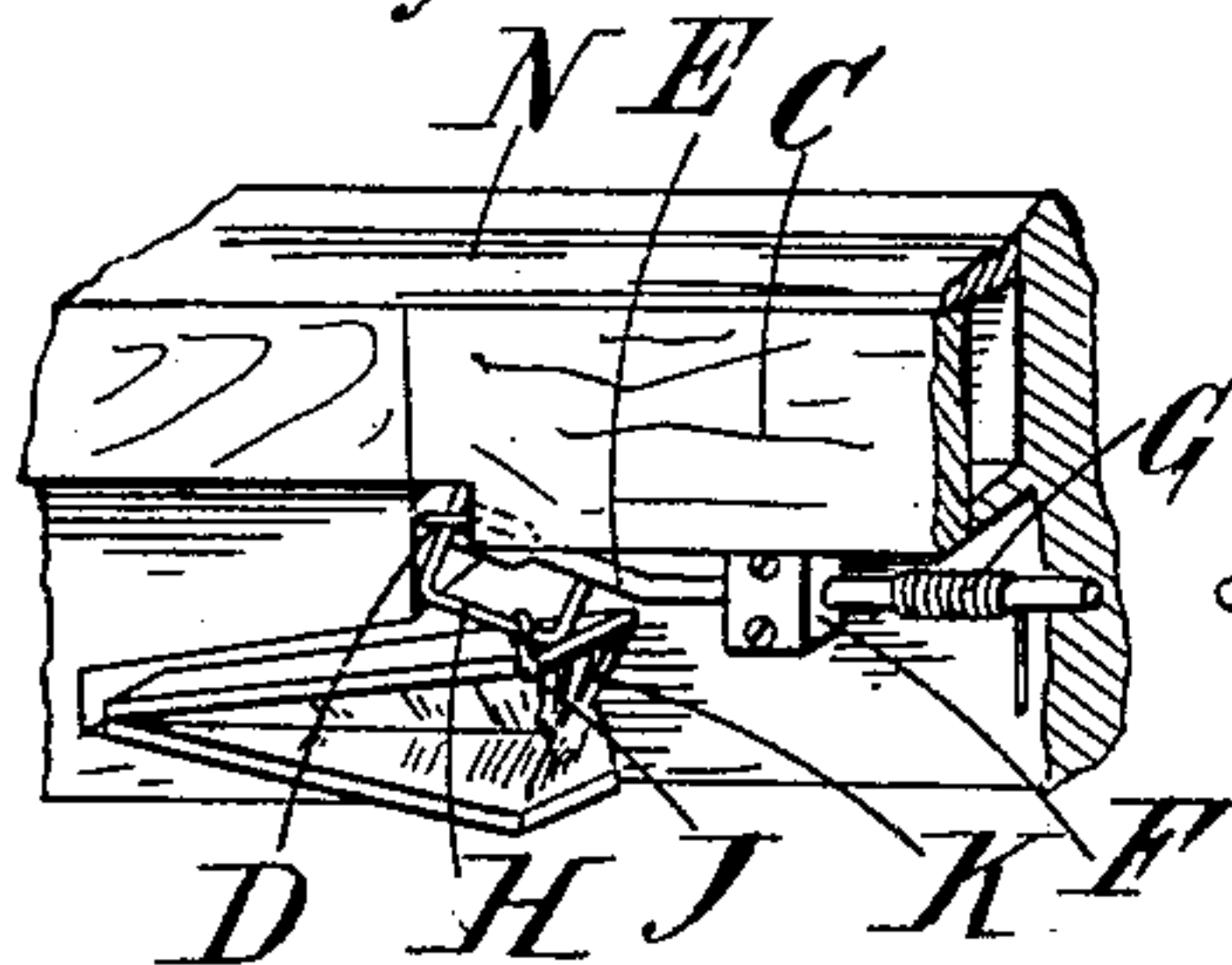


Fig. 2a

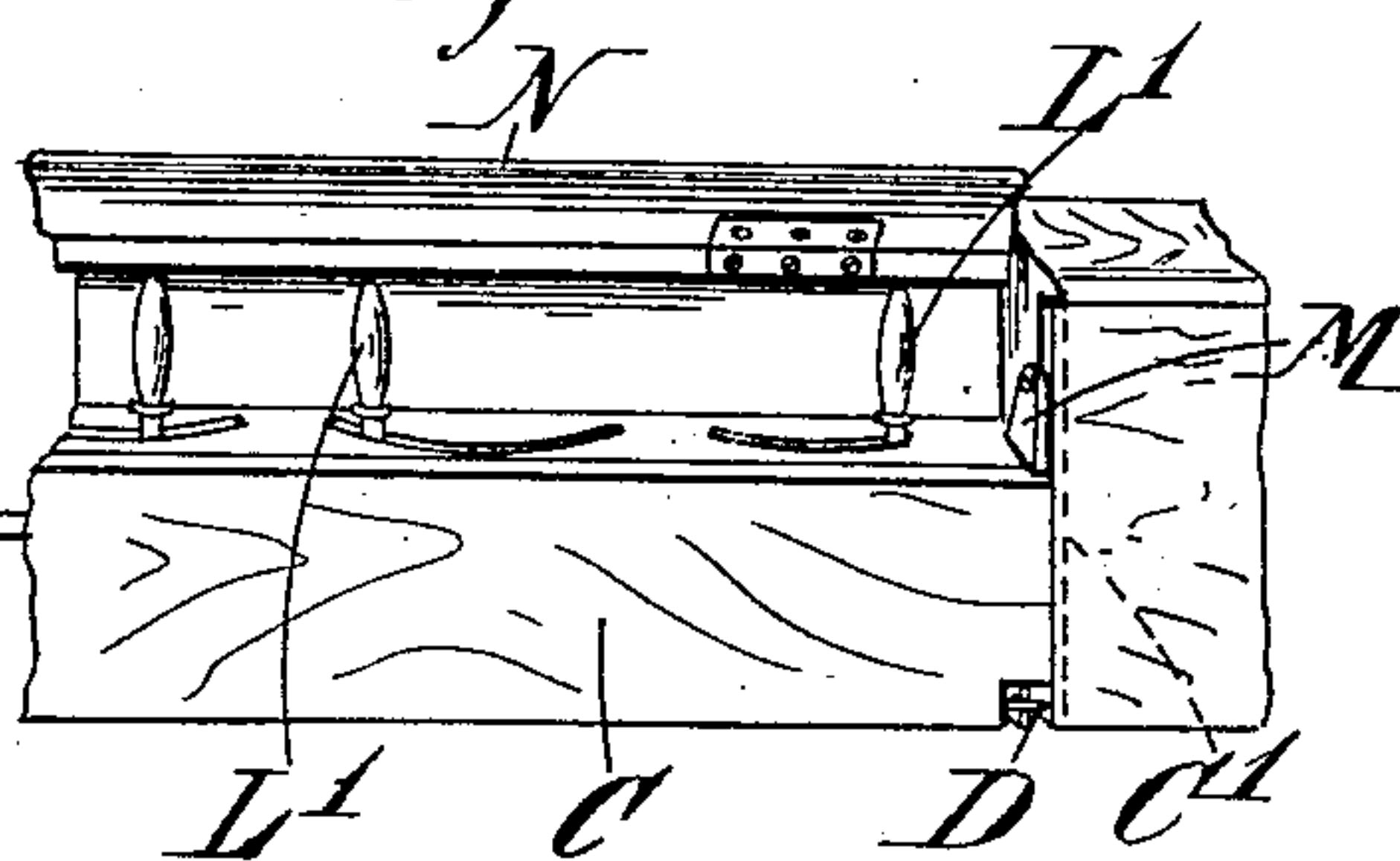
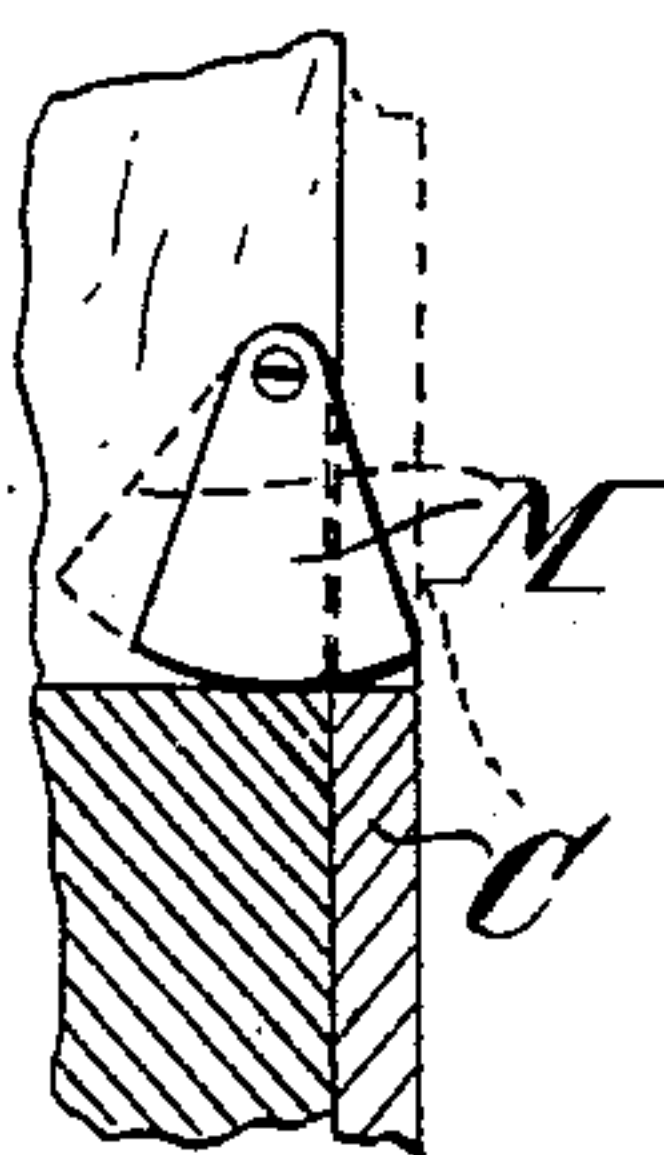


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HUMPHREY THOMAS LOGAN, OF ERITH, ENGLAND.

MECHANICAL PIANO-PLAYER.

No. 910,932.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Original application filed April 13, 1907, Serial No. 311,515. Divided and this application filed August 2, 1907.
Serial No. 386,809.

To all whom it may concern:

Be it known that I, HUMPHREY THOMAS LOGAN, a subject of the King of England, residing at Erith, Kent, in England, have invented certain new and useful improvements in Mechanical Piano-Players, of which the following is a specification.

This invention relates to the regulating and controlling levers of mechanical piano-fortes and like instruments.

According to this invention the regulating and controlling levers are accommodated in a recess cut in the key-slip, that is in the bar which extends across the piano in front of the keys. A sliding door is provided to close the front of the recess and is supported on a spring-controlled frame pivoted in the key bottom and engaging both ends of the door so that the vertical motion of the door is the same at each end. This sliding door can be pressed down into a space in the key bottom, and the spring-controlled frame tends to close it again. The door may be held open by a catch while the automatic piano-player is in action.

One arrangement according to this invention is illustrated in the accompanying drawings, of which—

Figure 1 is a vertical section through a portion of the front of a mechanical piano, and Fig. 2 is a perspective view showing part of the key slip with the door in one position, and Fig. 2^a is a similar view with the door in another position. Fig. 3 is an elevation of a detail.

Like letters indicate like parts in all figures.

A is the key-slip having a recess or boss B formed in it. This recess is provided with a sliding door C the ends of which are guided as at C¹ (Fig. 2) in slots cut to receive them in the key-slip. Pins D at the ends of the door C engage with the slotted arms of a bent rod or frame E. This rod or frame is mounted so that it can turn in blocks F and is provided with a spring G which tends to keep the arms raised as shown in the left hand portion of Fig. 2, thus keeping the door C also raised and the front of the recess closed. Attached to one of the arms E is a light frame H engaging with an eye J upon a small

bellows K. The regulating and controlling levers L are brought to the front of the piano and their handles L¹ are inclosed in the recess B.

The bellows K is closed when the door C is pushed down against the action of the spring G and acts when the spring is allowed to raise the door to make the motion slow and easy by reason of the fact that but a very small inlet for air is provided in the bellows. The door C can be retained in its lower position against the action of the spring G to keep the lever handles L¹ exposed during the playing of the instrument, by means of a pivoted catch M, whose shape is clearly shown in Fig. 3. This may conveniently be so arranged that it falls by gravity into its engaging position as soon as the door C is depressed and must then be pushed away to release the door. A narrow hinged lid N serves to close the top of the recess B.

Part of a key P is indicated in Fig. 1 merely to show the relative positions of the parts.

What I claim as my invention and desire to secure by Letters Patent is—

1. In a mechanical piano-player the combination with a key-slip having a recess to accommodate the handles of the regulating and controlling levers of a vertically sliding door closing the front of the recess.

2. In a mechanical piano-player the combination with a key-slip having a recess to accommodate the handles of the regulating and controlling levers of a sliding door, a spring tending to keep said door in its closed position and a retaining catch to keep the door open against the action of the spring.

3. In a mechanical piano-player the combination with a key-slip having a recess to accommodate the handles of the regulating and controlling levers, of a sliding door, a spring tending to keep said door in its closed position, a retaining catch to keep the door open against the action of the spring, a bellows tending to prevent the sudden closing of the door and a lid to close the recess.

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Witnesses:

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