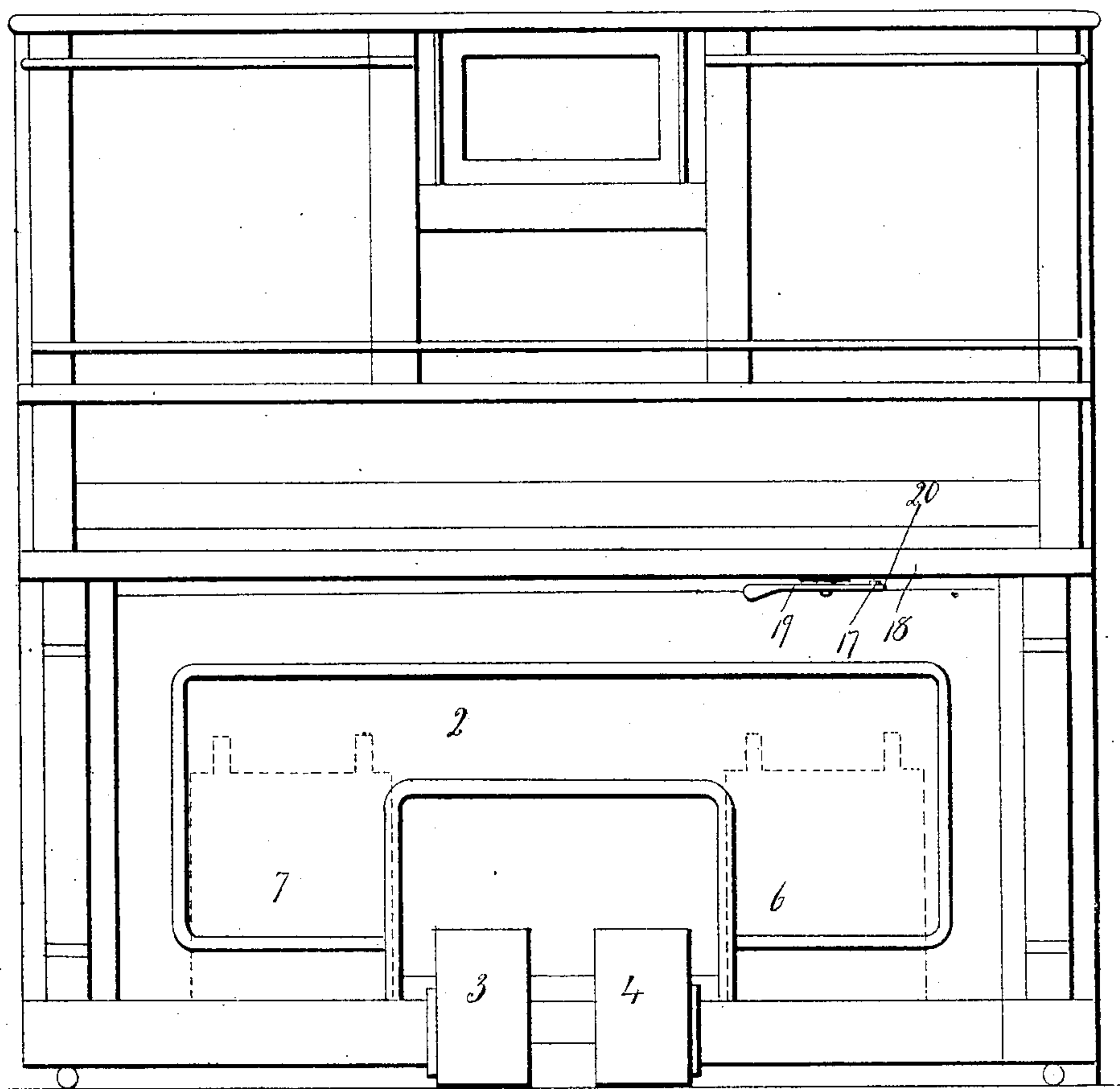


C. H. HUBBELL.
PIANO CASE.
APPLICATION FILED MAY 13, 1909.

944,036.

Patented Dec. 21, 1909.
2 SHEETS—SHEET 1.

Fig 1.



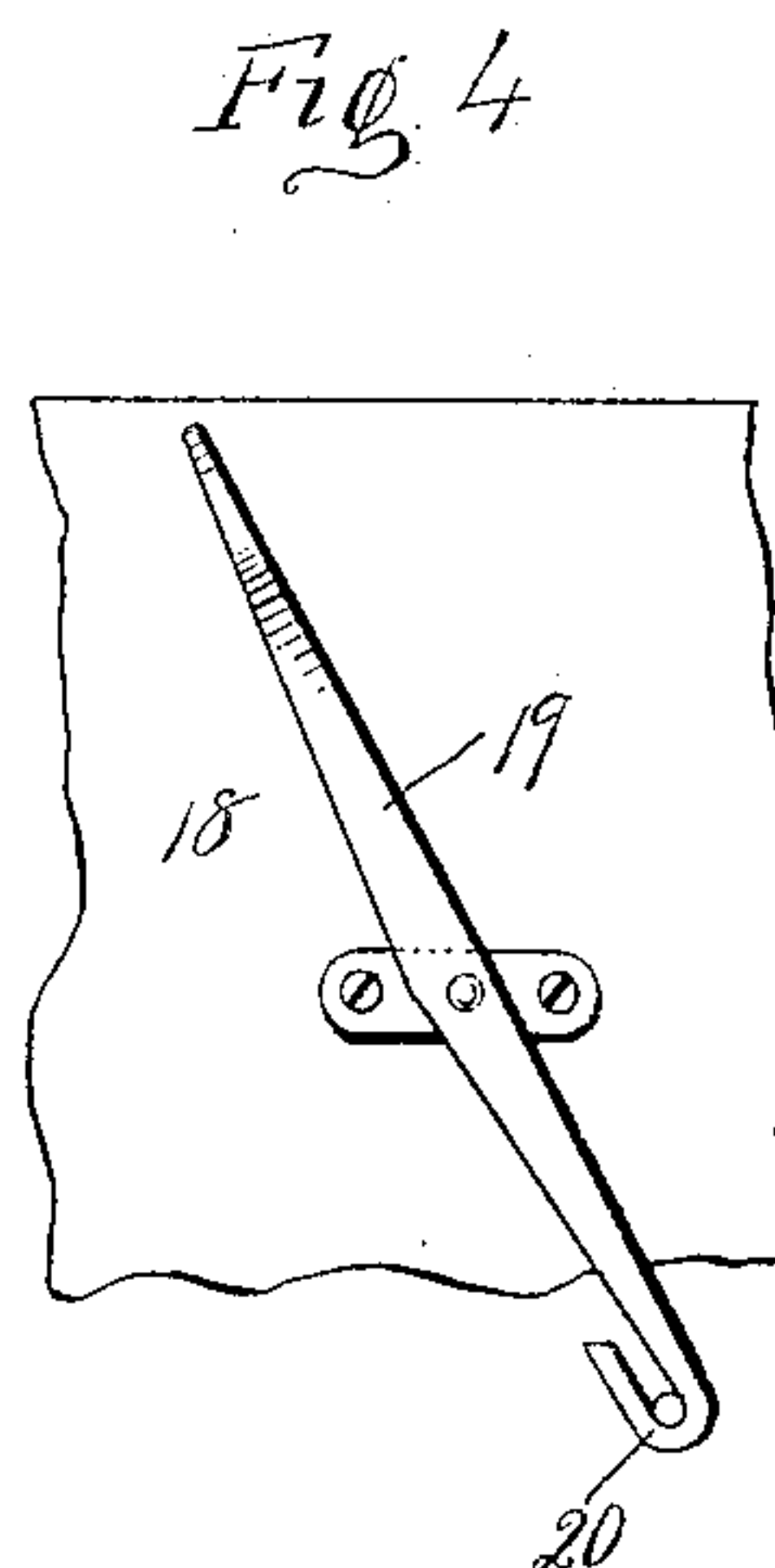
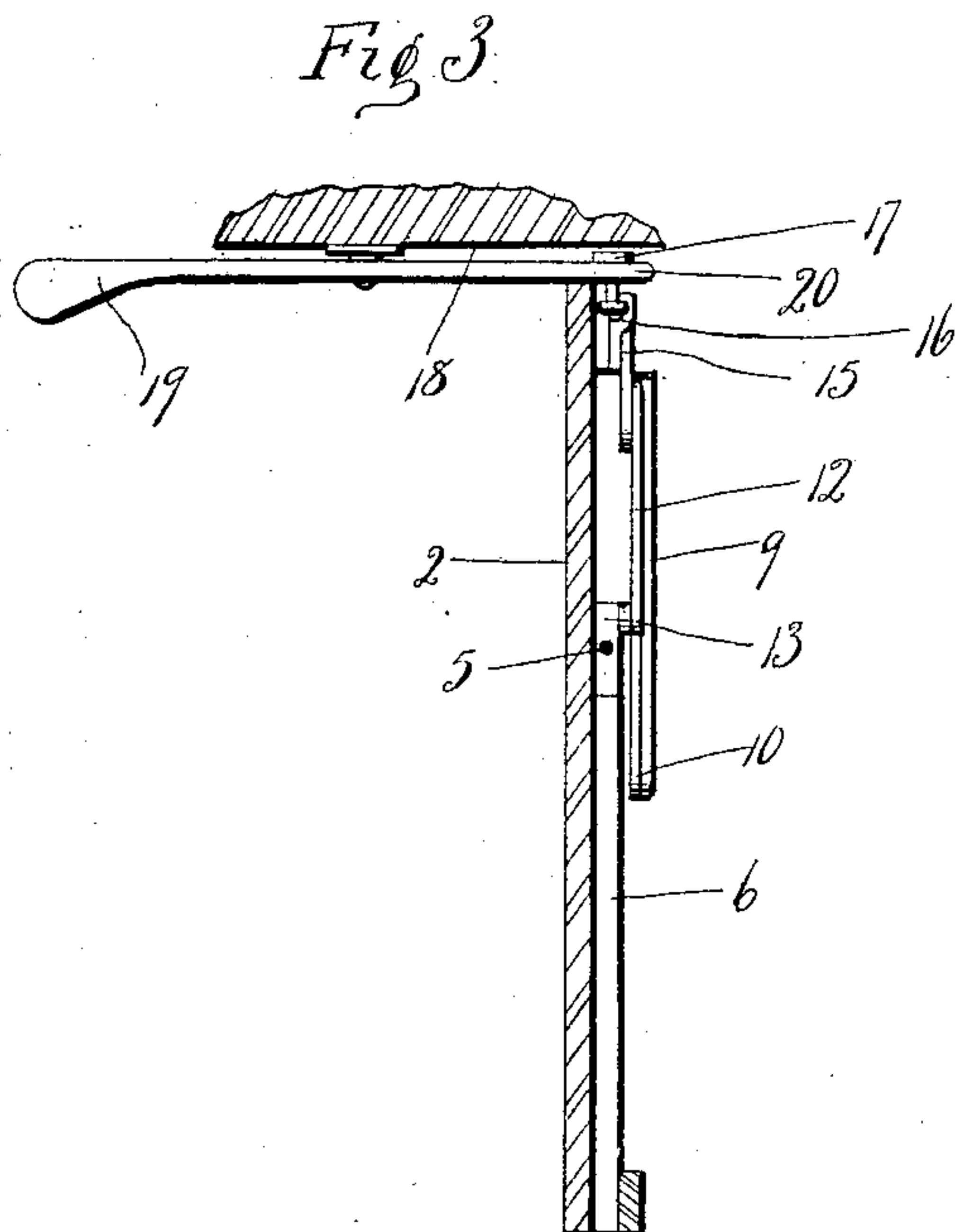
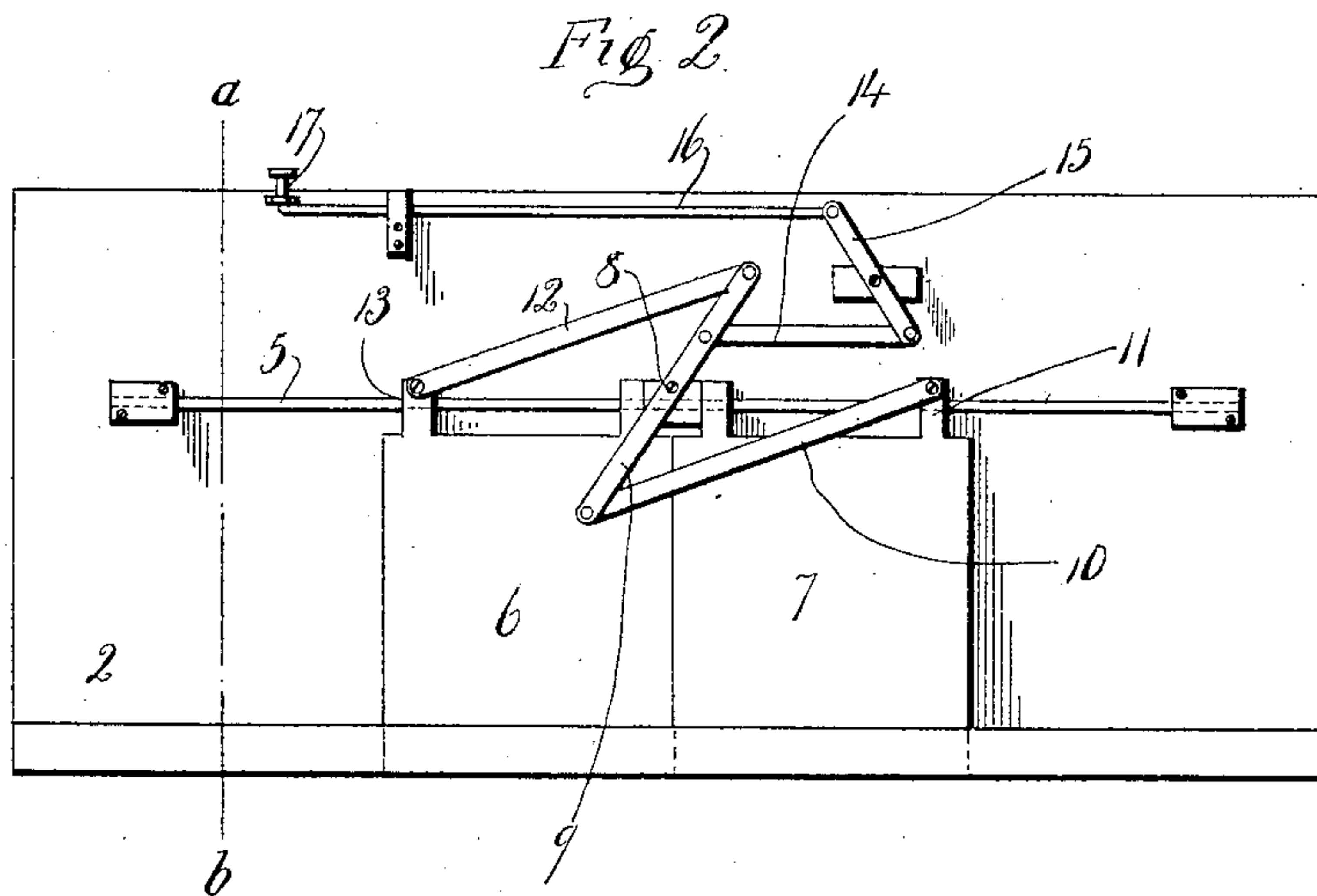
Witnesses:
C. J. Reed.
C. L. Weed

Charles H. Hubbell
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UNITED STATES PATENT OFFICE.

CHARLES H. HUBBELL, OF DERBY, CONNECTICUT, ASSIGNOR TO THE STERLING CO., OF
DERBY, CONNECTICUT, A CORPORATION.

PIANO-CASE.

944,036.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed May 13, 1909. Serial No. 495,792.

To all whom it may concern:

Be it known that I, CHARLES H. HUBBELL, a citizen of the United States, residing at Derby, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Piano-Cases; and I do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a front view of a piano case constructed in accordance with my invention showing the doors in an open position. Fig. 2 a view of the inner face of the lower front of a piano case showing the doors in closed position. Fig. 3 a sectional view on the line *a—b* of Fig. 2. Fig. 4 an underside view of a portion of the key base showing the door-operating handle connected thereto.

This invention relates to an improvement in cases for pianos, and to the class of what is known as inside players, that is, pianos which are provided with pneumatic instrumentalities for operating the keys. These pneumatic instrumentalities are operated by means of bellows pumped by treadles at the bottom of the case. These treadles are folded into the case when not required for use and doors are provided to close the opening in the case through which the treadles project.

The object of this invention is to provide means for operating these doors, and the invention consists in the construction hereinafter described and particularly recited in the claim.

The front 2 of the piano case is of usual construction the lower center being cut away to form an opening for the clearance of the treadles 3, 4, which are hinged to fold into the case in the usual manner. On the inner face of the lower front is a transverse rod 5 upon which the doors 6 and 7 are hung to slide. Mounted upon a pivot 8 on the inner face of the lower front above the center of the treadle opening is a lever 9, the pivot passing through the center of the lever. The lower end of this lever is connected by

a link 10 with an arm 11 of the door 7 which slides on the rod 5. The upper end of the lever 9 is connected by a link 12 with an arm 13 of the door 6 which slides on the said rod 5. Between the pivot 8 and the outer end of the lever 9 is pivoted a link 14 the outer end of which is pivoted to the lower end of a lever 15 the upper end of which is pivoted to the end of an operating rod 16 which is provided at its end with a post 17. Pivotaly connected with the under face of the key base 18 is an operating handle 19 having a hook end 20 to engage with the post 17, this operating handle being arranged at a convenient point for manipulation by the player. By turning this operating handle 19 the operating rod 16 is moved back and forth, and by this movement turns the lever 15 which in turn moves the lever 9 and the links 10 and 12, thus moving the doors 6 and 7. It will be noted that the connections of the links are at centers and so that the operation of both doors is uniform, both moving toward or away from the center at the same speed. By providing the operating handle 19 with its hook 20 the lower front may be removed without difficulty, and as easily replaced.

I claim:—

A piano case comprising a lower front formed with a treadle opening, a longitudinal rod mounted on the inner face of the lower front above said opening, doors hung upon said rod and adapted to slide longitudinally thereon, a lever pivotally connected above said treadle opening, links connected with opposite ends of said lever and with the respective doors, a link connected to said lever above the pivot, a second lever said link connected to the lower end of said second lever, an operating rod connected with said last named lever, and means for moving said operating rod whereby the doors are opened or closed.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

CHAS. H. HUBBELL.

Witnesses:

PHILIPP E. MOCK,
C. F. MURPHY.