

G. C. MANNER.
Upright-Piano Actions.

No. 137,377.

Patented April 1, 1873.

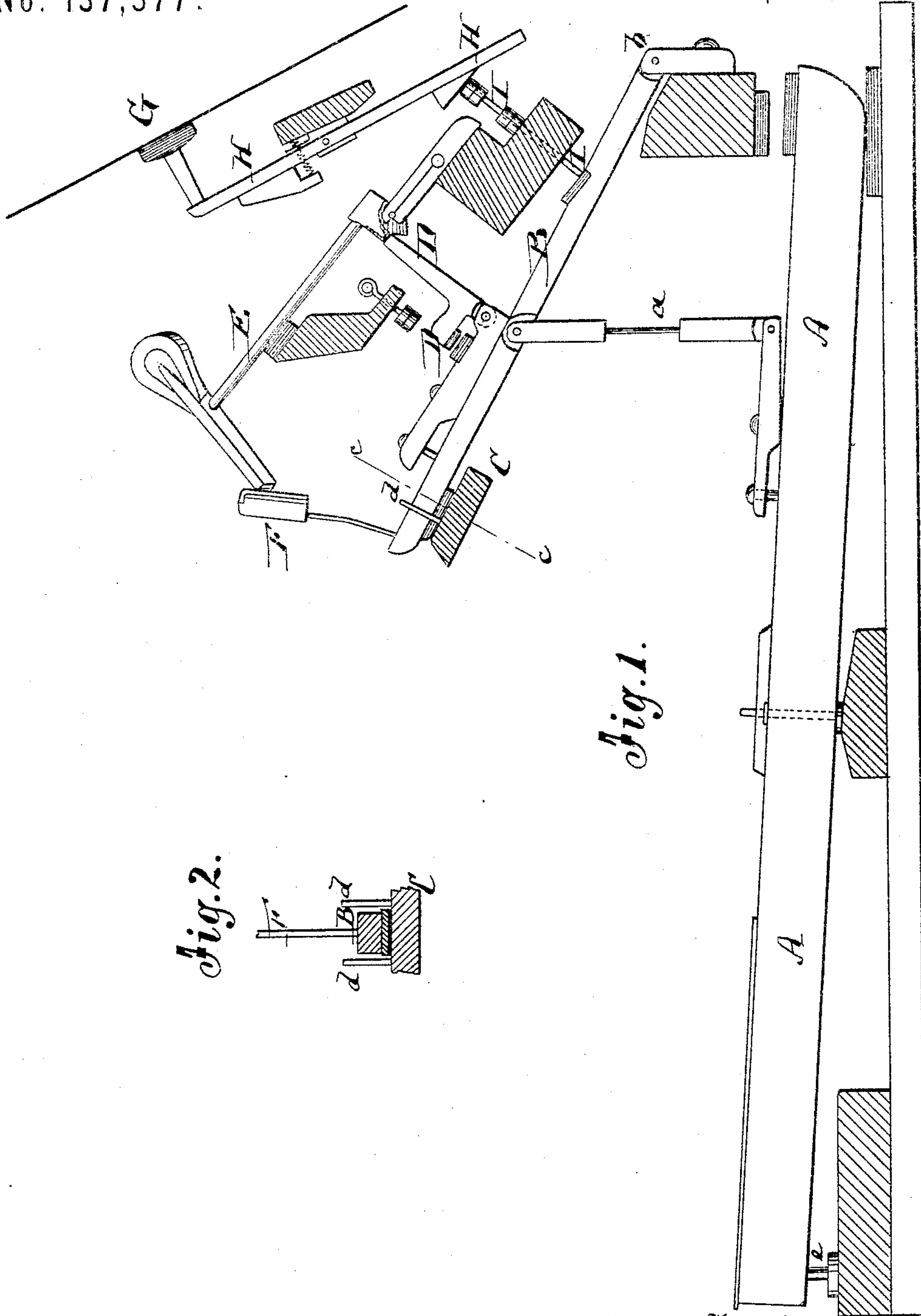


Fig. 1.

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN UPRIGHT-PIANO ACTIONS.

Specification forming part of Letters Patent No. **137,377**, dated April 1, 1873; application filed December 9, 1872.

To all whom it may concern:

Be it known that I, GEORGE C. MANNER, of Mott Haven, in the county of Westchester and State of New York, have invented a new and Improved Piano - Forte Action, of which the following is a specification:

Figure 1 is a side view of my improved action. Fig. 2 is a detail section thereof on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to adapt the ordinary French action, known also as the Petzold action, to upright piano-fortes, which parts in upright instruments, could not be heretofore, owing to the peculiar position of done. My invention is an improvement in the class of piano-forte actions wherein what is known as the French action is adapted to upright pianos. The improvement consists mainly in the arrangement of hammer and rebound cushion with the main lever of the French action on which the key operates.

In the accompanying drawing, the letter A represents the key of an upright piano-forte action. This key is, by a rod, *a*, connected with a lever, B, which is, at its inner end at V, pivoted to the frame of the instrument. The other end of the lever B rests in its normal position on a supporting-bar, C, and, as the motion imparted to it by said key is considerable, *d d* are guide-pins between which the end of the

lever moves up or down when it is swung by the action of the key. In place of two guide-pins for each lever B, I may use but one, which in that case would enter a recess in the lever, the same as the pin *e* enters a mortise in the forward part of the key A. The lever B is connected by pivot with a jack, D, which serves to raise the hammer E. To the front end of the lever B is also attached rigidly the rebound cushion F, against which the hammer falls after it has struck the cord or string G. The damper H, which, in a position of rest, is by a spring constantly held against the cord, is supported on the lever B by a sliding rod, I, so that when said lever B is swung up by the action of the key it will in the first place act upon the hammer; secondly, push the damper off the cord; and, thirdly, carry the cushion F forward to receive the hammer when it drops back from the cord.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The lever B pivoted at *b*, the rebound cushion F, the hammer E, and pivoted elbow-lever D, all arranged with respect to the damper-lifter I and rod *a*, as shown and described.

GEO. C. MANNER.

Witnesses:

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