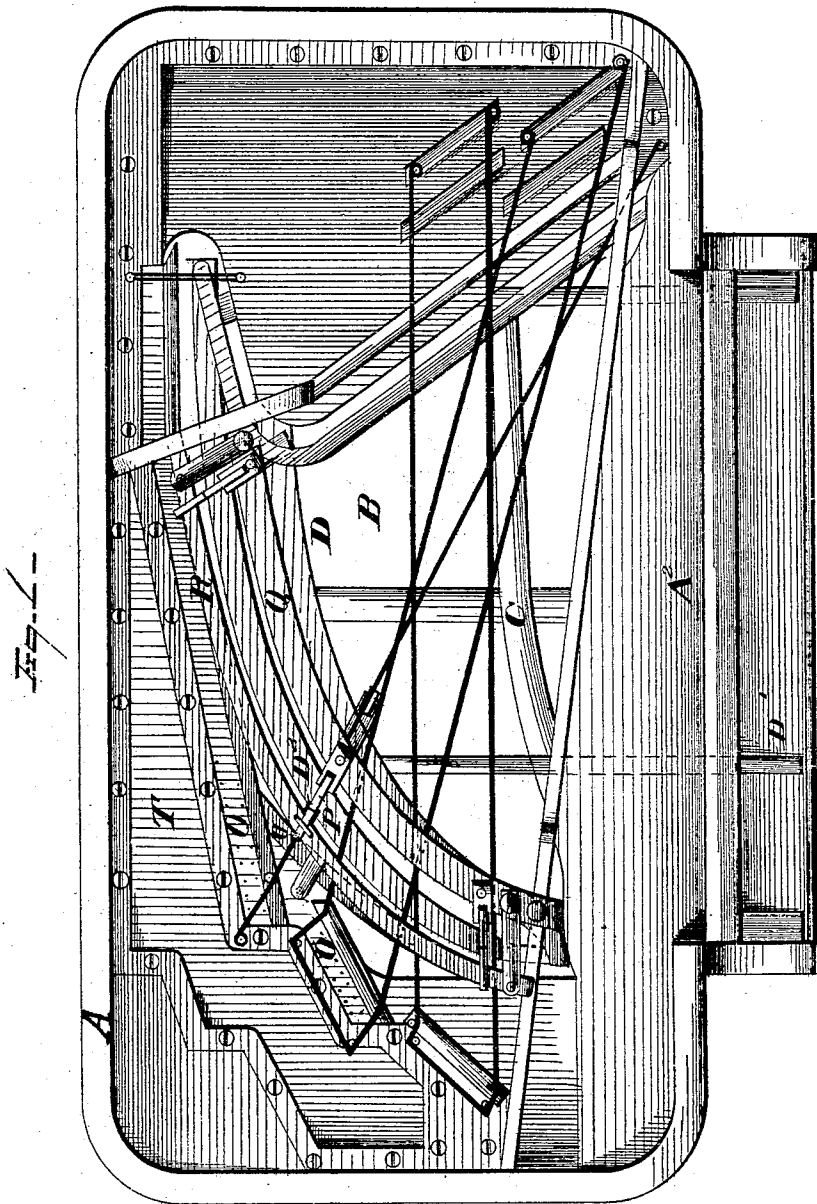


H. V. BOEHME.
PIANO ACTION.

No. 186,708.

Patented Jan. 30, 1877.



WITNESSES.

Ed. J. Nottingham.
J. W. McCleary

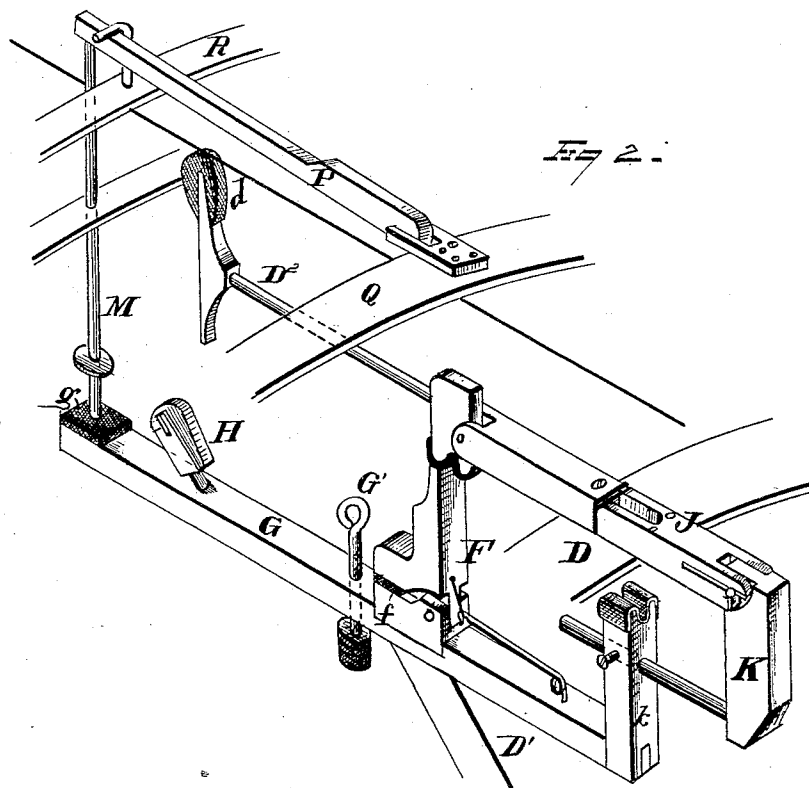
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UNITED STATES PATENT OFFICE.

HERMAN V. BOEHME, OF SANDUSKY, OHIO.

IMPROVEMENT IN PIANO-ACTIONS.

Specification forming part of Letters Patent No. **186,708**, dated January 30, 1877; application filed October 17, 1876.

To all whom it may concern:

Be it known that I, HERMAN V. BOEHME, of Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Pianos; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to pianos; and consists in the parts and combination of parts, hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of a piano with its top and sounding-board removed. Fig. 2 is a detached view of the action mechanism, representing my invention.

A is the piano-case, and A² the finger-key-board cover; B, the bottom board; C, the key-board frame; D, the keys, suitably connected to the key-board frame, and provided, near their inner extremities, with a cushion, which protects the contact-point of the key-lever with the lower face of the fly-check lever G. This fly-check lever is constructed so as to operate of itself both the hammer and the damper. K is the supporting-arm of angular form, secured at one end to the upright *k*, while its upper opposite extremity is pivoted to the double split lever J. The lever J is secured to the hammer-rail D by supporting-screws, and is made in a strong single piece, slotted longitudinally at either end. To the inner end slot of this lever J is pivoted the butt of the hammer-stem, which latter connects at its opposite extremity with the hammer D². The fly-check lever G is provided with the fly-check F, which latter receives the rear return movement by a spiral or straight spring lever, and is also provided with the usual cushion rest or stop *f*. G' is the adjusting-screw, and H is the back-check, suitably connecting with the fly-check lever. Attached to the upper face of the inner extremity of the lever is the cushioned head or boss *g*, which comes into contact with the damper-lifter, and operates same simultaneously with the lever's operation of the hammer. M is the damper-lifter, and serves to raise the free end of the

damper P, secured to the damper-rail Q. The free end of the damper rests upon the rail R when raised from off the lifters. O are the wrest-planks, having holes for the wrest-pins, which latter engage with the strings of the piano, said strings being divided into three parts, of which the bass forms two parts, and the treble the third and remaining part, the heavy strings being strung above the lighter. T represents the iron plate, which latter is secured by screws in elongated slots, so as to allow of expansion; and it will be understood that I may use any suitable sounding-board, the latter not being shown in the drawings; but it is apparent that the sounding-board is of enlarged construction, extending in front against the inner face of the main case of the piano.

The case of the instrument allows of easy access to the finger-key board by means of the small front side cover A², freely adjustable upon pivoted support, and constructed of large heavy dimension, and having its center of gravity relatively arranged to its pivotal point, so as to place the lid in stable equilibrium therewith.

The peculiar construction of the fly-check lever, operating of itself, and simultaneously both the hammer and the damper, in combination with connecting parts, constitutes the feature of my invention.

The hammers being placed in relative position to their corresponding strings, such that they strike same longitudinally and parallel, allows of the clear, soft piano-note, and the full cushioned head *d* of the hammer strikes the string full and evenly.

In whichever way, or according to any angle, the strings may run, the hammer is correspondingly adjusted, and the finger-key lever causes the same to strike its string parallel, and the fly-check lever, being regulated by its securing or supporting screw, admits of same being secured in any suitable position.

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

1. The combination, with the hammer D², double split lever-arm J, and angular support K, of the fly-check lever G, the latter provided

with the right-angular arm *k*, fly-check F, adjusting-screw G', back-check H, and cushioned head *g*, substantially as set forth.

2. The damper P, with its lifter M, in combination with the hammer D² and fly-check G, the whole actuated by the fly-check lever G and key D', substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of September, 1876.

HERMAN V. BOEHME.

Witnesses:

THOMAS B. HALL,

ALBERT W. BRIGHT.