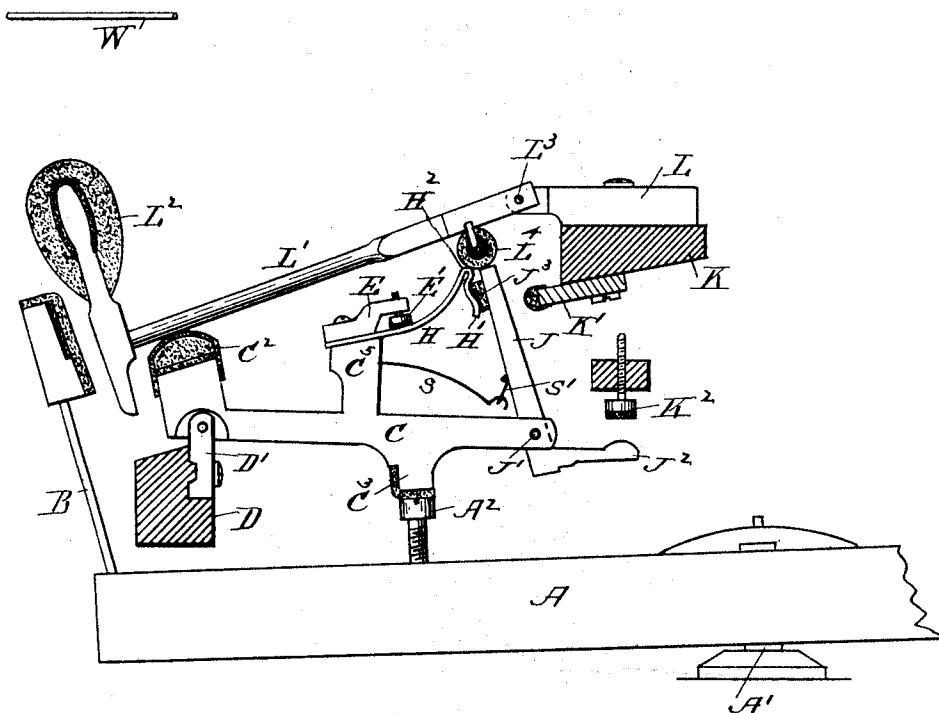


(No Model)

H. G. OSTERBERG.
PIANOFORTE ACTION.

No. 585,398.

Patented June 29, 1897.



UNITED STATES PATENT OFFICE.

HANS G. OSTERBERG, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-
HALF TO JOHN LLOYD, OF SAME PLACE.

PIANOFORTE-ACTION.

SPECIFICATION forming part of Letters Patent No. 585,398, dated June 29, 1897.

Application filed February 12, 1897. Serial No. 623,168. (No model.)

To all whom it may concern:

Be it known that I, HANS G. OSTERBERG, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Pianoforte-Actions, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to an improvement in that class of actions known as "Swiss" actions; and it consists in an improved mechanism to take the place of the under hammer and its connecting parts, the object being to simplify this part of a pianoforte-action and to make a reliable and inexpensive action. This object I attain by the mechanism shown in the accompanying drawings, in which—

Figure 1 shows a pianoforte-action having my improvements, all of the parts being shown as they stand when the hammer is down or at rest. Fig. 2 shows the same parts as in Fig. 1, but in this figure the parts are shown as they stand just after the blow has been struck and before the hammer and its connections have returned to their resting positions.

In the drawings, A represents an ordinary key, and A' its pivot or fulcrum. The key A has an adjustable striker A² and a back-stop B. These parts are of the ordinary construction used in the grand piano.

The rail D has a flange D', to which is pivoted a jack C, having a downward projection C³, which forms a contact-piece for the adjustable striker A². A jack-fly J J² is pivoted to the jack C at J'. The end J² of the jack-fly is adapted to come in contact with the regulating-button K², by which its motion is limited.

S is a spring attached to the projection C⁵ on the jack C and is connected to the jack-fly by a loop S', its function being to draw the upper end of the jack-fly J backward, so that it may be in position to operate on the boss L⁴ of the hammer-stem. A pad J³ is attached to the jack-fly near its upper end, as shown. This pad comes in contact with the adjustable springing arm H H'. This arm H H' is attached to the projection C⁵ on the jack C, and the exact position of its end H is determined by the regulating-button E', connected to the bracket-piece E. The point H² is adapted to yield slightly, so as to enable

the hammer to fall sufficiently to engage with the back-stop B. K' is an adjustable rail attached to the fixed rail K and serves to limit the forward motion of the jack-fly.

The jack C has at its end a cushion C², which receives the hammer-stem L' as it falls back into its resting position, as shown in Fig. 1. The hammer L² and its stem L', which is pivoted at L³ to the flange L, as shown, is of ordinary construction and need not be more fully described. The wire is indicated by W.

The operation of my improvements may be set forth as follows: Upon striking the key A the jack C and its fly J and springing arm H throw the hammer toward the wire W. As the hammer nears the wire the lower end J² of the jack-fly comes in contact with the regulating-button K², throwing the upper end of the jack-fly off from the boss L. Then the boss L is supported entirely by the point H² of the springing arm H, but the force of the rebound of the hammer is sufficient to depress the springing arm and allow the hammer to come in contact with the back-stop B. Now as the key is released (see Fig. 2) the springing arm H will lift the hammer, so as to allow the upper end of the jack-fly to come in contact with the boss L⁴, thereby giving a perfect "repeat." Without this device of the springing arm working with the jack-fly a repeating action could not be executed.

I claim—

In a pianoforte-action, the combination of a jack C having a projection C⁵ and attached thereto an adjustable spring H provided with a point H² and a bent end H' a flange E and a regulating-button E' adapted to set the spring H to any desired position; with the boss L⁴ on the hammer-stem, and jack-fly J, having a cushion-pad J³ attached to its upper end, and adapted to come in contact with the end H' of the said spring H substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 11th day of February, A. D. 1897.

HANS G. OSTERBERG.

Witnesses:

FRANK G. PARKER,
FRANK G. HATTIE.