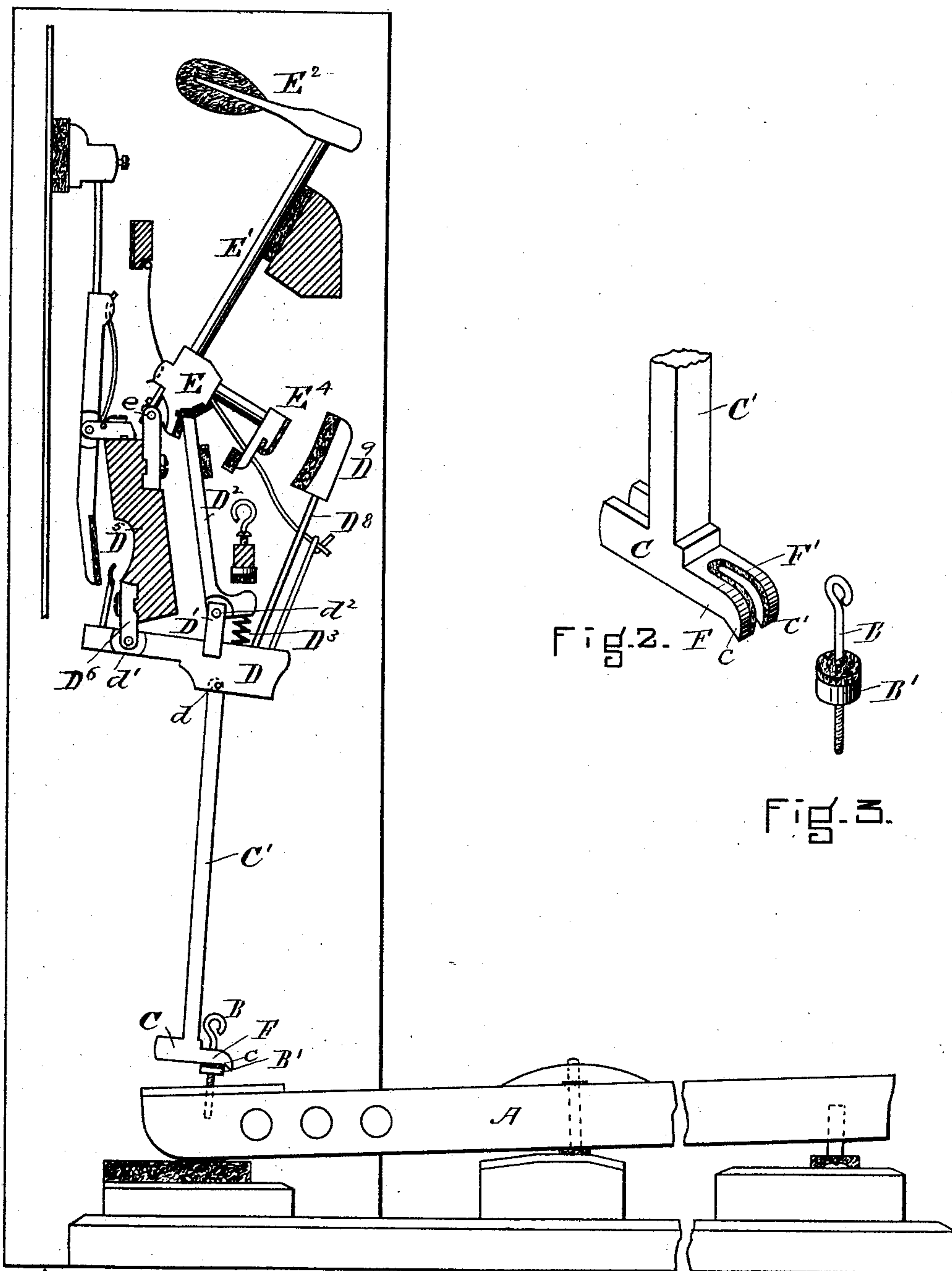


(No Model.)

P. KRUMSCHEID.  
PIANO ACTION.

No. 417,193.

Patented Dec. 10, 1889.



WITNESSES.

Frank G. Parker  
Matthew M. Blunt.

Fig. 1.

INVENTOR.

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# UNITED STATES PATENT OFFICE.

PETER KRUMSCHEID, OF BOSTON, MASSACHUSETTS.

## PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 417,193, dated December 10, 1889.

Application filed February 1, 1889. Serial No. 298,373. (No model.)

*To all whom it may concern:*

Be it known that I, PETER KRUMSCHEID, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Actions for Piano-Fortes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that part of the piano-forte action that serves to connect the key with the "sticker," the object being to combine with the sticker a foot-piece so constructed and arranged in connection with an adjustable foot-pad that the part may be easily regulated, or in case of wear of the parts adjusted to compensate for it. The device also admits of the removal or replacing the action without a troublesome attention to each particular sticker.

In Figure 1 of the accompanying drawings I have shown the essential parts of a piano-forte action with my device embodied. Fig. 2 is a perspective view showing the lower part of the sticker and its foot-piece, and Fig. 3 is a perspective view of the adjustable foot-pad and its screw.

In Fig. 1, A represents one of the keys of a piano-forte, and C' a sticker. The upper end of the sticker C' is attached to the lever D by a pivot  $d$ , the lever D being attached by a pivot  $d'$  to a bracket D<sup>6</sup>, extending downward from the flange-rail D<sup>5</sup>. On the lever D a small projection D' is attached, which serves to support the lower end of the jack D<sup>2</sup>, the said jack D<sup>2</sup> being pivoted to it at  $d^2$ .

D<sup>3</sup> is a small spring under the toe of the jack D<sup>2</sup>, which serves to throw the upper end of the jack D<sup>2</sup> under the shoulder of the hammer-piece E. The hammer E E' E<sup>2</sup> is pivoted at  $e$ , and is provided with a check or back-stop E<sup>4</sup>, which in the rebound comes in contact with the stop D<sup>9</sup>, attached by a stem D<sup>8</sup> to the lever D.

The above-described parts are common and well known, and are referred to solely for the purpose of illustrating the use of my invention, which is a device for connecting the inner end of the key to the lower end of the sticker, which I will now describe.

C, Figs. 1 and 2, is a foot-piece attached to or integral with the lower end of the sticker C'. The front end of the foot-piece C is forked, as shown in Fig. 2. Each of the parts F F' have at their outer ends downward projections  $c c'$ , which extend over the edge of the foot-pad B', and prevent the foot-piece from slipping off backward from the foot-pad B'. The foot-pad B' consists of a small disk screwed or otherwise attached to the adjusting-screw B. The lower end of the adjusting-screw B is screwed into the inner end of the key A, as shown in Fig. 1. By turning the screw B the foot-pad B' may be adjusted to any desired height above the key and the action regulated, or in case of wear of the parts the pad may be adjusted to compensate for it.

By making the end of the foot-piece C forked I can readily remove and replace the action from the keys without disturbing the adjusting-screw B.

I claim—

1. In a piano-forte action, the sticker C', having a forked foot-piece C F F' and the adjusting-screw B, adjustably secured in the key and having a foot-pad B', and the key A, as and for the purpose set forth.

2. In a piano-forte action, the sticker C', having a forked foot-piece C F F', provided with downward projection  $c c'$ , the adjusting-screw B, adjustably secured in the key and having a foot-pad B', and the key A, as and for the purpose set forth.

PETER KRUMSCHEID.

Witnesses:

FRANK G. PARKER,  
MATTHEW M. BLUNT.