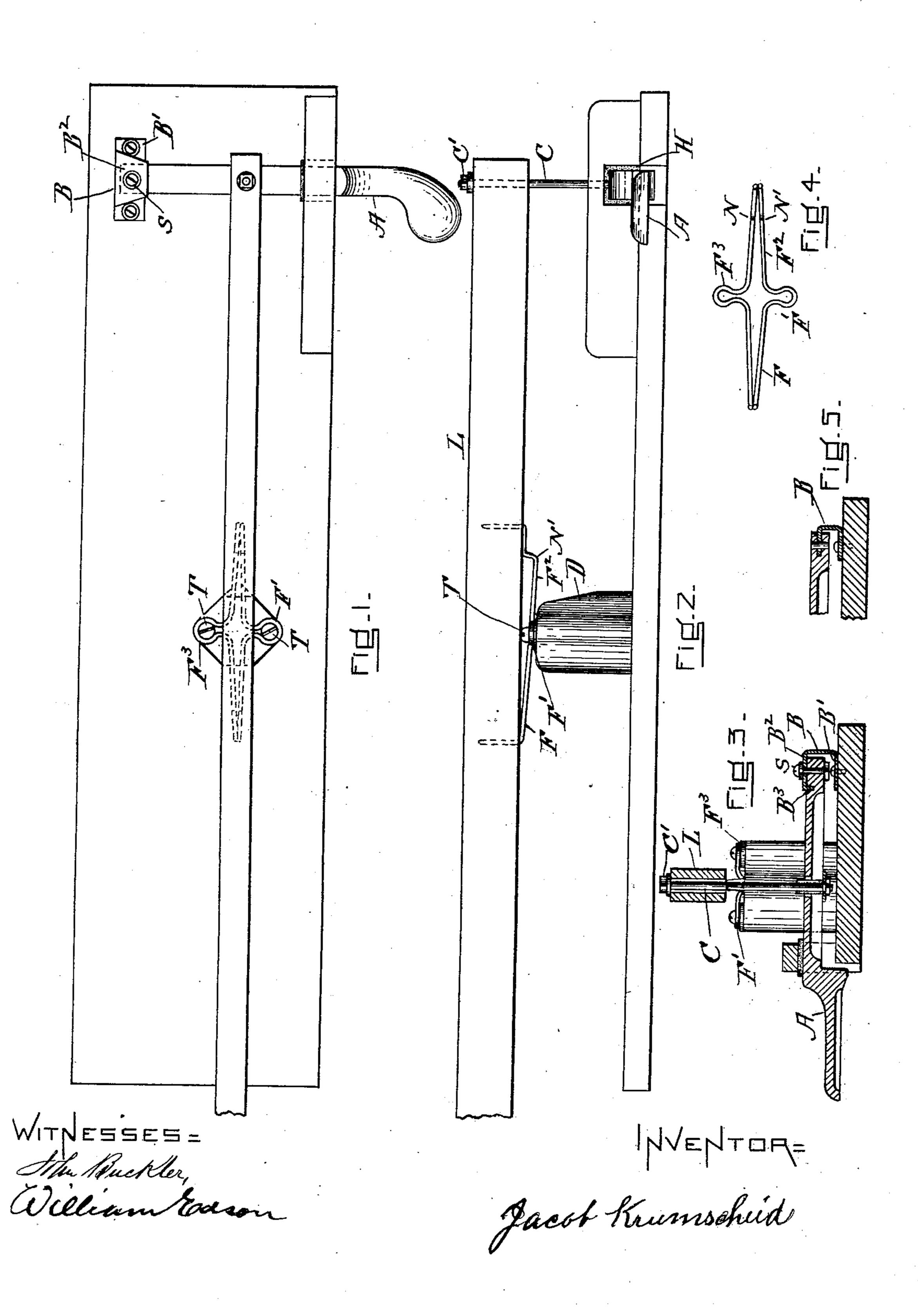
## J. KRUMSCHEID. PEDAL ACTION FOR PIANOFORTES.

(Application filed Feb. 27, 1902.)

(No Model.)



## United States Patent Office.

JACOB KRUMSCHEID, OF BOSTON, MASSACHUSETTS.

## PEDAL-ACTION FOR PIANOFORTES.

SPECIFICATION forming part of Letters Patent No. 713,995, dated November 18, 1902.

Application filed February 27, 1902. Serial No. 95,992. (No model.)

To all whom it may concern:

Be it known that I, JACOB KRUMSCHEID, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Pedal-Actions for Pianofortes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the manner of forming the joints upon which the pedal-levers swing; and it consists in substituting spring-joints of peculiar construction for the ordinary pivotal joints, the object being to secure entire freedom from noise, either squeaking or rattling, and also produce an inexpensive device. These objects I attain by the mechanism shown in the accompanying drawings, in which—

Figure 1 shows my pedal-action in plan. 20 Fig. 2 is an elevation of the same. Fig. 3 is a cross-sectional view of the same. Fig. 4 shows one of the spring-joint pieces in plan. Fig. 5 shows a modification in vertical section.

In this action the foot-pedal A is made in any of the approved forms, its front end working in an opening, as shown at H, Fig. 2. The rear end is hung in a novel spring-piece B. (See Figs. 1 and 3.) This spring-piece is formed substantially as shown in Figs. 1 and 3, and consists of a footpiece B', which is made fast to the base by screws or otherwise, a part B, and a horizontal part B<sup>2</sup>. The forward edge of the part B<sup>2</sup> is turned downward, as indicated at B<sup>3</sup>, so as to enter a saw-kerf made across the upper side of the foot-pedal

A. The part B<sup>3</sup> that is turned down accurately fits the kerf, so that it serves to assist in holding the foot-pedal A in its exact position. A screw S firmly holds the end of the

pedal to the spring-plate.

The foot-pedal A is connected to the long lever L by a screw-bolt C. The said screw-bolt C has at its upper end an adjusting-nut C', by which the distance between the foot-pedal A and the long lever L may be accurately adjusted, and any degree of tension may be maintained between the foot-pedal and the long lever.

o The long lever L is tiltingly attached to the

base-block D by means of a wire spring bent as shown in Fig. 4, having eyes at F' F<sup>3</sup> for receiving screws T T, by which it is fastened to the base-block D. A spring having some of the features of the one now being described 55 is shown in my application for patent, Serial No. 62,418, filed May 29, 1901, and is not claimed broadly in this application.

The novel features of the spring consist in extending the parts F and F<sup>2</sup> outward under 60 the lever L, as shown, and in making the offset at N N', whereby a yielding tension is obtained. The extreme ends of the spring are turned upward and forced into the lever L. When the members are all placed and ad-65 justed, a certain desired amount of tension can be obtained by simply turning the screwnut C' on the bolt C.

In Fig. 5 a modification is shown in which the upper fold of the spring B is inserted into 70 a kerf made in the end of the foot-pedal and is secured by a clamping-screw at S.

I claim-

1. In a pedal-action for pianofortes, a footpedal kerfed as described: a metallic plate-75 spring piece having a footpiece adapted to be secured to the base of the instrument; an upright part; and a horizontal part so formed as to enter the said kerf in the foot-pedal and secured thereto, substantially as and for the 80 purpose set forth.

2. In a pedal-action for pianofortes, a footpedal; a lever adapted to be operated by said foot-pedal; a spring-wire adapted to tiltingly attach the said lever to its base-piece, the 85 said wire being bent as shown, so as to form means for attachment for the said base-piece, having its ends inserted into the said lever, and having a vertical offset whereby a yielding tension is secured, substantially as and 90 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 15th day

of February, A. D. 1902.

JACOB KRUMSCHEID.

Witnesses:
FRANK BROWN,
WILLIAM EDSON.