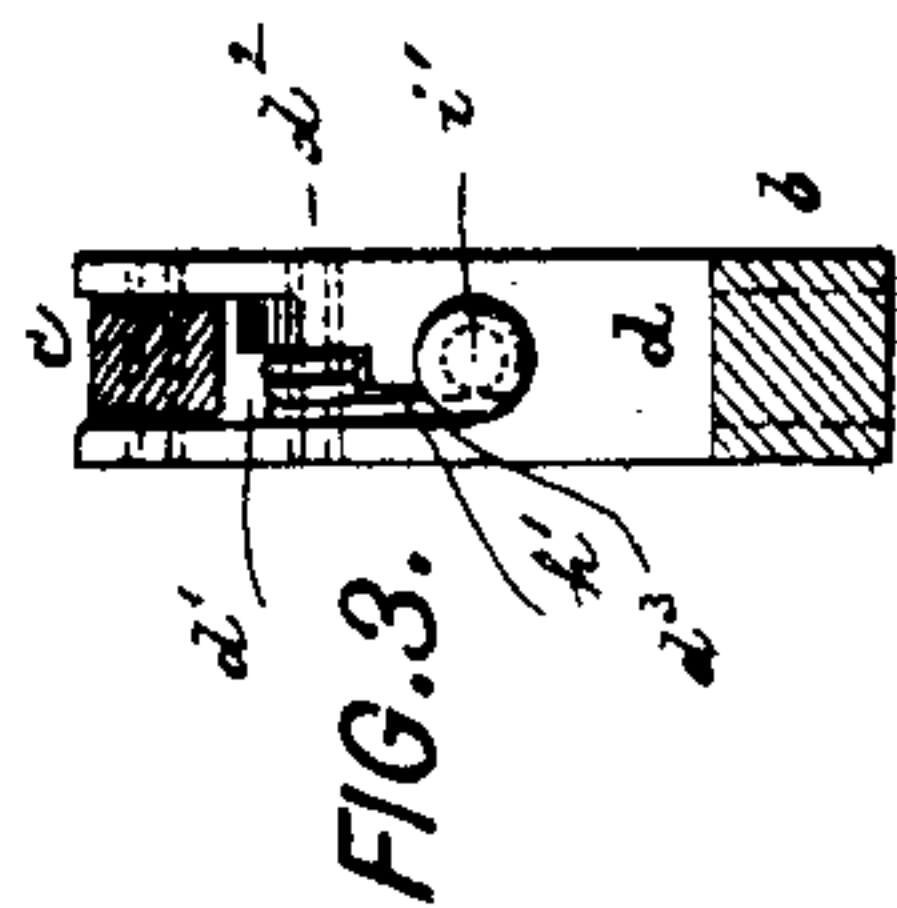
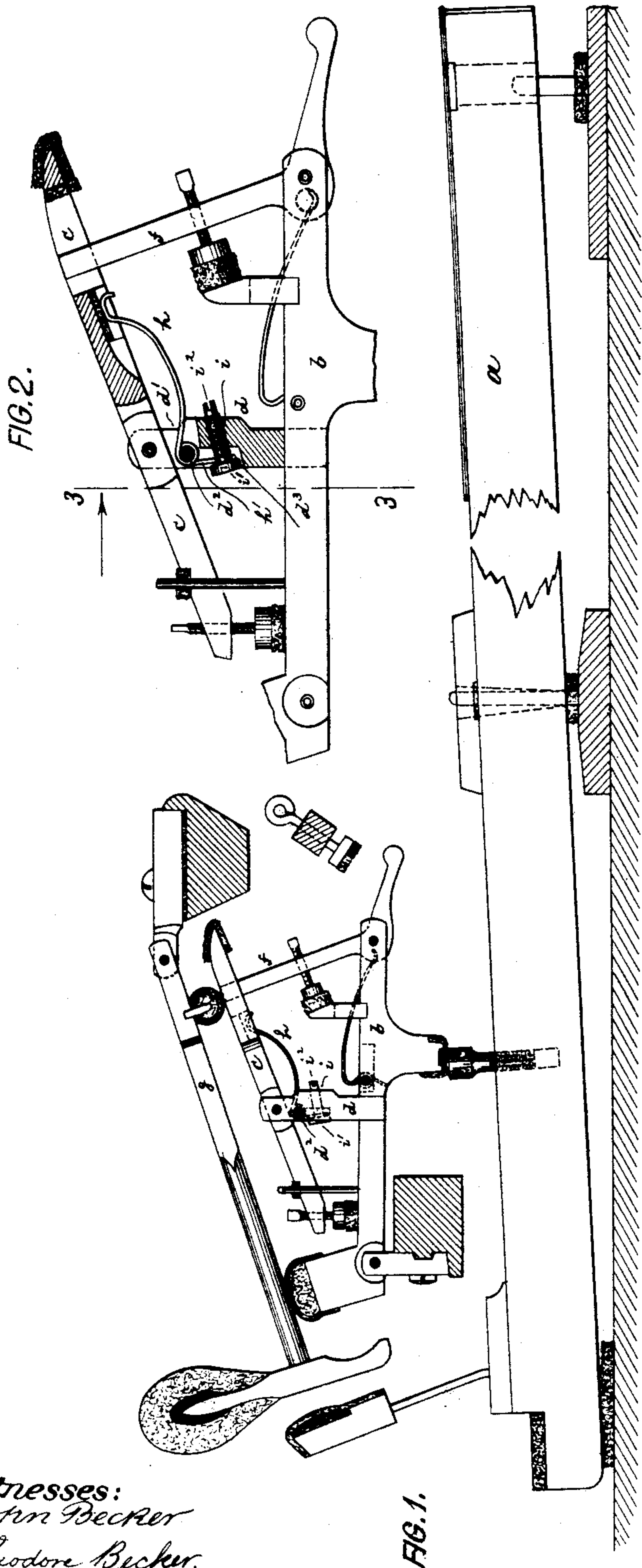


(No Model.)

A. T. STRAUCH.
PIANO ACTION.

No. 539,907.

Patented May 28, 1895.



Witnesses:
John Becker
Theodore Becker

Inventor:
Albert T. Strauch
by his attorneys
Roder & Briesen

UNITED STATES PATENT OFFICE.

ALBERT T. STRAUCH, OF NEW YORK, N. Y.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 539,907, dated May 28, 1895.

Application filed April 5, 1895. Serial No. 544,537. (No model.)

To all whom it may concern:

Be it known that I, ALBERT T. STRAUCH, of New York city, New York, have invented an Improved Piano-Action, of which the following is a specification.

This invention relates to an improved action for grand pianos and more particularly to the means for attaching and regulating the tension of the whip spring, the construction being such that ready access to the regulating device may be gained.

In the accompanying drawings, Figure 1 is a sectional elevation of my improved piano-action. Fig. 2 is a similar enlarged section through parts thereof; and Fig. 3 is a cross-section on line 3 3, Fig. 2.

The letter *a*, represents the key of a grand piano action. *b*, is the support; *c*, the whip; *d*, the whip flange; *f*, the jack, and *g* the hammer. These parts are of the ordinary or the usual construction and do not form part of the present invention.

h, represents the whip spring which bears at one end against the whip *c*, and is at the other end adjustably secured to the whip flange *d*. This end of the whip spring is received within a slot *d'*, of the flange *d*, and is coiled around a pintle *d²*, that bridges said slot. From the coil, the spring extends downward to form an arm *h'*, that is received within a groove *d³*, opening into the slot *d'*. The free end of the arm *h'*, bears against the head *i'*, of a screw *i*, that passes through the flange *d*, from the rear toward the front.

The forward end of the screw *i*, is nicked as at *i²*, for engagement with a screw driver. It will be seen that by revolving the screw *i*, the arm *h'*, of the spring *h*, may be compressed more or less, to accurately regulate the tension of said spring. As the screw *i*, is accessible from the front of the action, such regulation may be effected in a most convenient manner and without removing the action or any of its parts.

What I claim is—

1. In a grand action the combination of a whip and whip flange with a whip spring that is connected to the whip flange and with means secured to the whip flange, for regulating the tension of said spring, substantially as specified.

2. In a grand action the combination of a whip and whip flange with a whip spring, and a screw passing through the whip flange and engaging said spring, substantially as specified.

3. In a grand action the combination of a whip and slotted whip flange with a pivot bridging the slot, a whip spring coiled around the pivot and having a downwardly projecting arm and with a screw that engages said arm and has a forwardly projecting nicked shank, substantially as specified.

ALBERT T. STRAUCH.

Witnesses:

WILLIAM SCHULZ,
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