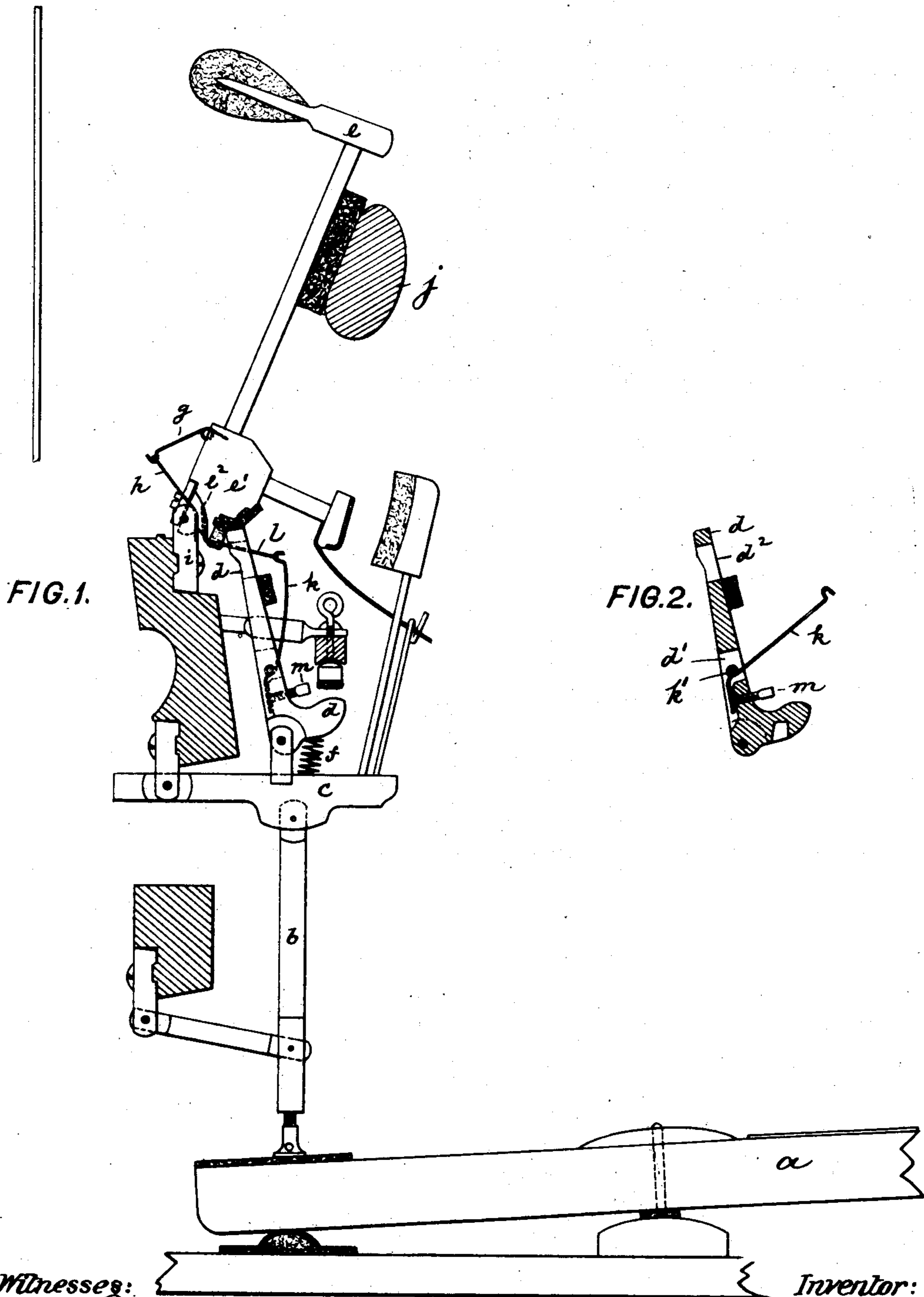


J. HERRBURGER.
REPEATING ACTION FOR UPRIGHT PIANOS.

(Application filed Apr. 2, 1901.)

(No Model.)



Witnesses:
John Becker.
William Schuch.

Inventor:
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by his attorneys
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UNITED STATES PATENT OFFICE.

JOSEPH HERRBURGER, OF PARIS, FRANCE.

REPEATING ACTION FOR UPRIGHT PIANOS.

SPECIFICATION forming part of Letters Patent No. 682,616, dated September 17, 1901.

Application filed April 2, 1901. Serial No. 54,009. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HERRBURGER, a citizen of France, and a resident of Paris, France, have invented certain new and useful Improvements in Repeating Actions for Upright Pianos, of which the following is a specification.

This invention relates to an action for upright pianos in which a superior repeating effect is obtained.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved piano-action; and Fig. 2 is a longitudinal section through the jack.

The letter *a* represents the key of an upright-piano action, *b* the thrust-rod, *c* the wippen, *d* the jack or hopper, and *e* the hammer, all as usual. Between the lower end of the jack and the wippen is placed a spring *f*, which tends to push the upper end of the jack under the hammer-butt *e'* upon a release of the key. A second spring *g* is secured at one end to the hammer-butt *e'* and engages at its other end a silk thread *h*, which is secured to the hammer-flange *i*. This spring assists in throwing the hammer against the hammer-rest *j* upon the release of the key. A third spring *k* is coiled around a pin *k'*, that traverses a slot *d'* of jack *d*. The upper hooked end of this spring engages a thread *l*, the other end of which is affixed to the hammer-butt *e'* at *e''* under the axial center of the

hammer-shank. This thread passes through a perforation *d''* of jack *d*.

The tension of spring *k* may be readily regulated by means of an adjusting-screw *m*, that is tapped into the jack *d* and engages the tail end of the spring. The spring *k* has a tendency to sustain the hammer in its half-stroke position after it has receded from the string and before the key is released. Thus the jack can readily return under the hammer-butt upon a partial or complete release of the key, and a very reliable repeating action is thus insured. The very delicate adjustment necessary for this spring may be readily effected by means of the regulating-screw *m*.

What I claim is—

In a repeating action for upright pianos, the combination of a jack having a pair of slots, with a spring *k*, pivoted to the jack, means in the lower slot for regulating the tension of the spring, a string passing through the upper slot and connecting the spring to the hammer-butt, a spring *g*, secured to said hammer-butt, and a string *h*, for connecting said spring to the hammer-flange, substantially as specified.

Signed by me at Paris, France, this 13th day of March, 1901.

JOSEPH HERRBURGER.

Witnesses:

EDWARD P. MACLEAN,
AUGUSTE WYTE.