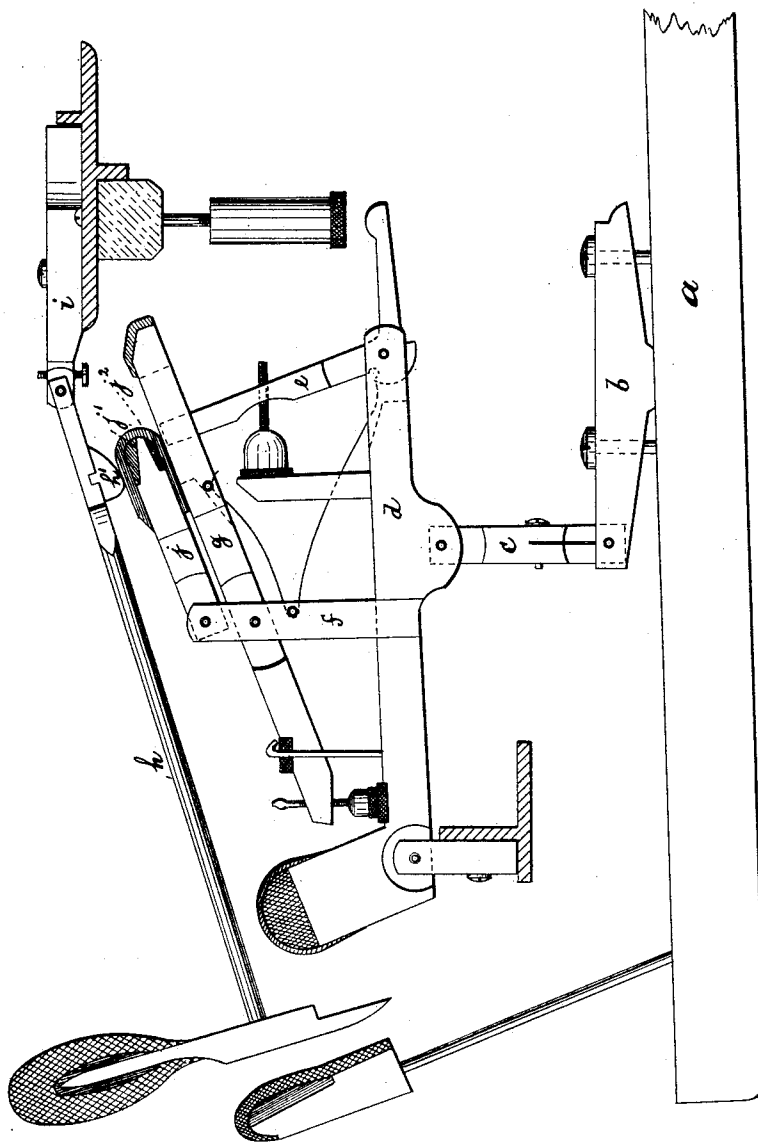


(No Model.)

J. HERBURGER.
PIANO ACTION.

No. 424,202.

Patented Mar. 25, 1890.



WITNESSES

Wm. A. Lowe
Wm. Wagner

INVENTOR:

J. Herrburger
by his attorneys
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UNITED STATES PATENT OFFICE.

JOSEPH HERRBURGER, OF PARIS, FRANCE.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 424,202, dated March 25, 1890.

Application filed October 31, 1889. Serial No. 328,844. (No model.)

To all whom it may concern:

Be it known I, JOSEPH HERRBURGER, of Paris, France, have invented an Improved Repeating-Action for Grand Pianos, of which
5 the following is a specification.

This invention relates to an improved repeating-action for grand pianos, and has for its object more particularly to prevent wear upon the knuckle of the hammer-shank by
10 the jack.

The invention has furthermore for its object to produce a finer touch by the reduction of friction between the knuckle under the hammer-shank and the repeating-lever and
15 jack.

It consists in the various features of improvement more fully pointed out in the claim.

The accompanying drawing represents a
20 side elevation of my improved repeating-action for grand pianos.

The letter *a* represents the key of the grand piano. *b* is the rocker; *c*, the extension; *d*, the rider, and *e* the jack, as usual. From the
25 rider there projects upwardly the rider-flange *f*, to which is pivoted the repeating-lever *g*, slotted for the passage of the upper end of the jack, also as usual. Above the repeating-lever *g* there is placed the hammer-shank *h*, pivoted
30 to its flange *i*. Between the hammer-shank and the repeating-lever I interpose a pivoted finger *j*, which lies upon and is supported by

the repeating-lever. The free end of this finger is placed directly above the slot of the lever and therefore above the upper end of
35 the jack *e*. This free end of the finger is preferably covered with cloth *j'* and leather *j''*, so as to be thoroughly cushioned. The hammer-shank *h* is provided with an uncovered knuckle *h'* above the cushioned end of
40 finger *j*.

The operation of my improved action is as follows: Upon the depression of the key the jack throws the finger *j* up and the latter in
45 turn throws the hammer up. As soon as the hammer has struck the spring the finger falls back upon the lever, and as it is pivoted the jack can readily enter partially or completely beneath it for the purpose of repeating. It
50 will be seen that as the finger when down is always supported by the lever and as its free end can be easily raised by the jack the action is a very delicate one.

What I claim is—

The combination, in a repeating-action, of
55 a jack with a slotted repeating-lever, a hammer, and a pivoted finger resting upon the repeating-lever above the slot and interposed between the jack and the hammer-shank, substantially as specified.

JOSEPH HERRBURGER.

Witnesses:

H. WYLE,
WILLIAM TONK.