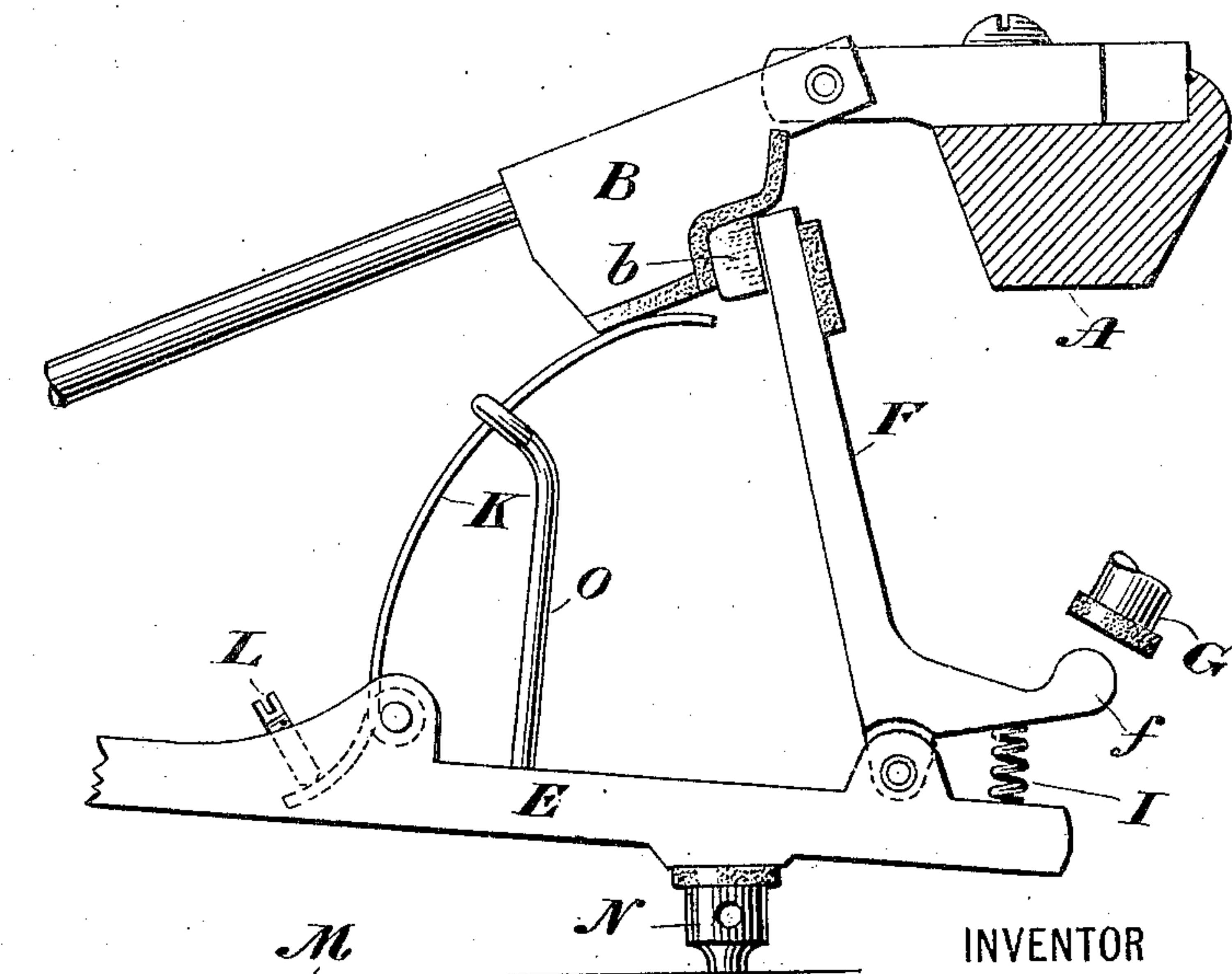
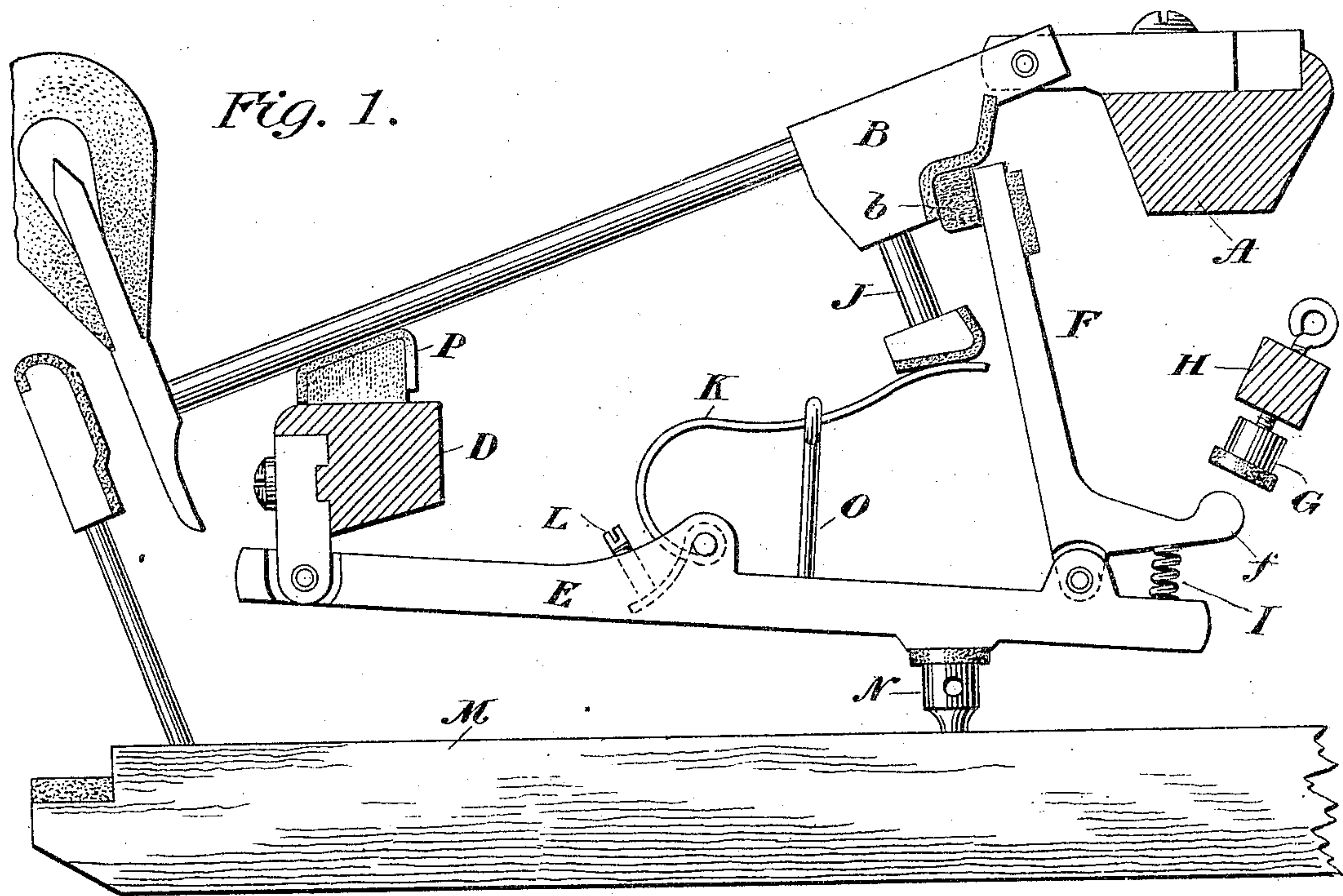


(No Model.)

T. T. FISCHER.
PIANO ACTION.

No. 575,470.

Patented Jan. 19, 1897.



WITNESSES:

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TORQUATO TASSO FISCHER, OF NEW YORK, N. Y.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 575,470, dated January 19, 1897.

Application filed May 11, 1896. Serial No. 590,984. (No model.)

To all whom it may concern:

Be it known that I, TORQUATO TASSO FISCHER, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Piano-Actions, of which the following is a full, clear, and exact specification.

My invention relates to improvements in piano-actions, particularly useful in connection with that class of instruments in which the strings are placed horizontally, and termed "grand pianos."

The object of my invention is to simplify the hitherto-known grand-piano actions by eliminating several of the parts generally considered essential to the working of the same and substituting in their stead fewer and simpler parts, thereby lessening the cost of manufacture and producing an action that may be easily and quickly repaired or adjusted.

My invention is illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation of my invention, and Fig. 2 is a side elevation of a modification.

Similar letters refer to similar parts.

A is a rail pivotally supporting the butt B of a hammer.

D is a rail pivotally supporting the whip E. At the opposite end of the whip E is pivotally supported a jack F. The upper end of the jack F stands normally under the butt B and against a shoulder *b* from said butt.

f is a lever extension from the jack F, which when the adjacent end of the whip E is elevated strikes against a stop G, causing the jack to be tripped in the usual manner, thus freeing the latter for a time from engagement with the butt B. This stop G is by preference adjustably supported by the rail H. A spring I, located between the lever extension *f* and the adjacent portion of the whip E, causes the jack F to be moved back into its normal position, as illustrated, when the piano-key is released, as hereinafter more fully described.

J is a downwardly-projecting extension from the butt B.

K is a repetition-lever, comprising substantially a spring adjustably carried by the whip

E. The upper end of the repetition-lever K rests under the extension J, as shown in Fig. 1.

L is a screw by which the elevation of the repetition-lever is adjusted.

M is a piano-key, the inner end of said key only being shown. The free end of the whip E is supported by said key in any well-known manner, the means shown being termed a "capstan-screw" N, which permits the relative position of the parts E M to be adjusted.

O is a guide for the repetition-lever, adapted to keep the same in proper alinement under the butt extension J.

P is a buffer or support upon which the shank of the hammer rests when in its normal position, as shown.

The modification illustrated in Fig. 2 shows a repetition-lever K', carried by the whip in the above-described manner, the said lever bearing directly against the butt B instead of against the extension J, as previously described.

In operation the outer end of the key is depressed and the inner end raised, thereby raising the free end of the whip E. The hammer B is simultaneously raised by action of the jack F, the latter being tripped by the means above referred to when the hammer is at a suitable distance from the string of the instrument, freeing the upper end of the whip-jack from said butt, so as to in no way impair the striking action of the hammer. When the inner end of the key is lowered, the whip is likewise lowered, assisted by the weight of the hammer on the repetition spring-lever K and also by the action of the spring I, which spring tends also to force the adjacent end of said whip into its normal position, as shown. The repetition spring-lever K normally holds the butt B of the hammer at such a distance from the free end of the whip that as the parts descend into their normal position the upper end of the jack is slipped quickly under said butt and is again in a position ready to perform its function in transmitting the force of a blow on the key to the hammer.

It is apparent that in carrying out my invention some changes in the particular construction and arrangement shown and described may be made, and I would therefore have it understood that I do not limit myself

to the specific form shown, but hold myself at liberty to make such changes as are fairly within the spirit and scope of my invention.

Having thus described my invention, what

5 I claim is—

1. A piano-action comprising, a rocking key supporting one end of a pivotally-mounted whip, a jack spring-actuated and pivotally mounted at one end of the whip, the upper
10 end of said jack bearing normally under the hammer-butt and against a shoulder thereon, means for tripping said jack, a spring K mounted on the whip, the free end of said spring bearing against the under side of the
15 hammer-butt rearward of said shoulder, substantially as described.

2. A piano-action comprising a rocking key, loosely supporting one end of a pivotally-mounted whip, a jack spring-actuated
20 and pivotally mounted at one end of the whip, the upper end of said jack bearing normally under the hammer-butt and against a shoulder thereon, means for tripping said jack, a spring K mounted on the whip, the free end

of said spring bearing against the under side
25 of the hammer-butt rearward of said shoulder, and a guide for said spring K, substantially as described.

3. A piano-action comprising a rocking key loosely supporting one end of a pivotally-mounted whip, a spring-actuated jack
30 pivotally supported toward the same end of said whip, the upper end of said jack bearing normally under the hammer-butt and against the forward face of a shoulder thereon, means for tripping said jack when the
35 whip is raised, a spring K mounted at a point intermediate in the length of the whip, and an adjusting-screw therefor, the free end of said spring K bearing against the under side
40 of a catcher extension on the hammer-shank and rearward of the whip-engaging shoulder thereon, and a guide for said spring K.

TORQUATO TASSO FISCHER.

Witnesses:

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