

(No Model.)

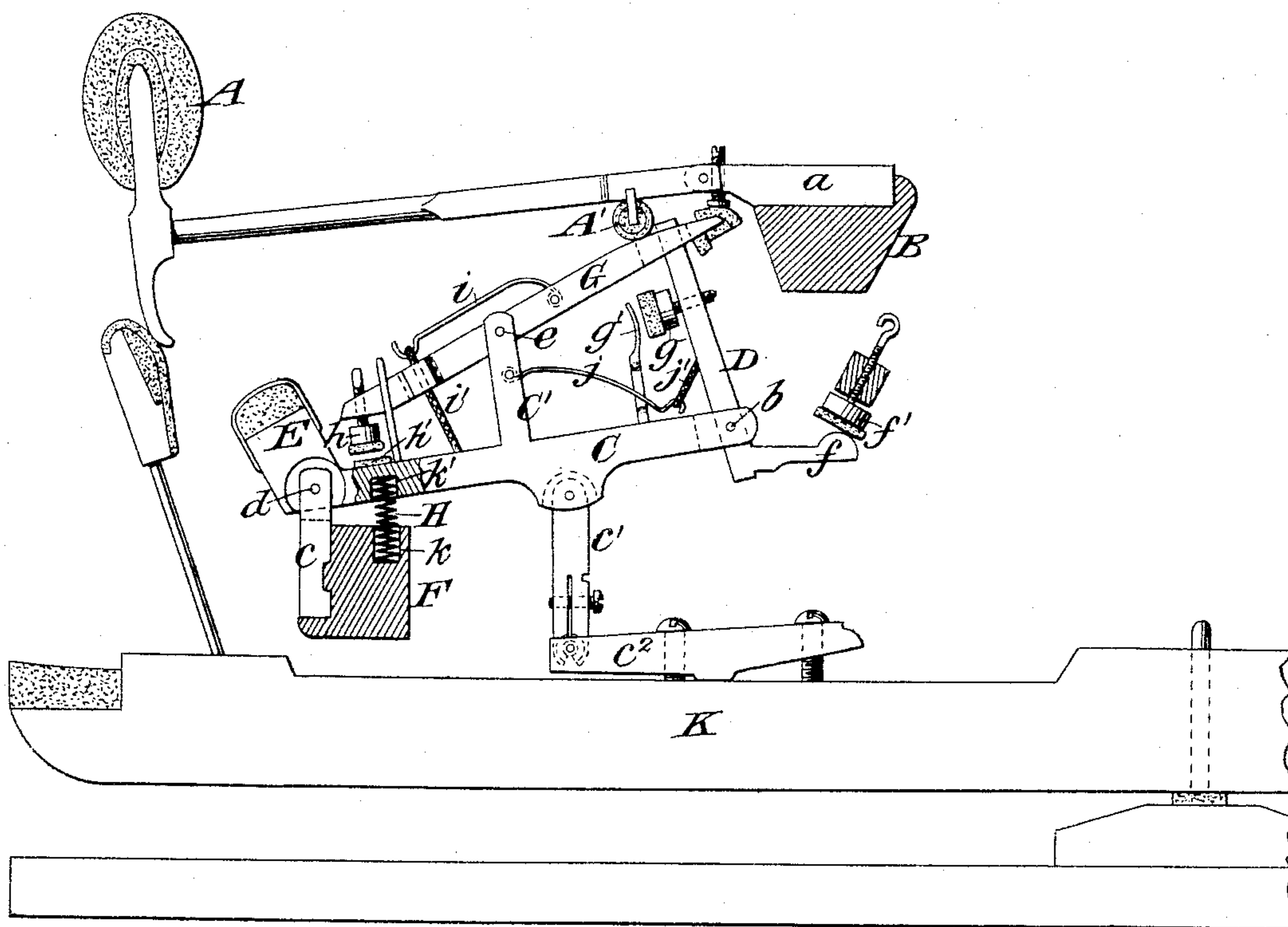
2 Sheets—Sheet 1.

O. WESSELL.
PIANO ACTION.

No. 436,511.

Patented Sept. 16, 1890.

Fig. 1.



Witnesses:

O. Sundgren
H. H. Raymond

Inventor:

Otto Wessell
by attorneys
Brown & Gussard

(No Model.)

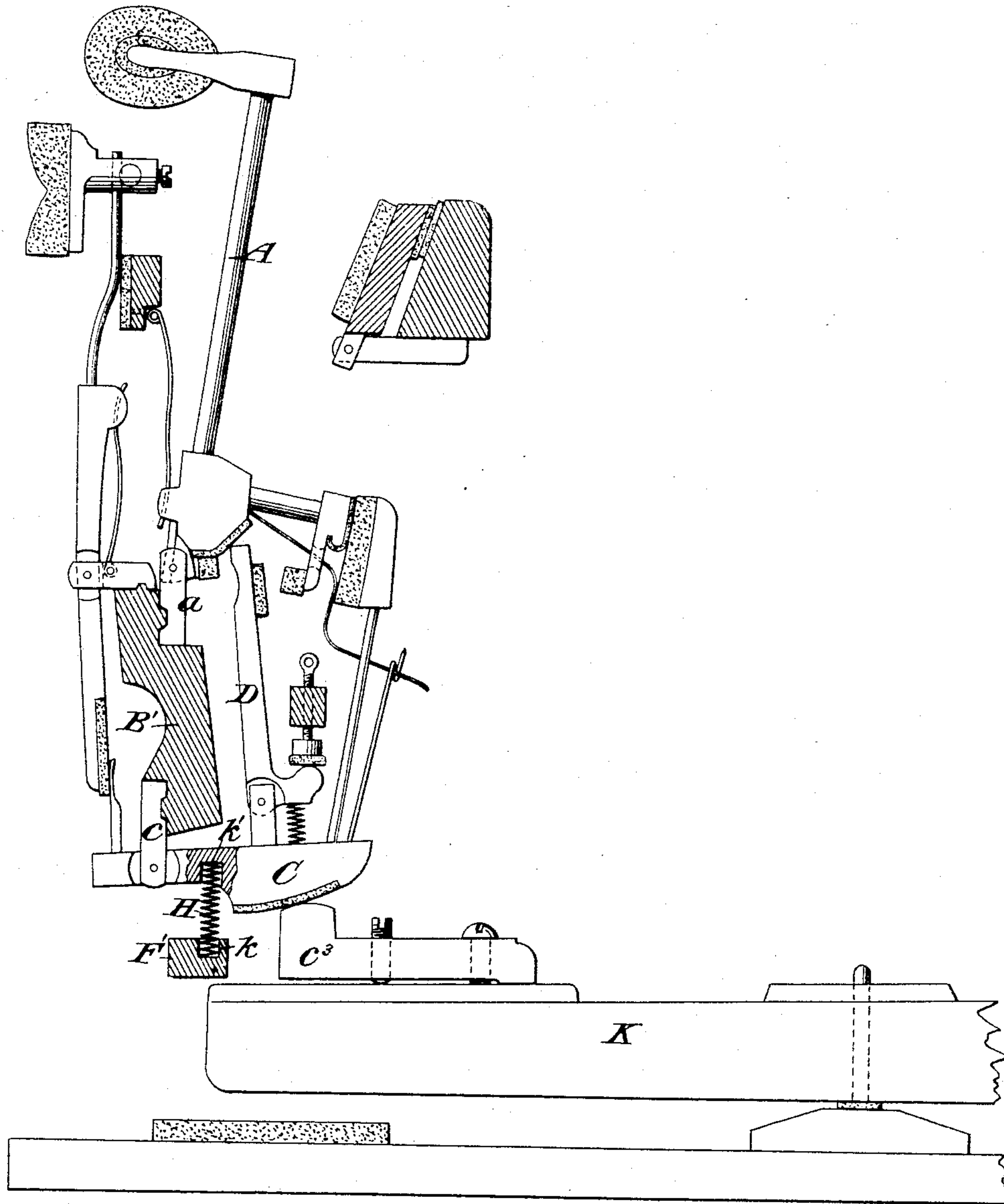
2 Sheets—Sheet 2.

O. WESSELL.
PIANO ACTION.

No. 436,511.

Patented Sept. 16, 1890.

Fig. 2.



Witnesses:

O. Sundgren
 R. K. Kaywood

Inventor:

Otto Wessell
by attorneys
Brown & Gridwold

UNITED STATES PATENT OFFICE.

OTTO WESSELL, OF NEW YORK, N. Y., ASSIGNOR TO WESSELL, NICKEL
& GROSS, OF SAME PLACE.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 436,511, dated September 16, 1890.

Application filed January 24, 1890. Serial No. 337,948. (No model.)

To all whom it may concern:

Be it known that I, OTTO WESSELL, of the city of New York, in the county and State of New York, have invented a new and useful
5 Improvement in Piano-Actions, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to piano-actions in which the jack is pivoted to a lever which is
10 itself pivotally attached to a fixed rail and acted upon by a key-lever through either a support thereon or a connection therewith.

In the accompanying drawings Figure 1 represents in sectional elevation a key, a hammer, and all the corresponding mechanism of
15 a grand-piano action illustrating my invention. Fig. 2 represents in sectional elevation a hammer, a key, and the corresponding mechanism of the action of an upright piano, illustrating the application of my invention to that
20 kind of piano.

Similar letters of reference designate corresponding parts in both the figures.

I will first describe my invention with reference to Fig. 1.

A designates the hammer, pivotally connected with the hammer-rail B in the usual way through a flange a.

C designates the lever to which the jack D
30 is pivoted by a pin b. This lever, which will be hereinafter spoken of as the "jack-lever," constitutes also in this example of my invention the rest-support, having a hammer-rest E provided upon it. The said lever C is pivotally connected with a fixed rail F, commonly
35 known as the "action-rail," by means of a flange c, to which said lever is pivoted by a pin d. The said lever is also connected in this example of my invention by a sticker c', with
40 a block c² secured on the key K.

G is a repetition-lever fulcrumed by a pin e to a post C', provided on the jack-lever C. This repetition-lever G is slotted for the jack D to pass through it and operate upon the
45 knuckle A' of the hammer.

The jack D is constructed with a let-off projection or arm f, which by the raising of the jack-lever and jack is brought into contact with the let-off screw f'. The said jack has
50 screwed into it a regulating-screw g, which operates in connection with an abutment g',

erected upon the jack-lever C. The repetition-lever G is also represented as provided with another regulating-screw h, which stops against an abutment h' on the jack-lever. 55 The repetition-lever is also represented as having its spring i connected with the jack-lever by a stirrup i', and the jack-spring j is represented as attached to the post C' of the jack-lever and connected with the jack by a
60 stirrup j'. As thus far described, the action mechanism does not differ from that of other grand or horizontal piano-actions.

H designates the spring, which constitutes the principal feature of my invention, which
65 in this example of my invention represented in Fig. 1, is applied directly between the jack-lever and the action-rail F. In this example the said spring consists of a light coil-spring applied above the said rail and under said
70 lever, the lower end of the said spring being set in a little pocket k, provided in said rail, and the upper end entering a small cavity k', provided for it in the bottom of the jack-lever.

The pockets or cavities k k' may consist, 75 simply, of round holes, of a size just sufficient to receive the ends of the springs, bored, respectively, in the rail F and lever C. The spring thus constructed and applied is easily put in place and securely retained therein. 80

I will now describe my invention as applied to the upright action illustrated by Fig. 2. In this example of my invention the hammer A and the jack-lever C, to which the jack D is pivotally attached, are both pivotally connected with one rail B', the hammer being pivoted to a flange a, secured to said rail, and the jack-lever to a flange c, secured to the said rail. The spring H which constitutes the principal feature of my invention, is applied between
90 the jack-lever C and a specially-provided fixed rail F. The said spring H is like that shown in Fig. 1, consisting of a coil and having its lower end dropped into a small pocket k in the said rail, and its upper end received
95 in a recess k' in the bottom of the jack-lever. The jack-lever C in the last-described example is operated upon by the key K through a block c², which presses against the bottom of the said lever. 100

In both the examples of my invention it will be seen there is a spring H applied directly

between the jack-lever and a fixed rail in such manner as to exert a gentle upward pressure against the jack-lever, easing the touch of the player on the key, both in first striking the
5 note and in repeating.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the lever to which the jack is pivoted, and a fixed rail provided
10 with a pocket, of a coil-spring the lower end of which is located in said pocket in the rail and the upper end of which is seated against the bottom of the said lever, substantially as and for the purpose herein described.

2. The combination, with the lever to which 15 the jack is pivoted and a fixed rail, the rail being provided in its upper face with a seat for the lower end of a coil-spring, and the lever being provided in its under face with a seat for the upper end of the coil-spring, of a 20 coil-spring removably secured with its ends in engagement with said seats, for the purpose substantially as set forth.

OTTO WESSELL.

Witnesses:

FREDK. HAYNES,
GEO. BARRY.