

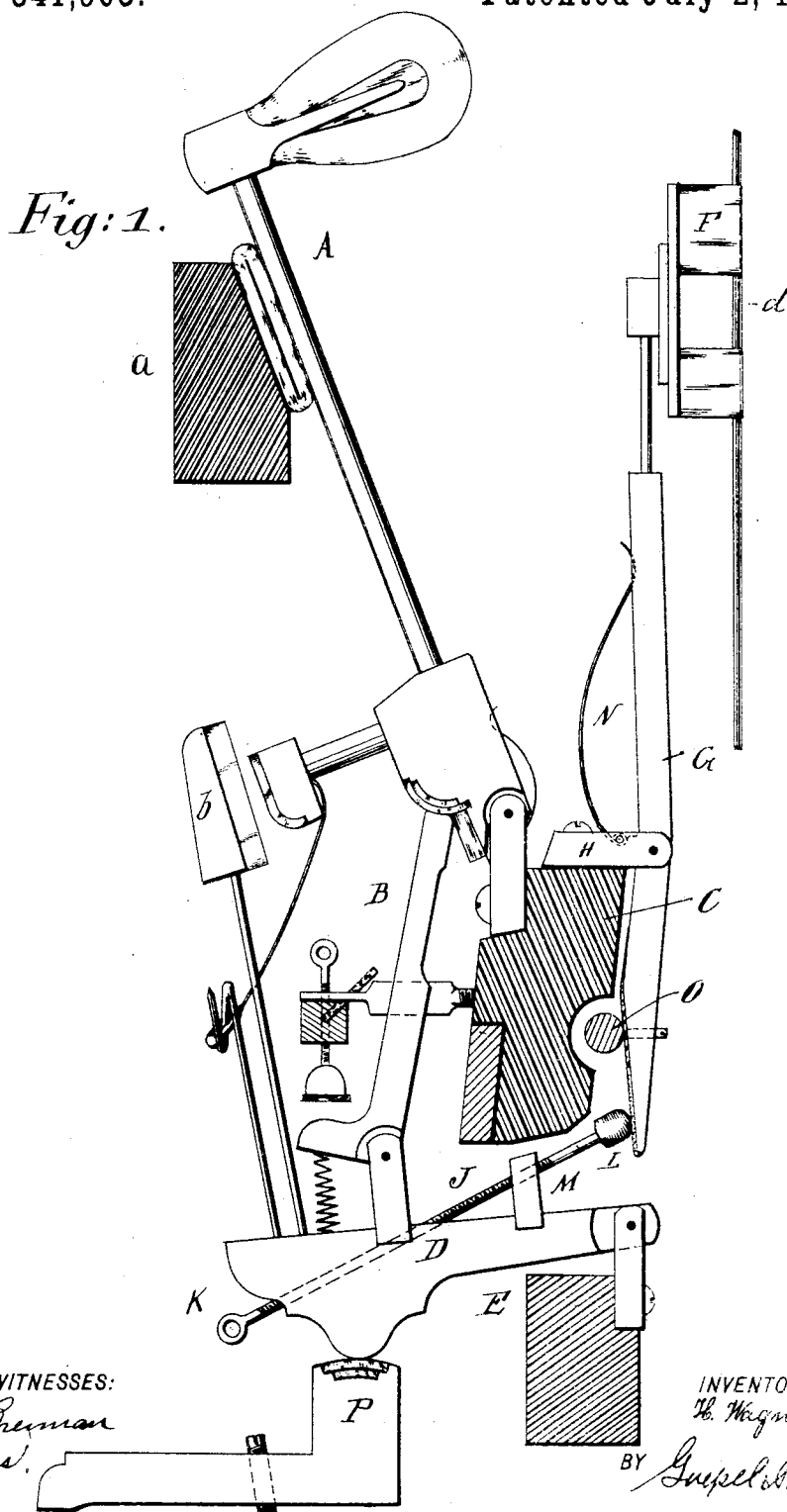
(No Model.)

2 Sheets—Sheet 1.

H. WAGNER.
PIANO ACTION.

No. 541,905.

Patented July 2, 1895.



WITNESSES:

K. R. Bryman
Wito Kreis.

INVENTOR

L. Wagner

BY

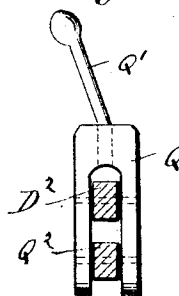
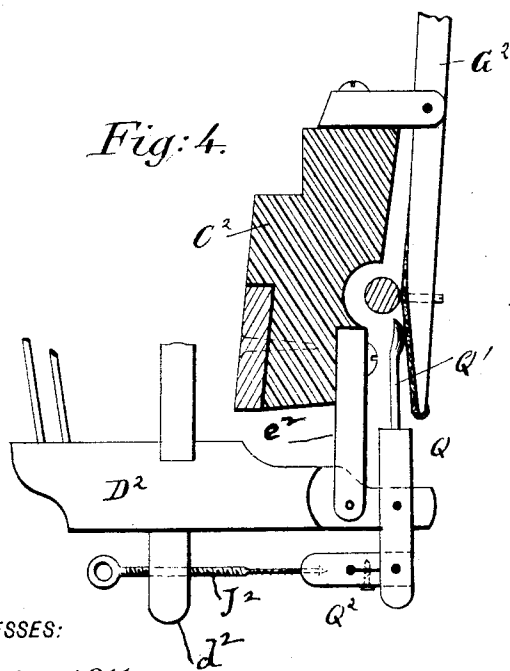
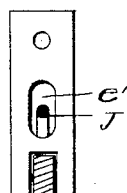
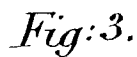
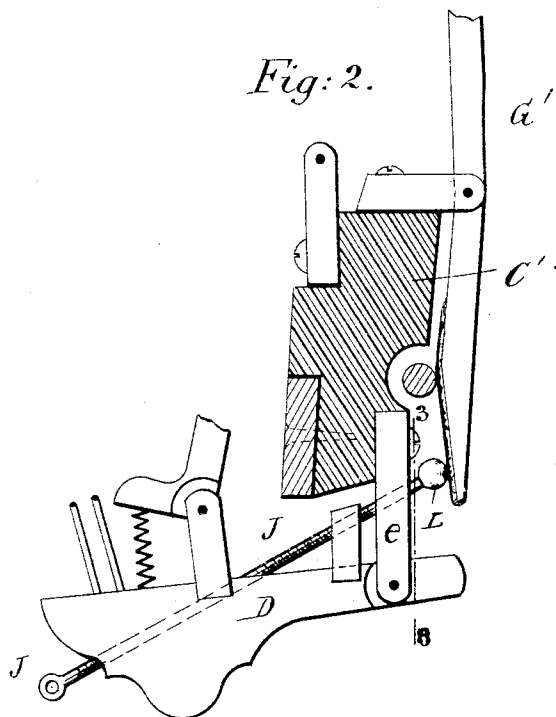
BY *Guiseppi Ruedener.*

ATTORNEYS.

2 Sheets—Sheet 2.

No. 541,905.

Patented July 2, 1895.



WITNESSES:
H. R. Brennan.
Otto Reiss.

INVENTOR
H. Wagner
BY Gospel & Raupen
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HERMAN WAGNER, OF STUTTGART, GERMANY.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 511,905, dated July 2, 1895.

Application filed April 17, 1894. Serial No. 507,838. (No model.)

To all whom it may concern:

Be it known that I, HERMAN WAGNER, a subject of the King of Württemberg, and a resident of Stuttgart, Württemberg, Germany, have invented new and useful Improvements in Piano-Actions, of which the following is a specification.

This invention relates to improvements in piano actions and especially to the damper mechanisms.

The object of my invention is to provide a new and improved piano action in which the dampers can be adjusted from the front of the action, so as to be thrown off the strings at the proper time.

The invention consists in an upright piano-action, having an adjusting screw in each jack-bed, which screw serves for adjusting the lower end of the corresponding damper-lever, the front ends of said screws being located at the front of the action.

The invention also consists of the construction and combination of parts and details as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of a piano action provided with my improved device for adjusting the damper actions, parts being in section. Fig. 2 is a side view of the lower part of the action, showing a modified construction, parts being in section. Fig. 3 is a vertical transverse sectional view on line 3, 3, Fig. 2. Fig. 4 is a side view of the lower part of the piano action showing a further modification, parts being in section, and Fig. 5 is a detail view of the pusher-lever, the jack-lever being shown in section.

Similar letters of reference indicate corresponding parts.

In the constructions shown in Fig. 1, the hammers A are pivoted in the usual manner to the hammer-rail C and are actuated by jacks B of which each is pivoted to a jack-bed D, which in turn is pivoted to a jack-bed-rail E. *a* is a hammer-rest rail. *b* are the hammer checks attached to the jack-beds D, and *d* are the strings. The dampers F are of the usual construction and are secured to the upper ends of the damper-levers G pivoted to clips H, fastened by screws on the hammer-rail C.

A screw J is passed at an angle through the jack-bed D of each damper-lever and provided at the front end of the action with a ring K to permit of turning said screw either by hand or by means of some suitable implement, and at the rear-end of each screw a felt head L is provided, which rests against the lower felt end of the damper-lever G. The aperture in the jack-bed through which the screw is passed is threaded, so that by turning said screw in one direction or the other it is moved to or from the lower part of the damper-lever. The screw is further guided by passing through an aperture in a lug M projecting upward from the jack-bed. A spring N, secured to the clip H, and bearing against the damper-lever above its pivot, serves to press the damper against the string *d* and also to press the lower end of the damper-lever against a check-rod O arranged parallel with and adjacent to the hammer-rail C. When the riser P is raised by the action of the key, the jack-bed D is thrown upward, the jack throws the hammer against the string and at the same time the head L of the screw J acting on the damper-lever G, pushes the lower end of the damper-lever toward the string, whereby the damper is removed from the string and remains in this position until the key is released. By adjusting the screw J, the same is brought in position to throw the damper from the strings sooner or later. The tuner or adjuster can adjust each damper-lever from the front by merely turning the screw and need not remove the action. He can easily adjust each damper-lever independently from the others and immediately after having adjusted the same, can test it by striking the key. By pivoting the jack-beds to a separate rail below the hammer-rail, the levers are lengthened and the actions work more easily. As the pivotal point of the damper bed is directly below the head L of the screw J, the friction between said head and the lower end of the damper lever is reduced to a minimum.

In the construction shown in Figs. 2 and 3, the jack-bed D' is not pivoted to a separate rail E as in the construction shown in Fig. 1, but is pivoted to clips *e* projecting downward from the hammer-rail C, said clips each hav-

ing a slot e' through which the screw J can pass, said screw also passing through the jack-bed and resting against the lower end of the damper-lever in the manner previously described. In this construction also the damper-levers can be readily adjusted from the front without requiring a removing of the action, and each damper-lever can be tested immediately after having been adjusted.

16 In the construction shown in Figs. 4 and 5, the jack-beds D^2 are pivoted to clips e^2 projecting downward from the hammer-rail C^2 , and to the rear end of the jack-beds the levers Q are pivoted from which the pushers

15 Q' project upward and rest against the lower ends of the damper-levers. The screw J^2 in this case passes through a lug d^2 projecting downward from the jack-bed and acts on an arm Q^2 pivoted to the lower end of the lever Q. When the jack-bed is raised the pusher Q' acts on the lower end of the damper-lever G^2 and pushes the same toward the strings, whereby the damper is removed from the string. The screw J^2 is also provided

20 with an eye in its front end and by turning said screw, the pusher lever Q is adjusted at different inclinations on the jack-bed so as to act on the damper-lever sooner or later. In this case also the several damper-levers can be

25 adjusted without requiring the action to be removed and each damper can be tested immediately after having been adjusted.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination, with an upright-piano action, of a screw supported by the jack-bed, one end of the screw being located at the front of the jack-bed and the opposite end provided with a head arranged above the pivoted end of the jack-bed in close proximity thereto, and resting against a damper-lever, substantially as set forth.

2. The combination, with an upright-piano action, of a screw mounted in the jack-bed, one end of the screw being located at the front of the jack-bed and the opposite end extending above the pivoted end of the jack-bed and resting against the damper-lever, substantially as set forth.

3. The combination, with an upright-piano action, of screws for adjusting the lower ends of the damper-levers, which screws are mounted in inclined position in the jack-beds, the rear-ends of the screws extending above and in close proximity to the pivots of the jack-beds and resting against the lower ends of the damper-levers, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HERMAN WAGNER.

Witnesses:

MAX EISELE,
EUGEN HACKT.