

UNITED STATES PATENT OFFICE.

ALBERT LOUIS BLONDEL, OF PARIS, FRANCE.

GRAND-PIANO ACTION.

SPECIFICATION forming part of Letters Patent No. 647,289, dated April 10, 1900.

Application filed November 1, 1899. Serial No. 735,455. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LOUIS BLONDEL, a citizen of the Republic of France, and a resident of Paris, France, have invented a new and useful Improvement in Grand-Piano Actions, which improvement is fully set forth in the following specification.

The present invention relates to improvements in grand-piano actions of the Erard type and of that class in which the hammers are brought nearer to the strings for producing the pianissimo effect and whereby the transposition hitherto practiced, which consists in shifting the hammers laterally, is obviated.

In order to render the following specification clear, I have by way of an example shown in the accompanying drawing a longitudinal section of a portion of a grand piano, showing the action with the improvements relating thereto.

The drawing shows a compensation-lever *a*, which is an intermediary between the lifter *b* of the action and the key *c*. The said lever *a* is hinged by one end at *d* and carries at its other end an adjustable stop *e*, which passes through the key *c* and terminates in a small button *f*. This button forms the means for transmitting the impulse it receives from the bar or staff *g* through the rod *e* to the compensation-lever *a*. It must be understood that the said bar or staff *g* is directly operated by the damping-pedal. Directly the said pedal is depressed the bar *g* raises the lever *a*, which in turn transmits its movement

to the action. The lever *a* does not return into contact with the key *c* until this latter arrives at the end of its stroke.

It will be observed that the compensation-lever *a* in rising acts, through the intermediary of the lifter *b*, in conjunction with the other parts of the action, (which I do not here describe, as they are well known,) upon the lever-arm *h* of the hammer, which latter thereupon moves from the position *h* into position *h'*, the hammer-head *i* moving to *i'*—i. e., closer to the strings.

It is to be well understood that I reserve to myself the application of this arrangement to pianos with vertical strings.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In a piano-action, the combination with the lifters of the hammers, the keys and a bar placed under all the keys and adapted to be operated by the soft pedal, of compensating levers pivoted to the keys and acting directly upon said lifters, and adjustable rods or stops passing through the keys and acted upon by said bar and in turn acting on said compensating levers, substantially as set forth.

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

ALBERT LOUIS BLONDEL.

Witnesses:

EMILE LOBRET,

J. ALLISON BOWEN.