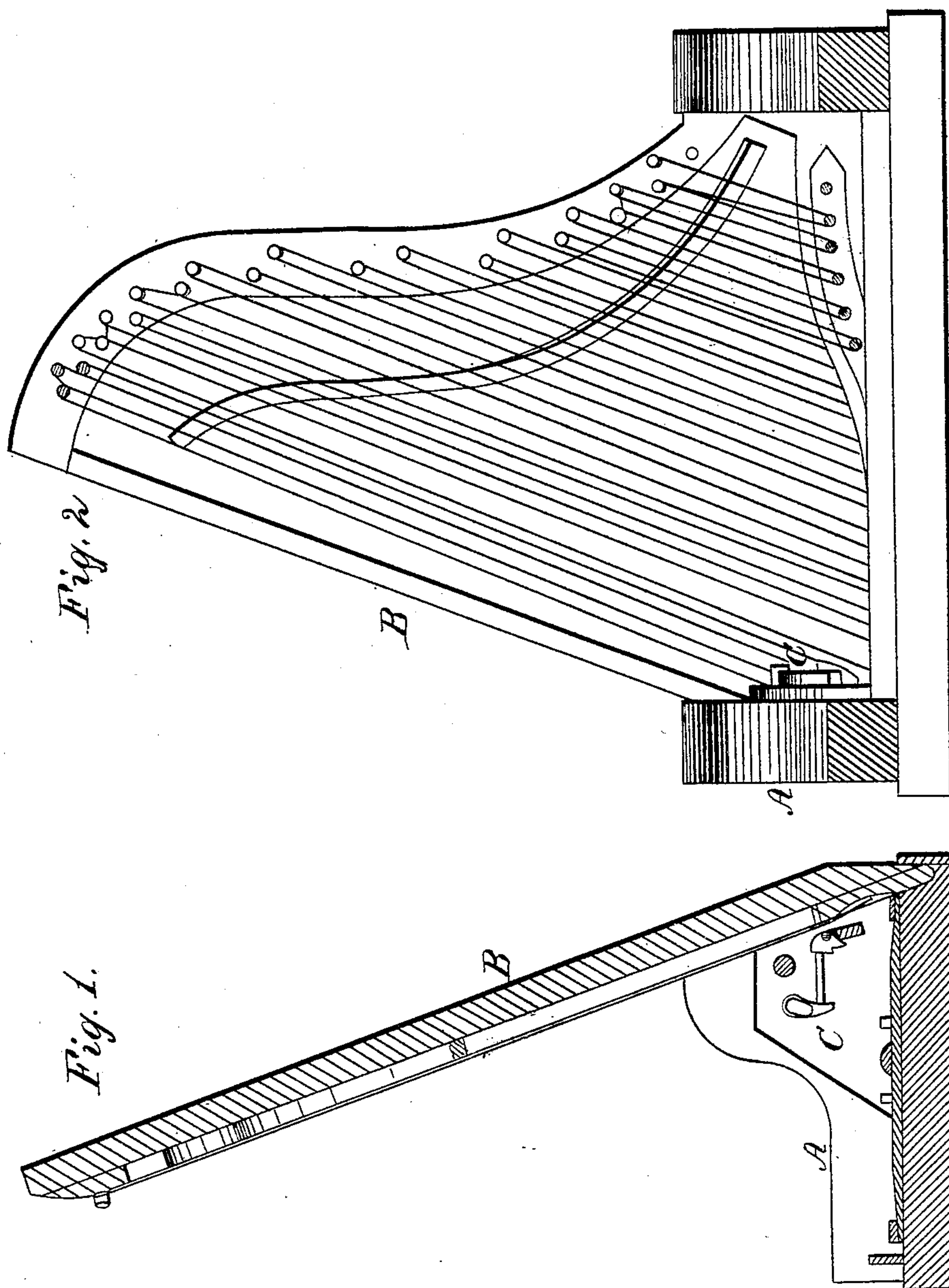


*A.H. Hastings,*  
*Pianos,*  
*No 34,491, Patented Feb. 25, 1862.*



*Witnesses*

*Asst. M. Alexander*  
*A. Hawley*

*Inventor*

*A. H. Hastings*

# UNITED STATES PATENT OFFICE.

A. HORACE HASTINGS, OF NEW YORK, N. Y.

## PIANO.

Specification forming part of Letters Patent No. 34,491, dated February 25, 1862.

*To all whom it may concern:*

Be it known that I, A. HORACE HASTINGS, of the city and State of New York, have invented certain new and useful Improvements in Pianos; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

In the annexed drawing, making part of this specification, A represents a portion of the frame of the piano, and B is the scale which is secured to it at an inclination, as is shown in the figure.

This improvement relates to upright pianos. In the ordinary upright piano, where the scale is vertical, great difficulty is experienced in making the hammer return to its proper position. The hammer will strike the cord, but after striking it will not return in position for again being moved unless there are complications about the action which add very much to the cost of the instrument and make the action very clumsy to the touch. Not only this, but the friction is so much increased that the parts wear quickly, and the action is very difficult to keep in order. By inclining the scale, as shown in this case, the hammer is attached in such a manner that it can never reach a vertical position. Hence when it strikes the cord it falls back to its normal position with no assistance but its own gravity. By this arrangement the action will not be complicated and can be made very light and easy of touch. Indeed any horizontal action can be used, but with less expense, as the keys are all of the same length and the rails straight, as in the Grand piano.

The scale is made so that it can readily be detached from the body for purposes of transportation. In the pianos now in use the scale is not made so that it can be detached from the body unless it is taken all to pieces. Consequently when a piano is boxed for trans-

portation the scale and body must be sent secured together. This is very inconvenient on account of the great weight. In this piano the scale is made complete and is then attached to the body.

When a piano is to be transported from one place to another, the body may be placed in one box, the scale in one, and the legs and pedals in another, so that the weight of each will be comparatively small. Pianos may in this manner be easily and securely transported.

The hammer is represented by C' and is made very different from the ordinary hammer. It is made hollow at its striking end, as is shown in the figure, so that elasticity may be derived from the material of which it is made without the use of leather or any other kind of packing. It is evident that when a hammer is constructed in this way there is less liability of its getting out of order than is the case with the one now in use, for that needs padding, (which is liable to come off,) while this does not.

Having thus fully described my improvement, what I claim as new, and desire to secure by Letters Patent, is—

1. The employment of the scale B so inclined that I can use the simplest and most effective form of action of the horizontal piano, while I obtain all of the advantages of the upright piano, substantially as set forth.

2. The employment of the hammer C, constructed and used as and for the purpose specified.

In witness that I claim the foregoing I have hereunto set my hand in the presence of witnesses.

A. HORACE HASTINGS.

Witnesses:

WM. S. RITTENHOUSE,  
A. D. WELCH,  
M. W. CORIN.