



# UNITED STATES PATENT OFFICE.

KARL BINDER, OF NEW YORK, N. Y.

## PIANOFORTE.

SPECIFICATION forming part of Letters Patent No. 658,614, dated September 25, 1900.

Application filed March 13, 1900. Serial No. 8,468. (No model.)

*To all whom it may concern:*

Be it known that I, KARL BINDER, a citizen of the Empire of Germany, residing at New York, borough of Bronx, State of New York, have invented certain new and useful Improvements in Pianofortes, of which the following is a specification.

My invention relates to pianofortes, and especially to the mechanical means for securing the bridge to the sounding-board, the object of the invention being to obtain simplicity and cheapness and to improve the tone qualities of the instrument, and especially of the treble strings, which require greater brilliancy and greater freedom of vibration than the other strings.

My invention consists in the combination, with the sounding-board of a pianoforte, said sounding-board having ribs, of a sounding-board bridge provided with feet separated by suitable recesses and located in front of said ribs, and fastening-screws passing through the ribs sounding-board, and feet, as will be hereinafter fully described and then claimed.

In the accompanying drawings, Figure 1 is a front view of the sounding-board, frame, and other parts of an upright pianoforte sufficient to illustrate my invention. Fig. 2 is a view in perspective of a portion of the sounding-board and bridge. Fig. 3 is a transverse section on line 3 3, Fig. 2; and Fig. 4 is a longitudinal section on line 4 4, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A indicates the wrest-plank, B the metallic frame, and C the sounding-board. D is the bridge for the treble strings, and D' the bridge for the bass strings *s'*. Both bridges or only the bridge D are cut out or recessed at the under side at *d* to form feet or abutments *d'* with a view to rendering the bridge less solid and more

resonant than otherwise. The feet *d'* are formed at suitable intervals on the bridge, and their ends rest upon the sounding-board C, whereto they are glued, the bridge being more firmly secured to the sounding-board by means of screws E, which pass through the ribs C' of the sounding-board and the sounding-board itself and the ends of which screw into said feet. The heads of the screws E are countersunk in said ribs. At one end the bridge is secured to the sounding-board by a screw *e*, under the head of which a washer *e'* is confined. This screw *e* does not pass through a rib.

By the described connection the bridge is firmly secured to the sounding-board, while at the same time the recesses in the bridge render it less "dead," as it were, so that a greater brilliancy is secured and the timbre of the notes produced by the strings is improved; also, the sounding-board is freer to vibrate and respond to the sound-waves, whereby the intensity of the note sounded is increased.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the sounding-board of a pianoforte, said sounding-board having ribs, of a sounding-board bridge provided with feet separated by suitable recesses and located in front of said ribs, and fastening-screws passing through the ribs, sounding-board and feet, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

KARL BINDER.

Witnesses:

PAUL GOEPEL,  
M. H. WURTZEL.