

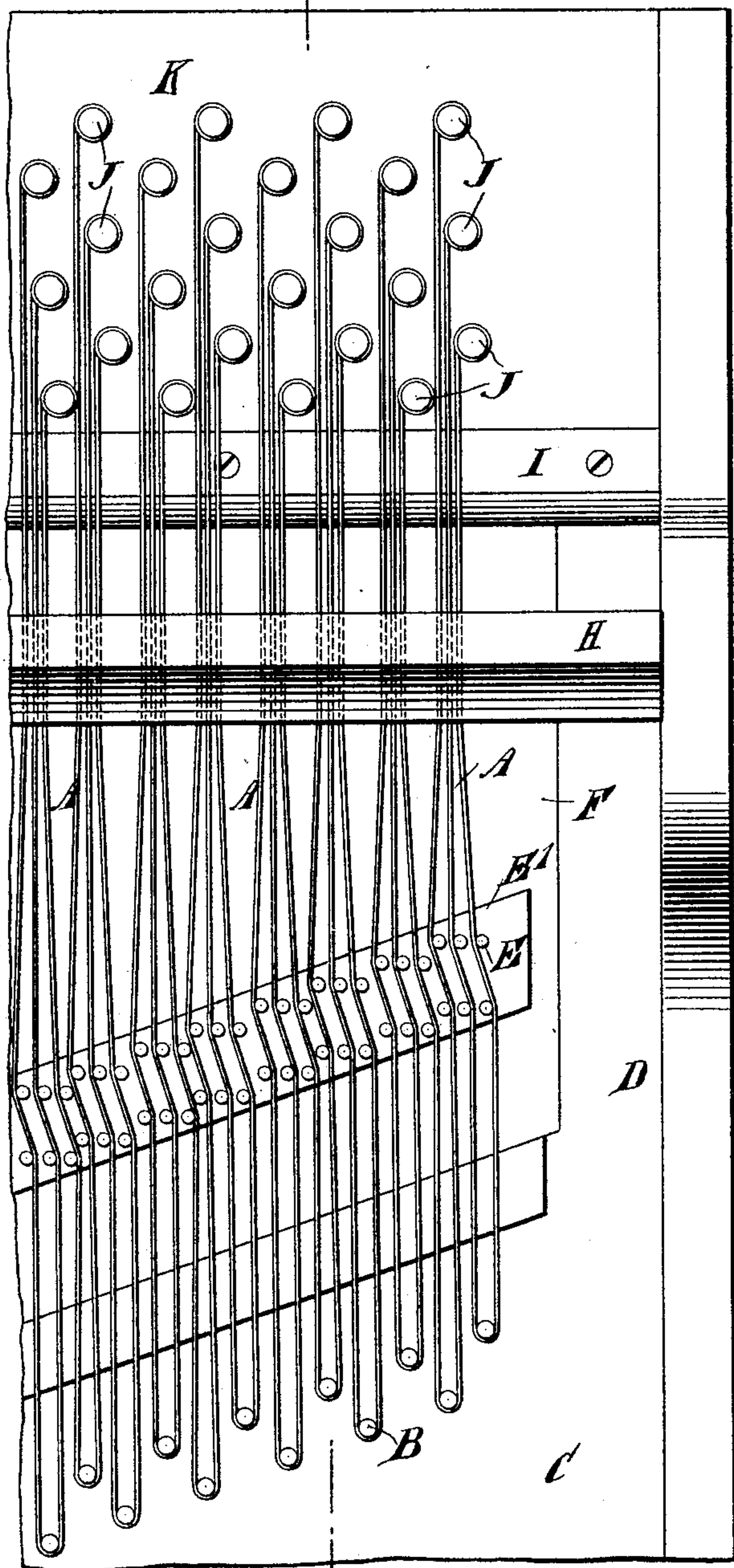
(No Model.)

J. DIEHL.
UPRIGHT PIANO.

No. 570,787.

Patented Nov. 3, 1896.

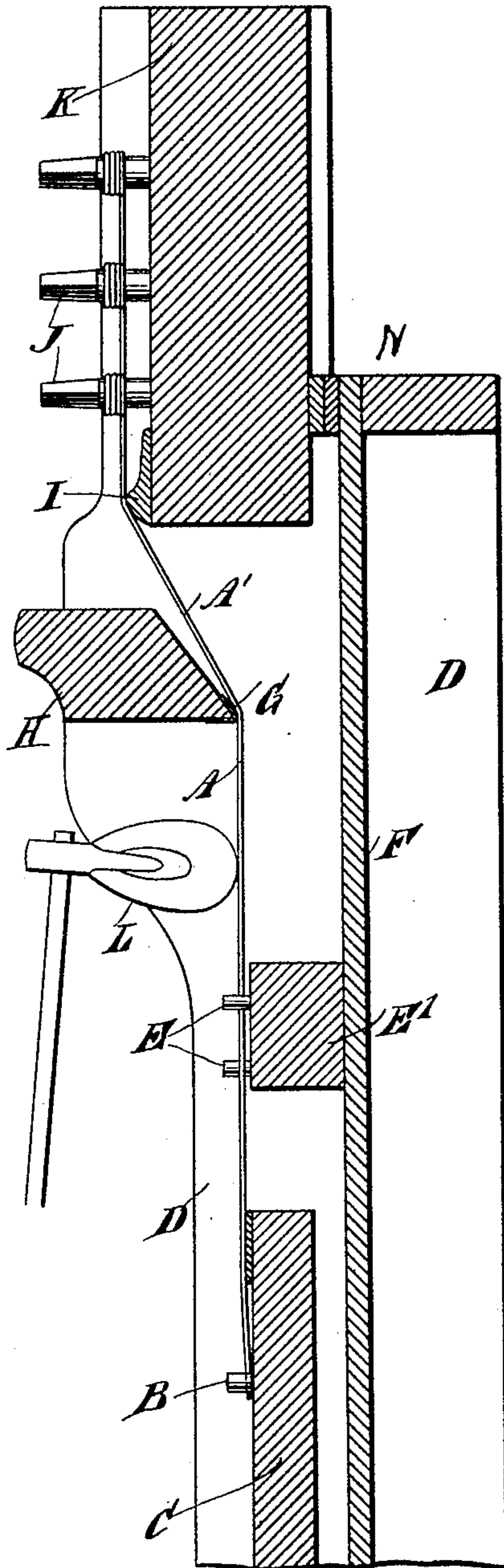
Fig. 1.



WITNESSES: 2

Edward Thorpe.
Geo. F. Koster,

Fig. 2.



INVENTOR

J. Diehl.
BY *Munn*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JUSTUS DIEHL, OF NEW YORK, N. Y.

UPRIGHT PIANO.

SPECIFICATION forming part of Letters Patent No. 570,787, dated November 3, 1896.

Application filed January 24, 1896. Serial No. 576,700. (No model.)

To all whom it may concern:

Be it known that I, JUSTUS DIEHL, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Upright Pianos, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in upright pianos, whereby the resonant qualities of the instrument are greatly increased, especially when the upper or treble strings are sounded by the hammers.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a front elevation of the improvement, and Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1.

The groups of piano-strings A are secured to one end on the usual studs B, secured to the string-plate C, attached to or forming part of the piano-frame D, in the usual manner. The strings A extend from the studs B between the pins E on a bridge E', attached to the front face of a sounding-board F, secured to the bridge E' in the rear of the strings, as plainly illustrated in Fig. 2. The strings A extend from the pins E under a bridge G, held on a transverse rail H, secured to the frame D and extending from one side of the frame to the other in front of the strings, as will be readily understood by reference to Figs. 1 and 2. The strings A after leaving the bridge G extend forwardly and upwardly in an inclined direction, to finally pass over a bridge I, secured on the projecting lower edge of the wrest-plank K, carrying the wrest-pins J, on which the strings are wound in the usual manner. Now it will be seen that by the arrangement described the hammers L are adapted to strike the strings A below the rail H, whereby that part A' of the strings A which extends in an

inclined direction from the bridge G to the bridge I sounds simultaneously with the strings struck by the hammer. The sounding-board F extends under the parts A' of the strings A, so that by the arrangement described the sounding-board is increased in size over that of the ordinary upright piano, and consequently an increased resonant quality is obtained.

It will be observed that the sounding-board F is not secured directly to the lower edge of the wrest-plank K, as in the ordinary construction of upright pianos, but said sounding-board is spaced from the wrest-plank and extends partly under and behind the same, being secured independently of the wrest-plank to the support N. By this arrangement the action of the sounding-board is very much improved, as the length of the vibrating portion thereof is considerably increased.

It will further be seen that as the treble-strings are very short and sound harsh when struck by the hammers in the ordinary piano, it is of great importance that the sounding-board be of considerable size at this point to insure a proper vibration and a consequent increase of volume of sound.

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

A piano or like stringed instrument, provided with a lower bridge engaging the front faces of the strings above the hammers, an upper bridge secured to the wrest-plank and engaging the rear faces of the strings, said upper bridge being located in advance of the lower bridge so that the strings pass obliquely upward from the lower bridge to the upper bridge, and a sounding-board extending upwardly beyond said bridges, the upper end of said sounding-board extending behind the wrest-plank and being spaced therefrom and secured independently thereof, substantially as described.

JUSTUS DIEHL.

Witnesses:

THEO. G. HOSTER,
JNO. M. RITTER.