

J. JAWORSKY.
BRACE FOR PIANO STRING FRAMES.

No. 423,163.

Patented Mar. 11, 1890.

Fig: 1.

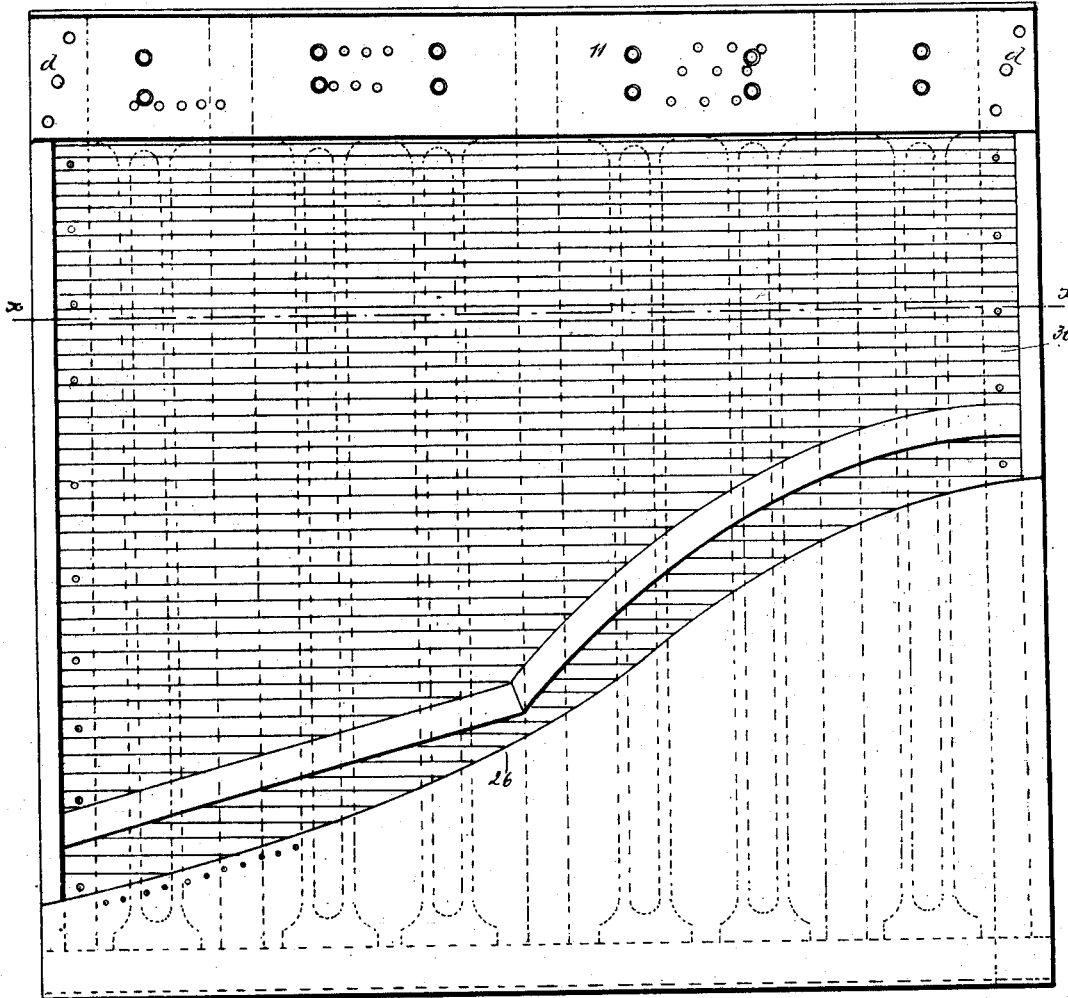


Fig: 2.

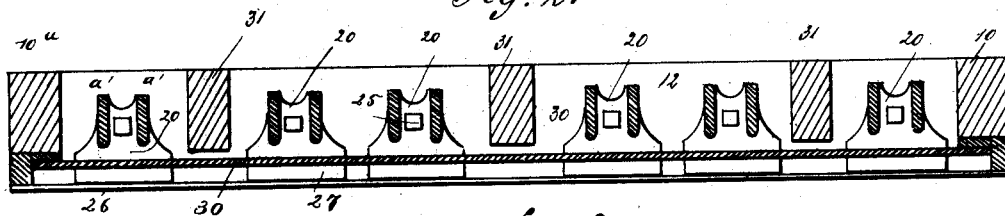
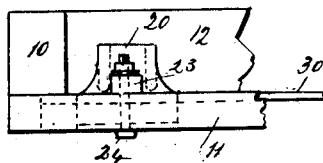


Fig: 3.

WITNESSES:
Chas. Nida
C. Bedgwick

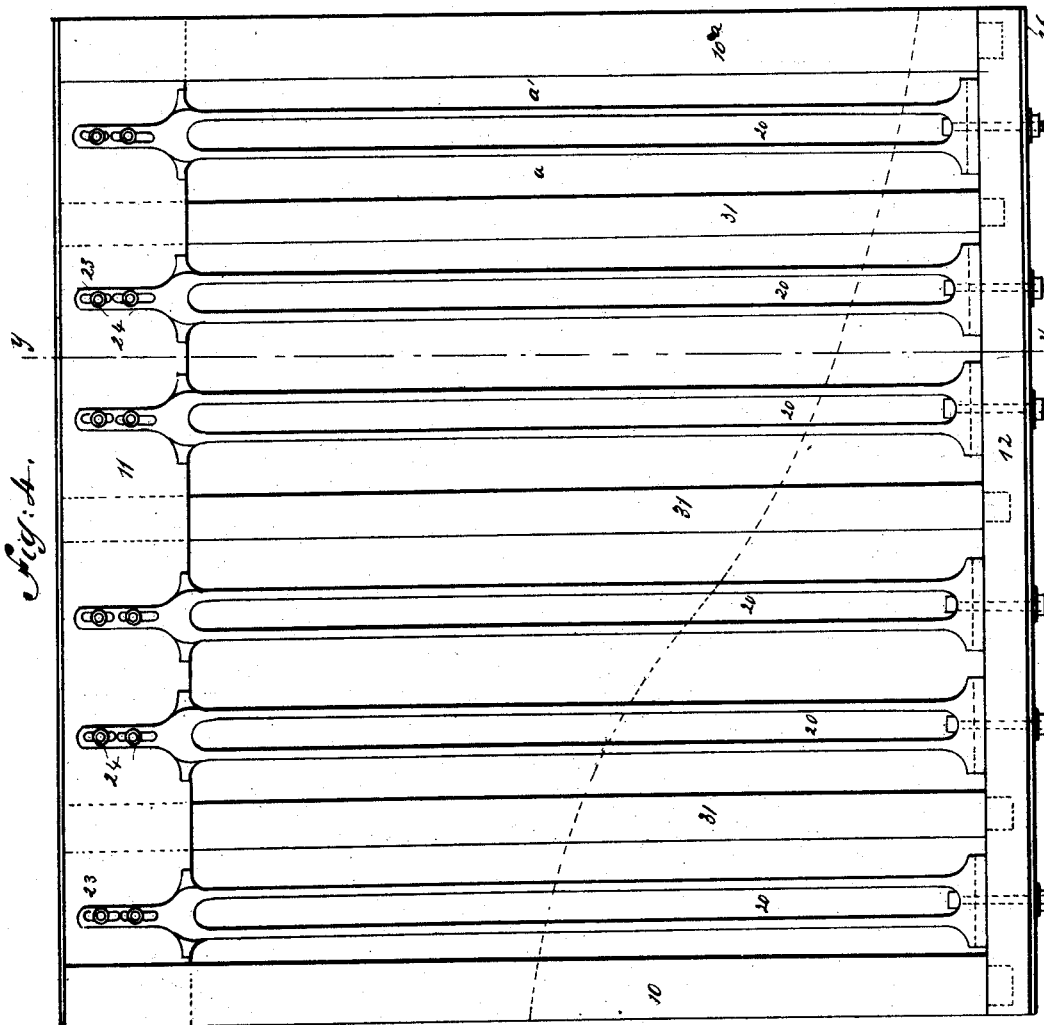
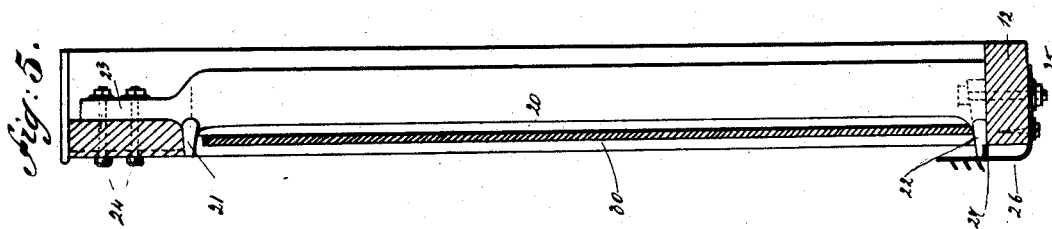


INVENTOR:
J. Jaworsky
BY *Munn & Co.*
ATTORNEYS.

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UNITED STATES PATENT OFFICE.

JOHN JAWORSKY, OF BROOKLYN, NEW YORK.

BRACE FOR PIANO-STRING FRAMES.

SPECIFICATION forming part of Letters Patent No. 423,163, dated March 11, 1890.

Application filed May 7, 1889. Serial No. 309,918. (No model.)

To all whom it may concern:

Be it known that I, JOHN JAWORSKY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Brace for Piano-String Frames, of which the following is a full, clear, and exact description.

This invention relates to the construction of piano-string frames, the object of the invention being to provide for the support of the strings in a manner such that they will retain the pitch to which they have been tuned, but will be held with a certain amount of elasticity, whereby a rich, full, mellow tone will be secured.

To the end named the invention consists, essentially, of an iron brace arranged for use in connection with a wooden frame, such brace being of novel construction, as will be hereinafter described, and specifically pointed out in the claims.

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

Figure 1 is a face view of a frame embodying my invention. Fig. 2 is a sectional plan view thereof, the view being taken on line x of Fig. 1. Fig. 3 is a detail view illustrating the connection between one of the braces and the wrest-plank. Fig. 4 is a rear view of the frame, and Fig. 5 is a cross-sectional elevation on line y of Fig. 4.

In the drawings, 10 and 10^a represent the end braces, to the faces of which braces the wrest-plank 11 is connected by dowels d , the lower ends of the braces 10 and 10^a being tenoned to fit in mortises formed in the sill 12. In order that the wrest-plank 11 may be held against any undue yielding incident to the strain to which it is subjected by reason of the tension imparted to the strings, I provide iron braces 20, formed with upper forwardly-extending lips 21, upon which the wrest-plank fits, and with lower forwardly-extending lips 22, which rest upon and extend in advance of the sill 12. The braces 20

are centrally divided to form vertical lengths a and a' , and are formed with upwardly-extending tongues 23, that are slotted to provide for the passage of the retaining-bolts 24, the lower ends of the braces being connected to the sill by bolts 25, the heads of said bolts resting between the two brace members a and a' , and these bolts 25 serve to hold the pin-plate 26 in place. To prevent any vertical displacement of the pin-plate, I provide said plate with a lip 27, which bears against the under sides of the brace-lips 22.

The sounding-board 30 is secured to the end braces 10, and extends in advance of the braces 20 and intermediate wooden braces which are arranged in the spaces between the iron braces. Ordinarily I prefer to locate an iron brace 20 adjacent to the braces 10 and 10^a, to then provide intermediate wooden braces 31, then to locate a central wooden brace, and upon each side of the central wooden brace to place two iron braces. The tuning-pegs are secured to the wrest-plank in the ordinary manner.

Such a frame as the one above described renders the use of the rigid cast-iron plate unnecessary, and thus leaves the sounding-board free to respond to the vibrations of the strings, and as the strings are supported at their upper ends by wood I secure a certain amount of pliability and elasticity which is not obtained when an iron frame is used, and yet by bracing the wooden frame in the manner described I provide for the retention of the pitch to which the piano has been tuned, and secure a piano that is sweet, rich, and powerful in tone and of fine singing quality. Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A brace for piano-frames, formed with upper and lower lips and with an upwardly-extending slotted tongue, substantially as described.

2. The combination, with the wrest-plank, wooden braces, and sill of a piano-frame, of a brace formed with lips or flanges upon

which the wrest-plank rests, and with flanges which extend outward beyond the sill, substantially as described.

5 3. In a piano-string frame, the combination, with the wrest-plank, sill, and wooden braces, of metallic braces formed with lips, upon which the wrest-plank rests, and with a lip 22, which projects forward beyond the

sill, and a metallic pin-plate formed with a lip or flange, which bears against the under sides of the brace-lips, substantially as described. 10

JOHN JAWORSKY.

Witnesses:

HARLAN CRANDALL,
REMSSEN RUSHMORE.