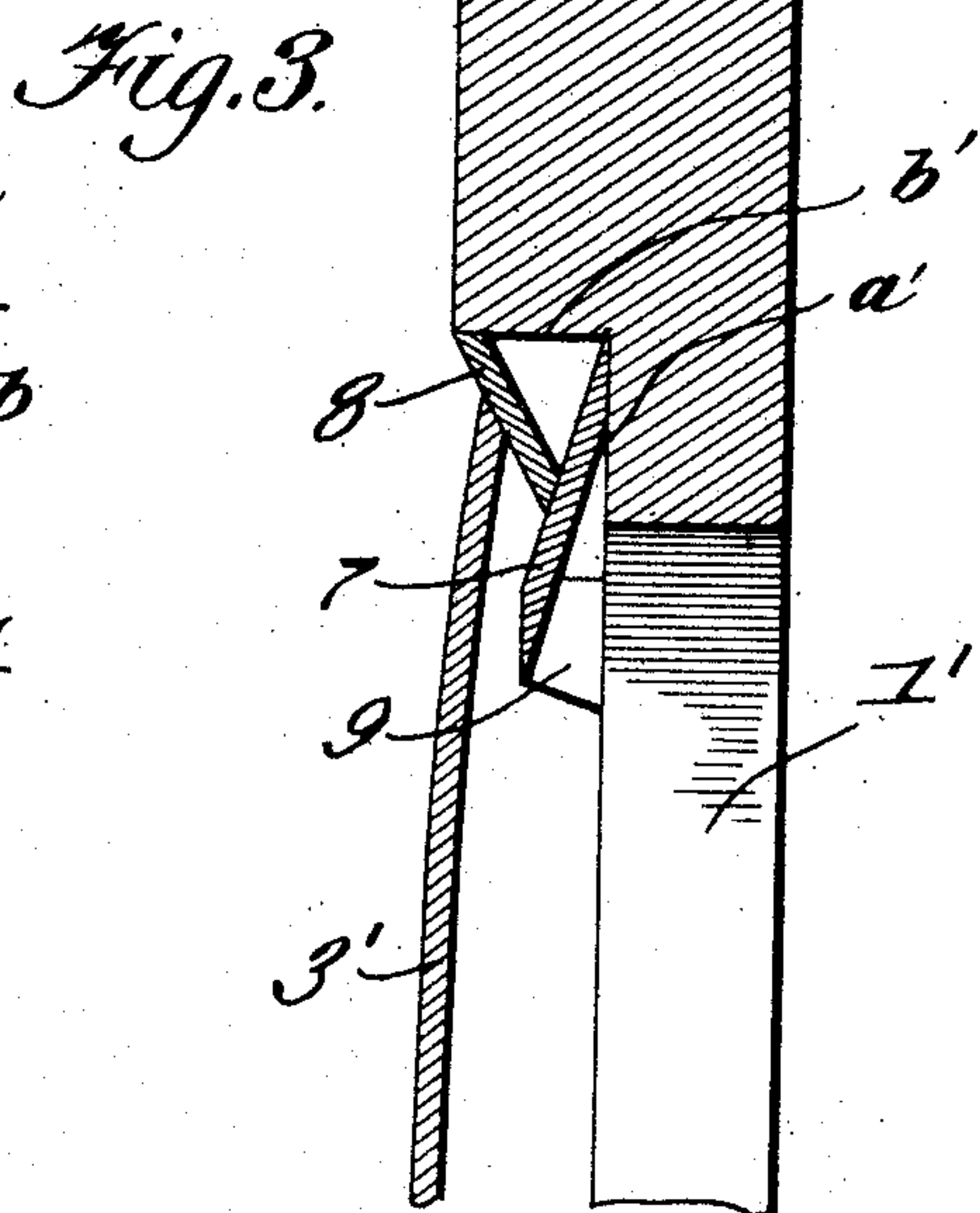
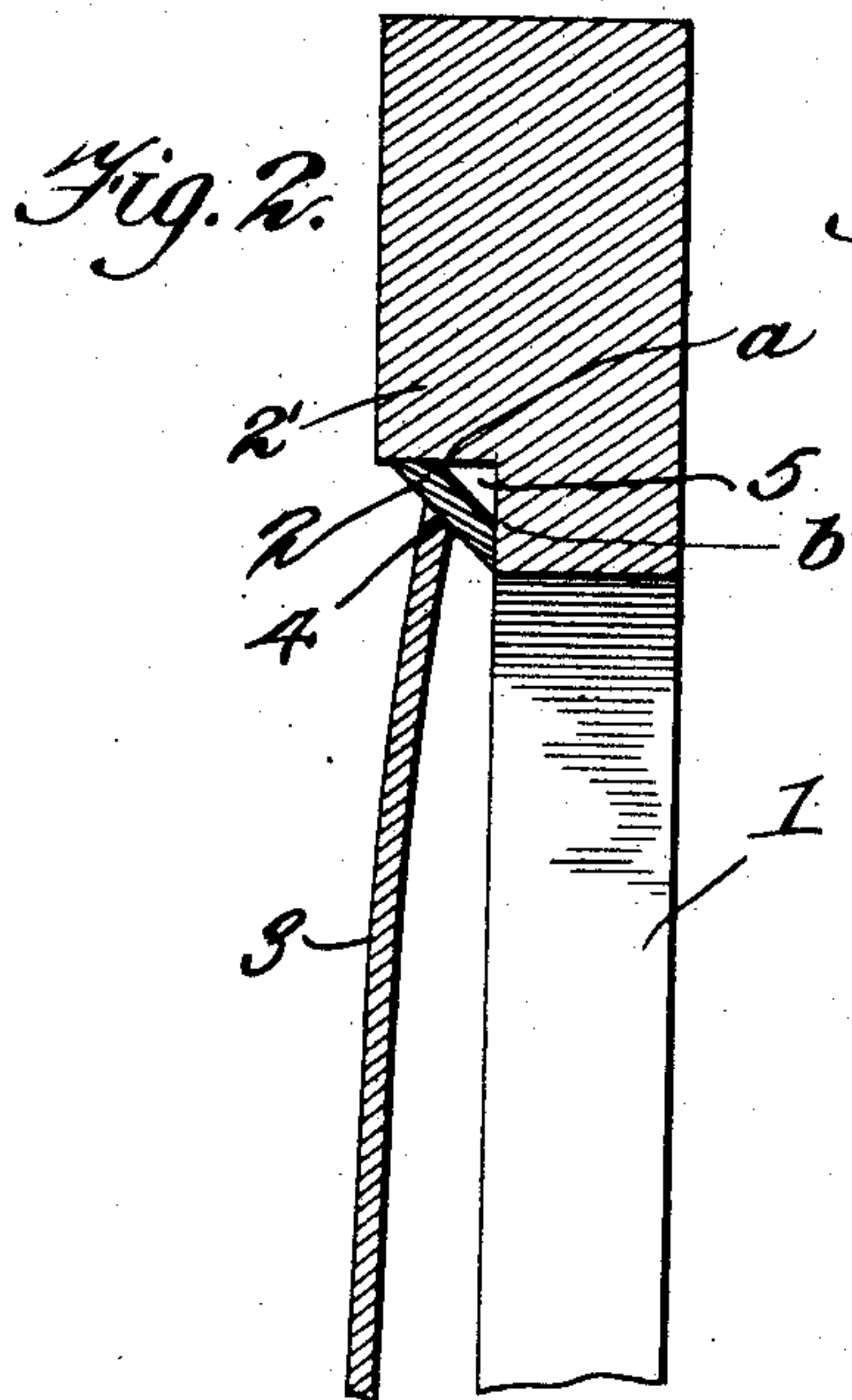
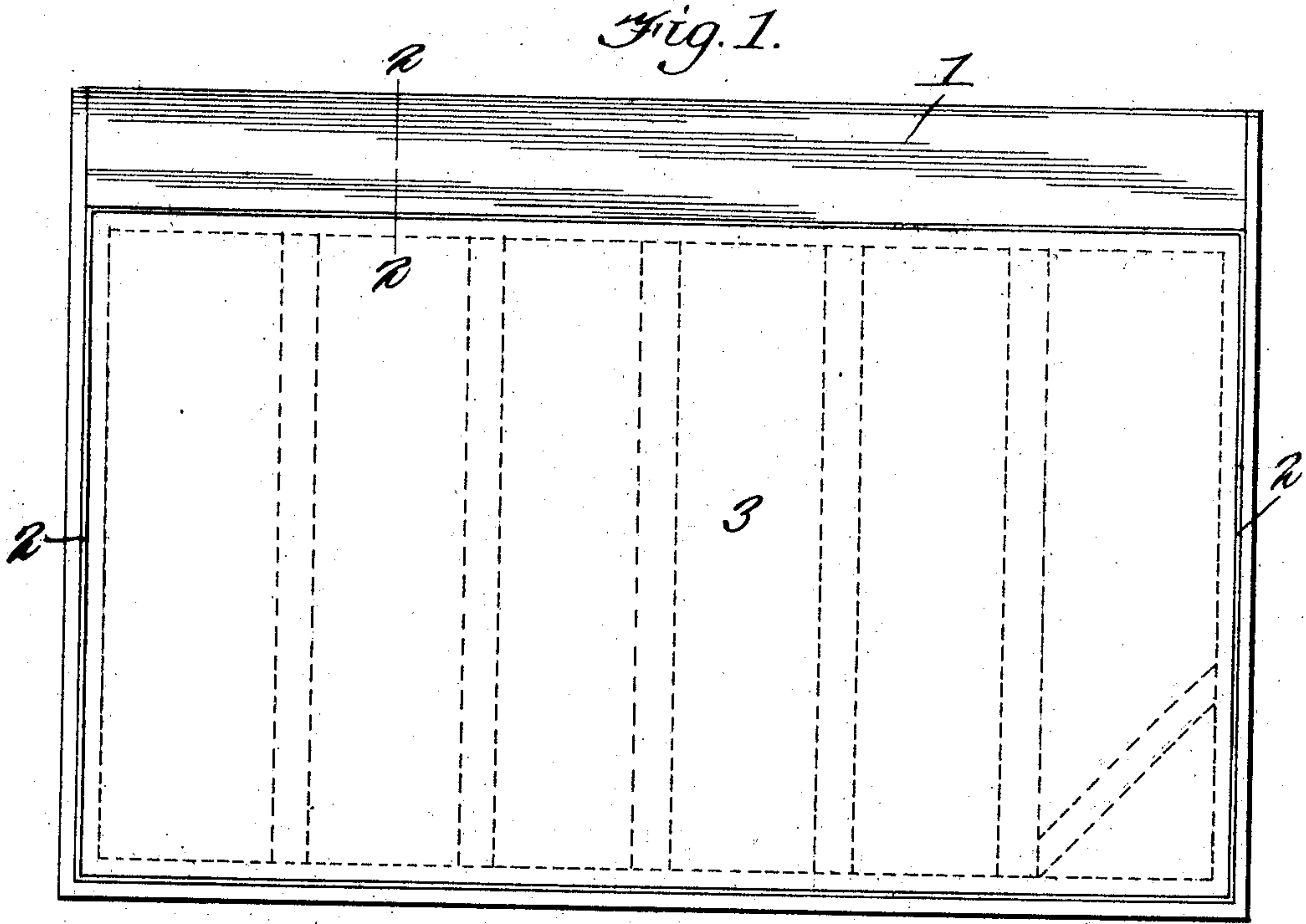


H. DERDEYN.  
PIANO SOUNDING BOARD.  
APPLICATION FILED SEPT. 24, 1909.

983,125.

Patented Jan. 31, 1911.



Witnesses

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# UNITED STATES PATENT OFFICE.

HECTOR DERDEYN, OF JACKSONVILLE, ILLINOIS.

## PIANO SOUNDING-BOARD.

983,125.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed September 24, 1909. Serial No. 519,308.

*To all whom it may concern:*

Be it known that I, HECTOR DERDEYN, citizen of Belgium, residing at Jacksonville, in the county of Morgan and State of Illinois, United States of America, have invented new and useful Improvements in Piano Sounding-Boards, of which the following is a specification.

This invention relates to sounding boards for pianos or other string instruments, and the object of the invention is to provide a device whereby the sounding board is allowed a large amount of elasticity.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings Figure 1 is a front elevation of a piano frame with the sounding board attached thereto. Fig. 2 is a sectional view illustrating one of the methods for connecting the sounding board to the frame. Fig. 3 is a similar sectional view illustrating a slightly different method of connecting the board to the frame.

Sounding boards for instruments, as generally used, rest upon a frame to which they are firmly connected at their edges. In such constructions the sounding board around the edges of the frame cannot vibrate and only the central portion of the board is permitted to make vibrations of an amplitude necessary to obtain a desired sound, while the edges of the board remain practically non-vibratory. This disadvantage is especially perceptible in the treble strings of an upright piano or of a horizontal piano, the said strings lying near the part of the sounding board which is close to the supporting frame. The sound of these strings is not reinforced by the vibration of the board as compared with the middle strings, so that the difference between the beauty of the upper octave of the piano and the middle octave is thus explicable. In order to overcome these disadvantages I have recessed the inner face of the portion of the piano or frame 1 to which the sounding board is to be attached, so as to provide a continuous vertical wall *a* and a right angularly arranged or offset wall *b*.

The numeral 2 designates an elastic member. This member 2 has its opposite edges beveled and is securely connected adjacent the edges *a* and *b* of the right angularly ar-

ranged walls provided by the recess. It is to be understood that the elastic member 2 is connected with the said walls *a* and *b* around the entire frame, and it will be noted that by arranging the said elastic member 2 at an angle in relation to the face of the frame, the air space 5 is provided between the said member and the juncture of the walls *a* and *b*.

The numeral 3 designates an ordinary sounding board. This board 3 is constructed of some suitable material of sufficient elasticity and has its edges beveled as at 4, and the said edges are centrally connected with the continuous elastic member 2. By this arrangement, it will be noted that the board 3 is rendered yieldable at all of its points of connection with the frame 1, and the continuous air space 5 tends to render the elastic member 2 of a greater yieldability and it necessarily provides for a greater amount of expansion and contraction of the board 3 in its vibrations when the strings are sounded.

In Fig. 3 I have illustrated a slightly modified form of the device. In this figure the frame 1 is of a similar construction to that previously set forth, the same being provided with the vertical wall *a'* and the right angular connecting wall *b'*. The vertical wall, at its point of juncture with the right angular wall *b'* is provided with an outwardly extending elastic member 7. This member 7 extends entirely around the frame 1' and is retained in proper spaced relation therewith through the medium of suitable spacing blocks 9. The numeral 8 designates a second continuous elastic member. This elastic member 8 has both of its edges beveled, and one of said edges is connected with the edge of the wall *b'* while the opposite beveled edge is centrally connected with the elastic member 7. The sounding board 3' is centrally connected with the elastic member 8. By this construction, it will be noted that the oppositely beveled elastic members 7 and 8 allow a great amount of vibration to the board 3, when the latter is under the influence of the strings sounding the notes.

Having thus fully described the invention, which I claim as new is:

In a device of the class set forth a frame having one of its faces adjacent its inner edges recessed to provide right angularly arranged walls, an elastic member connected

with the frame at the point of juncture of  
the said walls and being inclined outwardly  
from the frame, spacing blocks retaining  
this elastic member at an angle to the frame,  
5 a second elastic member connected to the  
first elastic member, and to the outer edges  
of the wall adjacent the face of the frame,  
and a sounding board connected approxi-  
mately central of the second elastic mem-

ber, substantially as and for the purpose set 10  
forth.

In testimony whereof I affix my signature  
in presence of two witnesses.

HECTOR DERDEYN.

Witnesses:

JOHN KEARNS,  
THOS. HARBER.