No. 612,222. Patented Oct. 11, 1898.

H. ZIEGLER.

SOUNDING BOARD SUPPORT.

(Application filed Feb. 12, 1898.)

(No Model.)

Fig: 1.

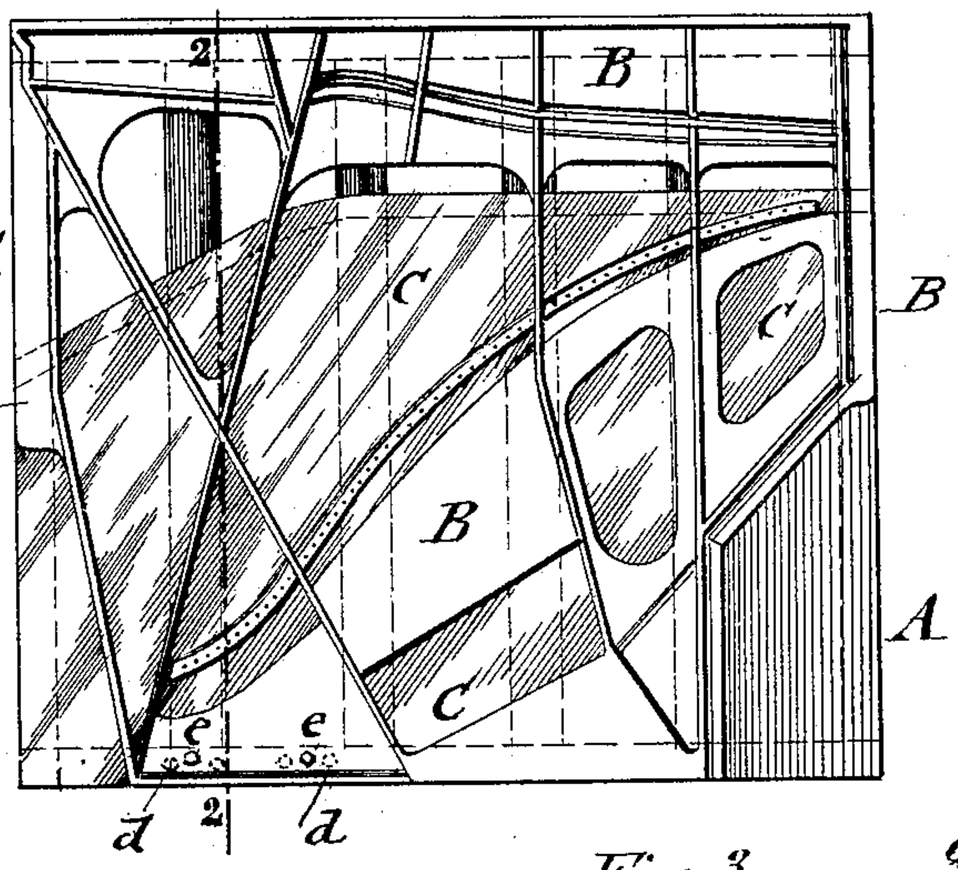


Fig: 2.

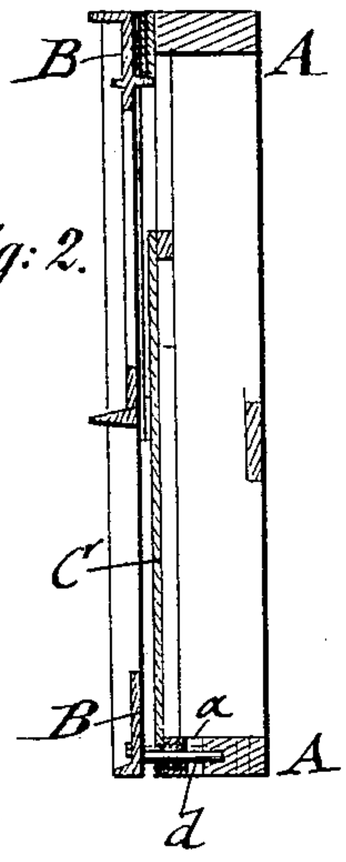


Fig: 3.

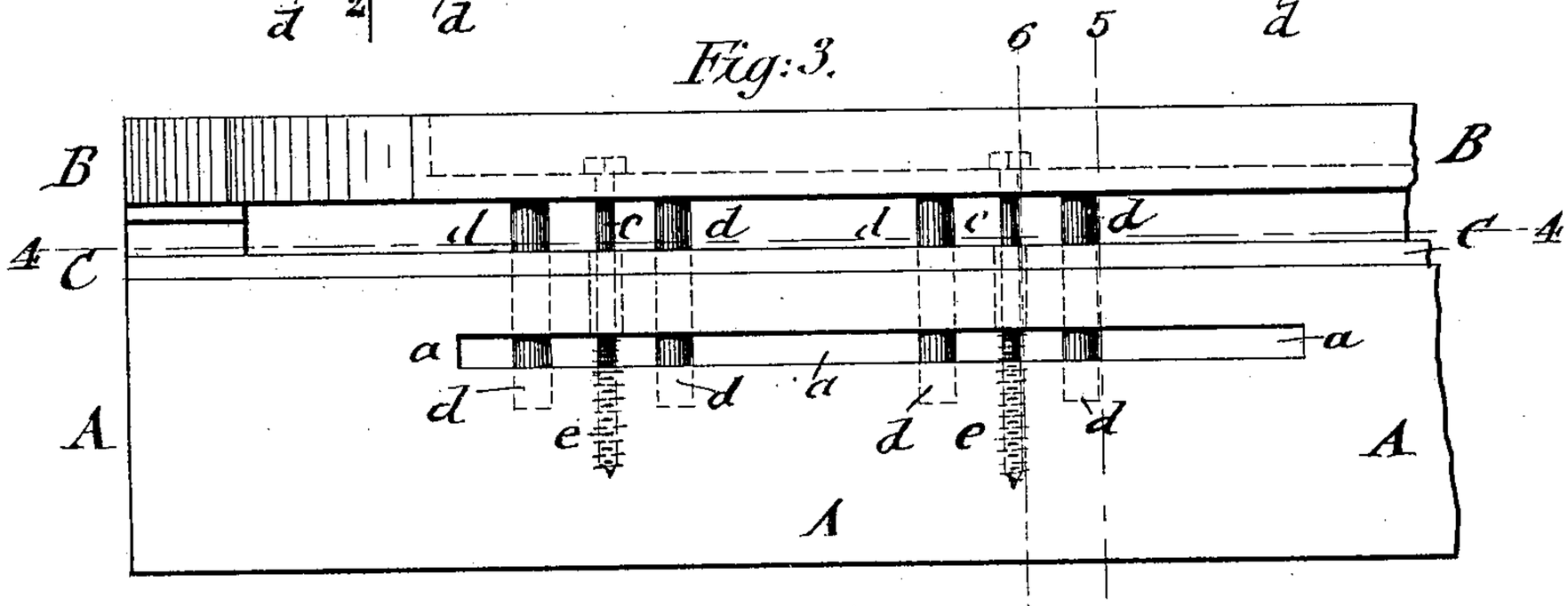


Fig: 4.

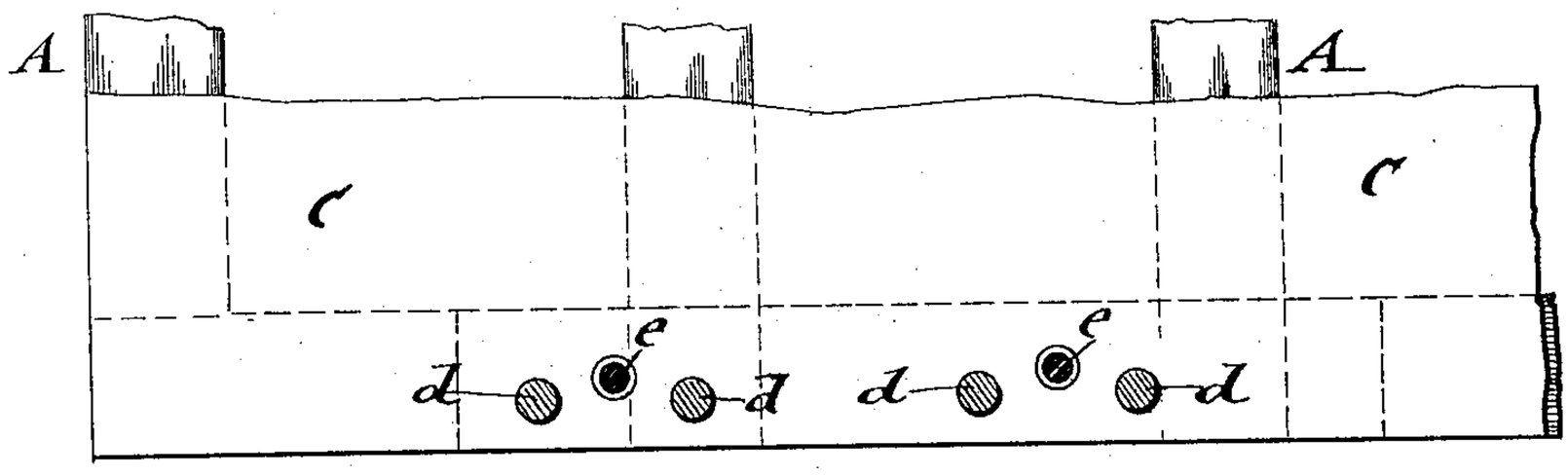


Fig: 5.

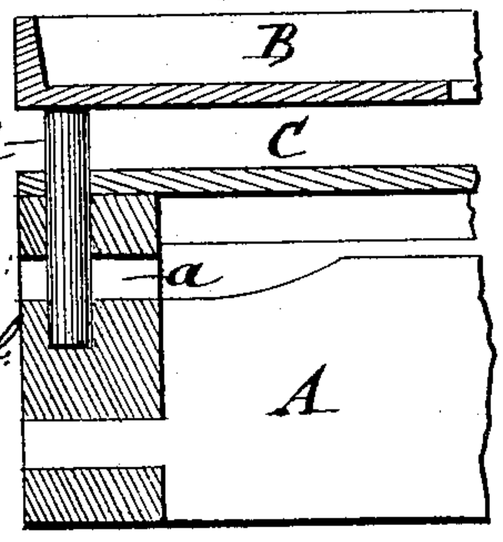
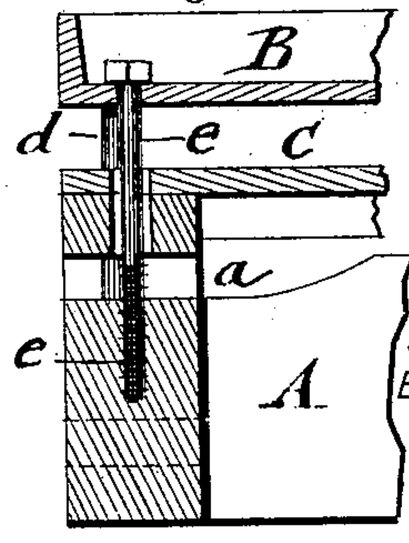


Fig: 6.



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HENRY ZIEGLER, OF NEW YORK, N. Y.

SOUNDING-BOARD SUPPORT.

SPECIFICATION forming part of Letters Patent No. 612,222, dated October 11, 1898.

Application filed February 12, 1898. Serial No. 670,053. (No model.)

To all whom it may concern:

Be it known that I, HENRY ZIEGLER, a citizen of the United States, residing at New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Sounding-Board Supports, of which the following is a specification.

This invention relates to an improved sounding-board support which is designed for upright pianos, but which can be also used for the supporting of sounding-boards of other pianos.

Heretofore the sounding-boards were supported at their edges on the main frame of the piano. In some cases, however, this was objectionable for the reason that at some parts of the sounding-board and especially in upright pianos at the treble and at the lower part of the same, where the sounding-board bridge attaches closely to the edge of the sounding-board, there is not sufficient play for the free vibrations of the sounding-board, so that the tone of the instrument is less resonant at those portions than at other portions where the sounding-board bridge is located at greater distance from the edge of the sounding-board. Pianos have been made in which the sounding-board was isolated at its edge entirely from the main supporting-frame; but this has the result that vibrations are produced in the sounding-board by which a weak and shaky tone quality is obtained.

The object of my invention is to so support the sounding-board at some parts of the same that the free and full vibration of every portion of the same, and thereby the free vibration of the strings and a full resonant tone of the piano, is obtained.

My invention consists of a sounding-board support for pianos in which the main frame is provided with a slitted portion below the sounding-board, parallel with the same, and the sounding-board and string-frame supported on dowels passed through the slitted portion of the main frame and the sounding-board, and fastening-bolts connecting the string-frame with the main frame and passing through holes in the sounding-board and main frame of sufficient width that the parts can freely vibrate without being interfered with by the fastening-bolts.

In the accompanying drawings, Figure 1 represents a front elevation of the main frame, sounding-board, and string-frame of an upright piano with my improvements. Fig. 2 is a vertical transverse section of the same on line 2 2 of Fig. 1. Fig. 3 is an elevation of the lower part of the sounding-board support, showing my improvement on a larger scale. Fig. 4 is a horizontal section on line 4 4 of Fig. 3; and Figs. 5 and 6 are vertical transverse sections, respectively, on lines 5 5 and 6 6 of Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a supporting main frame of an upright or other piano, B the string-frame, and C the sounding-board, which is interposed between the main frame and the string-frame in the usual manner. The sounding-board C is supported at some parts of the piano and especially at the points where the sounding-board bridge approaches closely to the edge of and where the sounding-board is not capable of responding sufficiently to the vibrations of the strings, owing to the proximity of the bridge to the edge of the sounding-board, on a slitted portion *a* of the main frame A, said slitted portion being at some distance from and parallel with the edge of the sounding-board, so that the portion of the main frame above the slit is capable of vibrating with the sounding-board. The sounding-board C and the string-frame B are supported above the slitted portion of the main frame A by means of wooden dowels *d*, which pass through the slitted portion *a* of the main frame to the under side of the string-frame, as shown in Fig. 3. Fastening-bolts *e* connect the string-frame in the usual manner with the main frame A, the portions of the main frame A above the slit *a* being provided with openings of sufficient size for the bolts, so as to permit the free vibration of the parts without interference by the fastening-bolts *e*, as shown in Figs. 3 and 6. By thus supporting the sounding-board and string-frame the sounding-board responds freely to the vibrations of the strings at the points where otherwise, by reason of the rigidity of the connection of the sounding-board and main frame, an inferior tone quality would be the result.

My improvement is especially advanta-

geous at those portions of the sounding-board where the sounding-board bridge and strings approach closely to the edge of the sounding-board, so that the action of the sounding-board is restrained. At these points the slitting of the main frame permits the sounding-board to yield in much higher degree to the vibrations of the strings. It is obvious, however, that the main frame can also be constructed all around with my improved sounding-board support.

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

1. As an improvement in pianos, the combination, with the main frame, provided with a slitted portion at some distance below the sounding-board, of dowels extending across said slitted portion, substantially as set forth.

2. As an improvement in pianos, the combination, with the main frame, provided with a slitted portion below the sounding-board, of dowels extending through the slitted portions of the main frame and the sounding-board to the string-frame, substantially as set forth.

3. As an improvement in pianos, the combination, with the main frame, provided with a slitted portion at some distance below the sounding-board, of dowels extending through the slit portion of the main frame and sounding-board to the string-frame, and fastening-screws connecting the string-frame with the main frame, said fastening-screws passing through openings in the sounding-board and slitted portion of the main frame of greater diameter than the fastening-bolts so that the latter do not interfere with the free vibrations of these parts, 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.

HENRY ZIEGLER.

Witnesses:
PAUL GOEPEL,
GEO. W. JAEKEL.