

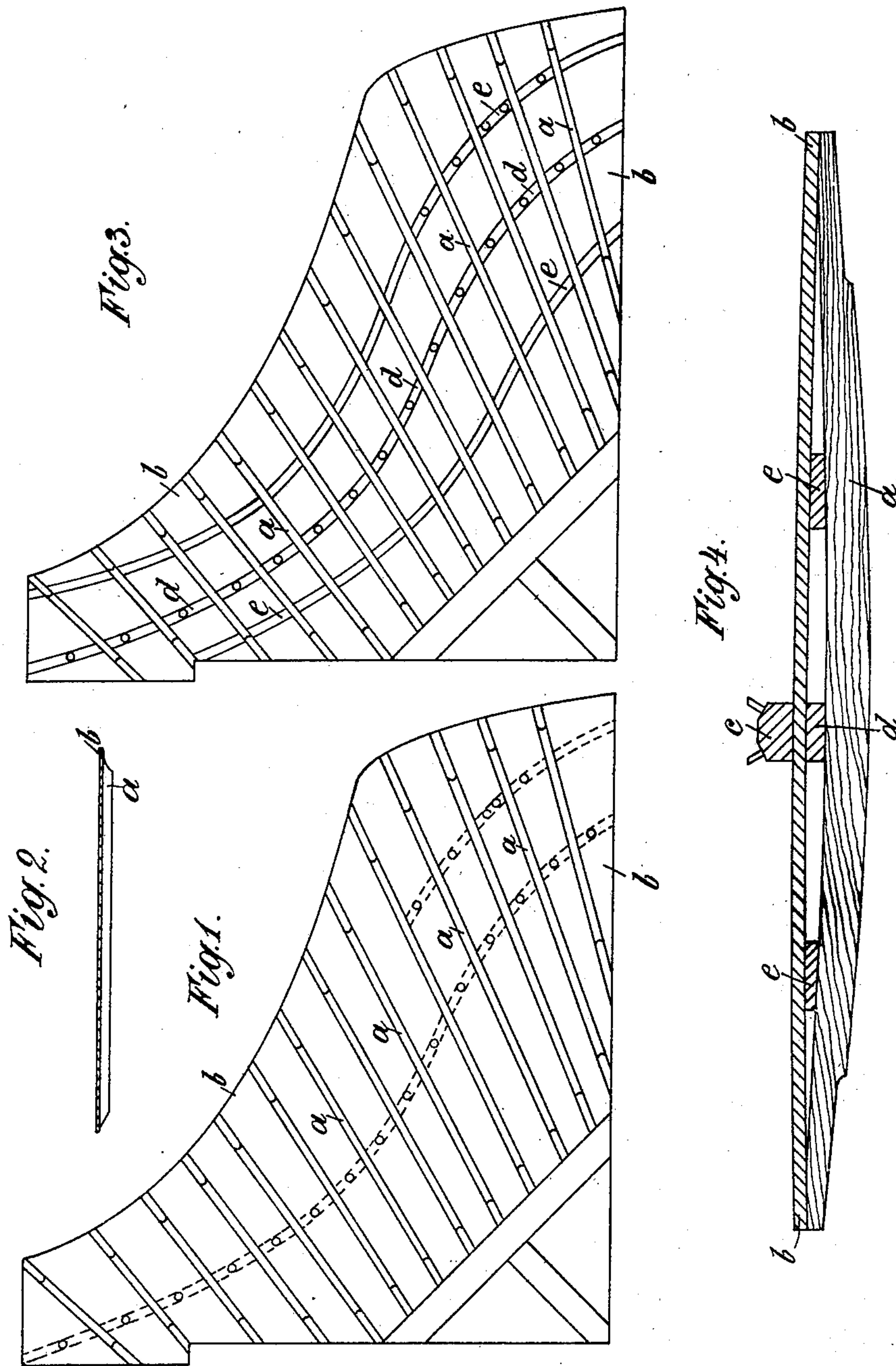
No. 625,824.

Patented May 30, 1899.

E. ZOËGA.
SOUNDING BOARD FOR PIANOS.

(Application filed Apr. 16, 1898.)

(No Model.)



Witnesses:

C. B. Bolton

Old Man

Inventor:
Eduard Zoëga

By

Richardson
his Attorneys.

UNITED STATES PATENT OFFICE.

EDUARD ZOËGA, OF BERLIN, GERMANY.

SOUNDING-BOARD FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 625,824, dated May 30, 1899.

Application filed April 16, 1898. Serial No. 677,820. (No model.)

To all whom it may concern:

Be it known that I, EDUARD ZOËGA, instrument-maker, a subject of the King of Prussia, German Emperor, residing at Berlin, Prussia, Germany, have invented certain new and useful Improvements in Sounding-Boards for Grand Pianos and Upright Pianos, (for which I have applied for a patent in Germany and which application is dated September 28, 1897,) of which the following is a specification.

This invention relates to an improvement in sounding-boards of grand pianos and upright pianos. In particular this improvement consists of a peculiar arrangement of the ribs which extend on the under side of the sounding-board transversely to the direction of the fiber.

The improvement has for its object to obtain a finer, softer, and more powerful tone than was possible with the construction hitherto in use.

The invention is illustrated in the accompanying drawings.

Figure 1 is a sounding-board according to the construction hitherto in use, seen from below, and Fig. 2 a sectional view thereof, while Figs. 3 and 4 show, seen from below and in section, the new construction of the sounding-board forming the object of this invention.

According to the older construction at present generally in use the ribs *a* are fastened with glue in their whole length to the under side of the sounding-board, while in the new construction illustrated in Figs. 3 and 4 the several ribs are connected with the under side of the sounding-board by means of glue only on certain places, as may be easily understood from the cross-section represented in Fig. 4.

The new sounding-boards are manufactured in such a manner that under the sounding-board, which is planed out to its ordinary thickness below the main bridge *c*, a cross piece or strip *d* is inserted and fastened with glue, whereupon it is planed off to its suitable height. Beside the main strip *d* other cross-pieces *e e* may still be arranged at both

sides on the underside of the sounding-board, which are also planed off to the suitable height. To the sounding-board thus prepared are then fastened below with glue the ribs *a*, secured thus on both ends to the board and to the thin inserted cross-pieces *d* and *e e*—that is to say, the ribs *a* are connected on these places with the sounding-board. By giving the inserted cross pieces or strips *d* and *e e* the corresponding height the upper required rounding of the sounding-board may be varied. By this construction the sounding-board is rendered more free to vibrate, so that a softer, finer, and more powerful tone is obtained than has been possible with sounding-boards of the hitherto generally used construction.

It results from experiments made with sounding-boards of the old and new construction and manufactured from quite the same material and in the same dimension that the sounding-board of the new construction possesses the better qualities above mentioned. The inserted cross-pieces *e e* are not absolutely necessary, as they have only for their purpose to secure in a better condition at their joints the several portions of the sounding-board—i. e., the small boards glued together and composing the sounding-board. Owing to the S-like shape the inserted cross pieces or strips *d* and *e* extend over all the joints of the several small boards.

I claim—

In combination with a sounding-board, the ribs *a* connected thereto at their ends and with their middle portions spaced at a slight distance from the board and the stay extending across the ribs between the same and the sounding-board leaving portions of the ribs out of contact with the sounding-board, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDUARD ZOËGA.

Witnesses:

FRÉDÉRIC MULLER,
GUSTAV HÜLSMANN.