

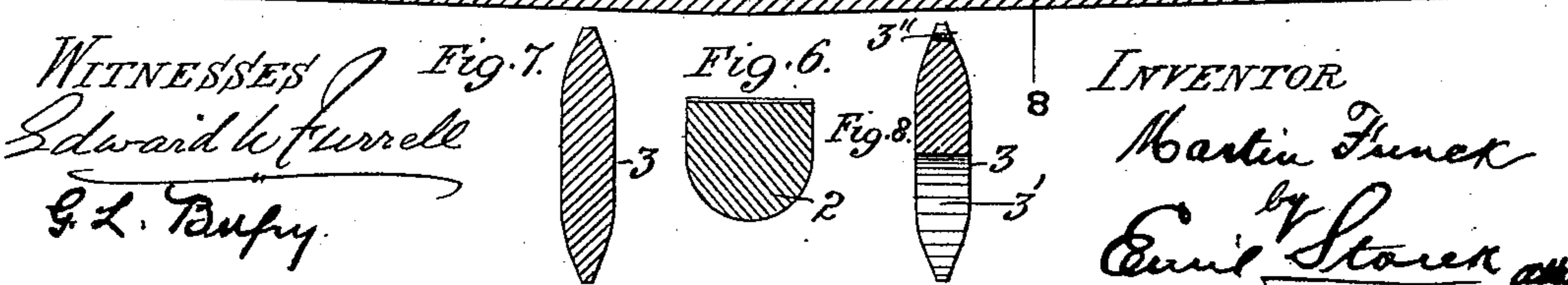
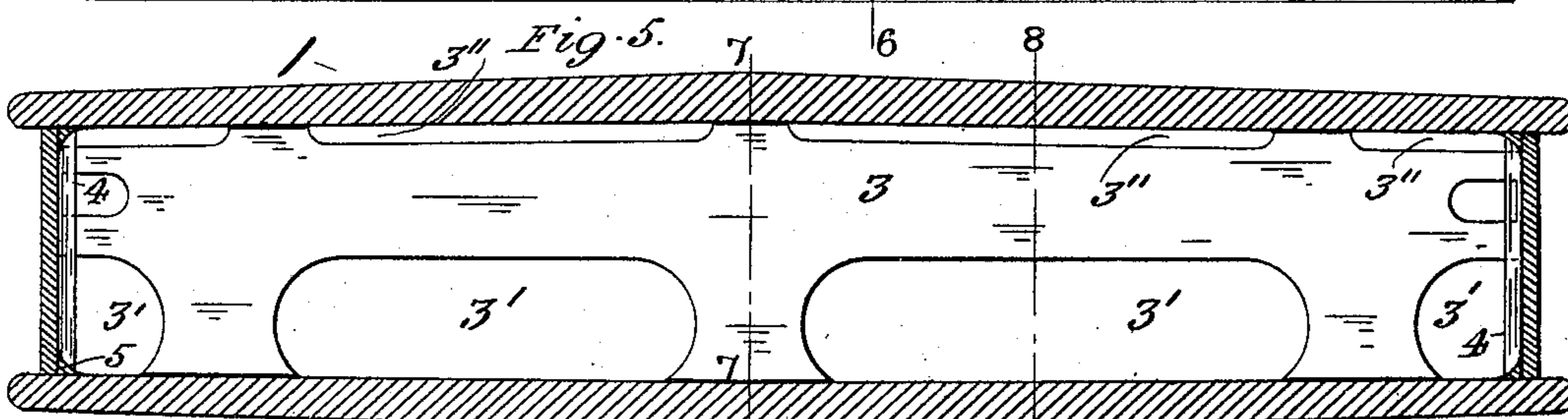
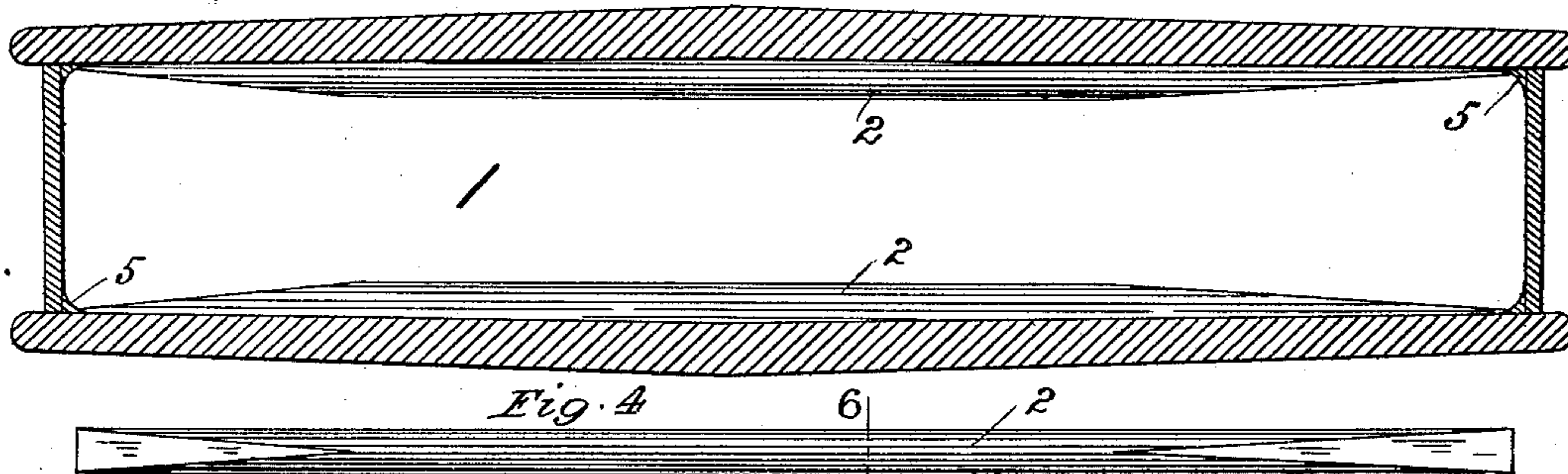
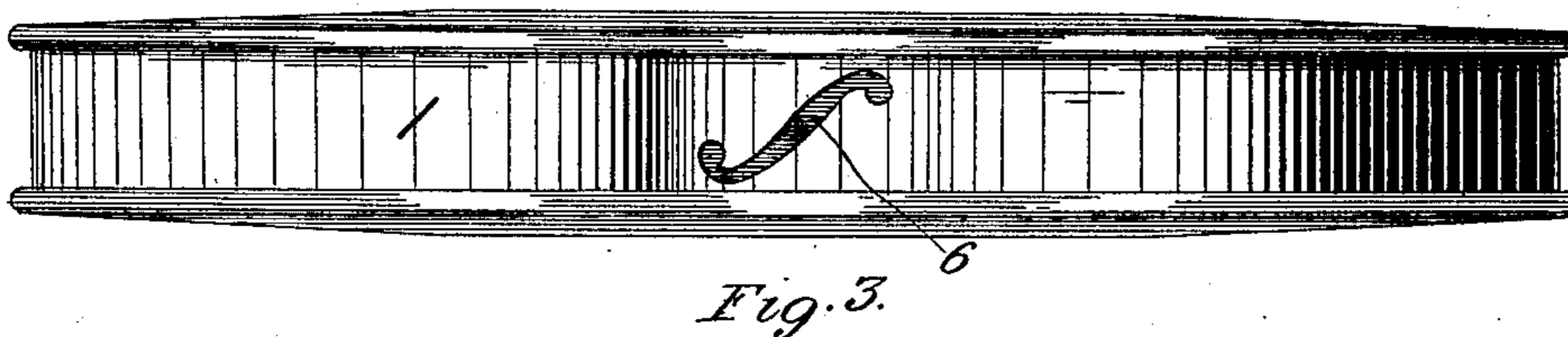
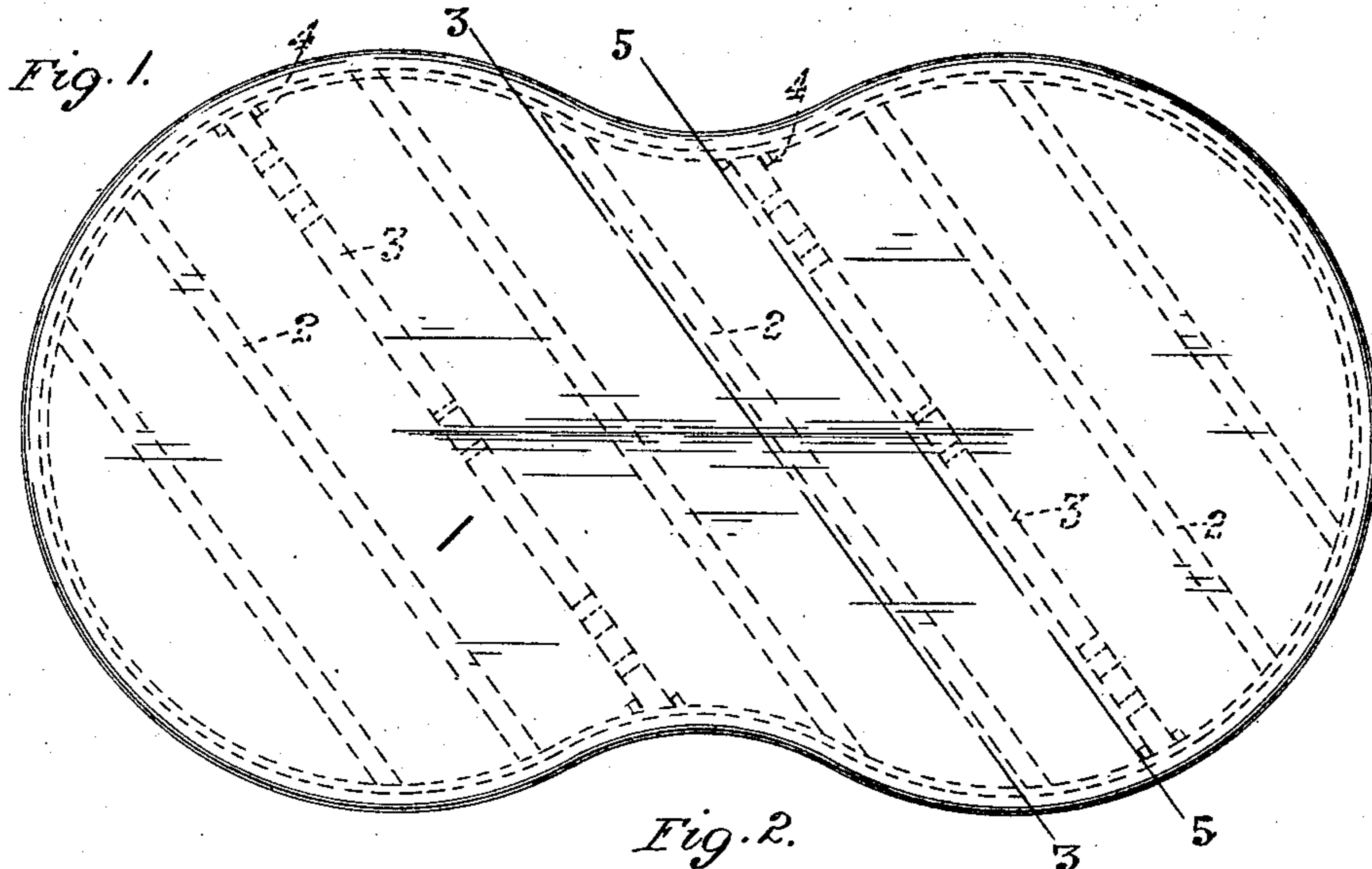
No. 680,240.

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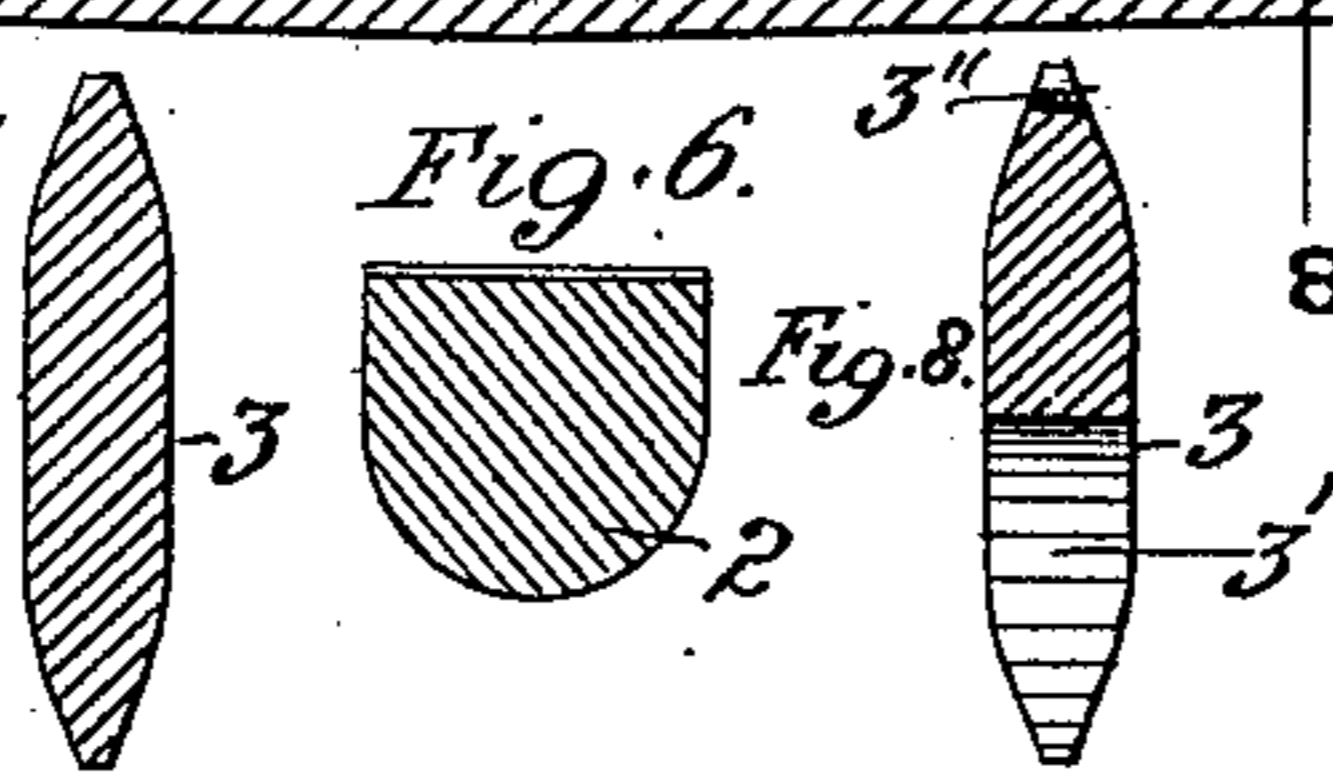
M. FUNCK.
SOUNDING BOX FOR MUSICAL INSTRUMENTS.

(Application filed Feb. 21, 1901.)

(No Model.)



WITNESSES
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MARTIN FUNCK, OF ST. LOUIS, MISSOURI.

SOUNDING-BOX FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 680,240, dated August 13, 1901.

Application filed February 21, 1901. Serial No. 48,293. (No model.)

To all whom it may concern:

Be it known that I, MARTIN FUNCK, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Sounding-Boxes for Musical Instruments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in sounding-boxes for musical instruments; and it consists in the novel construction of box more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a top plan of the box. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical oblique section taken on line 3 3 of Fig. 1. Fig. 4 is a detached view of the exposed face of one of the reinforcing-strips. Fig. 5 is a vertical oblique section taken on line 5 5 of Fig. 1. Fig. 6 is an enlarged transverse section on line 6 6 of Fig. 4. Fig. 7 is a vertical section of the bridge-wall on line 7 7 of Fig. 5, and Fig. 8 is a similar section on line 8 8 of Fig. 5.

The object of my invention is to produce a sounding-box for musical instruments by the peculiar construction of which the sound from the instrument resting on the box will be greatly magnified and intensified, the special feature of my device being its capacity for producing superior results and exhibiting a constancy of action. In detail the invention may be described as follows:

Referring to the drawings, 1 represents a hollow box or chamber adapted to be supported on suitable legs, (not shown,) the form of the box being preferably that of an ellipse narrowed or contracted at the center. The top and bottom walls incline or slope toward their outer edges from a central ridge, (resulting from a difference in thickness between the center and edges of the board of which the walls are formed,) as fully shown in Fig. 2 and in sections in Figs. 3 and 5. Disposed transversely and obliquely to the major axis (or length) of the box and secured by glue or other adhesive to the inner faces of the upper and lower walls of the box and in the same vertical plane are the pairs of reinforcing-strips 2, which for a portion of their length are substantially U-shaped in cross-

section, (see Fig. 6,) but which gradually taper to an edge at each end. (See Figs. 3 and 4.)

Disposed after every second pair of strips 2 and in planes parallel thereto and extending the full depth of the chamber are the partitions or bridge-walls 3 for bridging the top and bottom walls of the box, said partitions having convenient and suitable cut-away portions 3' 3'' for the free travel of the sound-waves, the bridge-walls being held in place between the vertical retaining-strips 4 4, glued to the inner surfaces of the side vertical walls of the chamber, said strips being disposed between the corner-strips 5, by which the corners of the chamber are well rounded for the proper deflection and preservation of the sound-waves. The side walls are provided with openings or F-holes 6 for the escape of the sound-waves, as is obvious.

The musical instrument, whatever be the nature thereof, be it a cithern, mandolin, banjo, or the like, is supported on blocks (not shown) or in any convenient manner along the upper surface of the box. The sound from the instrument will then be conducted by the box, greatly intensified and magnified, and produce sounds that can be heard at a great distance from the performer.

The strips 2 in the present instance perform a function similar to the snares of a drum, making the box resonant and effective. They are sound-developers. The bridge-walls, on the other hand, render the tones clear and distinct and intensify the same. It will be seen that there are no sharp corners on the inside of the box, all the corners being well rounded. This is even true of the opposite faces of the bridge-walls, which are thickest at the center, gradually tapering to smaller dimensions at either edge, as seen best in sections in Figs. 7 and 8.

I do not, of course, wish to be understood as limiting myself to the precise number of strips 2 or to the particular angle which the same make with the major axis of the box. By arranging the same obliquely thereto, however, the sound-waves glide from one strip to the next, thereby insuring a minimum interruption to the sound-waves. The device may be altered in other details without departing from the spirit of my invention.

Having described my invention, what I claim is—

1. A sounding-box for musical instruments, comprising a hollow box or chamber, a series of reinforcing-strips secured to the interior of the top and bottom walls of the same, said strips running transversely across and at an angle to the axis of the box, and means for bridging the top and bottom walls of the box on either side of the reinforcing-strips, substantially as set forth.

2. A sounding-box for musical instruments comprising a hollow elongated box or chamber, a series of reinforcing-strips secured along the inner faces of the top and bottom walls thereof, and running in pairs in planes disposed obliquely to the major axis of the box, and one or more partitions disposed between the series of strips, substantially as set forth.

3. A sounding-box for musical instruments comprising a hollow elongated box or chamber, a series of reinforcing-strips having tapering ends, secured along the inner faces of the top and bottom walls of the box, and running in pairs in planes disposed obliquely to the major axis of the box, one or more partitions disposed between the series of strips and running parallel therewith, said partitions tapering toward their upper and lower edges and having cut-away portions for the passage of the sound-waves, and retaining-strips carried by the side walls of the box for securing the opposite ends of the partitions, substantially as set forth.

4. A sounding-box for musical instruments

comprising a hollow elliptical box contracted at the center and having F-holes along the side walls thereof, a series of transversely and obliquely disposed reinforcing-strips secured to the inner faces of the top and bottom walls of the box, each strip being substantially U-shaped in cross-section and having tapering ends, the corners of the box being well rounded, a series of partitions disposed parallel to the reinforcing-strips and having cut-away portions for the free travel of the sound-waves, vertical retaining-strips carried by the side walls for securing the opposite ends of the partitions, a pair of reinforcing-strips, one above and one below, being arranged on each side of a partition, substantially as set forth.

5. A sounding-box for musical instruments, comprising a hollow box or chamber, a series of reinforcing-strips secured to the interior of the top and bottom walls of the same, said strips running transversely across and at an angle to the axis of the box, and one or more partitions disposed between the strips, substantially as set forth.

6. A sounding-box for musical instruments, having one or more partitions disposed between the upper and lower walls of the same, and a series of reinforcing-strips on each side of said partitions, substantially as set forth.

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

MARTIN FUNCK.

Witnesses:

EMIL STAREK,
G. L. BELFRY.