

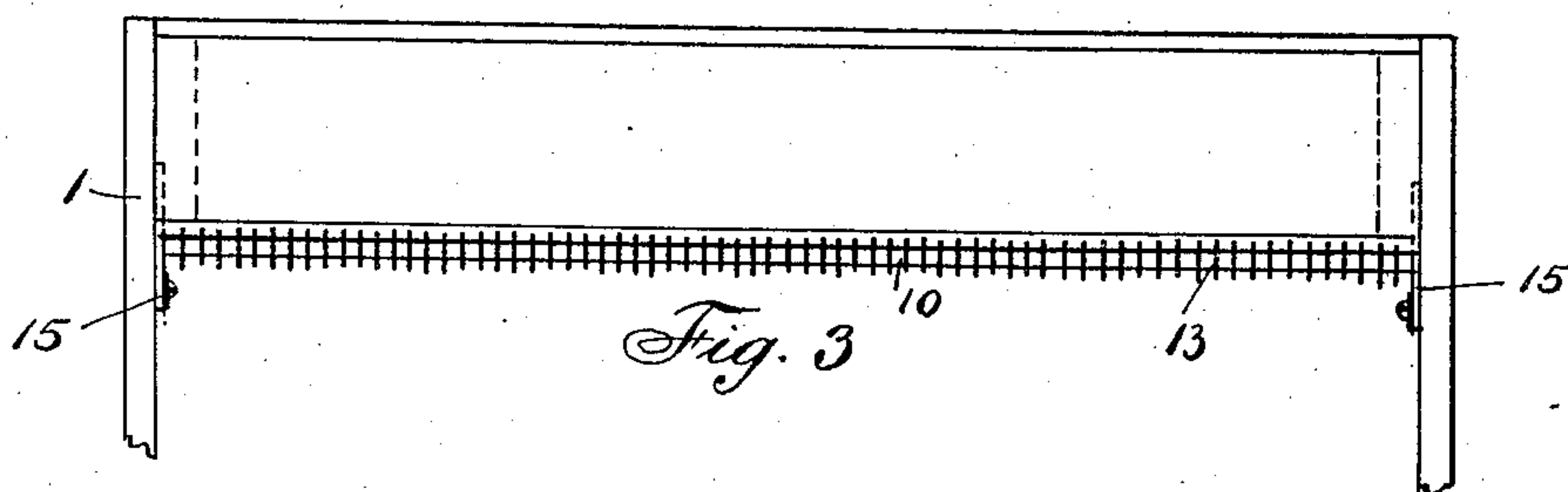
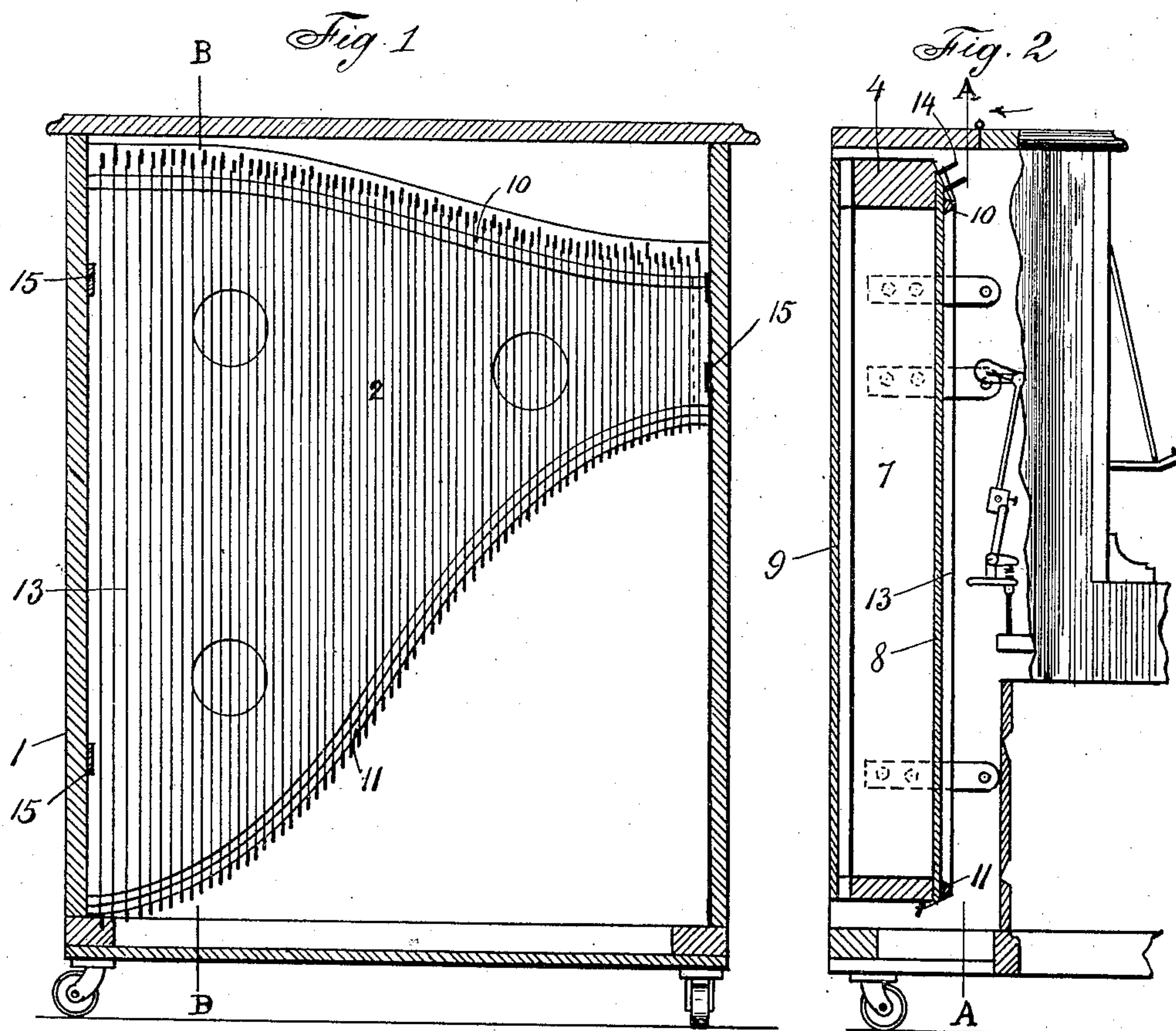
No. 892,511.

PATENTED JULY 7, 1908.

C. E. FAUTH.
PIANO.

APPLICATION FILED JULY 17, 1907.

2 SHEETS—SHEET 1.



WITNESSES

J. W. Pettersson
Carl Haerting

INVENTOR

Chas. E. Fauth
by Robt. Klotz
Atty.

No. 892,511.

PATENTED JULY 7, 1908.

C. E. FAUTH.
PIANO.

APPLICATION FILED JULY 17, 1907.

2 SHEETS—SHEET 2.

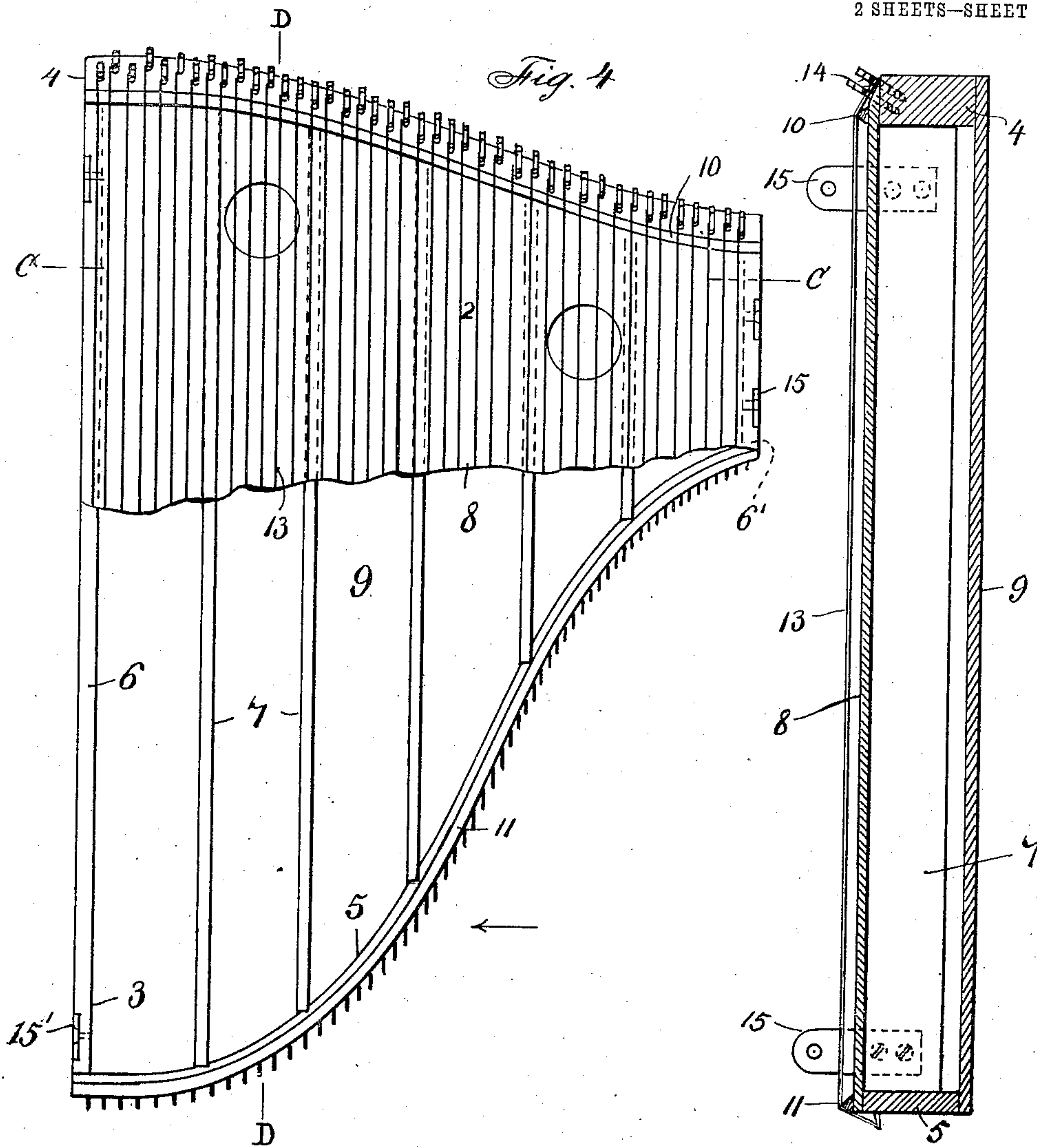
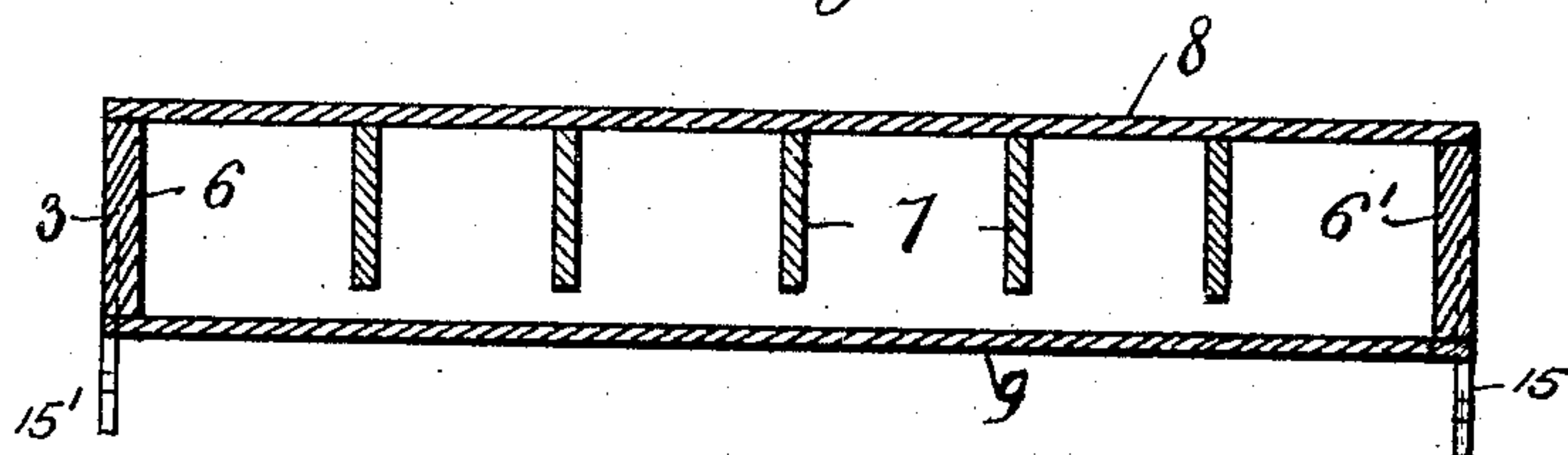


Fig. 5

Fig. 6



WITNESSES

J. W. Pettersson
Carl Haerting

INVENTOR

Chas. E. Fauth
by Robt. Klotz
Atty.

UNITED STATES PATENT OFFICE.

CHARLES EDMUND FAUTH, OF CHICAGO, ILLINOIS.

PIANO.

No. 892,511.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed July 17, 1907. Serial No. 384,249.

To all whom it may concern:

Be it known that I, CHARLES EDMUND FAUTH, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Pianos, of which the following is a complete specification.

This invention relates to improvements in pianos and more particularly to the resonant body of a piano.

The objects of the invention are, first; to provide a construction in which the strings lie directly over the front board, to which are fastened the frame and posts, so that the tension of the strings comes so close to the resisting parts that it requires no iron plates or other reinforcement to resist it, as is necessary in the ordinary constructions where the bridges, sound board and ribs lie between the strings and the resisting parts. Second, to provide a resonant body which makes possible a flat, unbroken scale, with strings the full length of the body from end to end, whereby a longer string results without crossing, and produces a much even quality of tone. Third, to provide a body having a cavity which reinforces the intensity of resonance produced by the agitation of the sounding board in the back of the body. Fourth, to provide a resonant body in which the sounding board is entirely free from contact with ribs or bridges thereby leaving the board to vibrate with comparative freedom, and producing a much greater volume and purity of tone. Fifth, to provide a piano in which the strings run parallel with the grain of the wood of the resonant body, so that they will not be subject to fluctuations due to changes of weather and climatic conditions causing shrinking or swelling of the sound board. Sixth, to provide an instrument which will be very easy to tune, as the strings simply pass over smooth bridges and have practically no silent portions.

The invention consists of the matters hereinafter described in the specification and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a section of a piano casing taken on line A—A of Fig. 2 and showing the resonant body in front elevation. Fig. 2 is a fragmentary section taken on line B—B of Fig. 1. Fig. 3 is a fragmentary, top plan view with parts removed. Fig. 4 is an enlarged, fragmentary front elevation of the resonant body. Fig.

5 is a section taken on line C—C of Fig. 4, with parts removed. Fig. 6 is a section taken on line D—D of Fig. 4.

As shown in said drawings: 1 indicates the piano casing which may be of any preferred kind and construction, and within which is rigidly engaged the resonant body, indicated as a whole by 2. Said body is provided with a wooden frame 3, the shape of which is determined by the scale according to the variation in the length of the strings, but which is of approximately the shape shown in the drawings. The top piece 4 of said frame shows a shallow, short curve, and the bottom piece 5 a long, deep curve. The sides 6 and 6' are straight and their lengths are determined by the positions of the curves. Inside of this frame and spaced a distance apart are a number of posts 7, similar to the sides 6 and 6' and which extend from top to bottom of the frame. Said posts are flush with the front of the frame but are narrower than the sides as shown more clearly in Fig. 5.

The front of the frame is covered with a board 8 which is firmly glued to the frame and to the posts and the grain of which runs parallel with the sides and posts. The back is also covered with a board 9 of wood, suitable for a sound board, and also having the grain running parallel with the sides and posts, but as the posts are narrower than the frame it is attached to the frame only at its edges, leaving the entire board free to constitute the sound board proper. The front board to which the posts are glued forms, together with the posts and frame, the part resisting the tension of the strings. The front board 8 over which the strings pass is provided at both its top and bottom, and extending from side to side of the frame, with a low projection or bridge of wood or metal and indicated respectively by 10 and 11. The strings 13 are stretched over these bridges, the lower bridge 11 being at the extreme edge of the front board 8 and the upper bridge 10, as close to the edge as the placing of the tuning pins 14 will permit.

The frame is provided on its sides 6 and 6' with forwardly directed straps 15 of metal or other preferred material which as shown are countersunk therein and apertured at their forward ends to permit them to be bolted to the walls of the casing, as shown in Fig. 1. The resonant body is secured in the piano case thereby and is provided with the ordinary action and key board to be played in

the usual manner. Obviously the strain of the strings is entirely eliminated from the sounding board and they are in no way affected by the shrinking or swelling of the frame due to climatic conditions. The strings also have practically no silent portions and therefore are more easily tuned and will produce much evener quality and richness of tone. Obviously also the resonant body is of a minimum weight and as the construction is greatly simplified the cost is correspondingly decreased. Owing to the fact also that the sounding board is free to vibrate over its entire surface a much greater volume and purity of tone is produced than would be the case if the posts came in contact with said board.

Obviously many details of construction may be varied without departing from the principles of my construction.

I claim as my invention:

1. The combination with a frame, of a sounding board on one side thereof, a front board on the other side of said frame, posts on the inner side of said front board, out of contact with the sounding board and attached at their ends to said frame, and strings stretched over said front board and out of contact therewith.

2. In a device of the class described the

combination with a frame of a front board thereon, a plurality of posts in said frame attached at their front edges and ends to said front board and frame respectively and of a width nearly equal to the depth of the frame, a sounding board on the opposite side of said frame from the front board and out of contact with said posts, a plurality of strings stretched over the front board and bridges at the extreme top and bottom edges of said front board of sufficient height only to hold the strings out of contact with the board.

3. In a device of the class described the combination with a frame of a sounding board on the back side thereof, a front board, posts in said frame engaged to the front board and top and bottom of the frame and extending inwardly to within a short distance of the sounding board, low bridges at the top and bottom edges of the front board, a plurality of strings stretched thereover and a plurality of forwardly directed straps on the sides of said frame.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

CHARLES EDMUND FAUTH.

Witnesses:

CARL HAERTING,
JOE CONNER.