

(No Model.)

W. A. LORENZ.
UPRIGHT PIANO CASE.

No. 365,695.

Patented June 28, 1887.

Fig. 1

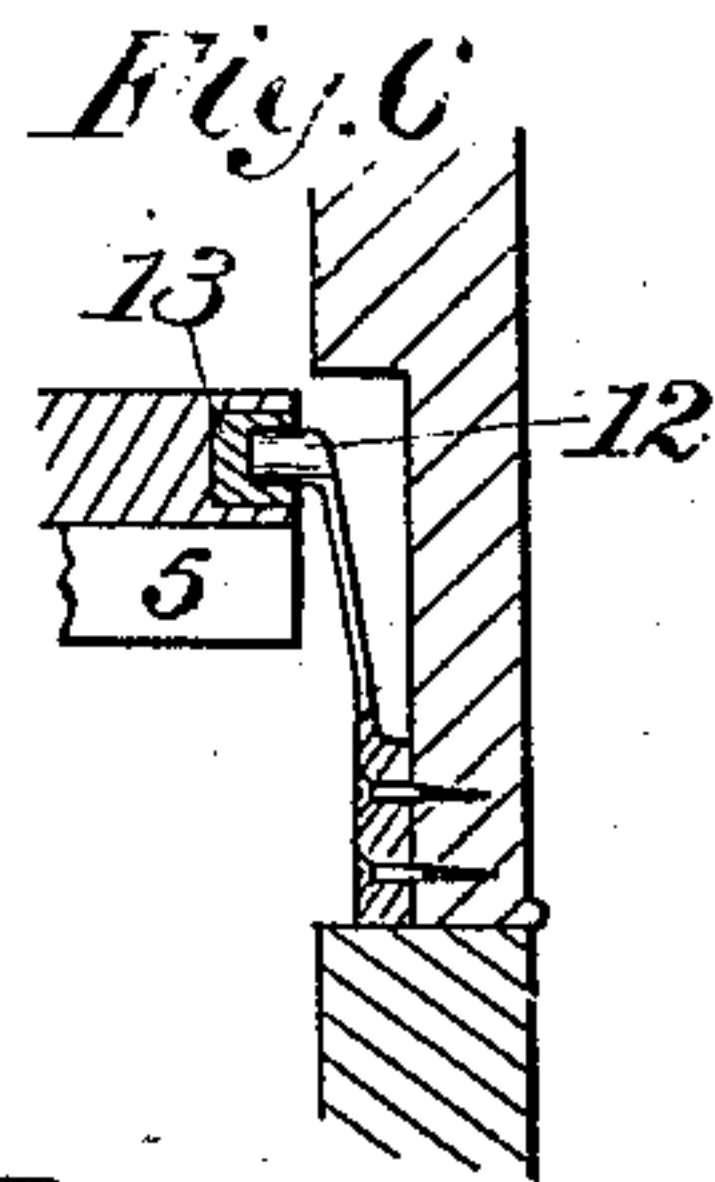
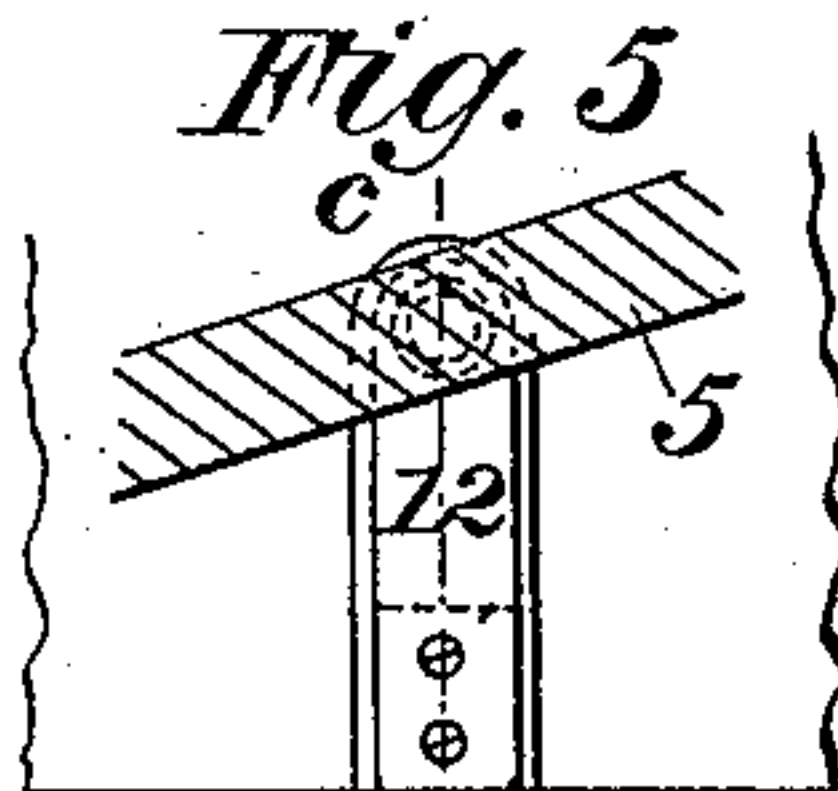
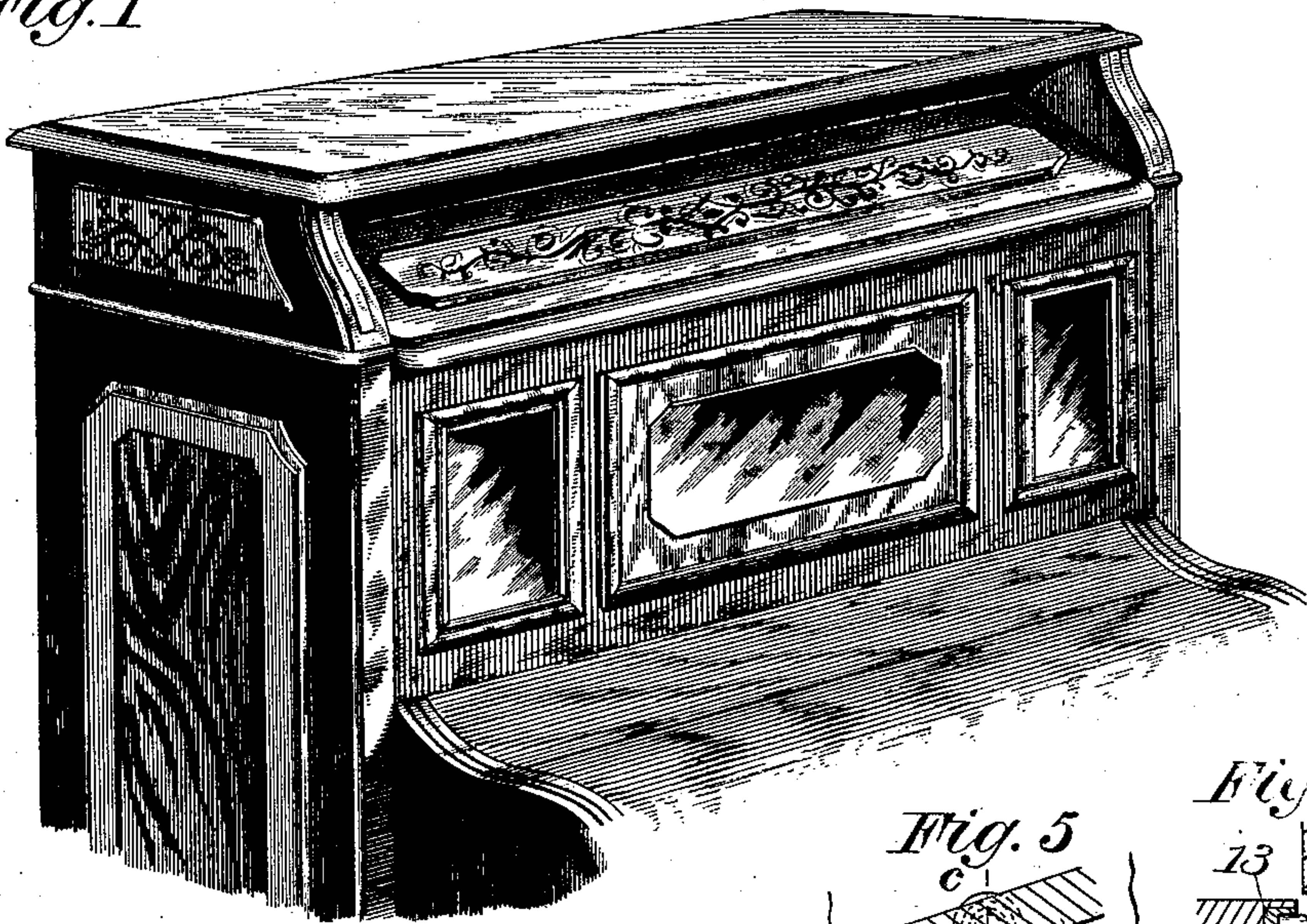


Fig. 3

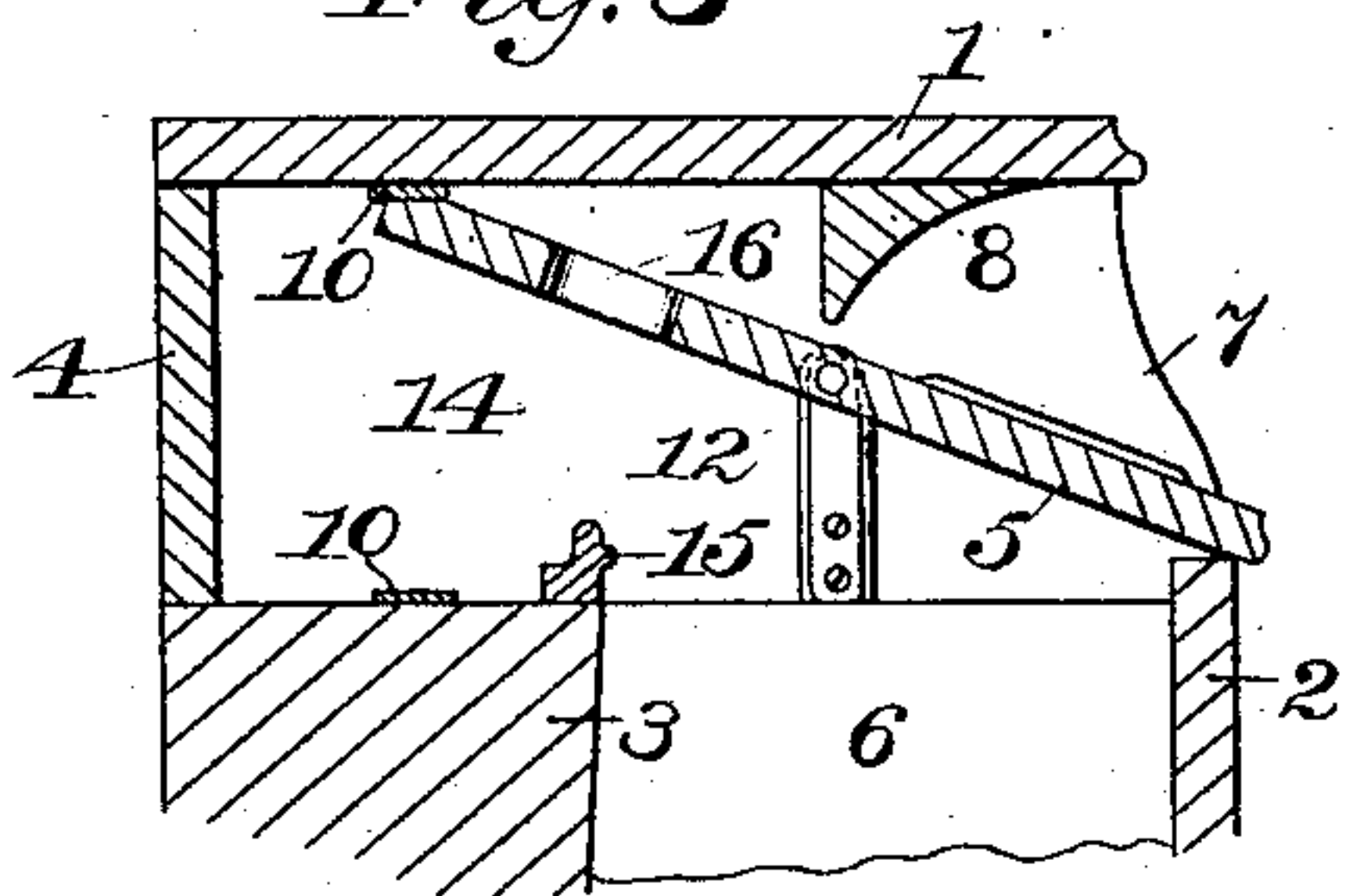


Fig. 4

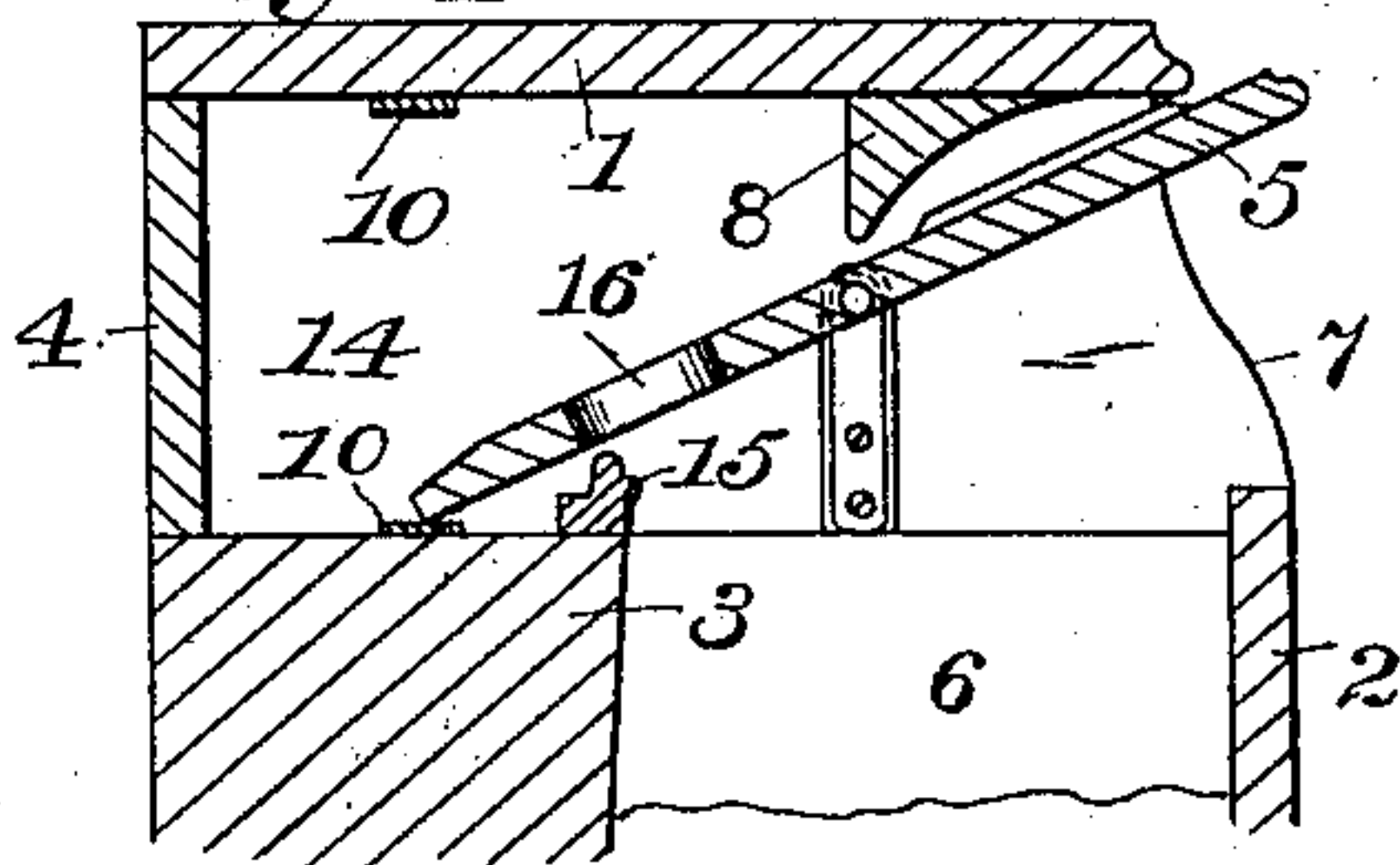


Fig. 2 a

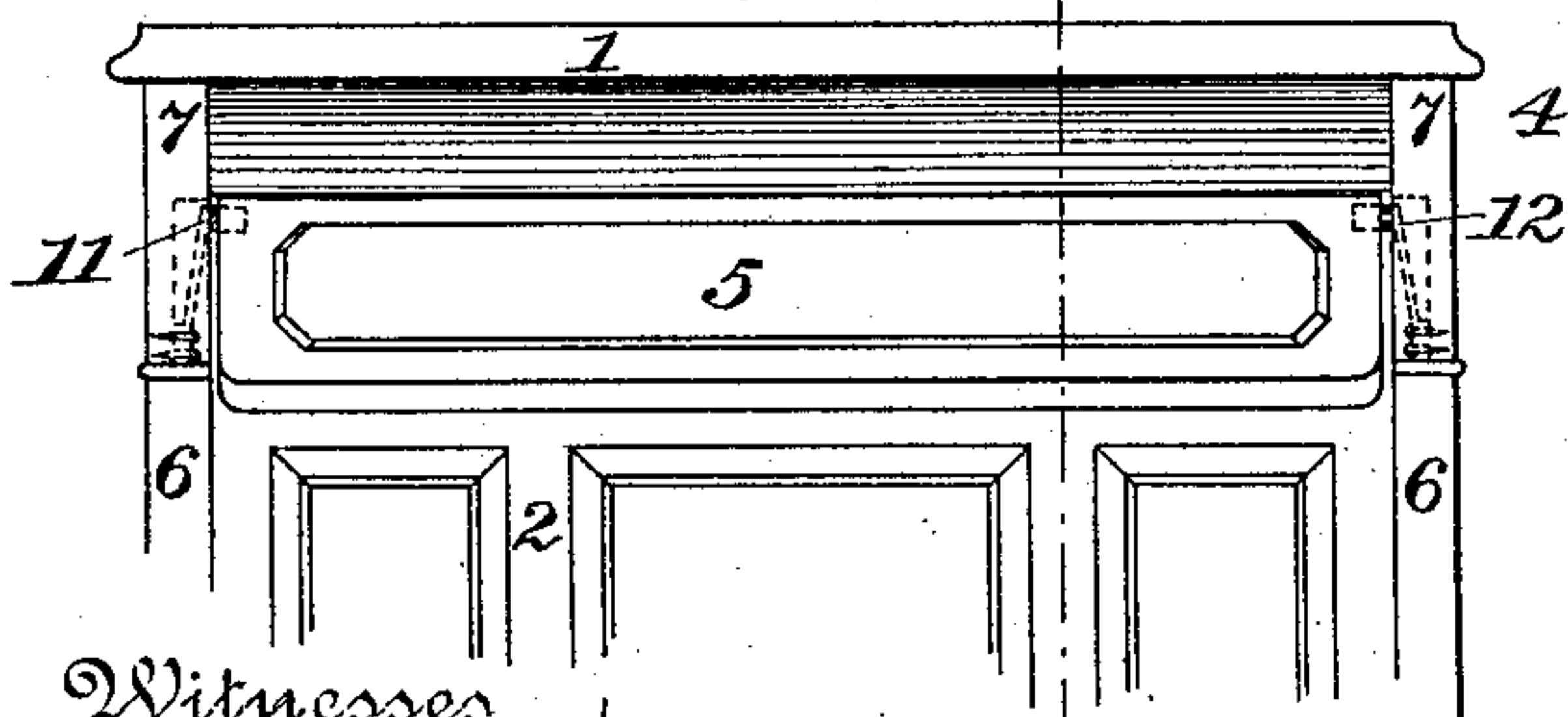


Fig. 7

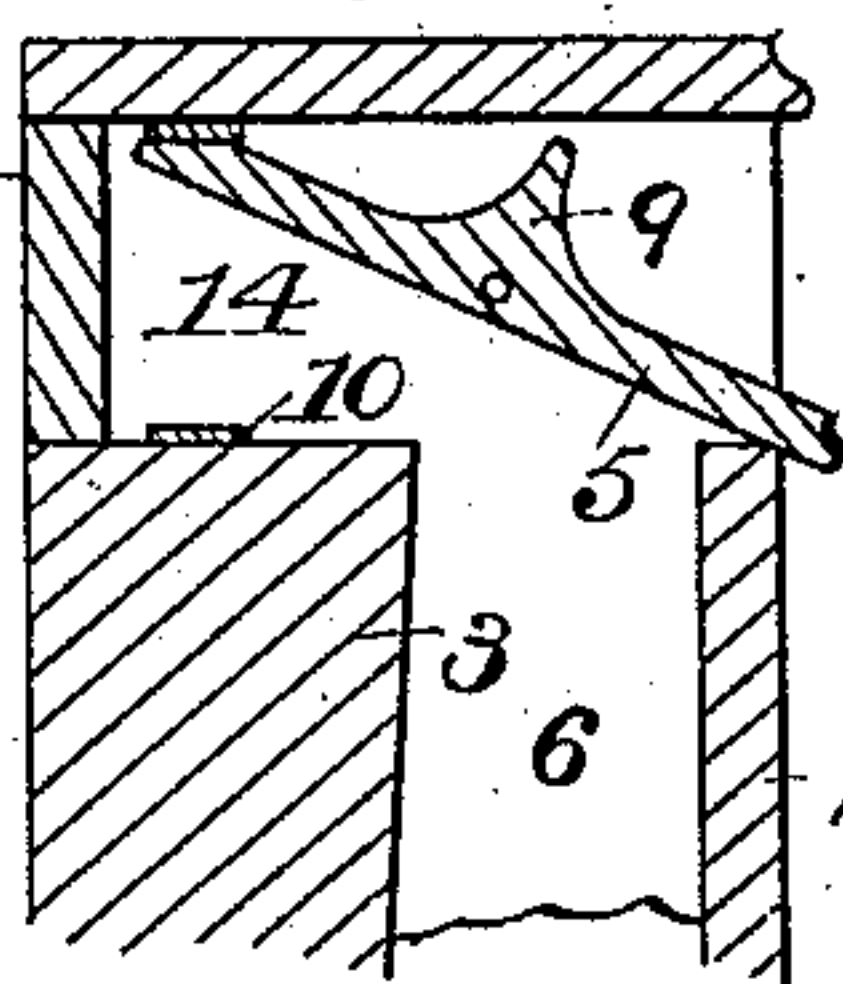
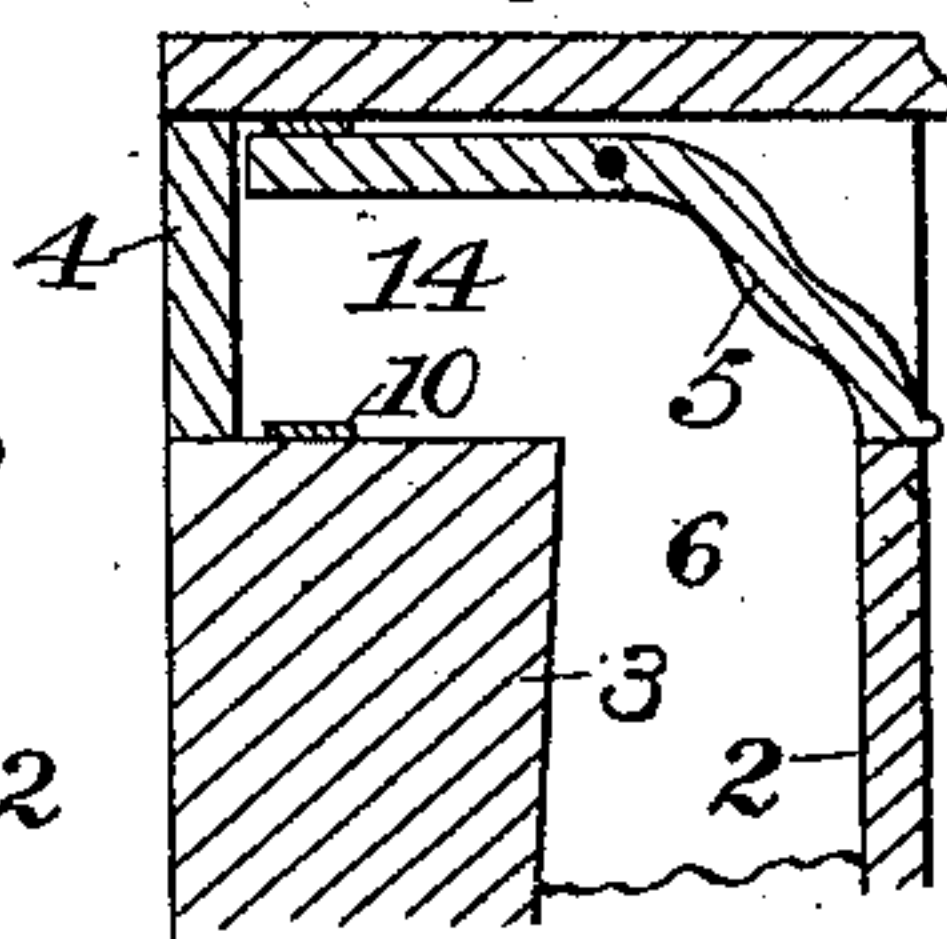


Fig. 8



Witnesses

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UPRIGHT-PIANO CASE.

SPECIFICATION forming part of Letters Patent No. 365,695, dated June 28, 1887.

Application filed April 6, 1887. Serial No. 233,908. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. LORENZ, of Hartford, Connecticut, have invented an Improvement in Upright-Piano Cases, of which the following description and claim constitute the specification, and which is illustrated by the accompanying sheet of drawings.

This invention relates to that class of upright-piano cases which are constructed with an opening between the upper edge of the front and the front edge of the top of the case; and it consists of a resonant chamber or sounding-box placed on the top of the piano and provided with a swinging panel, which operates both as a sounding board and as a deflector of waves of sound.

Figure 1 is a perspective view of the upper part of my new piano-case. Fig. 2 is a front elevation of the same. Fig. 3 is a section on the line *a b* of Fig. 2. Fig. 4 is a section on the same line, but with the panel open. Fig. 5 is an enlarged end view of one of the spring-pivots upon which the panel swings. Fig. 6 is a section of Fig. 5, looking toward the left from the line *c d* of that figure. Fig. 7 is a section of my invention, showing the panel in one modified form; and Fig. 8 is a section of my invention, showing another modified form of the panel.

The numeral 1 indicates the top of the piano-case, while 2 denotes the front thereof. The back of the piano is indicated by the numeral 3, while 4 is the rear wall of the sounding-box; and 5 is the swinging panel in the box.

The sides of the piano-case are denoted by the numeral 6, and the sides of the sounding-box by the numeral 7. A molding, 8, may be fixed to the under side of the top 1, or a molding, 9, may be fixed to the upper side of the panel

5, so as to limit the view into the sounding-box when the panel is closed. One of the felt strips 10 receives the blow of the rear edge of the panel when it is thrown open or is closed, and may be so adjusted as to prevent the front

edge of the panel from striking either the top or the front of the piano-case. The spring-pivots 11 and 12 engage with steps 13 in the ends of panel 5, and are fastened to the sides of the sounding-box 14. The molding 15 may

be fixed to the upper end of the piano-back or to the lower side of the panel, so as to limit the view into the sounding-box when the panel is open. Openings 16 may be made through the rear part of the panel 5, and its operation

as a sounding-board be thereby somewhat modified.

The mode of operation is as follows: When the panel is closed, as in Figs. 1, 2, 3, 7, and 8, the sounding-box 14 constitutes a resonant chamber on top of the upright piano, in which the sound-waves find room to vibrate, instead of being confined, as in other constructions of upright-piano cases, to narrow spaces not specially provided for such vibration, and the panel constitutes a sounding-board in that chamber, and when the panel is open it constitutes a deflecting-board, which throws the sound-waves out of the opening between the top 1 and the front 2.

The panel may be pivoted to the top 1 or the front 2 or the back 3 or the side 6, instead of to the side 7; but in either case I prefer to use spring-pivots, so that the panel may be readily removed and replaced.

The moldings 8, 9, and 15 may be omitted, and those portions of the interior thus exposed to view may be finished to correspond with the exterior, or otherwise, as preferred. So, also, the panel may be much modified in proportions and much varied in form, and one good example of such variation is shown in Fig. 8, where the pivots are placed near the under side of the top 1, and the forward part of the panel is curved downward, so that its front edge rests adjacent to the front 2 when its rear edge rests against the under side of the top 1.

The sounding-box may be made separate from the rest of the piano-case, as shown in Figs 3 and 4; or it may have its sides integral with the sides of the main case, as indicated in Figs. 7 and 8.

The interior height of the sounding-box may be varied to suit different pianos; but for small instruments a height of seven or eight inches is probably the best.

I claim as my invention—

An upright-piano case having the sounding-box 14 at the upper part thereof and provided with a swinging panel, 5, within the sounding-box, and operating as a sounding-board when closed and as a deflector of sound when open, all substantially as described.

Signed April 5, 1887.

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