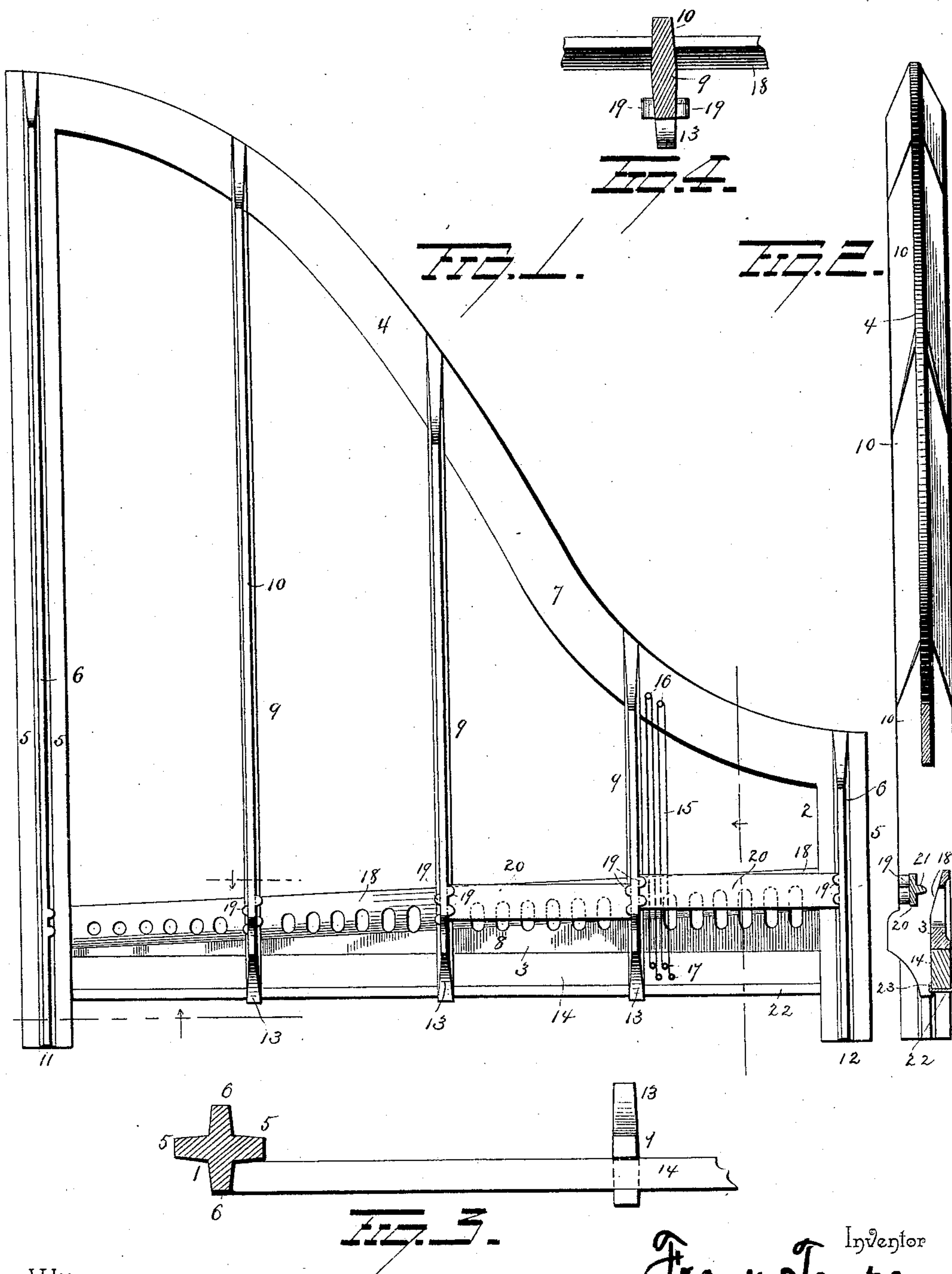


(No Model.)

F. TEUPE.
PIANO.

No. 567,668.

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Witnesses
E. J. Nottingham
G. J. Downing

Inventor
Frank Teupe
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

FRANK TEUPE, OF LOUISVILLE, KENTUCKY.

PIANO.

SPECIFICATION forming part of Letters Patent No. 567,668, dated September 15, 1896.

Application filed August 28, 1895. Serial No. 560,815. (No model.)

To all whom it may concern:

Be it known that I, FRANK TEUPE, a resident of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Pianos; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in pianos, and more particularly to the plate or frame for supporting strings or wires, one object of the invention being to construct a string plate or frame in such manner that the strain exerted by the strings or wires on the plate or frame will be in line with the longitudinal axes of the braces or connecting-bars of said plate or frame.

A further object is to produce a string plate or frame which shall be simple and substantial in construction, capable of use in either an "upright" or a "grand" piano, and which shall be effectual in all respects in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view illustrating my improvements. Fig. 2 is a sectional view. Figs. 3 and 4 are detail views.

My improved string plate or frame A is made of metal in the form of a harp, having parallel end bars 1 2, a straight bar 3, and a bar or rim 4, made in the form of a compound curve extending from the end bar 1 to the end bar 2 in a diagonal direction, the bar 1 being considerably longer than the bar 2. The bars 1 2 are each made with ribs 5 6, disposed at right angles to each other, said bars thus being X-shaped in cross-section. The straight bar 3 is made integral at its respective ends with the respective end bars 1 2, and disposed parallel with the ribs 5 thereof. The respective ends of the curved bar or rim 4 are made integral with the respective end bars 1 2, and are so disposed that the face 7 of said curved bar will be substantially in line with the face 8 of the straight bar 3. In

other words, the bars 3 4 are so arranged that the faces 7 8 thereof will be disposed in line with the longitudinal axes of the end bars 1 2.

The bars 3 4 are connected together between their ends by means of integral braces 9 9 9, each of which is made to form ribs 10, projecting laterally from said bars 3 4. The braces 9 are, like the end bars 1 2, so disposed relatively to the bars 3 4 that the faces 7 8 of said bars will be in line with the longitudinal axes of the braces.

The end bars 1 2 and the braces 9 project beyond the edge of the straight bar 3, as at 11 12, respectively, and the lower ends of said braces are preferably provided with strengthening-ribs 13. A pin-block or wrest-plank 14, preferably made of wooden layers or strips, is disposed between the end bars 1 2, the ends of said block or plank being disposed in the angle formed by the ribs 5 6 of said end bars, and one edge thereof bearing against the edge of the straight bar 3. One face of the pin-block or wrest-plank bears against the projecting portions 13 of the braces 9.

The strings or wires 15 of the piano are connected with hitch-pins 16 on the curved bar 4 and with turning pins 17 on the pin-block or wrest-plank 14 in the usual manner, and the straight bar 3 of the frame is beveled, as at 18, to prevent the engagement of the strings therewith when they vibrate.

The end bars and braces of the frame are made with lugs 19, which constitute guides for blocks 20, each block being made with a rib or flange 21, which bears against the strings. The bearing-blocks 20 are arranged out of line with each other from one end of the frame to the other. It is apparent that there will be a great amount of strain exerted against the pin-block or wrest-plank by the strings or wires, but as said block or plank has a bearing at its inner edge against the straight bar of the frame and against the projecting portions of the braces and end bars this strain cannot result in the slightest displacement of the block or plank at these points. In order, however, to guard against any displacement, bowing, or twisting of the outer edge of the pin-block or wrest-plank between the braces, I place on the outer edge of

said block or plank a metallic plate 22, and this plate is made with a flange 23, which rests against the front face of the said block or plank, said flange being notched for the accommodation of the projecting portions of the braces. This plate, with its flange, will act to effectually prevent any bowing or twisting of the outer edge of the pin-block or wrest-plank, and the greater the strain on the latter the tighter will the plate 22 be secured thereto.

From the construction and arrangement of parts above described it will be seen that the strain on the string frame or plate caused by the strings or wires will be exactly in line with the longitudinal axis of the end bars and braces, so that there will not be the slightest liability of the frame twisting on account of such strain.

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

1. The combination with a string-frame, of

a pin-block or wrest-plank adapted to bear against said frame, and a metal plate on the free edge of said block or wrest-plank, said metal plate having a flange bearing against the face of the latter, substantially as set forth.

2. In a string-frame, the combination with a hitch-pin bar and a straight bar, of a series of parallel bars connecting the hitch-pin bar and straight bar, bearing-blocks for the strings between said parallel bars parallel with the straight bar and lugs or guides on said parallel bars for the bearing-blocks, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK TEUPE.

Witnesses:

HARRY Y. DAVIS,
R. S. FERGUSON.