

No. 852,917.

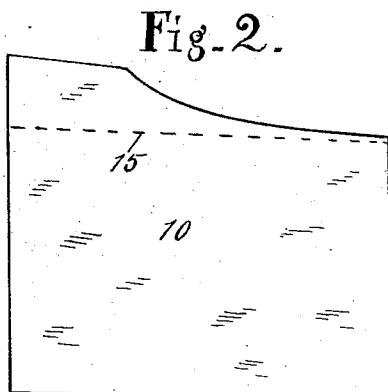
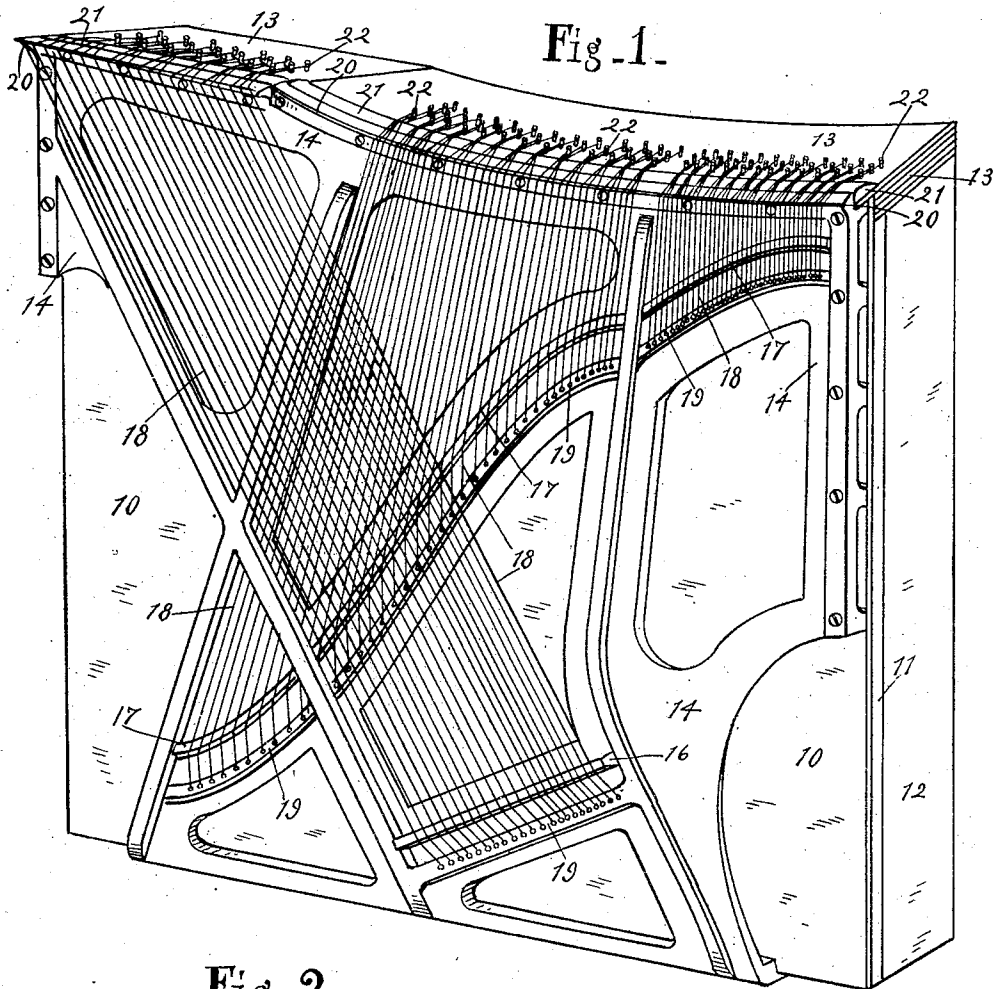
PATENTED MAY 7, 1907.

R. N. WELLS.

PIANO.

APPLICATION FILED MAR. 15, 1906.

2 SHEETS-SHEET 1.



Witness

W. M. Gentle.

N. Allmoning.

Inventor,

Ralph N Wells.

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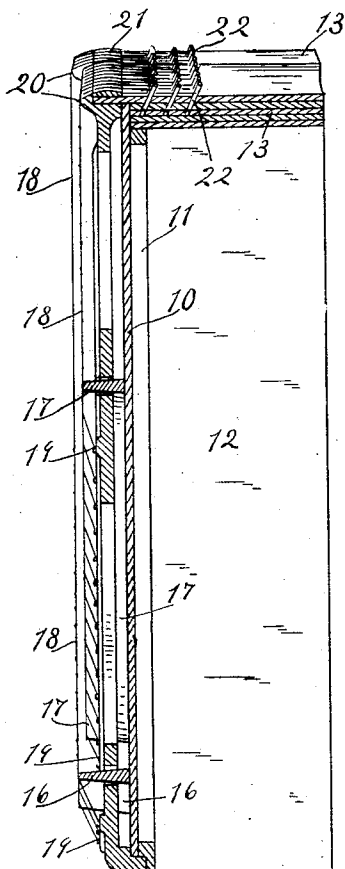
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2 SHEETS—SHEET 2.

Fig - 3 -



WITNESSES:

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N. Allmoning.

INVENTOR.

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UNITED STATES PATENT OFFICE.

RALPH N. WELLS, OF NEWCASTLE, INDIANA, ASSIGNOR OF ONE-THIRD TO WILLIAM G. BETZ AND ONE-THIRD TO DANIEL J. RAY, OF NEWCASTLE, INDIANA.

PIANO.

No. 852,917.

Specification of Letters Patent.

Patented May 7, 1907.

Application filed March 15, 1906. Serial No. 306,133.

To all whom it may concern:

Be it known that I, RALPH N. WELLS, of Newcastle, county of Henry, and State of Indiana, have invented a certain new and useful Piano; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to provide a construction in a piano for mounting the strings so as to increase the length of the strings without an increase in the dimensions of the piano. By increase in the length of the strings is meant an increase in distance between the bridge at one end of the strings and the bearing at their other end. The effect of this change in mounting the strings is to give fuller and richer tones to the piano. This result is attained chiefly by turning the strings over the bearing at almost a right angle and mounting the pins in a pin block that is at substantially a right angle with the main body of the strings. This renders one bearing sufficient and enables it to be located farther from the bridge with the effect above referred to.

The nature of this invention will be more fully understood from the accompanying drawings and the following description and claims:

In the drawings, Figure 1 is a perspective view of a front side of the frame of a piano. Fig. 2 is a front elevation of the sound board, the upper limit of the sound boards heretofore in use being shown by a dotted line. Fig. 3 is a substantially vertical transverse section though Fig. 1, however it is broken away centrally and shows one string, for the purpose of explaining the new idea in this improvement.

In detail, 10 is the sounding board in this piano in rear of which there is the lining board 11 and studs 12 that go to make up the frame-work of the piano. The pin block 13 is located on the top of this frame-work and the string-plate 14 is secured to the front of the frame-work in the usual manner.

The frame and sound-board are modified in form as shown in Figs. 1 and 2, the sounding board extending higher than in the ordinary piano. The dotted line 15 in Fig. 2

shows the upper edge of the sounding board in the ordinary piano, whereas, in this form, the sounding board extends entirely to the top of the frame-work as shown in Fig. 3. The pin block is made up of layers and the upper portion of the sounding board 10 is secured to part of the layers of the pin block, except possibly the top one that extends forwardly above the top edge of the sounding board.

The sounding board 10 has the usual bridges 16 and 17 for the strings 18. Along the extreme upper edge of the plate the bearing 20 is located, it being a slight forward extension, extending substantially at a right angle to the main body of the plate and over which the upper ends of the strings pass. This bearing is even slightly above the extreme upper surface of the pin block, and the upper edge of the plate 14 is slightly curved, as shown, and adjacent to it upon the top of the pin block, a bar 21 is secured with its upper surface likewise curved.

The strings at their upper ends are drawn across the bearing 20 and over the curved surfaces of the top of the plate 14 and the bar 21 and are secured to the pins 22 that are secured in the top of the pin block and extend substantially vertically, having however the usual slight inclination to enable them to withstand the pull of the strings.

This construction increases the sounding length of the strings, and this increase comes without any change in the size of the piano and it adds to the richness of the tone of the piano, for not only is the sounding length of the strings increased but likewise the sound board. Furthermore, a piano with the strings mounted in this manner is readily tuned, for the tuner can easily reach the pins 22, by turning back the top of the piano casing, and then all of the pins will be easily accessible.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a piano, the combination of a string plate with one edge thereof partly straight and partly curved and extending transversely of the piano, a pin block extending transversely of the piano with a pin surface conforming to the shape of said edge of the string plate and extending back at substan-

5 tially a right angle thereto, a bearing along said edge of the string plate, strings mounted on said string plate and passing over said bearing, and pins in the pin block to which the strings are secured.

10 2. In a piano, a string plate with a bearing along one extreme edge, strings secured to said plate with their ends extending over said bearing, a pin block extending along the bearing edge of said plate with one surface at substantially a right angle to said plate, pins in said surface of said block and to which said strings are secured, and a sound board of substantially the same length as said string plate, the bearing end of which string plate engages the extreme end of said sound board.

15 3. In a piano, the combination of a string plate with a bearing along one extreme edge, strings secured to said plate with their ends extending over said bearing, a sound board of substantially the same length as said string plate and upon the extreme end of which said string plate at said bearing edge is mounted, a pin block extending along the bearing edge of said plate with its pin surface at substantially a right angle to said plate,

and pins in said block to which said strings are secured.

4. In a piano, the combination of a string plate with one edge thereof partly straight and partly curved and extending transversely of the piano, a pin block extending transversely of the piano with a pin surface conforming to the shape of said edge of the string plate and extending back at substantially a right-angle thereto, a bearing along the edge of said pin block and adjacent the edge of the string plate, a sound board of substantially the same length as said string plate and upon which said string plate is mounted along the edge of said string plate which has said bearing on it, strings mounted on said string plate and passing over said bearing, and pins in the pin block to which said strings are secured.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

RALPH N. WELLS.

Witnesses:

DANIEL J. RAY,
WILLIAM G. BETZ.