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W. G. BETZ.
PIANO.

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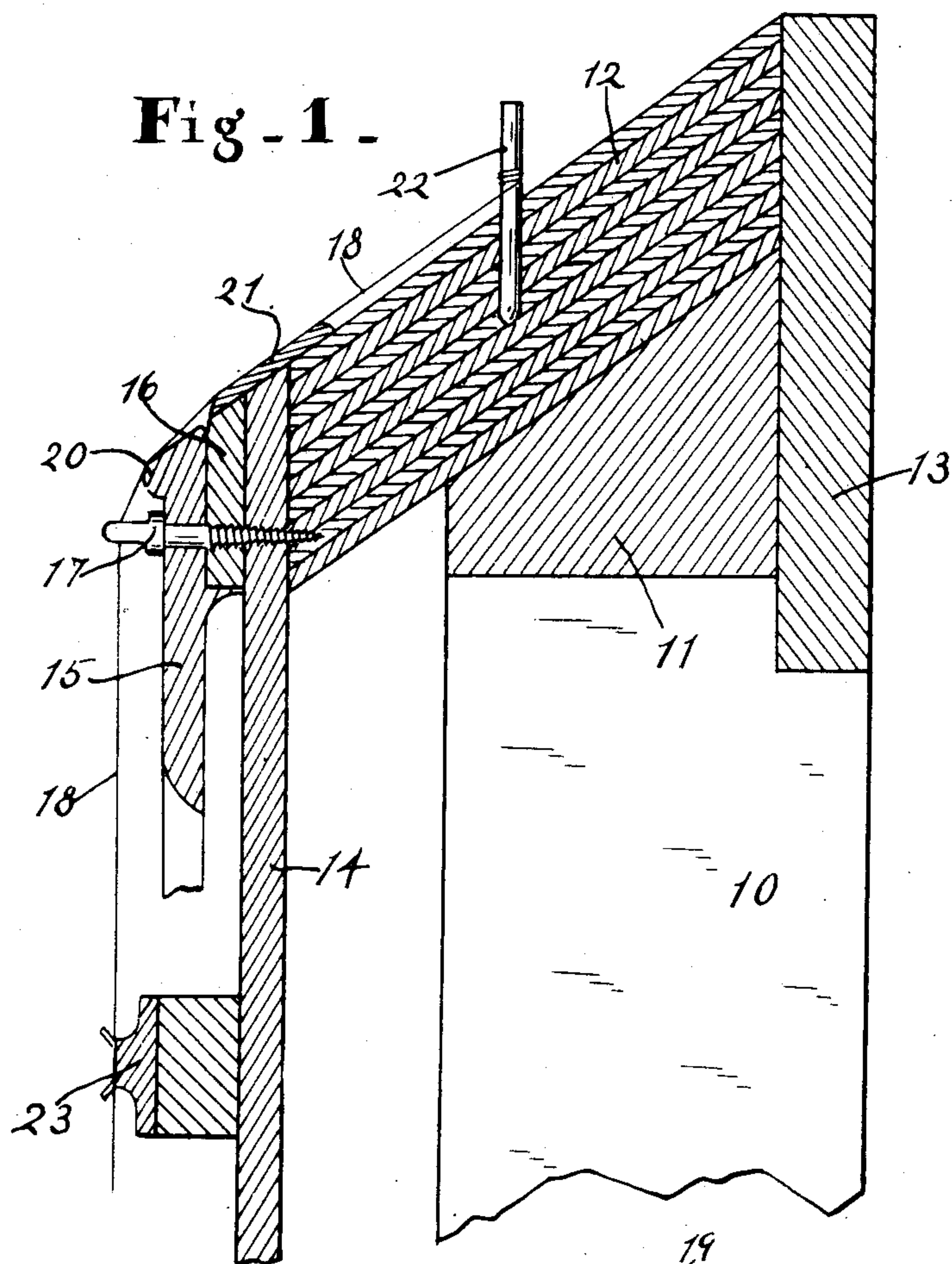
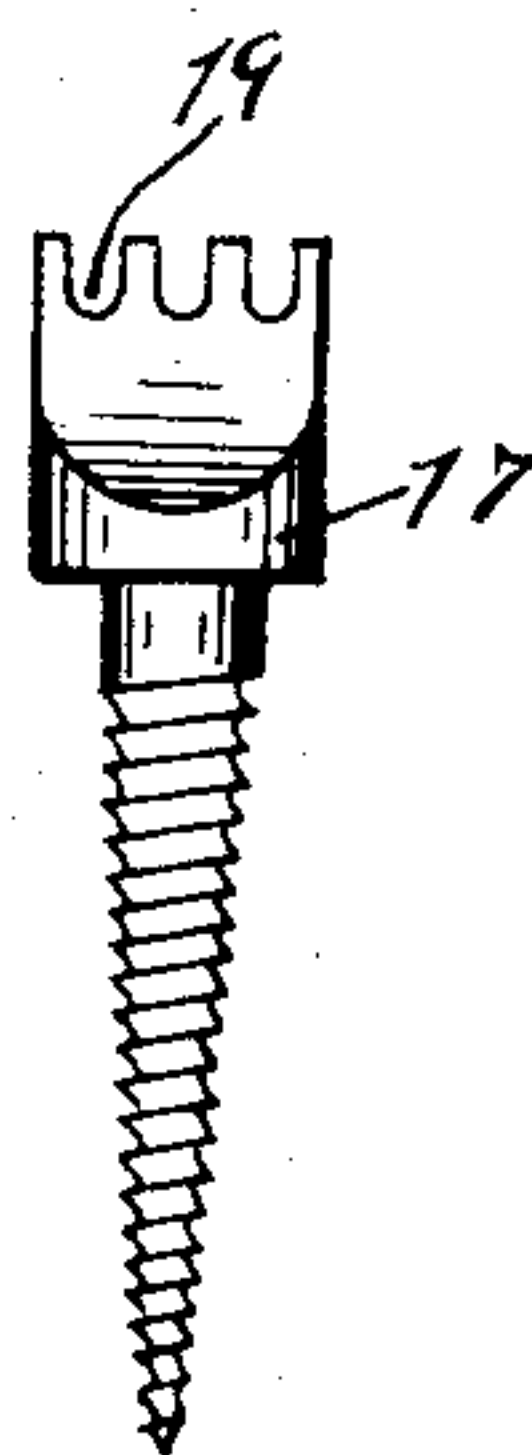


Fig - 2 -



WITNESSES:

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PIANO.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM G. BETZ, 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 an improvement in upright pianos whereby the sounding quality and mounting of the strings are improved and the construction strengthened.

To this end a feature of the invention consists in combining the agraffe and the screw for securing the parts together, or mounting the agraffe on the screw which extends through the string plate, plate filling, sounding board, and into the pin block so as to bind all of said parts together firmly and to cause the vibration of the strings to be imparted more effectively to the sounding board.

Another feature consists in inclining the pin block and the string bearing on the string plate, and mounting the agraffe in such position that the string will pass over the agraffe, string plate, and bearing on the edge of the pin block in a gradual curve of comparatively slight degree of curvature, whereby any sharp turn or bend of the strings is avoided and they may be more effectually tightened.

The nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a central transverse section through the upper portion of an upright piano, the lower part being broken away. Fig. 2 is an elevation of a combined agraffe and screw.

Referring to the details shown in the drawings, suitable posts or standards 10 are provided as usual in pianos, only one being here shown, on top of which is mounted a horizontally extending pin block support 11 on which a pin block 12 is mounted in an inclined position descending towards the front of the piano, or left, as shown in Fig. 1. A back board 13 extends horizontally and is secured to the standards 10, pin block

support 11 and pin block 12, as shown. The sounding board 14 is fastened to the pin block and extends flush with the top of the pin block. Upon it the string plate 15 is mounted with a plate filling 16 in between, and an agraffe 17 extends through the string plate 15, the filling 16, the sounding board 14, and into the pin block 12. This secures all the said parts together firmly. A string 18 passes over the agraffe, lying in one of the notches 19 thereof, and over the bearing edge 20 of the string plate and the wood bearing 21 extending horizontally upon the filling 16, sounding board 14, and pin block 12, and the string passes thence to a pin 22.

The agraffe is located near the bearing 20 on the string plate so that the inclination of the pin block and of the bearing edge of the string plate give the strings a gradual curvature of slight degree over said bearings and the agraffe. The agraffes are notched merely because the strings are held down on and against said agraffes as shown. A suitable bridge 23 is secured to the sounding board.

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

1. In a piano, the combination of a pin block, a sounding board, a string plate, and an agraffe provided with a screw for securing it in place that extends through said string plate and sounding board and into said pin block.

2. In an upright piano, a sounding board with an inclined upper edge, an inclined pin block flush therewith, a pin in said pin block, a bearing upon the end of said sounding board, a wood bearing upon the upper end of said sounding board, a string plate with an inclined bearing edge thereon, an agraffe secured to said pin block passing through said sounding board and securing said string plate to said pin blocks, said sounding board extending above the line of said agraffe, and a string passing over said agraffe, string plate, and the bearing upon the end of said sounding board, to said pin, the arrangement of said bearings being such as to give to said string a gradual curvature passing over said agraffe and the bearing edge of said string plate and the wood bearing upon the upper end of said sounding board, substantially as shown.

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

WILLIAM G. BETZ.

Witnesses:

N. ALLEMONG,

H. B. McCORD.