

C. F. CHICKERING.

Piano Agraffes.

No. 134,194.

Fig. 1.

Patented Dec. 24, 1872.

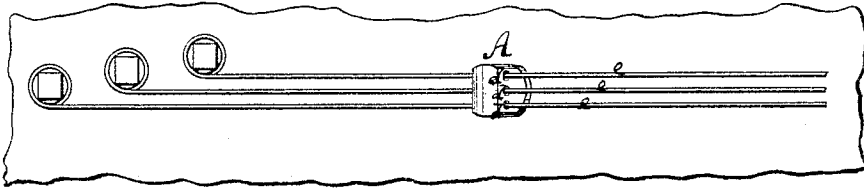


Fig. 3.

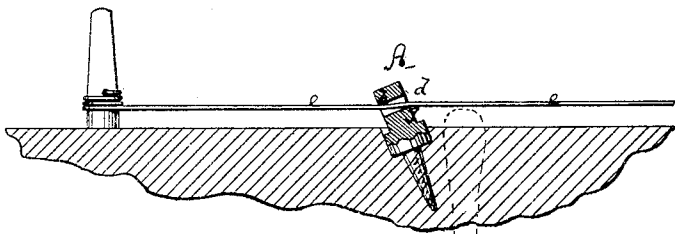


Fig. 4.

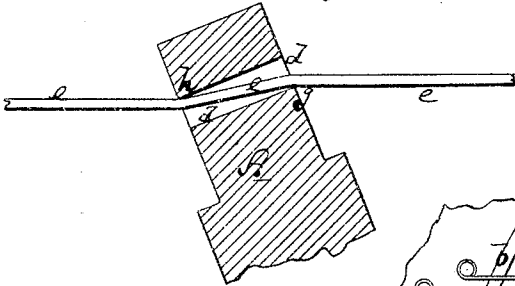


Fig. 2.

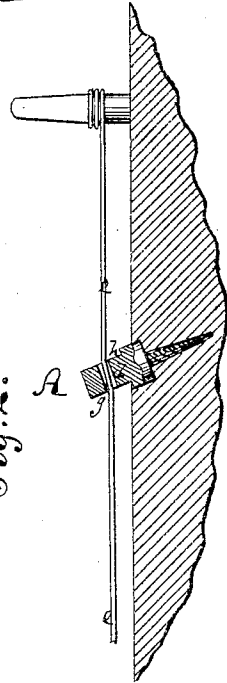


Fig. 5.

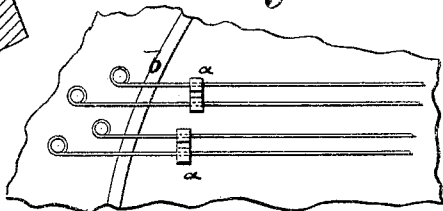
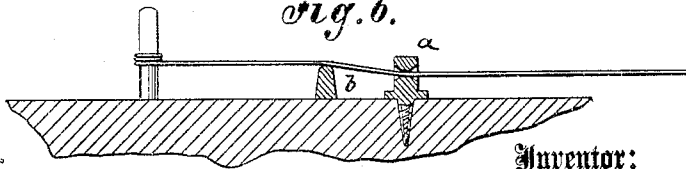


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES F. CHICKERING, OF NEW YORK, N. Y.

IMPROVEMENT IN PIANO-AGRAFFES.

Specification forming part of Letters Patent No. **134,194**, dated December 24, 1872.

To all whom it may concern:

Be it known that I, CHAS. F. CHICKERING, of the city, county, and State of New York, have invented an Improved Mode of Supporting the Strings of Piano-Fortes, of which the following is a specification:

The invention consists in dispensing with the bridge which is usually placed back of the agraffe, and furnishing the required double support by two points in the agraffe itself.

Figures 1 and 2 are, respectively, a plan and vertical section of an upright piano furnished with my improvement. Fig. 3 is a section having said improvement on a square or grand piano. Fig. 4 is a section of my agraffe. Figs. 5 and 6 are, respectively, a plan and sectional view of the ordinary agraffe with the supporting-bridge back of it.

The agraffe A is made with a straight aperture at right angles to its length when it is screwed obliquely to the frame. The aperture cannot properly be made oblique to the length so that the agraffe may be placed in an erect position, because a metallic boring-tool will not work diagonally so as to make a regular aperture.

A string, *e*, passes diagonally through the hole, and is supported on two points, *g h*. The bridge *b*, shown in Fig. 6, back of the agraffe, and the flaring apertures in the agraffe are entirely dispensed with.

I am aware that two points of support diagonally opposite to each other have been furnished to every string in a piano-forte, but all in a single iron bar, and with a wooden support back of this bar. No agraffe, however, is used at all in the case referred to. Hence, I do not claim, broadly, the idea of furnishing two diagonally-opposite points of support to a piano-string within the same slot; but

What I do claim is—

The agraffe A, having equal-sized aperture *d* at right angles to its length, and fastened obliquely to the frame to support the string at the points *g h* and dispense with a back bridge, as and for the purpose described.

CHARLES F. CHICKERING.

Witnesses:

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