

(No Model.)

E. G. SCHLEICHER.
PIANO AGRAFFE.

No. 411,934.

Patented Oct. 1, 1889.

Fig. 1.

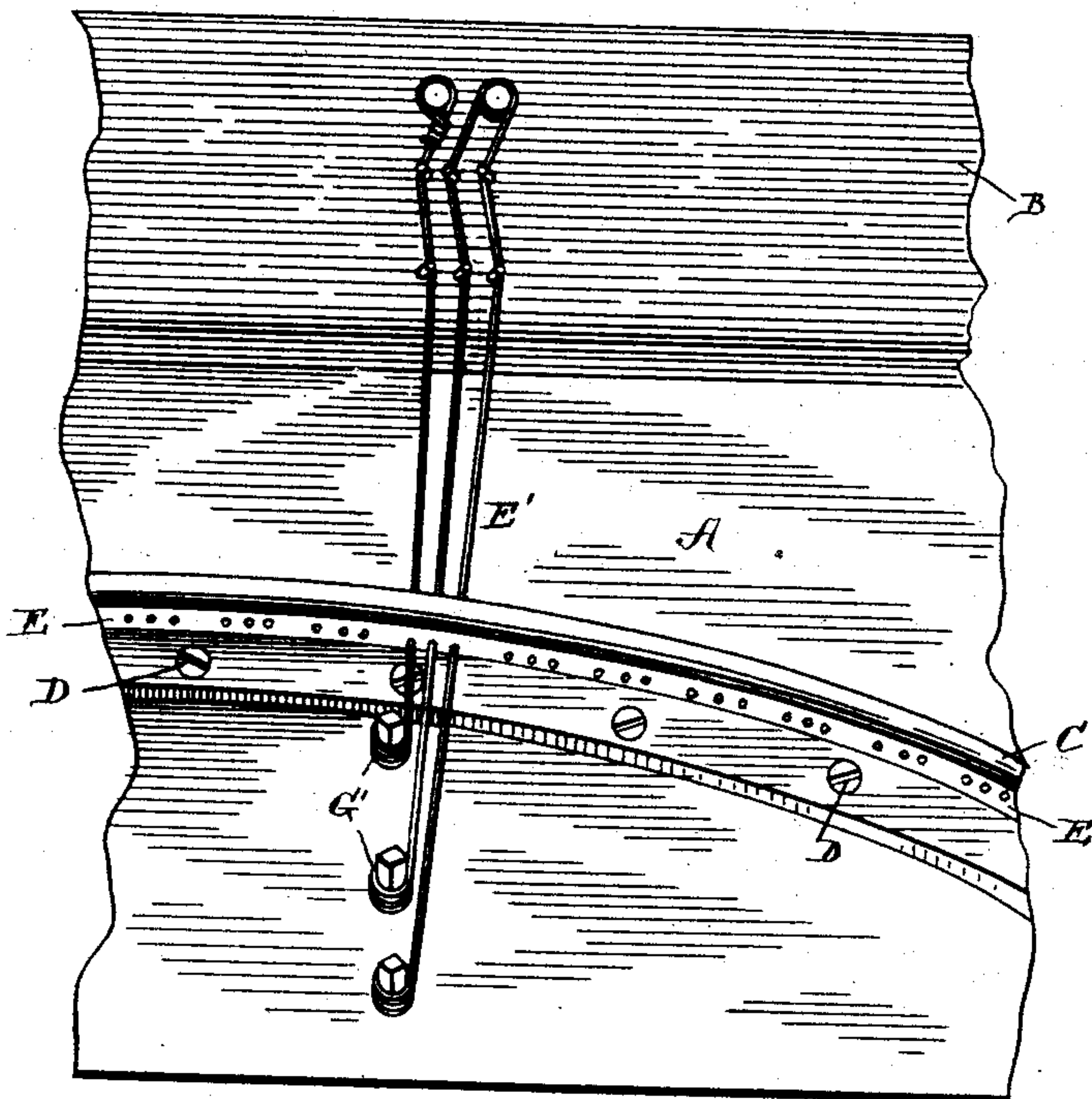


Fig. 2.

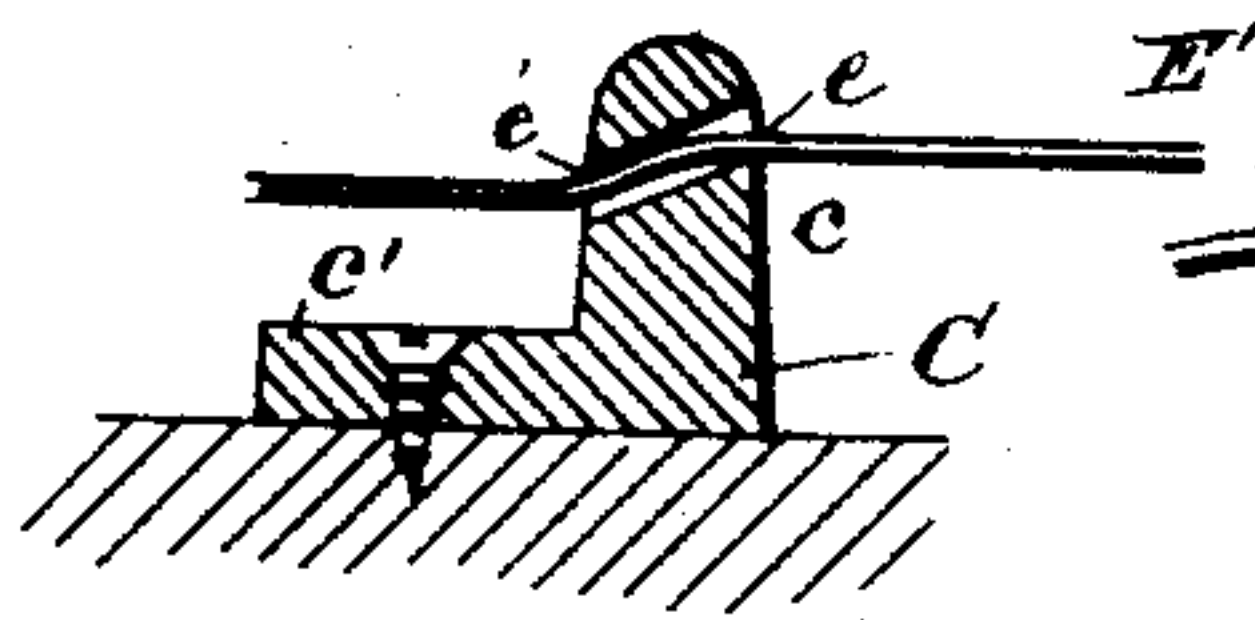
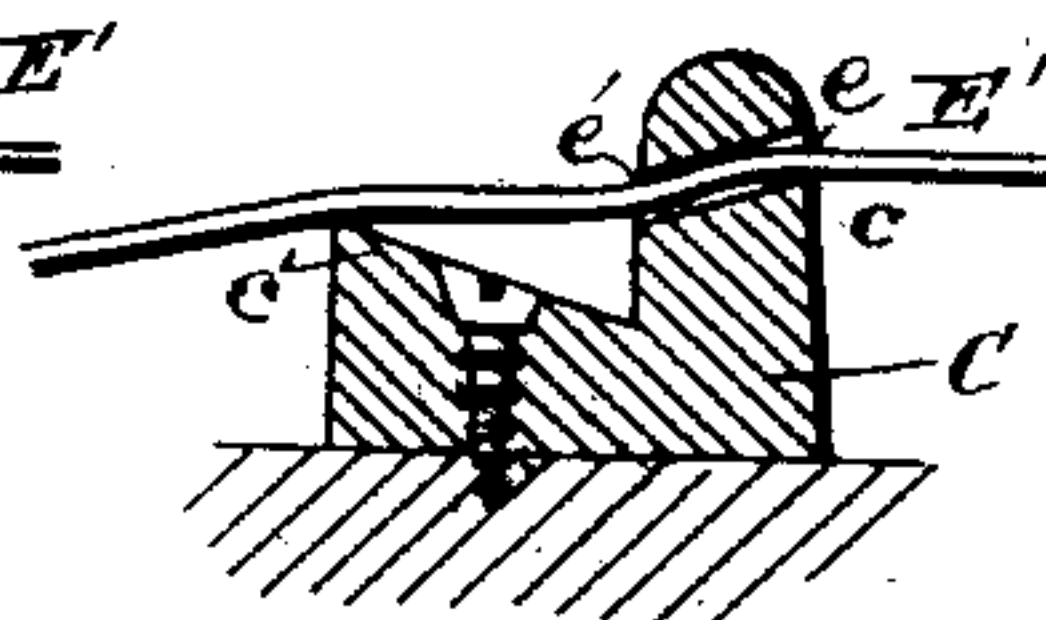


Fig. 3.



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PIANO-AGRAFFE.

SPECIFICATION forming part of Letters Patent No. 411,934, dated October 1, 1889.

Application filed February 1, 1889. Serial No. 298,309. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. SCHLEICHER, a citizen of the United States, and a resident of Mount Vernon, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Piano-Fortes, of which the following is a specification.

The object of my invention is to improve the tone of piano-fortes, to facilitate the tuning of the instruments, to keep them longer in tune, to prevent the unnecessary movement of the strings, and to render them less liable to break; and these results I accomplish by certain improvements in the construction of the agraffe and in other features of construction hereinafter described.

The invention consists of the construction, combination, and arrangement of parts disclosed in the following specification, of which the accompanying drawings form a part, and in which similar letters of reference indicate like or equivalent parts wherever found throughout the several views.

Figure 1 is a view of my improvement, showing the form of the agraffe and the manner in which the same is attached to the wrest-plank. Fig. 2 is a central vertical transverse section of the agraffe, taken on the line of one of the strings shown in Fig. 1; and Fig. 3 is a modification.

Referring to Fig. 1, A represents the wrest-plank, which is provided with an elevated portion B.

C indicates my improved agraffe, which consists of a vertical curved metal band or plate *c*, having a base-flange *c'*, by means of which and the screws D the agraffe is securely attached to the wrest-plank.

The agraffe C or the vertical band *c* thereof is provided at certain predetermined distances with apertures or holes E, which pass obliquely through said band and are arranged, preferably, in sets of three, as shown. The strings E' pass diagonally through the holes E from their points of attachment to the keys G', and are thus provided with two points of support or bearings, as shown at *e e'*, and are also securely held in place, and all danger of displacement or lateral movement of the strings is avoided.

In the construction shown in Fig. 3 the base-plate of the agraffe is somewhat wider

and the front edge thereof higher, by means of which a third bearing-point for the strings may be provided.

I am aware that agraffes have heretofore been made and attached in such a manner as to give two points of support or two bearings for the strings, and I do not claim such construction as of my invention. Usually in such cases an agraffe was provided for each string or each set of strings, whereas with my improvement a single agraffe is employed. It is readily attached to the wrest-plank, and its curved form and shape in cross-section is such as to render its displacement under any strain to which it is liable to be subjected impossible. By this construction the bearing-bridges and other similar forms of devices are dispensed with, the tone of the instrument is improved, the strings are held firmly in place and are not so liable to be broken, the instrument will remain longer in tune, there is less strain upon the parts thereof, and the agraffe is more easily put in position and is less liable to be misplaced, and is more simple and economical than any heretofore employed.

Having fully described my invention, I claim and desire to secure by Letters Patent the following:

1. An agraffe for piano-fortes, consisting of a continuous piece having a flat base portion whereby the agraffe is screwed or bolted to the wrest-plank, and a continuous vertical portion, the latter being provided with oblique holes, whereby two bearing-points for the strings are provided, substantially as shown and described.

2. An agraffe for piano-fortes, having a base portion and a continuous vertical portion, the latter being provided with oblique holes for the strings, whereby two bearing-points are provided, the base portion extending forward and having its front edge elevated, whereby a third bearing-point is formed, substantially as shown and described.

Signed at Mount Vernon, in the county of Westchester and State of New York, this 23d day of January A. D. 1889.

EDWARD G. SCHLEICHER.

Witnesses:

JARED SANDFORD,
JOHN C. SCHLEICHER.