

F. W. NIEHAUS.
Pianoforte-Agraffe.

No. 161,266.

Patented March 23, 1875.

Fig. 1.

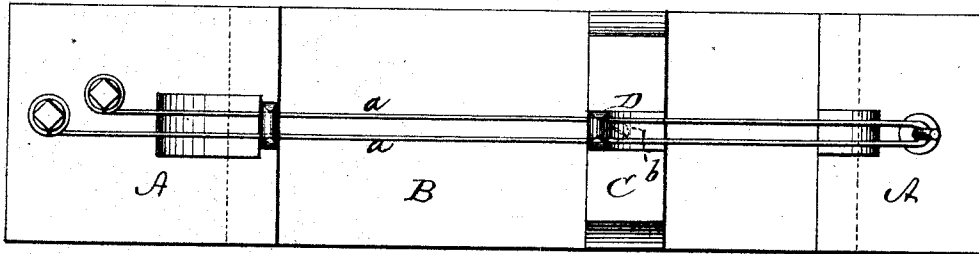
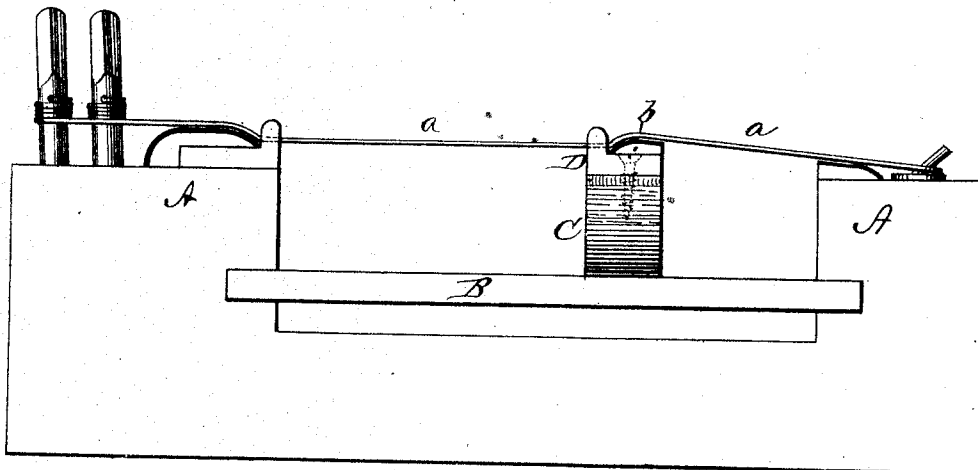


Fig. 2.



WITNESSES:

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FRIEDRICH W. NIEHAUS, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN PIANO-FORTE AGRAFFES.

Specification forming part of Letters Patent No. **161,266**, dated March 23, 1875; application filed January 28, 1875.

To all whom it may concern:

Be it known that I, F. W. NIEHAUS, of St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Sounding-Boards for Piano-Fortes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompany drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction of an agraffe to be placed upon the sounding-board bridge, and through and over which the strings pass, whereby a clearer, stronger, and fuller tone of the instrument is obtained.

In order to enable others, skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my invention; and Fig. 2 is a side elevation of the same.

A A represent the plates with the sounding-board B between them. C represents the bridge on the sounding-board B. On the sounding-board bridge C is placed an agraffe, D, over which the strings *a* pass. The agraffe D is fastened to the sounding-board bridge C

by means of a screw, and the strings passed through small holes drilled through the front of the agraffe. In order to give the strings a good pressure in the holes, they are drawn over a small piece of wood, *b*, which is placed on top of the agraffe. The agraffe gives the right pressure on the sounding-board and on the strings, besides keeping the strings firmly and securely in their places. The strings cannot possibly come loose. The pins heretofore used will, in time, become loose, but this agraffe remains always firm and secure.

By this improvement a clearer, fuller, and stronger tone is obtained.

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

The agraffe D, constructed as described, with holes for the passage of the strings, and provided with the block *b*, in combination with the sounding-board bridge, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

FRIEDRICH WILLIAM NIEHAUS.

Witnesses:

JULIUS H. GEHNER,
GEORGE CLASS.