

F. SCHIMMEL.
BRIDGE BEARING FOR PIANO STRINGS.

APPLICATION FILED JULY 5, 1902.

NO MODEL.

Fig. 1.

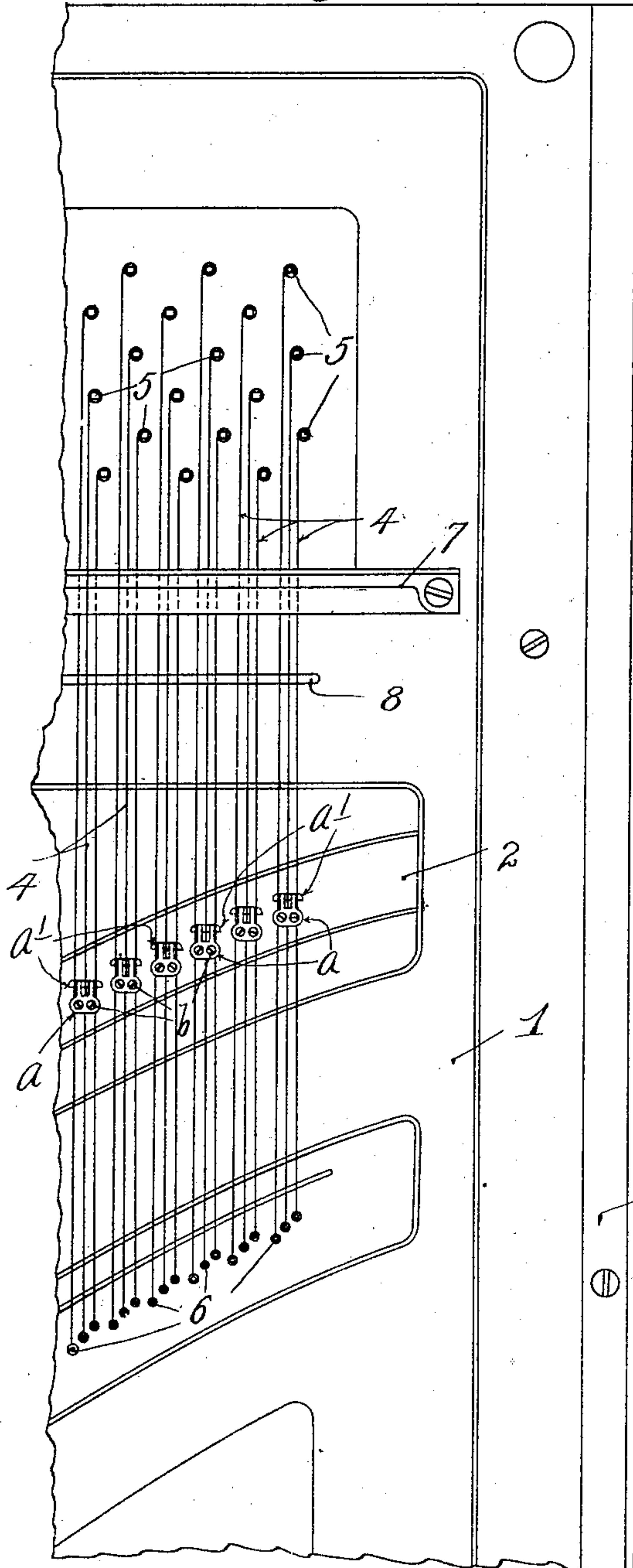


Fig. 2.

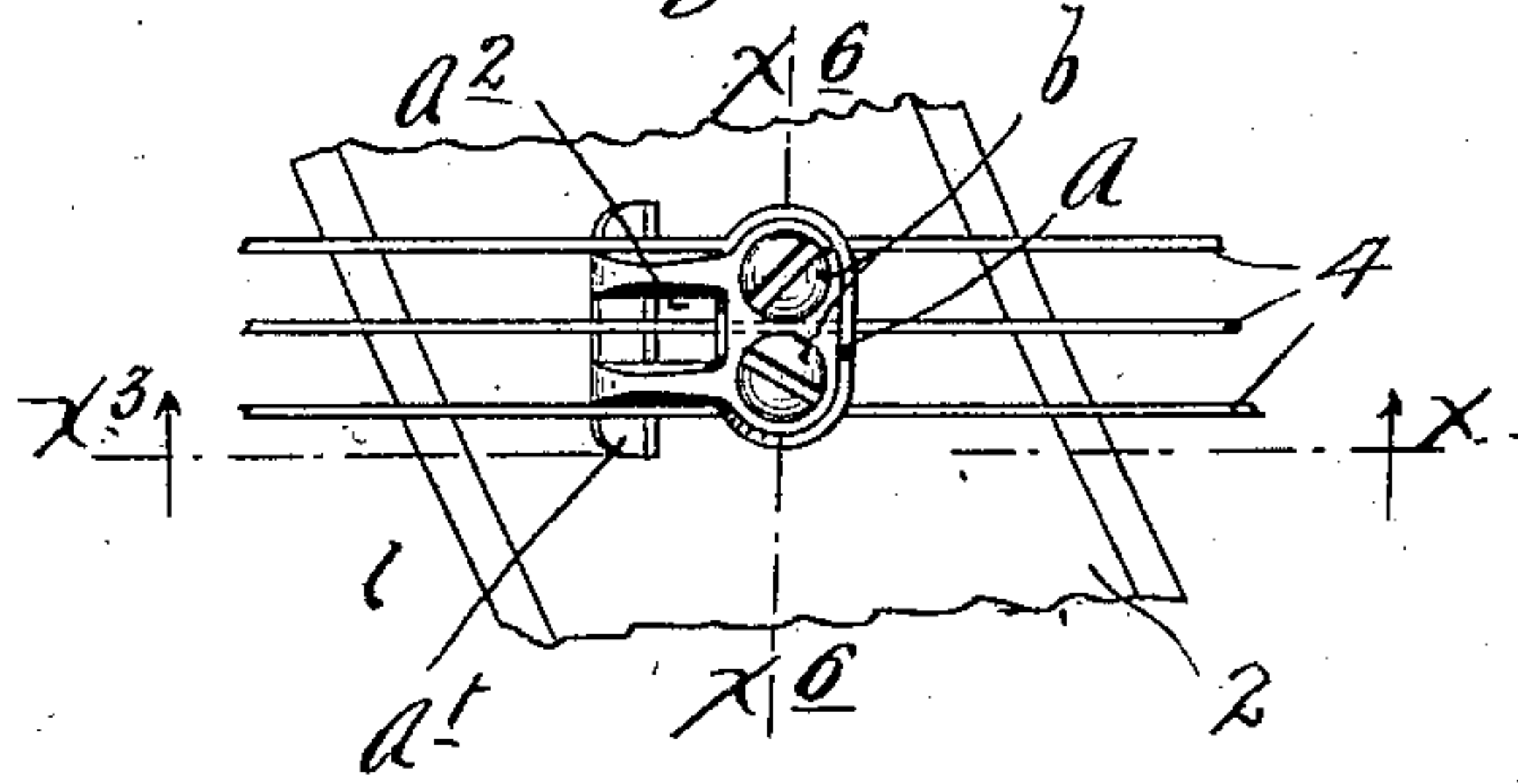


Fig. 3.

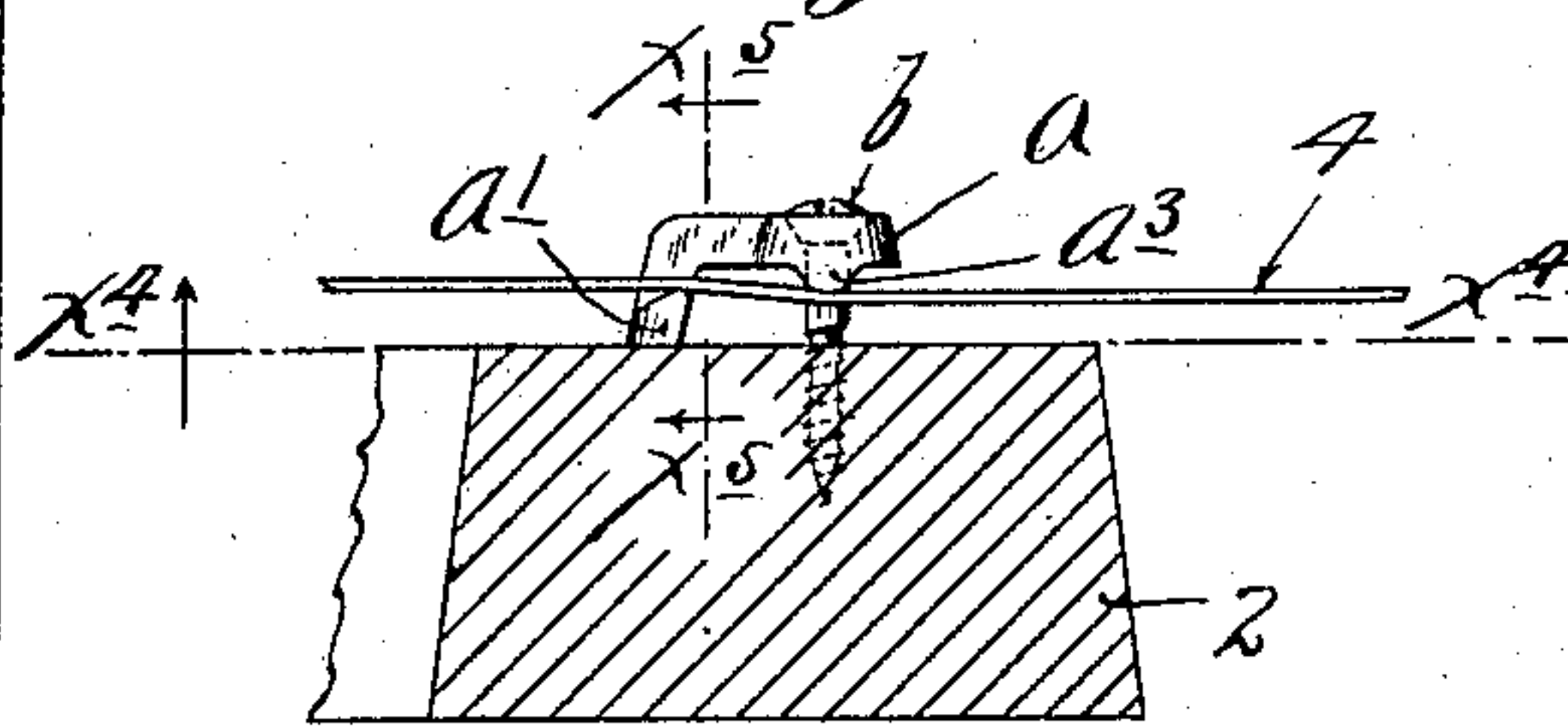


Fig. 4.

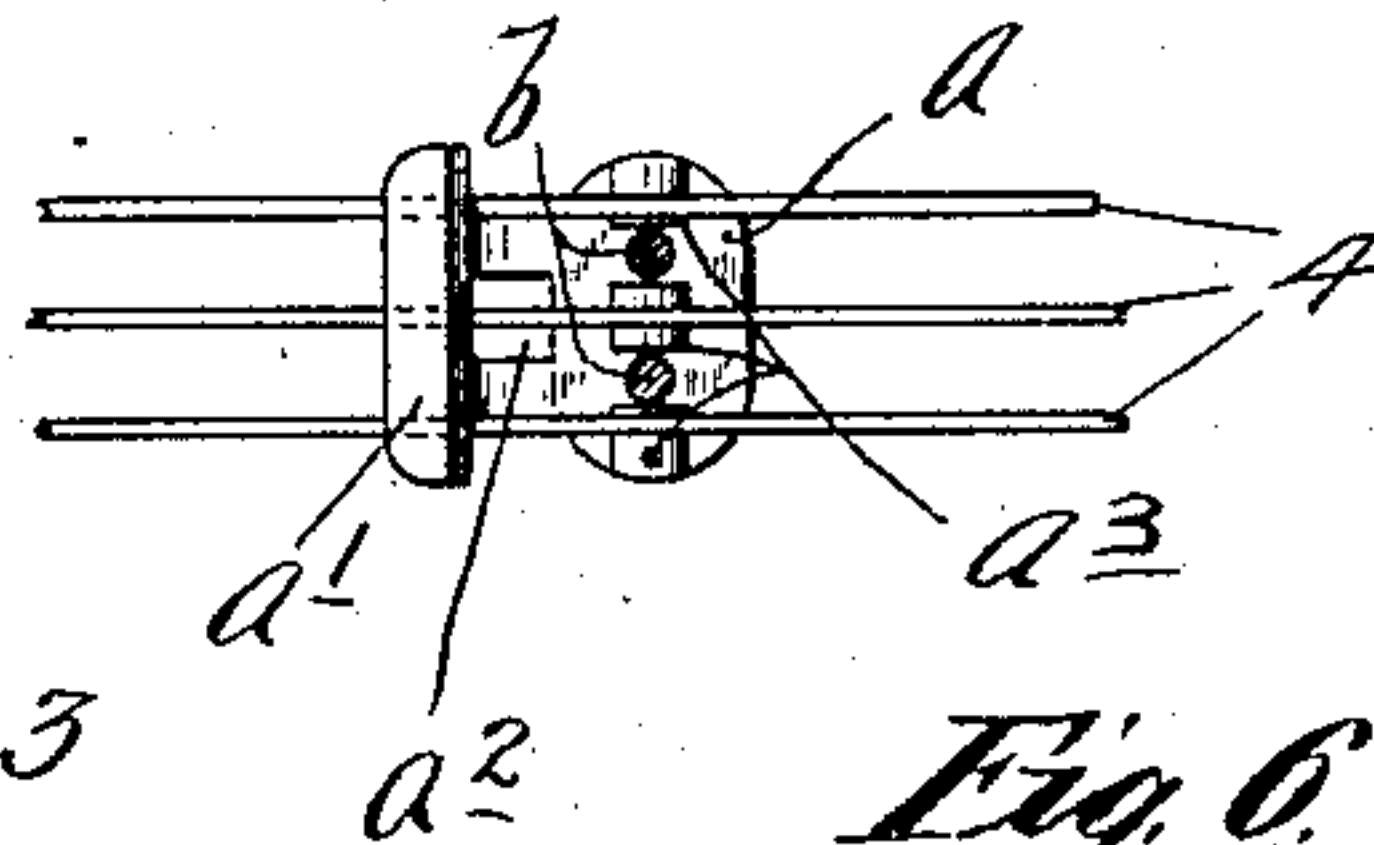


Fig. 5.



Fig. 6.

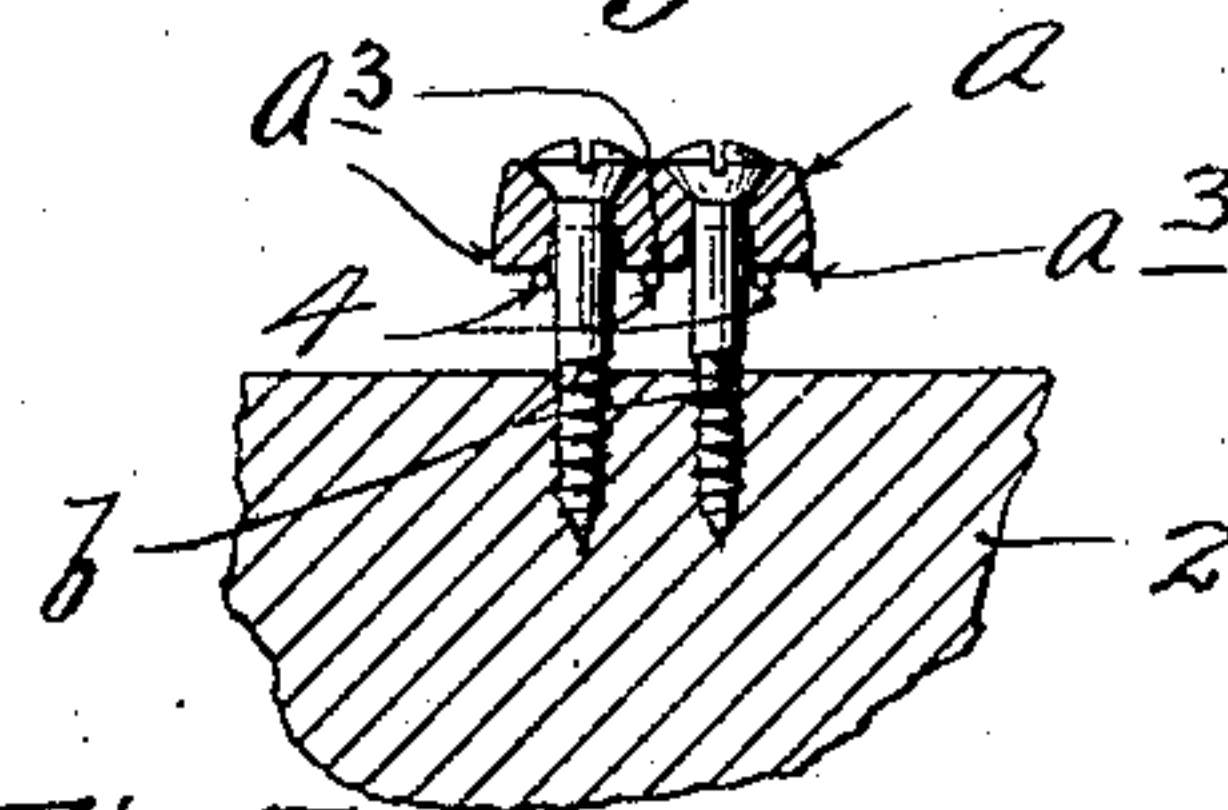


Fig. 7.

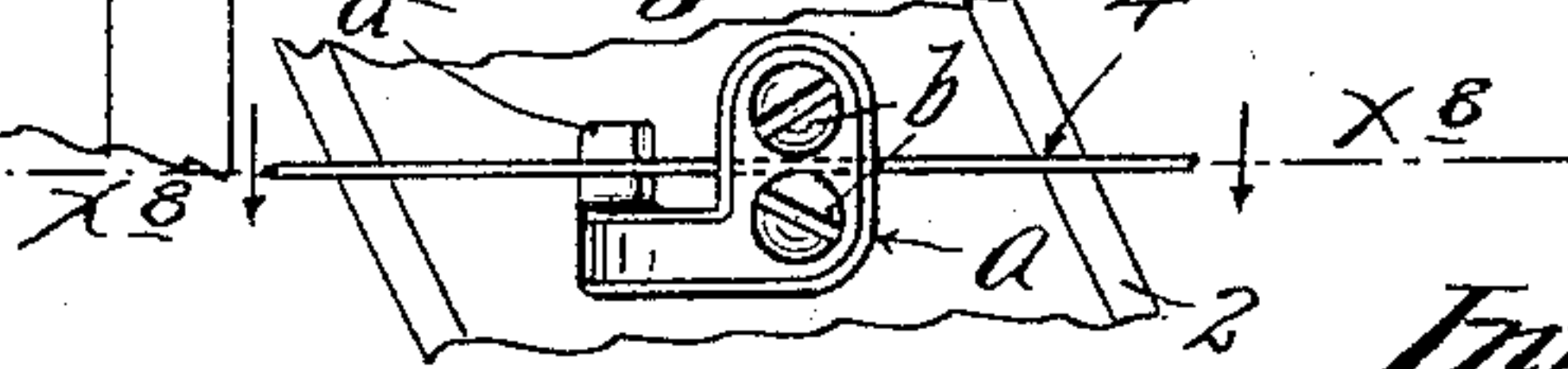


Fig. 9.

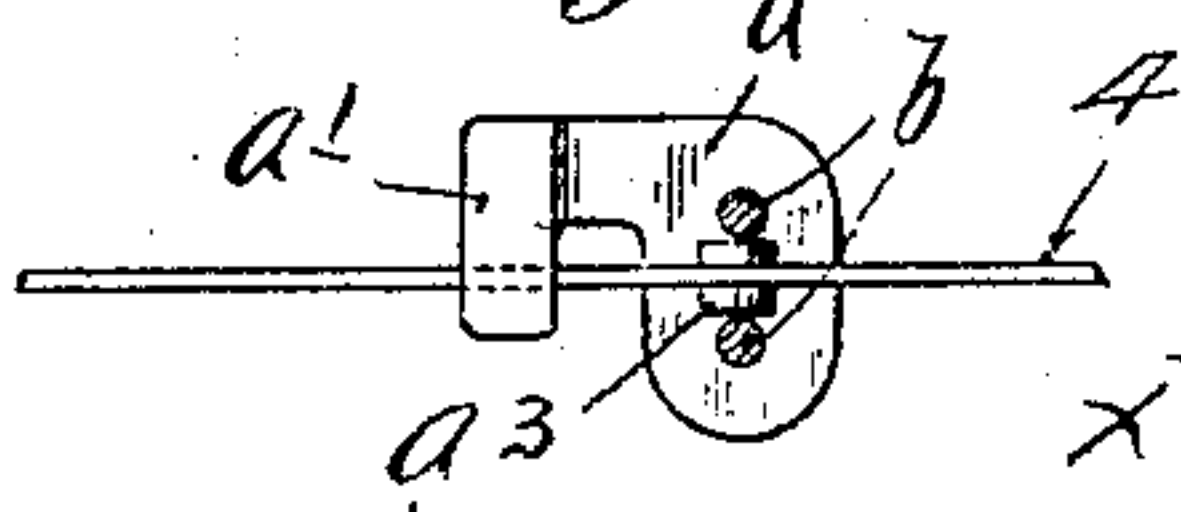
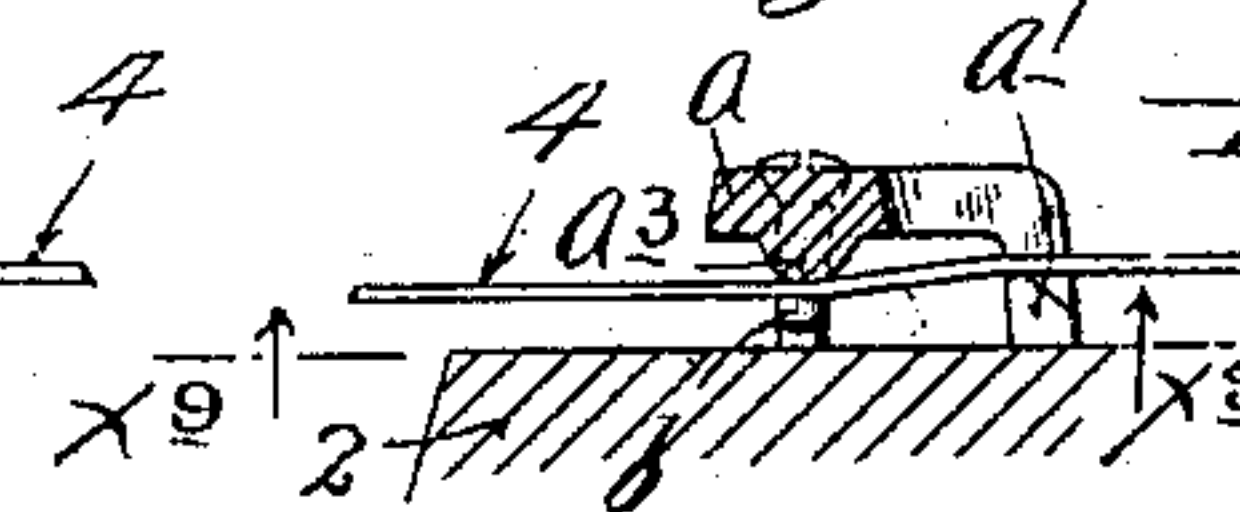


Fig. 8.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRIDOLIN SCHIMMEL, OF FARIBAULT, MINNESOTA.

BRIDGE-BEARING FOR PIANO-STRINGS.

SPECIFICATION forming part of Letters Patent No. 725,781, dated April 21, 1903.

Application filed July 5, 1902. Serial No. 114,370. (No model.)

To all whom it may concern:

Be it known that I, FRIDOLIN SCHIMMEL, a citizen of the United States, residing at Faribault, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Bridge-Bearings for Piano-Strings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object to provide an improved bridge-bearing for application between the strings and the sounding-board of a piano; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a plan view showing a portion of the sounding-board of a piano having applied thereto my improved bridge-bearings. Fig. 2 is a detail, on an enlarged scale, showing a portion of the bridge-bar of the sounding-board with one of my improved bridge-bearings applied thereto. Fig. 3 is a section on the line $x^3 x^3$ of Fig. 2. Fig. 4 is a horizontal section on the line $x^4 x^4$ of Fig. 3. Fig. 5 is a vertical section through the bridge-bearing on the line $x^5 x^5$ of Fig. 3. Fig. 6 is a section on the line $x^6 x^6$ of Fig. 2. Fig. 7 is a view corresponding to Fig. 2, but illustrating a different form of the bridge-bearing. Fig. 8 is a vertical section on the line $x^8 x^8$ of Fig. 7, and Fig. 9 is a horizontal section on the line $x^9 x^9$ of Fig. 8.

The numeral 1 indicates a string-plate which overlies the sound-board and the wrest-plank or pin-block, in which are the pins or pegs 5.

The numeral 3 indicates the marginal flange of the string-plate.

The strings 4, which are tightened by the pegs 5, are anchored by anchoring-pins 6 and are subject to agraffe-bars 7 and 8, arranged in the ordinary or any suitable manner.

It is a well-known fact that in pianos of standard construction all of the notes of the instrument, except a few of the bass notes,

are afforded by strings tuned in unison, usually in sets of three, while a few of the bass notes are produced by single strings of relatively large size. To meet these two conditions, my improved bridge-bearing is constructed in two slightly-different forms, involving, however, the same broad principle of construction. The bridge-bearing designed for use in connection with the sets of unison strings is illustrated in Figs. 1 to 6, inclusive, while the bridge-bearing designed for use in connection with the single strings is illustrated in Figs. 7 to 9, inclusive. The former noted construction will be described first and is as follows: The character a indicates the body of the bridge-bearing, which as viewed in side elevation is approximately L-shaped and the downturned end of which is transversely extended or elongated to afford a fulcrum-foot, which rests firmly upon the top of the bridge-bar 2, as best shown in Fig. 3. The upper portion of this fulcrum-foot a' is preferably beveled, and it affords agraffes or rests for the three strings of the set. The central portion of the bridge a is cut away at a^2 to afford a passage through which the central member of the three strings may be freely passed. The horizontally-extended portion of the bridge a is provided near its end with a depending string-engaging rib a^3 , which is formed in sections, as best shown in Figs. 4 and 6. Screws b are passed through perforations in the bridge a and between the sections of the bearing-rib a^3 and are screwed into the bridge-bar 2, as best shown in Figs. 3, 4, and 6. By reference to Fig. 3 it will be noted that the three strings of the set are by the foot a' and rib a^3 slightly kinked or pressed out of straight line. The amount of kink or offset which is given to the string may be varied by screwing the screws b more or less into the bridge-bar 2. The strings in all cases should be given just enough kink to stop their vibrations at the foot a' without unnecessarily kinking the same. It is evident that different adjustments of the bearing-bridge will be required for different-sized strings in order to give the same the proper kink or offset. The feature of construction whereby this adjustment is obtained constitutes an important feature of my invention. The construction illustrated in Figs. 7 to

9, inclusive, is quite similar to that above described; but since it is designed for use in connection with but one string it is provided with an upper string-engaging rib or lug a^3 ,
5 which extends only between the screws b . Furthermore, it is provided with but a single depending leg portion, from which the fulcrum-foot a' projects in one direction only, as best shown in Fig. 7. This bridge-bearing
10 operates on the single string in the same manner as the bridge-bearing previously described does upon the three strings.

From what has been said it will of course be understood that my improved bridge-bearing
15 is capable of modifications other than those specifically set forth within the scope of my invention as herein set forth and claimed.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:
20

1. A bridge-bearing provided with cooperating upper and lower string-engaging portions and mounted to rock or tilt to vary the

buckling action thereof on the string, substantially as described. 25

2. A bridge-bearing provided with a depending fulcrum-foot serving also as a bearing for the string or strings, and provided with an offset bearing-rib for engagement with the upper portion of the string or strings,
30 and one or more screws working through the upper portion of said bridge, for adjustably holding the same, substantially as described.

3. A bearing-bridge comprising the body a with string-engaging rib a^3 a depending fulcrum-foot a' , cooperating with said rib a^3 to
35 clamp and buckle the string or strings, and a pair of screws working through the upper portion of said bridge and embracing one of the strings, substantially as described. 40

In testimony whereof I affix my signature in presence of two witnesses.

FRIDOLIN SCHIMMEL.

Witnesses:

THOS. H. QUINN,
ANNIE MCCARTHY.