

(No Model.)

H. B. K. ROSENFELD.
PIANO HAMMER.

No. 557,429.

Patented Mar. 31, 1896.

Fig. 1.

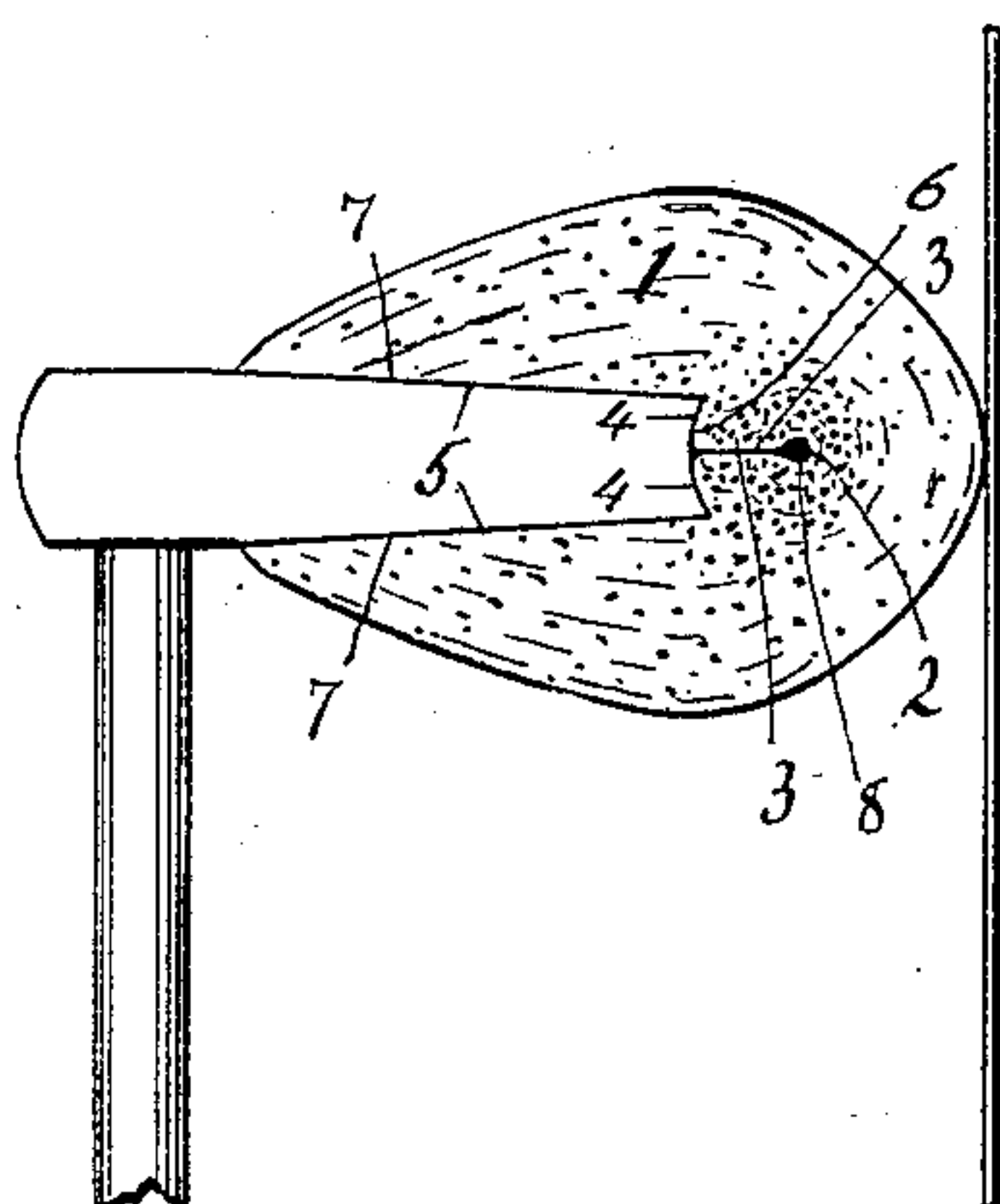


Fig. 4.

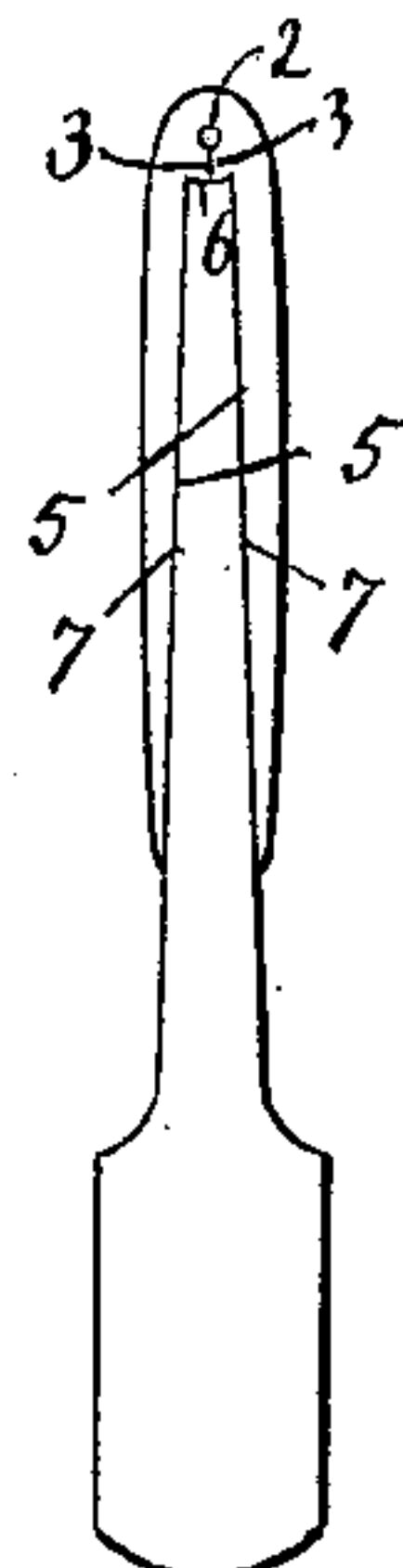


Fig. 2.

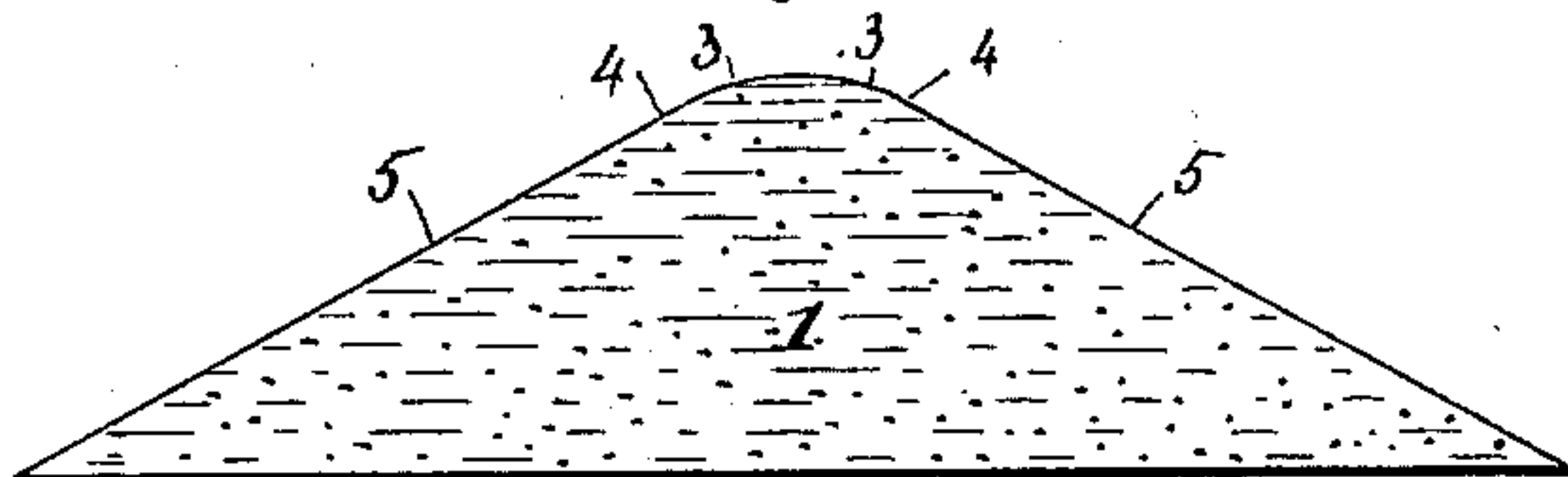
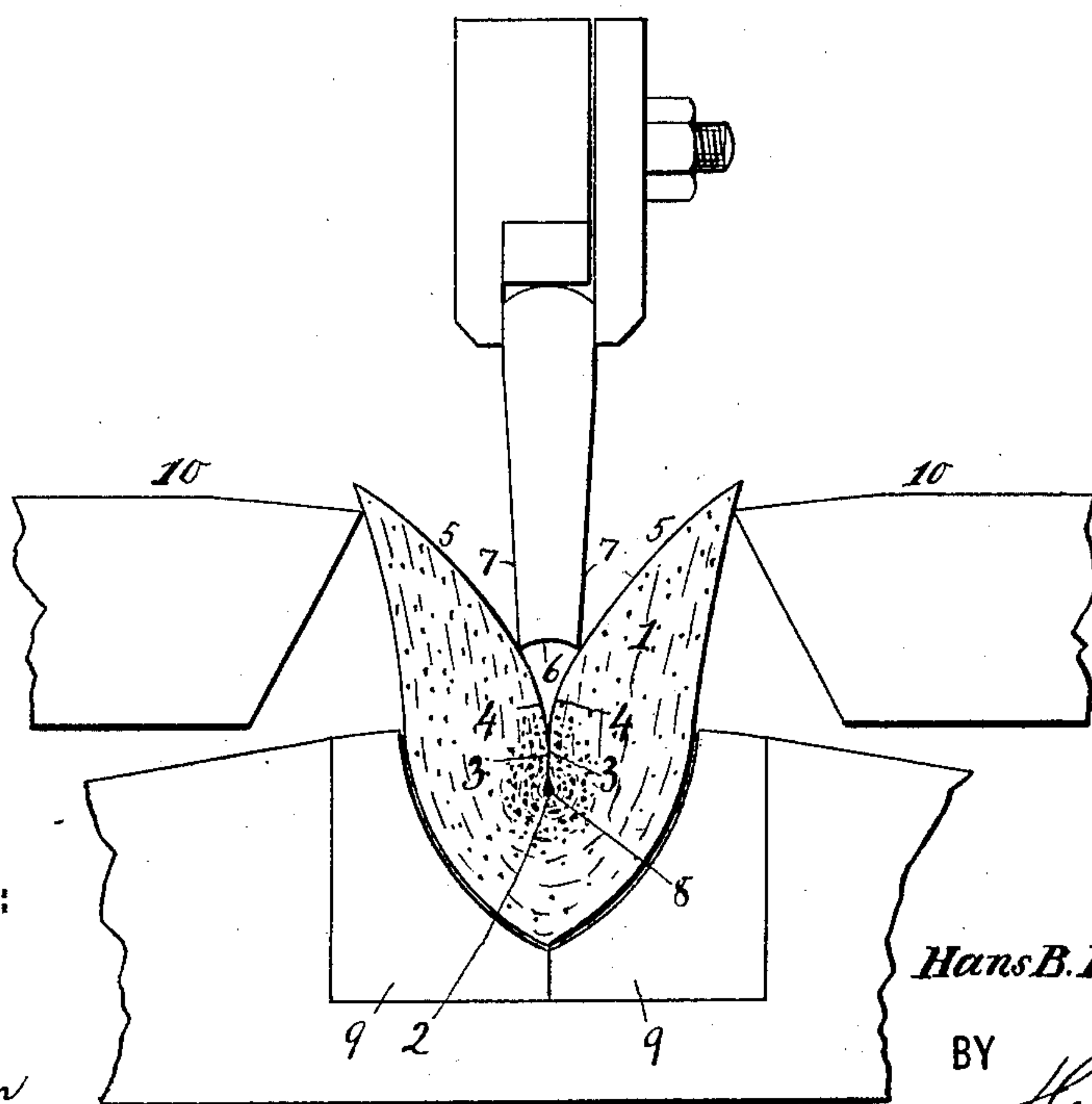


Fig. 3.



WITNESSES:

E. Wolff
William Miller

INVENTOR

Hans B. K. Rosenfeld.

BY

Lawson & Lawson
ATTORNEYS

UNITED STATES PATENT OFFICE.

HANS BERNHARDT KURT ROSENFELD, OF DOLGEVILLE, NEW YORK,
ASSIGNOR TO ALFRED DOLGE & SON, OF NEW YORK, N. Y.

PIANO-HAMMER.

SPECIFICATION forming part of Letters Patent No. 557,429, dated March 31, 1896.

Application filed January 11, 1896. Serial No. 575,142. (No model.)

To all whom it may concern:

Be it known that I, HANS BERNHARDT KURT ROSENFELD, a citizen of the German Empire, residing at Dolgeville, in the county of Herkimer and State of New York, have invented new and useful Improvements in Piano-Hammers, of which the following is a specification.

The object of this invention is to provide a new and improved piano-hammer which is simple and durable in construction and not liable to get out of shape during continued use, and which is capable of sounding the string as may be required; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figures 1 and 4 are side elevations of piano-hammers. Fig. 2 is a detail view of felt or material for a hammer-head. Fig. 3 shows the method of constructing the hammer.

The felt or material 1 for the hammer-head is rolled or folded on itself to produce a crease 2. The inner faces or portions 3 4 5 produced by this folding or doubling are pressed or brought into contact with one another along the portions 3 extending for some distance from the crease 2. The portions 4 and 5 of these faces 3 4 5 are respectively forced or seated against the molding front 6 and against the sides or exterior 7 of such molding. The head and molding are secured together by suitable means, such as adhesive. This rolling or folding gives to the felt a certain degree of hardness. The molding or shank 6 7 of the hammer is not pointed at the front, and by making said front 6 concave or hollowed the molding is prevented from cutting into the felt when the hammer strikes as in sounding a string. An inlay, such as a string or wire 8, is placed in the crease 2 and constitutes a core. This core part or center portion laid in the crease 2 by this operation of doubling or folding is made the hardest part of the head, the felt gradually softening as it extends outward from the center. The player by such hammer is thus enabled to obtain satisfactory sounds, as well in pianissimo as in forte, and there is no dan-

ger in case of a powerful stroke of producing a hard or dead sound, since the elastic or softer felt portion lying between the hard center or core and the string will by its elasticity cause the strips to sound full, round, and sweet.

This hammer will preserve its shape or form and is not liable to spread during use.

The moldings when made with sharp or edged fronts would be liable to break or cut through the felt, especially in such hammers as those used at times in the treble where the hammer-moldings are sometimes thin or slender, Fig. 4, and a thin head or felt applied. By concaving or enlarging the molding front 6 so as to be dull or unedged such cutting of the felt is avoided and the molding is moreover strengthened by such thickening or enlarging of the front 6. The under felt which is used in the manufacture of piano-hammers can be dispensed with by this method of construction. The felt having been placed in the die or mold 9 with the face portions 3 in position to contact with one another, the clamp or jaws 10 can force the felt or face portions 4 and 5 against the molding 6 7.

Of course the invention is not confined to the exact details shown, as modifications can be made of the invention—as, for example, making the molding front 6 flat instead of concaved. All such modifications are within the scope of my invention, the main feature of which is the rolling or folding of the felt on itself for a certain distance from the crease and inserting the hammer-molding into said fold.

What I claim as new, and desire to secure by Letters Patent, is—

1. A hammer-head composed of felt or the like rolled or folded on itself, combined with a molding placed part way into the felt substantially as described.

2. A hammer-head composed of felt or the like rolled or folded on itself, combined with a molding having a dull or unedged front placed part way into the fold substantially as described.

3. A hammer-head composed of felt or the like rolled or folded on itself in front of the

hammer-molding and being clasped or secured against the exterior of the molding substantially as described.

5 4. A hammer-head, consisting of felt or like material, rolled or folded on itself and having a crease, with the folded parts in contact for a short distance inward from said crease, and a core-piece inlaid into the crease, substantially as described.

10 5. A hammer having a molding concaved or hollowed at its front and a head of felt or the like seated against said hollowed front and against the exterior of the molding substantially as described.

6. A hammer-head, consisting of felt or 15 like material, folded on itself to form a crease and having the folded parts in contact for a short distance inward from said crease, and a comparatively hard core-piece laid in the crease, substantially as described. 20

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HANS BERNHARDT KURT ROSENFELD.

Witnesses:

WILLIAM HENRY COLLINS,
EDMUND DRENSIKE.