

E. GABLER.
PIANO-FORTE AGRAFFE.

No. 169,985.

Patented Nov. 16, 1875.

Fig: 1.

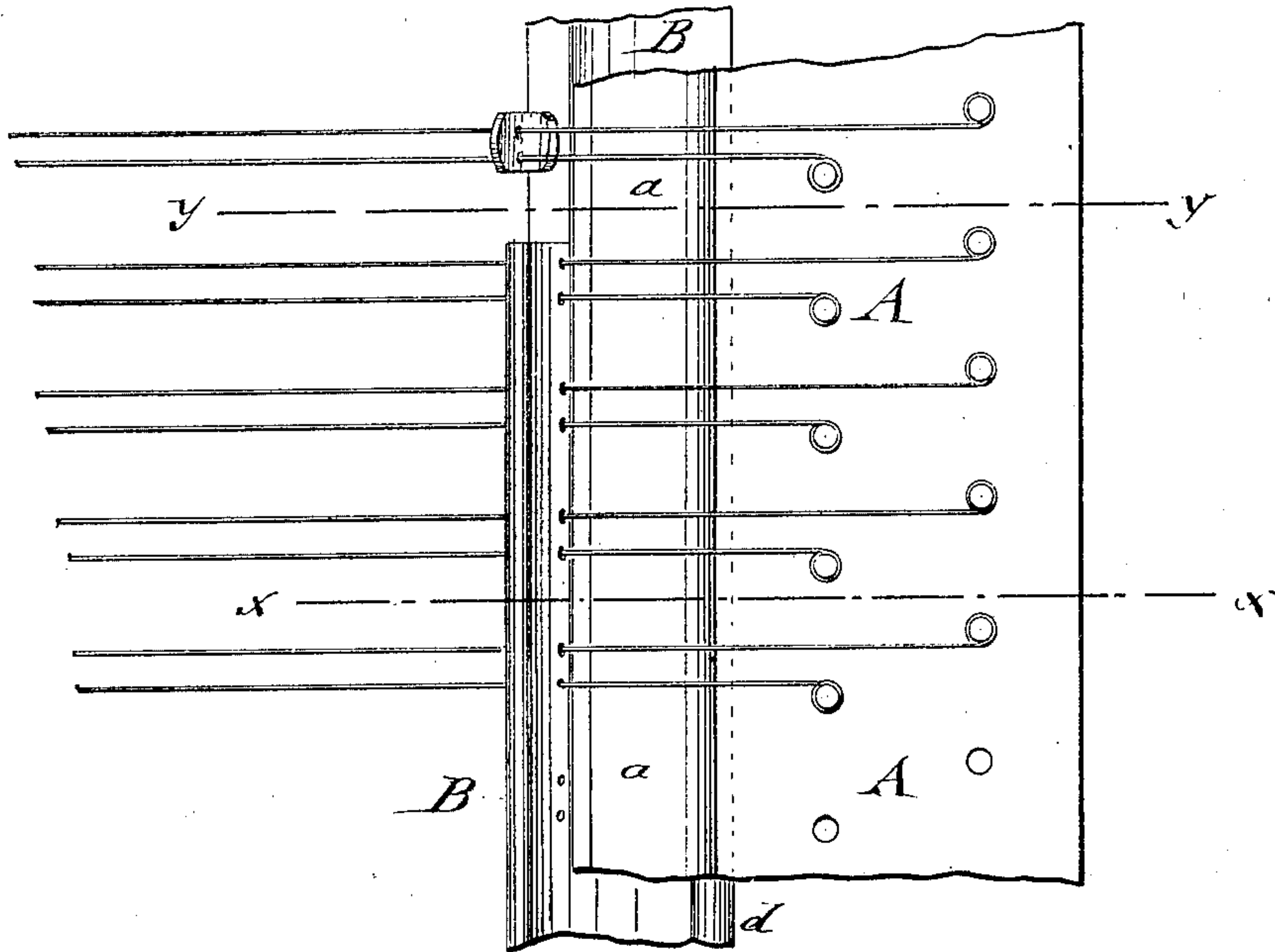


Fig: 2.

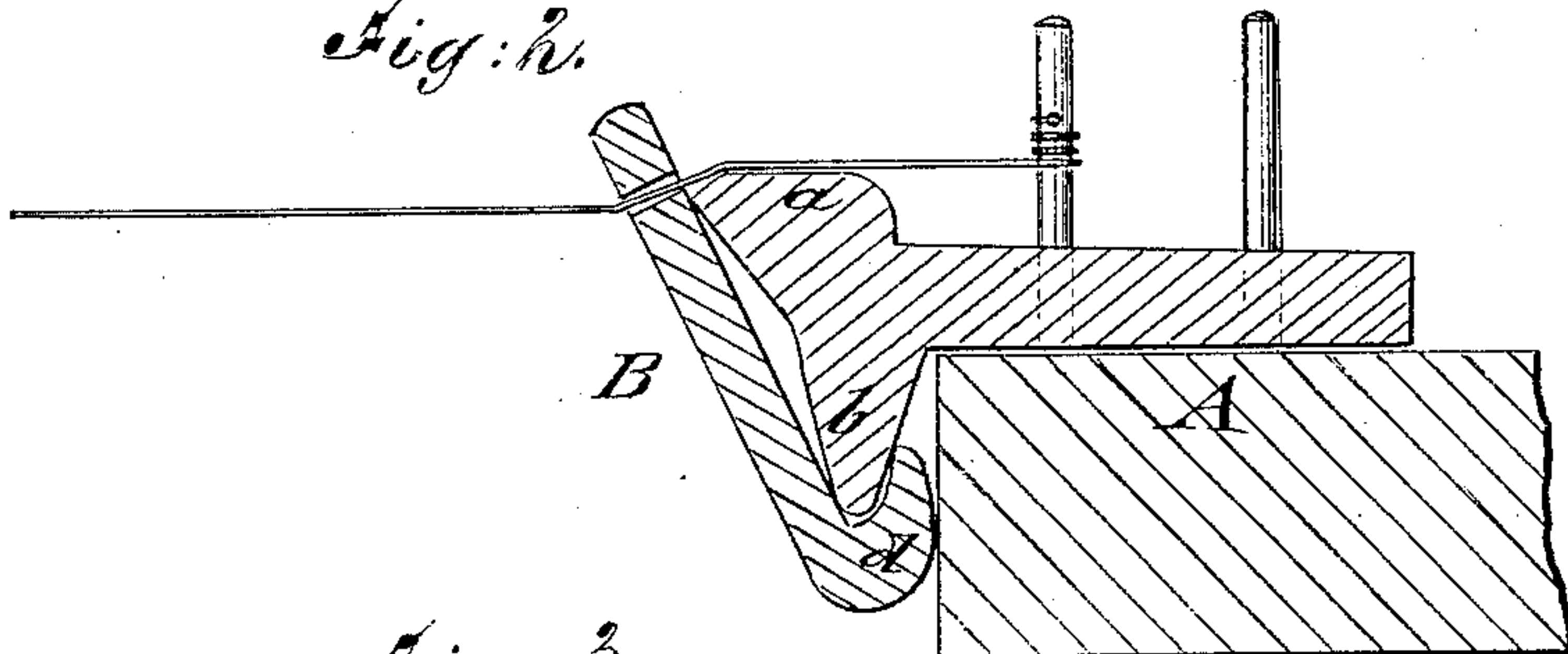
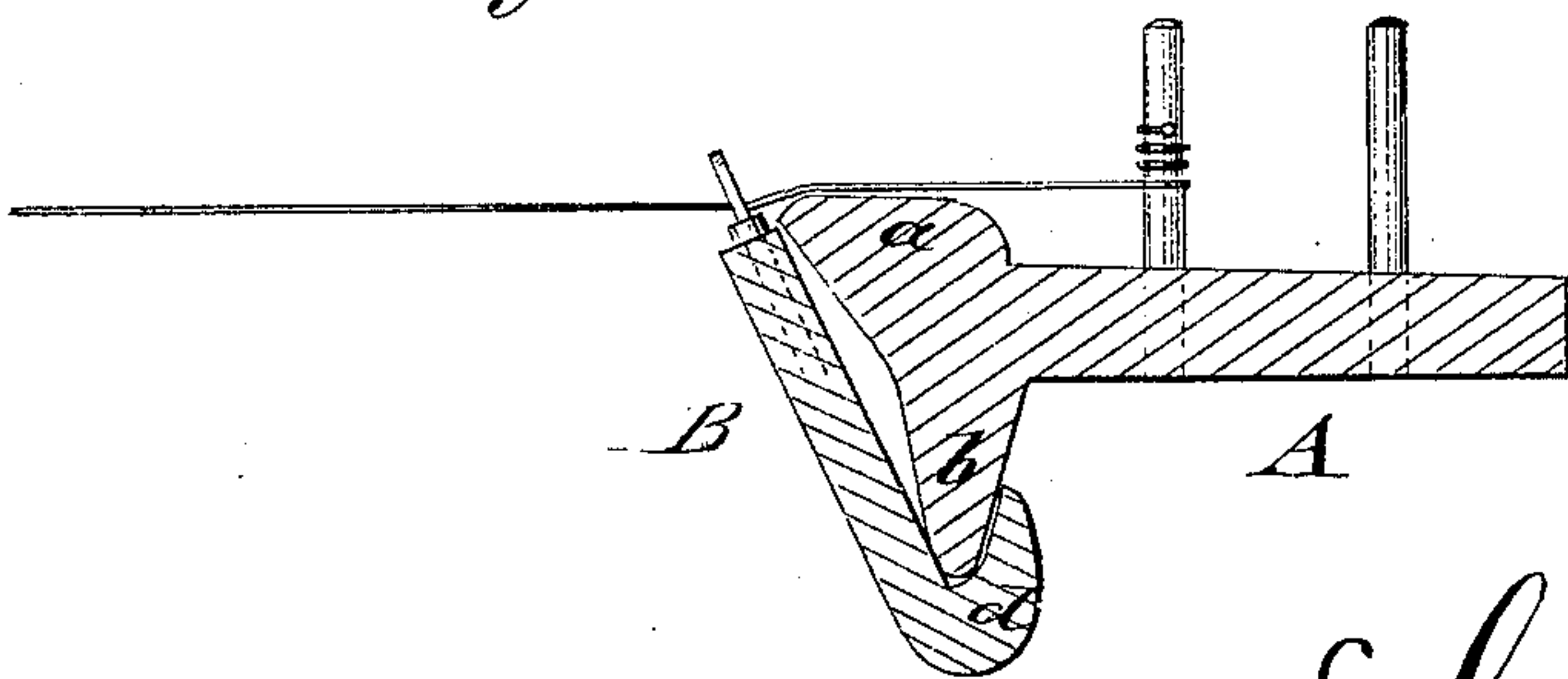


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN PIANO-FORTE AGRAFFES.

Specification forming part of Letters Patent No. **169,985**, dated November 16, 1875; application filed September 11, 1875.

To all whom it may concern:

Be it known that I, ERNST GABLER, of the city, county, and State of New York, have invented a new and Improved Piano-Agraffe, of which the following is a specification:

Figure 1 represents a top view; and Figs. 2 and 3, vertical transverse sections of my improved piano-agraffe, taken respectively on the lines *x x* and *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved isolating-agraffe for grand and square pianos, by which the vibration and sounding of the strings is considerably prolonged, a more clear, bell-like, ringing tone produced, and the annoying influence of the action of the hammers prevented from being transmitted to the string-plate and wrest-plank, while, at the same time, a rigid connection of agraffe and string-plate without screws is obtained.

The invention consists of a string-plate with raised bridge, concave front, and downward-extending bottom, shoulder, or rib, to which the agraffe is rigidly secured by a hook-shaped base part, and the joint pressure of the strings on the upper part.

In the drawing, A represents the string-plate, screwed to the wrest-plank; and B, the agraffe, made of bell-metal or other suitable material, which is used in connection with the string-plate. The string-plate A is constructed with a raised front part or bridge, *a*, over which the strings are stretched in the usual manner, being then passed through the corresponding holes of the agraffe in square pianos, or through perforated studs in grand pianos. A downward-extending rib or shoulder, *b*, is cast at the under side of the string-plate, the face or front part, connecting bridge and rib, being made concave. The agraffe B is made

with a base hook, that fits under the bottom part of the bottom rib of the string-plate, and binds firmly thereto. The upper straight part of the agraffe bears against the edge of the bridge, and is firmly retained thereon by the pressure of the strings.

The agraffe forms only two contact-points with the string-plate, and is retained rigidly, without screws or other fastening device, by the locking action of the strings.

The space formed between the agraffe and the concave front part of the string-plate acts as an isolating-chamber, and prevents the communication of vibrations from the agraffe to the string-plate and wrest-plank.

The vibrations of the strings are taken up by the agraffe, and not transferred to the shorter parts between the same and the tuning-pins, so that the annoying sounding of the same is prevented, and a superior isolating-agraffe and string-plate connection obtained.

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

1. The combination of the string-plate, having raised bridge, front concavity, and bottom shoulder or rib, with an agraffe provided with a hook-shaped base part, and held in position by the pressure of the strings on the top part, substantially as specified.

2. The string-plate provided with concave front part, in combination with the agraffe, extending in front of the same, to form an isolating air-chamber, substantially as specified.

3. An agraffe provided with a hook-shaped base part, substantially as specified.

ERNST GABLER.

Witnesses:

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JAMES H. HUNTER.