

(No Model.)

J. B. HOWE.

BANJO.

No. 248,747.

Patented Oct. 25, 1881.

Fig. 1.

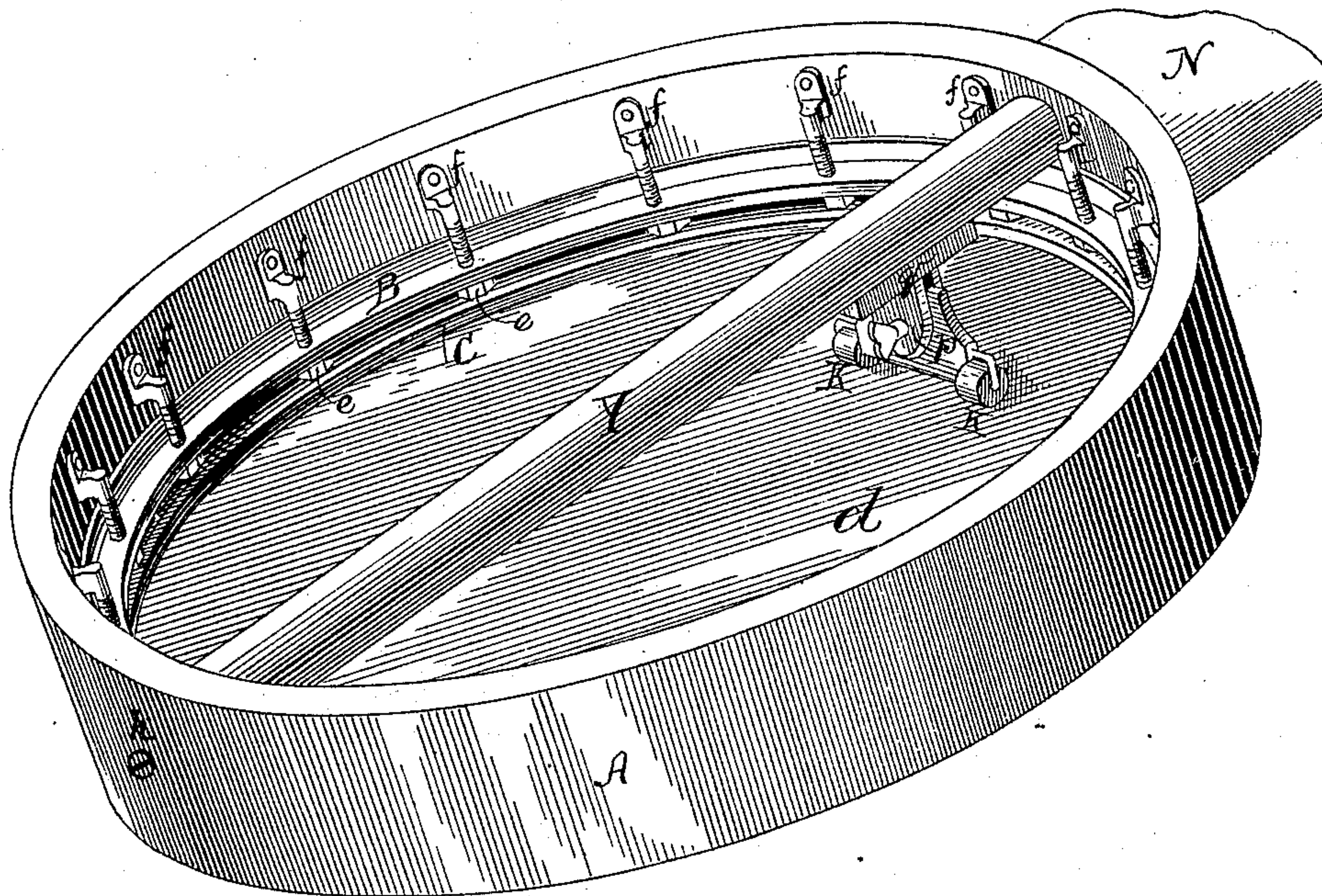


Fig. 2.

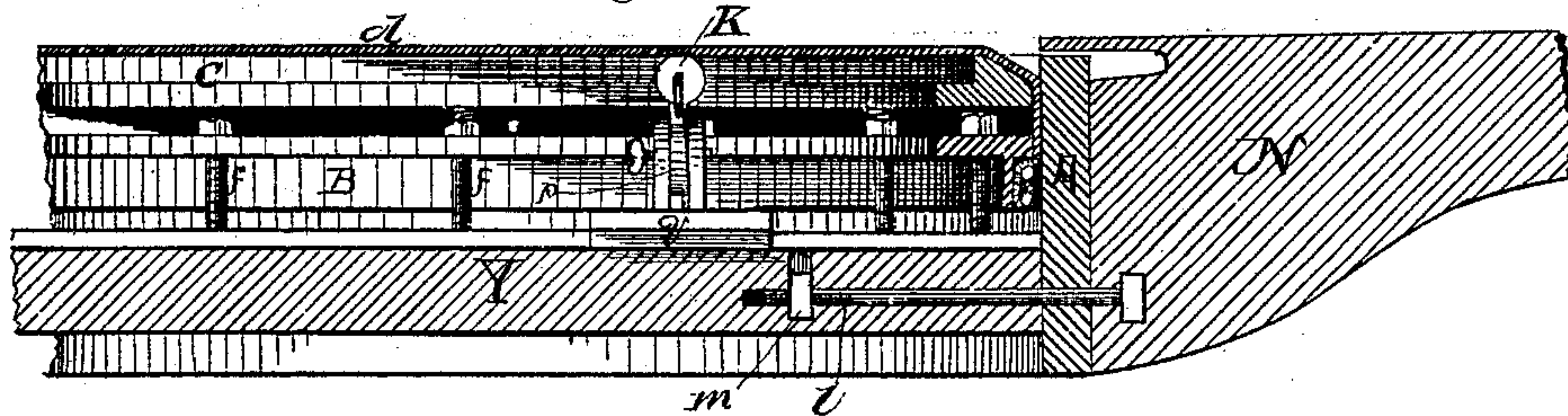


Fig. 3.

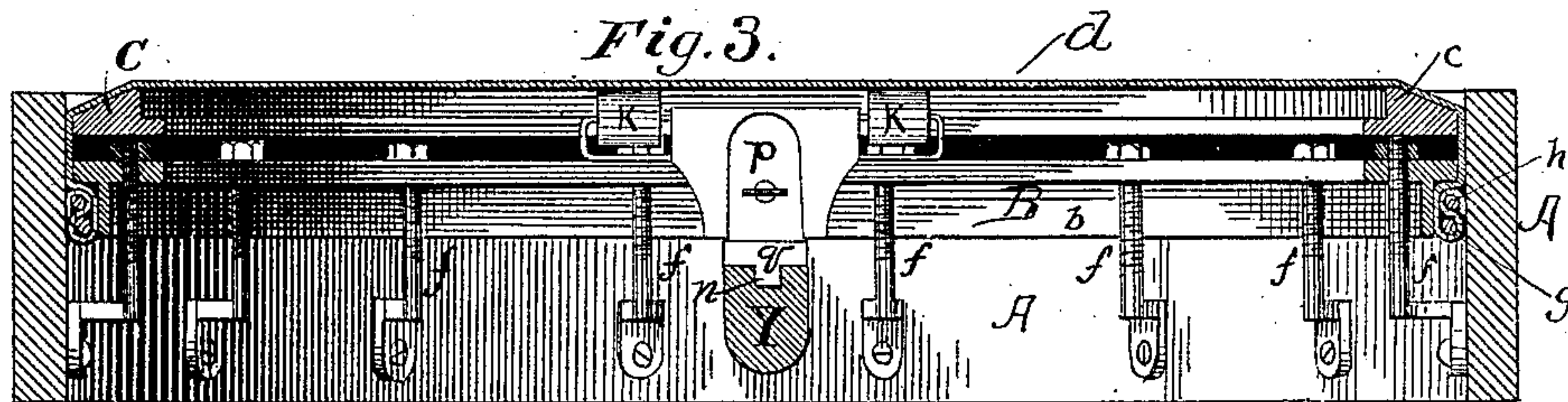
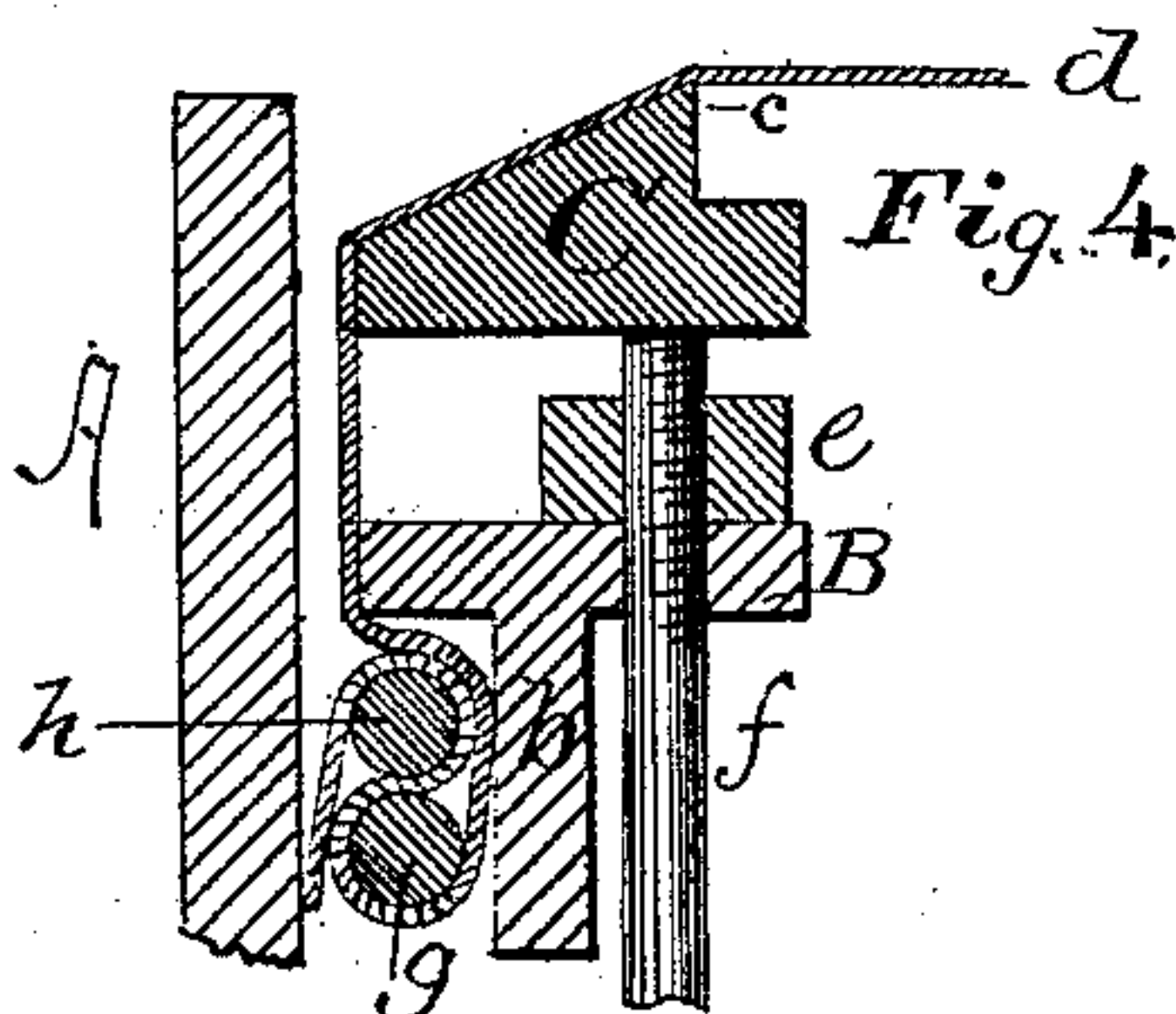


Fig. 4.



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BANJO.

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Application filed April 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HOWE, of Danbury, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Banjos, and I do hereby declare that the following is a full and accurate description of the same.

The heads of banjos have generally been strained by devices placed on the external surface of the hoop, and heretofore there has been no method of changing the timbre or quality of tone, except by varying the tension of the head. I have accomplished this object by means of a mute or damper placed in contact with the under side of the head and movable thereunder, so as to be placed in contact with said head at any desired point.

My invention therefore consists, first, in the devices for straining the banjo-head; and, second, in a mute or damper arranged to rest in contact with the under surface of the head and be movable thereunder.

That others may fully understand my invention, I will particularly describe the same with reference to the accompanying drawings, wherein—

Figure 1 is a perspective view of part of my banjo exhibiting my invention. Fig. 2 is a transverse central section of the same. Fig. 3 is a transverse section, showing the straining and clamping rings.

A is the hoop or frame of the banjo, to which are attached the neck N and the straining devices for the head. The straining devices consist of a series of brackets, *f*, ranged around the hoop A on its inner surface, and two straining-rings, C and B, the former being permanently supported on said brackets and the latter movable thereon by means of the nuts *e*. The rings C and B both pass down within the hoop A, but the former projects slightly above the upper edge of said hoop. The brackets *f* have each a flattened foot, whereby it may be fastened to the hoop by screws or otherwise, and from said foot the cylindrical rod, which is the stem of the bracket, is offset a little way and then rises toward the upper edge of the hoop. The upper portion of said rod or bracket is provided with a screw-thread and a nut, *e*. The hoop C is a flat annulus somewhat smaller in exterior diameter than the interior diameter of

the hoop A, so that it will pass down within said hoop and rest upon the upper ends of the brackets *f*, which are therefore placed all on the same plane. The ring C has a circular rib, *c*, upon its upper side, which forms the abutment, over which the head *d* is strained. A second flat annulus or ring, B, is pierced with holes corresponding in diameter and number with the brackets *f*, so that said ring may be placed within the hoop A and the brackets *f* will pass through said holes. The ring B also has a cylindric or circular rib, *b*, which is turned downward and passes between the hoop and the brackets.

When the head *d* is to be stretched over the rings B C said rings are removed from the hoop A and held in proper position with the nuts *e* in place between them. The head-skin *d*, having been properly softened, is drawn as tightly as convenient over the two rings and down against the vertical rib or flange *b*, where it is secured by a wire ring, *g*. The edge of the skin is then bent backward over said wire ring, and another similar wire ring, *h*, is placed around it, above the ring *g*, and the edge of the skin may then be properly trimmed. The rings B C are then put in place within the hoop A, the ends of the brackets entering their several holes in ring B and each engaging with its nut *e*. The shrinkage of the head-skin *d* as it dries will cause the wire rings *g h* to be drawn together and both forced up against the under surface of the ring B and thereby firmly clamp the edge of the head-skin. This is the way I prefer, but it is apparent that the edges of the skin may be secured to the ring B in other ways, as by a binding-cord, &c. Subsequently the desired tension may be given to the head *d* by turning the nuts *e* and thereby forcing the ring B downward away from the ring C.

Within the hoop C, and transversely in line with the strings, is the brace-bar Y to strengthen the hoop A against the strain of the strings. In my banjo the brace-bar Y is secured at one end by a screw or pin, *k*, and at the other end by a screw-pin, *l*, which is secured to the lower part of the neck N. This screw *l* has a corresponding nut, *m*, which is set into the bar Y, so that by rotating said bar around its own axis the neck N is drawn up tight and held in

place. The bar Y is provided along its upper edge with a groove, *n*, in which the base *q* of the mute slides. Said mute consists of a pair of small rollers, K, preferably covered with kid-skin or other soft material, mounted upon a standard, *p*, set on the sliding base *q*. The standard *p* is made in two parts, united by a set-screw, so that it may be adjusted as to length and thereby cause the rollers K to bear upward against the under surface of the head *d* with greater or less pressure, as may be desired.

The mute may be placed beneath the budge or in front or rear of it, as may be desired, or it may be lowered, so as not to engage with it at all.

Having described my invention, what I claim as new is—

1. A straining device for a banjo-head, consisting of a ring, C, having its upper surface beveled outwardly and downwardly, so as to give support to the head *d* along a thin edge, and a ring, B, provided with a vertical web, *b*, against which the edge of the head-skin *d* may be bound, combined with the brackets *f*, which at their bases are secured to the banjo-hoop A, pass through the ring B, and support upon their upper ends the ring C and the nuts *e* upon said brackets, between said hoops B and C, as set forth.

2. The straining-hoop B, provided with the vertical web *b*, set inward from the outer edge of said ring, combined with the head-skin *d* and the binding-rings *g h*, whereby the skin is clamped when strain is brought upon it, as set forth.

3. The hoop A of a banjo, provided on its interior with brackets *f*, securely attached to said hoop, and flat annulus-rings B C, the former whereof has apertures for the passage of said brackets and interposed nuts *e*, whereby said rings may be forced asunder to strain the head *d*, the edges whereof are attracted to the ring B, substantially as set forth.

4. In a banjo, a mute or damper placed beneath the head *d* and in contact therewith to modify or regulate the tone of the instrument, substantially as set forth.

5. In a banjo, a mute consisting of one or more rollers, K, in contact with the under surface of the head *d*, adjustable as to pressure upon said head, whereby the tone of the instrument may be modified and controlled.

6. In a banjo, a brace-bar, Y, having a groove, *m*, combined with a slide, *q*, traveling in said groove, and an adjustable mute, mounted on said slide, whereby said mute may be placed under, in front of, or behind the bridge at will.

7. In a banjo, a brace-bar, Y, pivoted to the hoop A at one end by a pin, *k*, and at the other end provided with a nut, *m*, combined with a screw, *l*, rigidly set in the neck, whereby the neck is drawn up and secured by rotating said brace-bar on its own axis.

8. The combination, with a banjo, of a mute attachment composed of a damper and mechanism for pressing said damper against the inner surface of the head of the banjo.

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Witnesses:

W. B. BARTRAM,
JAMES FOY.