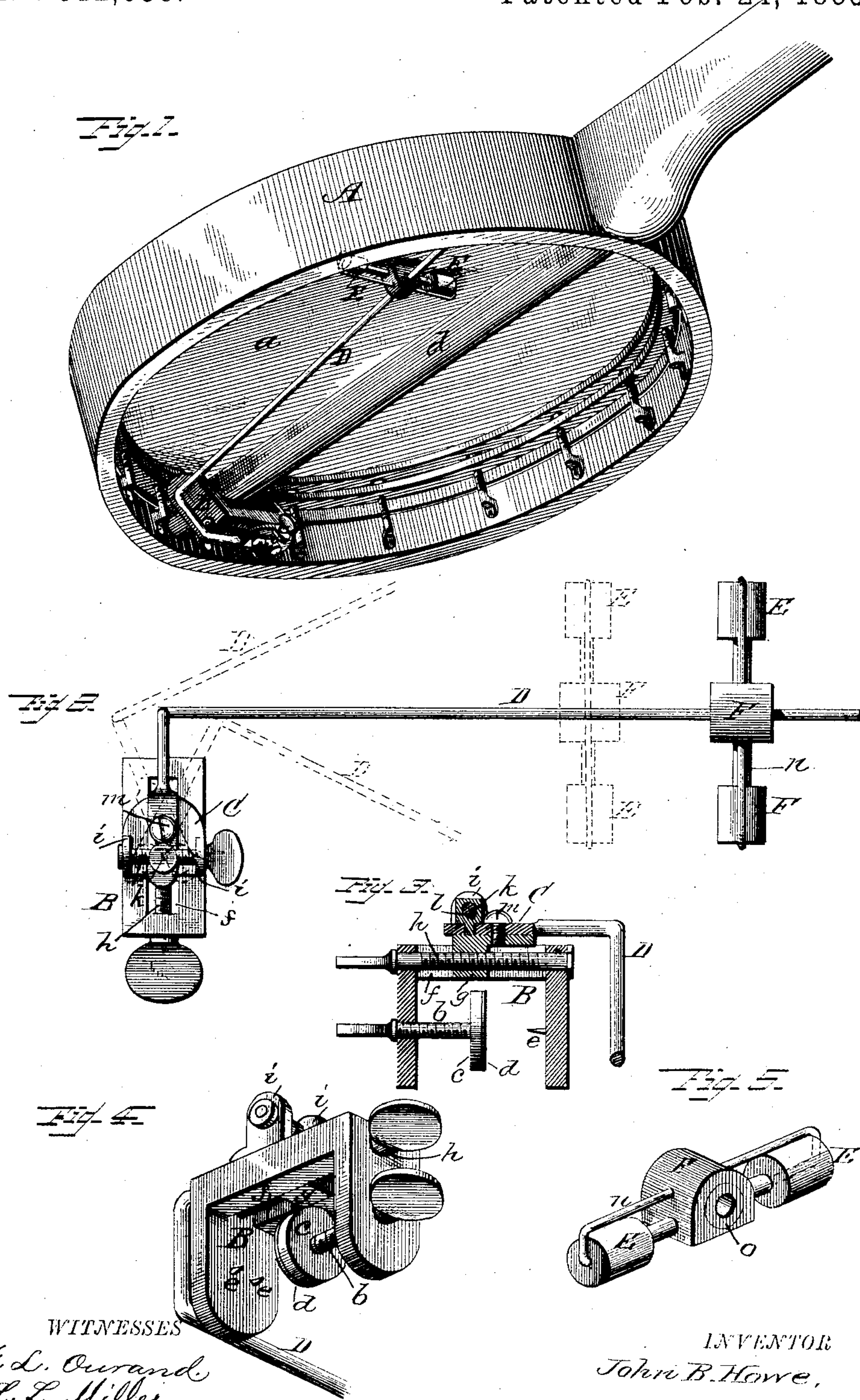


(No Model.)

J. B. HOWE.  
MODULATOR FOR BANJOS.

No. 312,638.

Patented Feb. 24, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN B. HOWE, OF DANBURY, CONNECTICUT.

## MODULATOR FOR BANJOS.

SPECIFICATION forming part of Letters Patent No. 312,638, dated February 24, 1885.

Application filed August 12, 1884. (No m del.)

*To all whom it may concern:*

Be it known that I, JOHN B. HOWE, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Modulators for Banjos; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings represents an under side perspective view of the head of a banjo, showing my invention applied thereto; Fig. 2, a plan view of the complete device on an enlarged scale; Fig. 3, a sectional elevation of the clamp and attachments; Fig. 4, a perspective view thereof, and Fig. 5 a similar view of the device for pressing against the sheep skin of the banjo-head.

The present invention has for its object to provide a device, which I term a "modulator," adapted for attachment to the brace-bar of any banjo, whereby the tone thereof may be modulated or controlled at the will of the player; and it consists in the details of construction, substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the head proper of the banjo, and *a* the usual sheep-skin head or covering connected thereto in any suitable manner.

My invention consists in part of a clamp, B, of any suitable form and construction, provided with the usual clamping-screw, *b*, having upon its inner end a head, *c*, faced with leather or other suitable material to prevent marring the brace *d* in attaching the clamp thereto, spurs *e* being provided to prevent said clamp from turning. The clamp B has a longitudinal slot, *f*, in which fits a block, *g*, cast or otherwise formed upon a plate, C, said block having a screw-threaded hole, through which passes a screw-rod, *h*. This screw-rod is provided with a suitable thumb-piece for operating it, and has its extremities or smooth portions supported in the sides of the clamp, so that by turning the rod the block and plate will move longitudinally thereon. The plate C upon its outer side has ears or lugs *i*, to form bearings for a similar screw-rod, *k*, and en-

gages with a screw-threaded hole in a block, *l*, projecting from the flattened end of a rod, D, which is pivoted at *m* to the upper side of the plate C.

The modulator proper consists of the two rollers E, preferably of wood, covered with leather or other suitable material, and mounted on a suitable wire frame, *n*, so that they will easily turn thereon, said frame being connected to a suitable slide, F, through which passes the rod D. The slide upon its interior has a bushing, *o*, of wood or other suitable material, that will prevent any clattering sound when the instrument is being played on, the wire forming the upper portion of the frame serving to hold the bushing in place.

It is evident that the rollers may be supported and connected to the rod in any desirable manner that will allow of their longitudinal movement along the rod, these changes, which come within ordinary mechanical skill, being left to the judgment of the manufacturer.

The device may be attached to the cross bar or brace of any banjo by means of the clamp hereinbefore described, the modulator having three different and independent adjustments—viz., upon the rod D, by means of the slide F, laterally, or a sidewise adjustment by means of the screw-rod *h* and block *g*, and an adjustment on an arc of a circle by means of the screw-rod *k*. By turning this rod in the proper direction the rod D will move on its pivotal connection either to the right or left, as the case may be, as shown in dotted lines, Fig. 2. The longitudinal adjustment of the modulator along the rod D will bring it at any point desired on a diametrical line, while the other adjustments will move it laterally and on the arc of a circle, and cause the rollers to move evenly against the inner surface of the sheep-skin head *a* with the same pressure at any distance upon the rod, thereby controlling the tone of the instrument with great nicety.

The clamping-screw and screw-rods may be made so that they can be readily removed from the clamp by providing them with screw-nuts at their ends, or other means, as found most convenient, may be provided.

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



1. The combination, with a banjo, of a modulator adjustable both longitudinally, laterally, and on the arc of a circle, substantially as and for the purpose set forth.
- 5 2. The combination, with a rod provided with means for attaching it to the cross bar or brace of a banjo, of a modulator mounted upon said rod and adapted to slide thereon, substantially as and for the purpose specified.
- 10 3. A rod adjustably connected to a clamp for attachment to the cross bar or brace of a banjo, in combination with a modulator mounted and adapted to slide on the rod, substantially as and for the purpose described.
- 15 4. The combination, with a clamp adapted for attachment to the cross bar or brace of a banjo, of a rod having mounted thereon a sliding modulator, said rod being connected to the clamp, substantially as described, whereby  
20 it may be adjusted both laterally and on the arc of a circle, for the purpose set forth.
5. The combination, with a rod and means for attaching it to the cross bar or brace of a banjo, of a modulator consisting of a slide having a bushing of wood and mounted on the  
25 rod, and provided with two rollers, substantially as and for the purpose specified.
6. A clamp having a longitudinal slot therein, and a plate provided with a block entering said slot, and caused to move therein by  
30 an adjusting screw-rod, in combination with a rod carrying a sliding or adjustable modulator pivoted to the plate and adjustable on the arc of a circle by an adjusting screw-rod,  
35 substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN B. HOWE.

Witnesses:

WILLIAM A. LEONARD,  
WM. P. BENEDICT.