

(No Model.)

B. E. BOYDEN.

BANJO.

No. 338,335.

Patented Mar. 23, 1886.

Fig. 1.

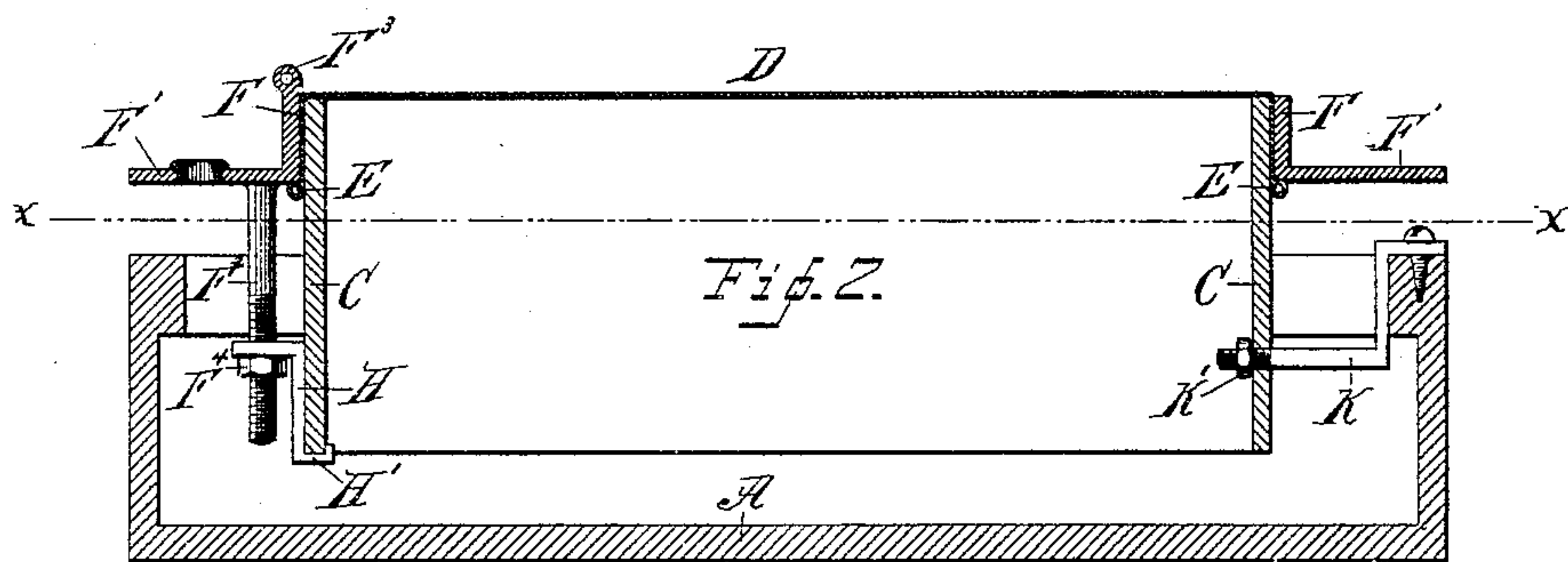
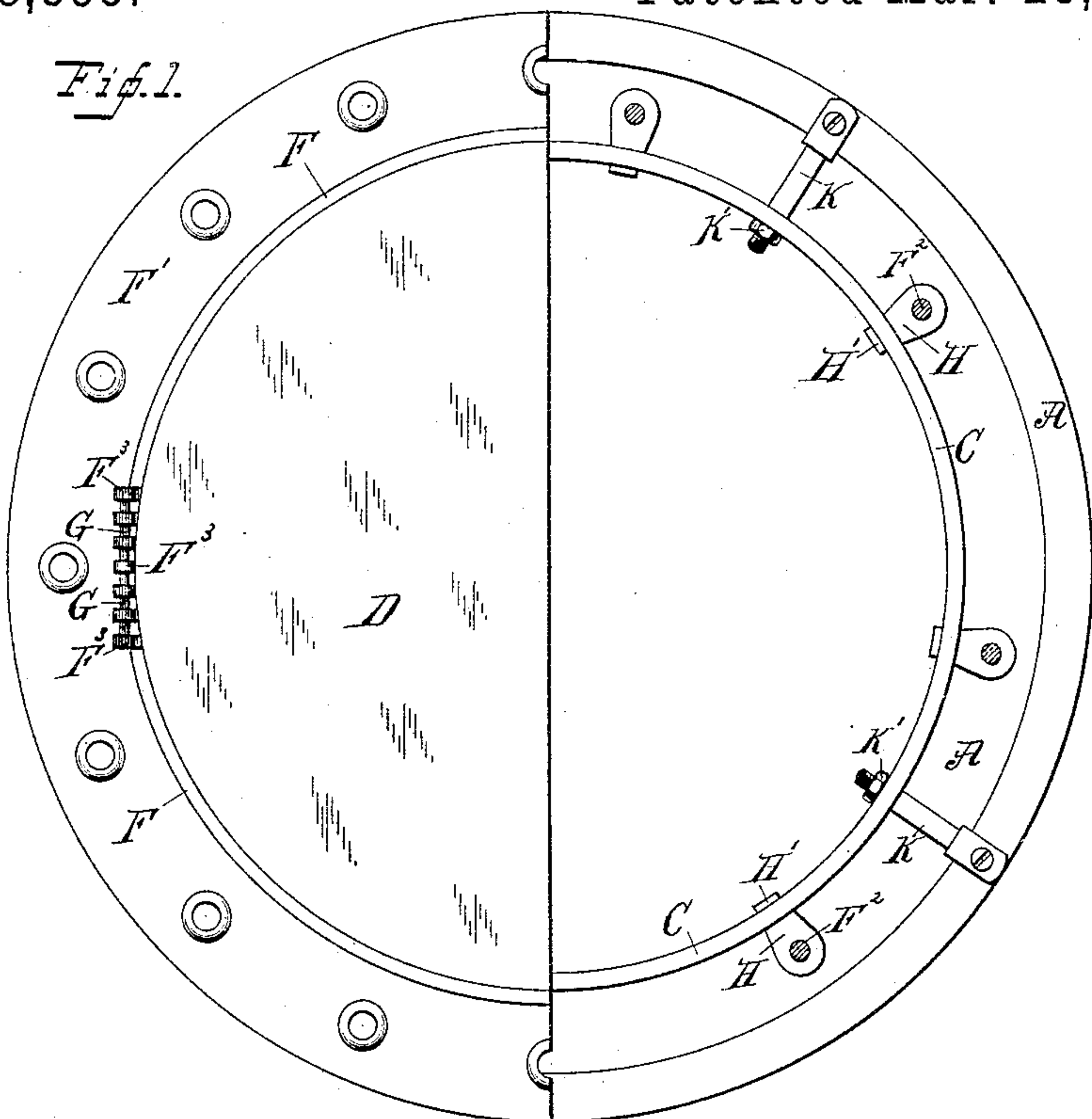
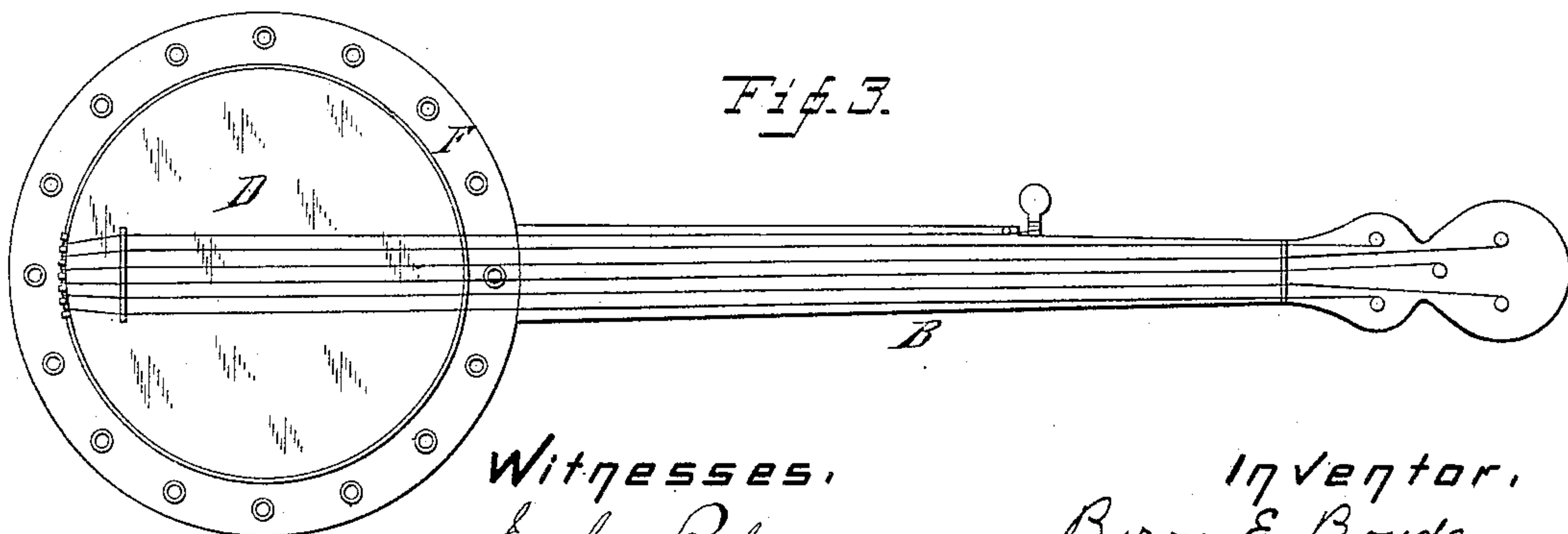


Fig. 3.



Witnesses,

C. C. Perkins.

W. H. Porter

Inventor,

Byron E. Boyden

By A. M. Wooster  
attys.



# UNITED STATES PATENT OFFICE.

BYRON E. BOYDEN, OF BRIDGEPORT, CONNECTICUT.

## BANJO.

SPECIFICATION forming part of Letters Patent No. 338,335, dated March 23, 1886.

Application filed May 26, 1885. Serial No. 166,697. (No model.)

*To all whom it may concern:*

Be it known that I, BYRON E. BOYDEN, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Banjos; 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 ap-  
10 pertains to make and use the same.

My invention has for its object to provide a simple and inexpensive means for tightening the heads of banjos, drums, &c., the essential requirements in devices of this class being  
15 that they shall be easy to manage and not likely to get out of repair. In order to meet the requirements of the trade in this respect, I have devised the simple and novel construction which I will now describe, referring by  
20 letters to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view, partly in plan and partly in section in the line *xx* in Fig. 2, of the head of a banjo, the shank being removed; Fig. 2,  
25 a central vertical section of the head, and Fig. 3 a plan view of a banjo complete.

I have illustrated my invention as applied to a banjo only, as that instrument fully illustrates the principle involved.

30 A is the back, which is usually made of wood; B, the staff, and C the drum. The drum may be made of any suitable material.

D is the drum-head, made of parchment or sheepskin, as usual; and E, a wire by which it  
35 is drawn down.

F is a flanged band or angle-plate having an internal diameter which just permits it to slide freely over the outside of the drum to tighten the drum-head. Its construction is as  
40 follows: F' is the flange which projects outward at a right angle to the band. F<sup>2</sup> represents screw-threaded pins which project downward from the flange. Any suitable number of these pins may be used, and they may be  
45 cast integral with the flange or secured thereto; or, if preferred, separate screw-pins may be used by passing them through holes in the flange.

50 F<sup>3</sup> represents a series of lugs having holes through them, which are cast upon the band and project above its upper surface. These lugs are located at a point diametrically op-

posite to the point at which the staff is attached. The strings are attached to a pin, G, driven through the holes in the lugs. 55

H represents a series of angle-irons, having hooks H' at their lower ends, which catch under the bottom of the drum. Screw-pins F<sup>2</sup> pass through holes in these angle-irons, and are tightened up by nuts F<sup>4</sup> on the under side of  
60 the angle-irons. The drum is supported and held in proper position by means of brackets K, attached to the back in any suitable manner, preferably screwed to the top, as shown in Fig. 2. 65

The brackets may be screwed to the drum; but I preferably provide their inner ends with screw-threads and pass them through holes in the drum, as shown, and tighten them up by means of nuts K' within the drum. 70

In putting the banjo together the drum-head is laid in place upon the drum. Then the flanged band is placed over it, as shown in Fig. 2. The flanged band fits the drum so closely that it rests upon the roll formed in  
75 the drum-head by the wire. The drum-head is then tightened up by means of the nuts F<sup>4</sup> upon the screw-pins, which pass through the angle-irons. Brackets K are then secured to the drum and afterward to the back, as shown. 80 It will be seen that this construction lessens the number of pieces and greatly simplifies the construction of banjos.

The attachment of the strings directly to the metallic band which tightens the drum-  
85 head is a very important feature, as it lends great stability to the banjo; and I have found in practice that it greatly improves the volume and quality of the tone. As the construction is open, the danger of muffled tones is wholly  
90 avoided.

I do not desire to limit myself to the exact construction herein shown and described, as it is obvious that the details may be varied within reasonable limits without departing  
95 from the spirit of my invention. When used upon a drum, two flanged bands are used, instead of one, as in a banjo; or, if preferred, a single flanged band may be used, with angle-irons H, the hooks H' of which catch over the ordinary hoops of the drum.

I claim—

1. In a banjo, the drum, the drum-head having a wire at its edge to form a roll, and

a flanged band or angle-plate, the vertical portion of which fits the drum and rests upon the roll, and the horizontal portion has downwardly-projecting screw-threaded pins made integral therewith, in combination with angle-irons which engage the bottom of the drum, and are provided with holes through which the screw-pins pass, and nuts engaging said screw-pins, whereby the drum-head is tightened.

2. The drum, drum-head, and band F, having lugs F<sup>3</sup>, in combination with a pin passing through said lugs for the attachment of the strings.

3. As a new manufacture, a flanged band for tightening the drum-heads of banjos, hav-

ing lugs cast thereon to receive a pin for the attachment of the strings.

4. The drum and drum-head, in combination with a flanged band surrounding the drum, and provided with lugs to receive a pin for the attachment of the strings, and means—for example, angle-irons and screw-pins engaging them—whereby the drum-head is tightened.

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

BYRON E. BOYDEN.

Witnesses:

A. M. WOOSTER,  
E. C. PERKINS.