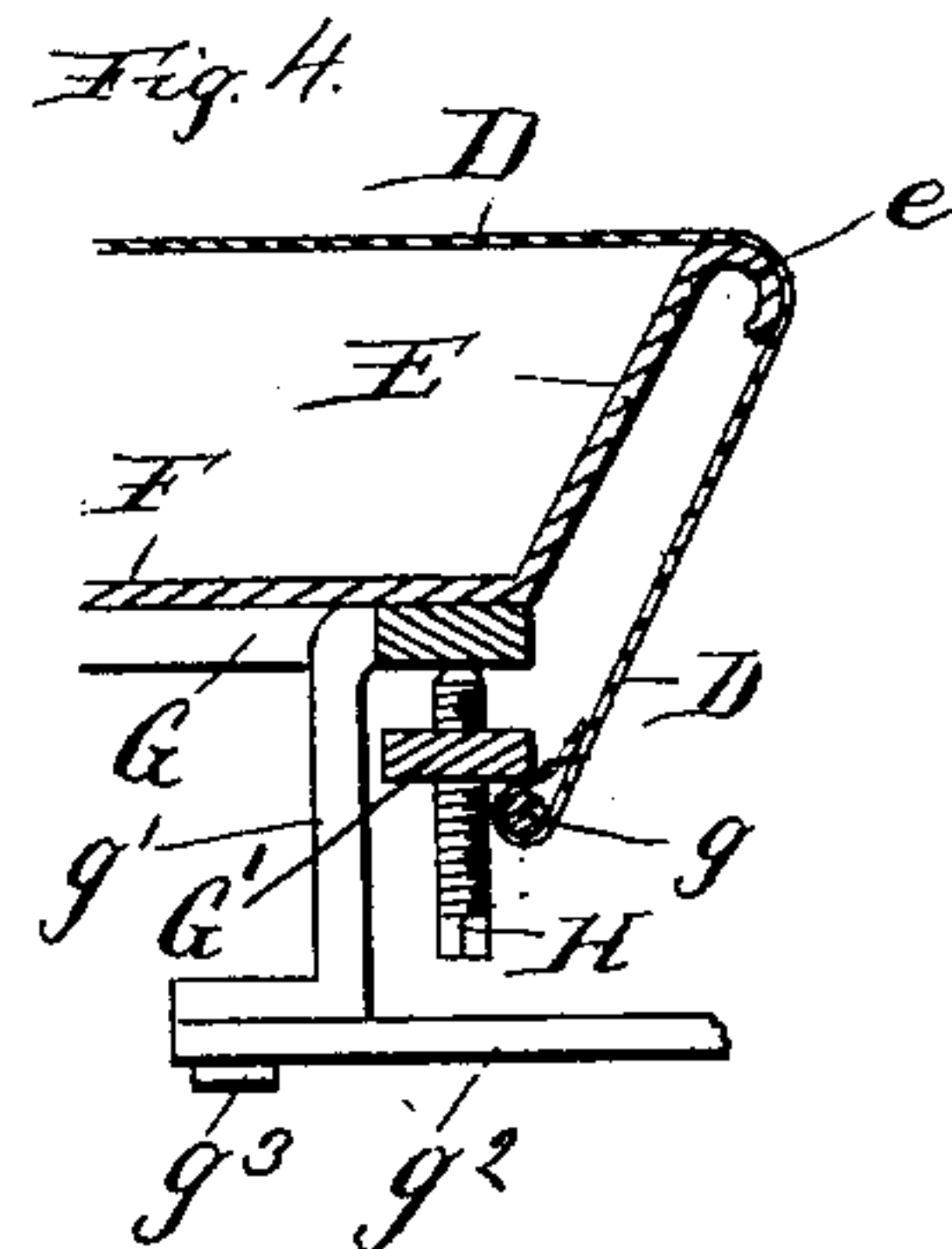
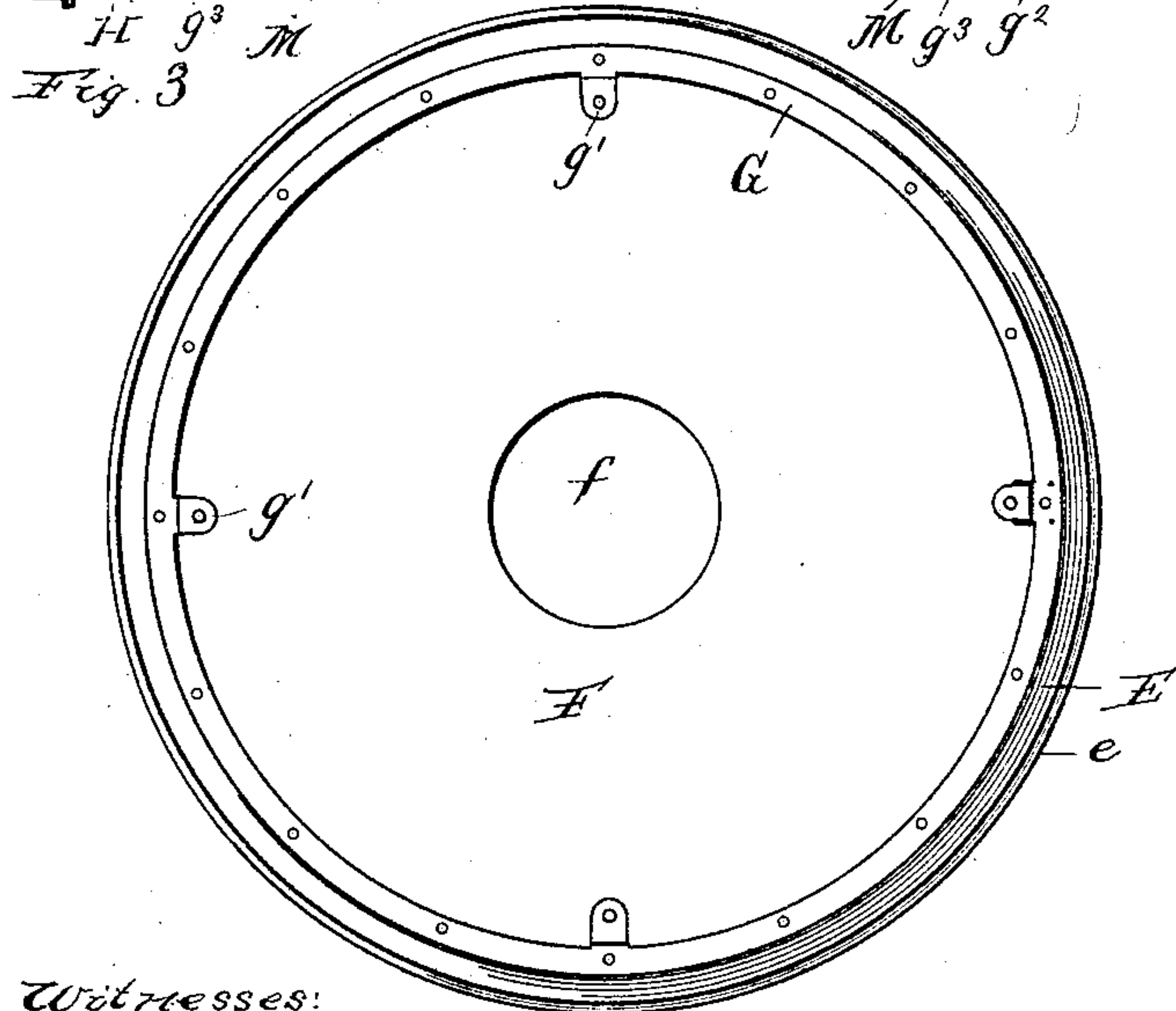
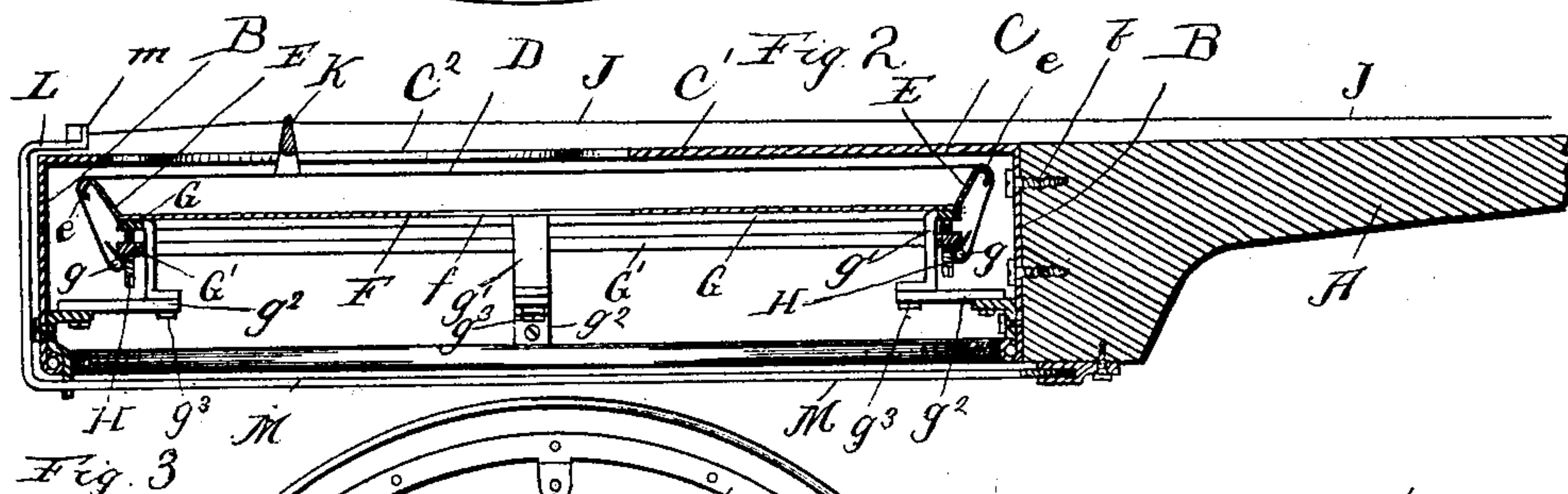
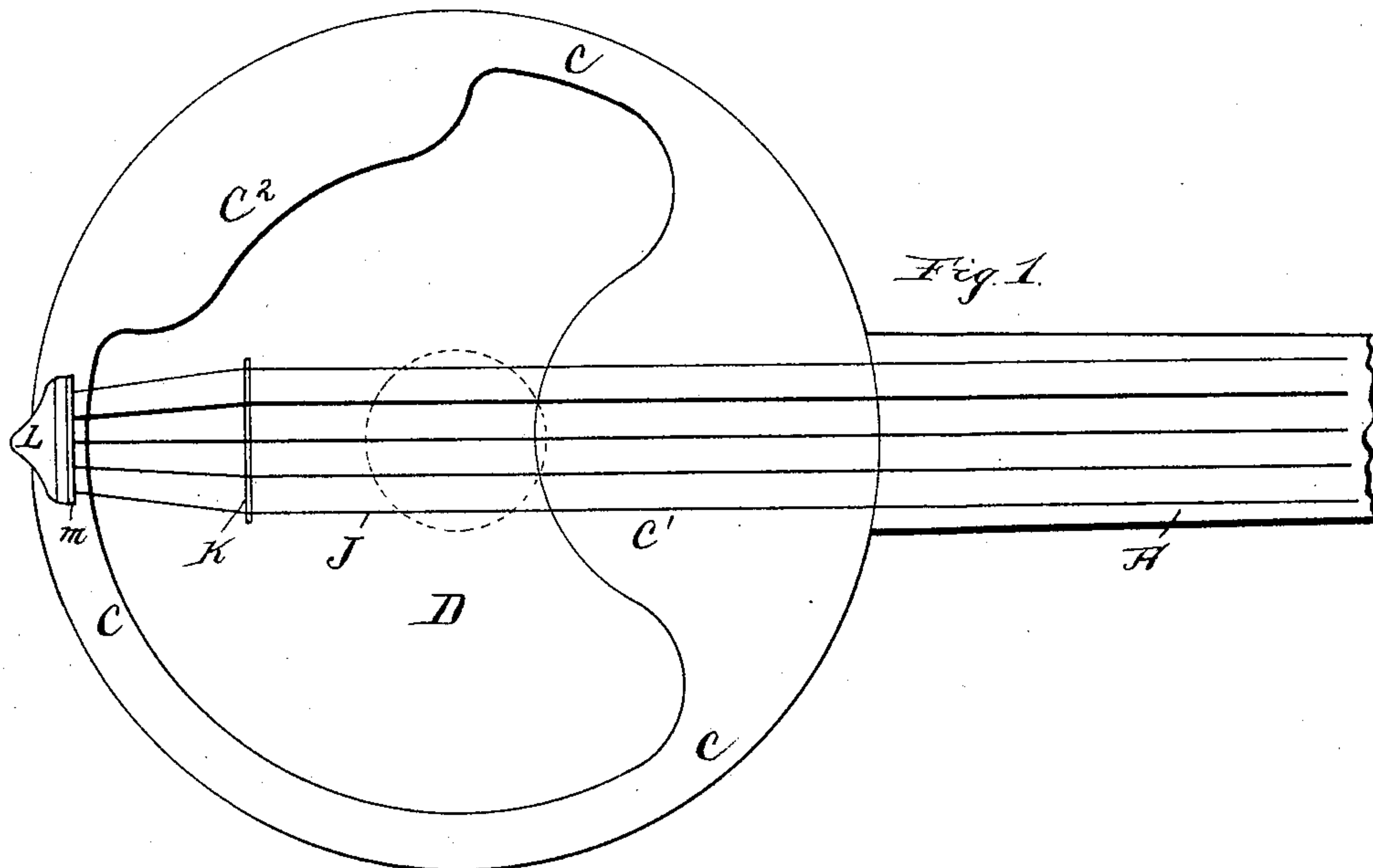


(No Model.)

J. F. BOWER.
BANJO.

No. 415,320.

Patented Nov. 19, 1889.



Witnesses:

Geo. C. Curtis.
J. W. Munday.

Inventor.

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UNITED STATES PATENT OFFICE.

JOHN F. BOWER, OF CHICAGO, ILLINOIS.

BANJO.

SPECIFICATION forming part of Letters Patent No. 415,320, dated November 19, 1889.

Application filed January 30, 1888. Renewed October 7, 1889. Serial No. 326,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BOWER, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Banjos, of which the following is a specification.

The object of the present invention, which relates to certain new features of construction and the employment of certain devices, will be apparent from the following description.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a top or plan view of a banjo containing my improvements. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a view of the straining-rim and sounding-board detached and looked at from beneath. Fig. 4 is a partial section similar to Fig. 2, but upon a somewhat larger scale.

In said drawings, A represents the usual wooden neck or handle of the banjo.

B is the shell, secured to the neck by the screws *b*, setting through from the inside into the neck A. I prefer to make this shell entirely of sheet metal, as shown in the drawings, strengthened, preferably, by a wire folded into it. A top portion or plate C, which may preferably be made continuous with the shell B, and which is level with the upper surface of the neck, extends inward from the upper edge of the shell B for a short distance all around the banjo, serving to strengthen and stiffen the rim against collapse at all sides, and also to conceal the edge of the tympan from view. This top plate at that part of the shell adjacent to the neck is extended farther in to extend the finger-board and thus afford facility for stopping the strings to produce higher notes than can be done upon the neck itself, increasing the range of the instrument down nearly or quite to the center of the tympan or parchment head. I have lettered this extension of the top plate C'. At that portion of the top plate where the arm of the player rests, and which is marked C², is an inward extension of the plate to better accommodate the resting of the arm. The cut-away portion permits the vibrations of the tympan to freely reach the air. By this device of the top plate not only

is the rim strengthened, but the range of the instrument is increased and the dampening effect of the contact of the player's arm with the tympan effectually prevented.

The parchment head or tympan is represented at D, and is strained over a flaring rim E, having a curved edge *e*. The sounding-board F extends from the bottom of this rim E and fills the entire space beneath it, being perforated by one or more sound-holes *f*. This sounding-board has the double function of increasing the sound and strengthening the straining-rim E. To give additional strength to the rim E, I apply a circular bar G all around its edge beneath, which affords a bearing-place for the tightening-screws, to be now mentioned. These tightening-screws, which I letter as H, are tapped through a second lower ring G', of the same size as the ring G. The parchment, being drawn over the rim E, is brought down to the ring G' and secured beneath it by folding around a wire *g*, as indicated more clearly in Fig. 4. The tympan or parchment head is tightened or relaxed by manipulating these screws H, a number of which are placed at regular intervals around the ring. The tympan, with its straining and supporting contrivances, is placed within the shell with its upper surface a little below the top plate C, so that the bridge K may rest upon the parchment; but the tympan nowhere comes in contact with the rim or shell proper of the banjo, whereby the sound and quality of the tone is very greatly improved. In order to support the tympan at the proper position, I provide legs *g'*, which sit down upon brackets *g*², fastened by screws *g*³ or any convenient locking device. The tympan and its sounding-board, it will thus be seen, may be readily removed from the banjo without unstraining the tympan, which is a great convenience for giving better access to alter the tension of the head, and also permitting the parchment and its sounding-board to be removed and placed in a separate small case for protection from the weather in carrying the instrument around.

In order to remove the strain of the strings J from the shell B, I provide the tail-piece L with a support from the neck A of the banjo by means of the rod M, which at the rear is bent up and connected to said tail-piece L.

The strain of the strings, it will be seen, is thus expended entirely upon the neck A and rod M, excepting only the downward pressure of the bridge upon the tympan. To avoid
5 interfering with the removal of the tympan and sounding-board, I have the rod M cross the shell B below its lower rim.

The removal of all the strain by the above construction from the shell or outer rim of
10 the banjo-head enables me to make it, if desired, of sheet metal in many pieces, with ornaments or embossings, without danger of its being too weak, or, if preferred, to make it partly of wood ornamented by inlaying or
15 marquetry, as there is no danger of its being distorted or injured by the usual strain put upon this part.

The tail-piece L has its front end turned up, as at *m*, to form a flange perforated to
20 receive the strings. By this means the strings may be brought close down, and the strain upon them will be directly from the knot without their being bent over an edge or corner, as is usual in ordinary tail-pieces. This
25 device saves much breaking of the strings.

I claim—

1. In a banjo, the combination of a parchment-supporting rim over which the parchment is strained, and a separate straining-
30 rim to which the edges of the parchment are attached, and provision, as screws, for stretching the parchment by separating one ring from the other, substantially as specified.

2. In a banjo, the top plate extending
35 around the shell and projecting inwardly to strengthen the shell and also to cover any space that may exist between the shell and the parchment-supporting ring, in combination with said shell and said parchment-sup-
40 porting ring, substantially as specified.

3. The combination, in a banjo, of the ex-

terior shell proper, and an interior frame over which the parchment is strained, and a sounding-board connected to said frame and located immediately beneath the parchment, 45 substantially as specified.

4. The combination of the handle or neck, the shell, the tail-piece, and a brace or rod extending from the neck to the tail-piece en-
50 tirely beneath the shell, substantially as specified.

5. The combination, with the shell, of a top plate extending around the shell and having an arm-rest extension to guard the player's arm from contact with the parchment, sub- 55 stantially as specified.

6. The combination, with the shell, of a top plate extending around the shell and having an extension inward below the strings to pro-
60 long the finger-board, substantially as specified.

7. The combination, with the shell, of a top plate extending around the shell and having an extension inward below the strings to pro-
65 long the finger-board and an arm-rest extension to guard the player's arm from contact with the parchment, substantially as specified.

8. The improved tail-piece for banjos, fast-
70 ened to the bent rod or brace extending back from the neck, whereby the strings are brought down close to the head, substantially as specified.

9. In a banjo, the parchment-supporting ring or frame consisting of a base-plate, as F, and a band or rim extended upward from 75 its outer edge, whereby a strong light structure is attained, substantially as specified.

JNO. F. BOWER.

Witnesses:

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EDW. S. EVARTS.