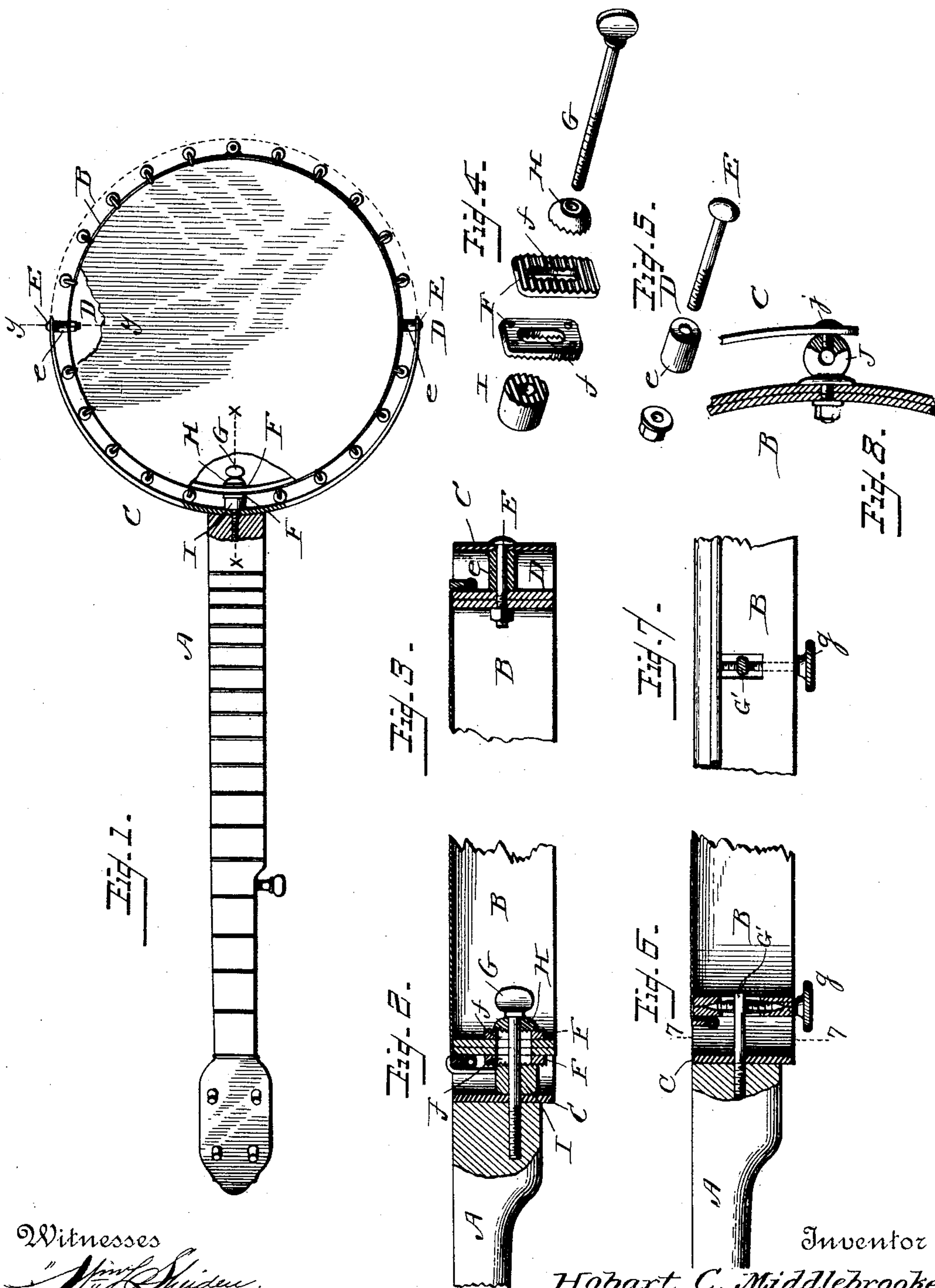


(No Model.)

H. C. MIDDLEBROOKE.  
BANJO.

No. 463,953.

Patented Nov. 24, 1891.



## Witnesses

Van Buren Hillyard.

Inventor

*Hobart C. Middlebrooke.*

By his Attorneys

Hoynes  
R. & A. Lacey



# UNITED STATES PATENT OFFICE.

HOBART C. MIDDLEBROOKE, OF ROCK RAPIDS, IOWA.

## BANJO.

SPECIFICATION forming part of Letters Patent No. 463,953, dated November 24, 1891.

Application filed February 26, 1891. Serial No. 382,873. (No model.)

*To all whom it may concern:*

Be it known that I, HOBART C. MIDDLEBROOKE, a citizen of the United States, residing at Rock Rapids, in the county of Lyon and State of Iowa, have invented certain new and useful Improvements in Means for Connecting a Banjo-Neck with the Hoop; 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 appertains to make and use the same.

This invention relates to banjos, and particularly to the means for connecting the hoop with the neck, whereby the full vibration of the hoop is obtained and the tightening-hooks may be equally spaced, thereby securing a perfect tension of the head and admitting of a correction of the sagging and an adjustment of the strings a proper distance from the finger-board to suit the player.

The improvement consists of a yoke secured to the neck of a banjo and means for connecting the hoop to the said yoke.

The improvement also consists of the means whereby the hoop can be adjusted relatively to the neck to correct any sagging and adjust the strings the proper distance from the finger-board, which hereinafter will be more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a plan view of a banjo embodying my invention, showing the yoke extended around the hoop by dotted lines, parts being broken away. Fig. 2 is a detail cross-section on the line X X of Fig. 1 on a larger scale. Fig. 3 is a cross-section on the line Y Y of Fig. 1 on a larger scale. Fig. 4 is a perspective view of the connections between the yoke, the hoop, and the neck, showing them detached and arranged in their relative positions. Fig. 5 is a perspective view of the connections between the yoke and the hoop, the parts being separated and arranged in their relative positions. Fig. 6 is a view similar to Fig. 2, showing a modified form of fastening between the hoop and the support. Fig. 7 is a section on the line 7 7 of Fig. 6, looking to the right. Fig. 8 is a detail view showing a modified form of fastening between the support and the hoop.

The neck A and the hoop B are of any well-known construction and are relatively ar-

ranged in the ordinary manner, the hoop being at the end of the neck. The yoke C, which may be semicircular, as shown by the full lines in Fig. 1, or circular, as shown by the dotted lines in the said figure, is secured to the neck at a point midway between its ends, provided the semicircular form, which is preferred, is adopted. In other cases, as the circular neck form of yoke, the connection between the and the yoke will be at a point midway between or equidistant from the connections D between the yoke and the hoop. The connections D are of a pivotal character—*i. e.*, the hoop turns on them in its adjustments to correct any sagging or regulate the distance of the strings from the finger-board, and comprise bolt E and the thimble *e* on the bolt and between the hoop and the yoke. The connections between the yoke and the hoop comprise two plates F of corresponding size and shape, which are secured to the opposite sides of the hoop and which have vertical slots *f*, that correspond with a similar slot in the hoop, and which are roughened or provided with transverse ribs on their outer faces. The binding-screw G passes through the slots *f* in the plates F and screws into the yoke and the neck, too, if needs be. The washer H, mounted on the binding-screw G between it and the inner plate F, is ribbed or roughened on the side opposing the said plate, and the collar I, also placed on the said binding-screw G between the yoke and the outer plate F, is likewise roughened or ribbed to engage with the said plate and hold the hoop in a fixed relation to the neck and the yoke when the said screw G is tightened.

To adjust the hoop, the binding-screw G is loosened and the hoop is turned on its pivotal connections with the yoke until the proper adjustment is obtained, when the binding-screw is retightened and the hoop is held firmly in the adjusted position.

In Figs. 6 and 7 is shown a simple form of fastening between the hoop and the support opposite the neck A, the same comprising rod G', which is projected from the support and extends into the vertical slot in the hoop. The thumb-screw *g*, passed through the hoop, has its threaded portion engaged with the rod G'. Obviously by turning the screw *g* the hoop will be moved up or down.



In Fig. 8 the screw *j* extends through the support C and enters a threaded opening in the end of the bracket J.

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

1. In a banjo or like instrument, the combination, with the neck and the hoop, of a yoke fastened to the neck, and connections between the yoke and the hoop, substantially as set forth.

2. The combination, with the neck and the hoop, of a yoke between the hoop and the neck, and connections adjustably connecting the hoop with the yoke, substantially as and for the purpose described.

3. The combination, with the neck and the hoop, of a yoke fastened to the neck, pivotal connections between the yoke and the hoop,

and means for securing the hoop to the yoke at the located position, substantially as set forth.

4. The combination, with the neck, the hoop, and the yoke, of pivotal connections between the hoop and the yoke, the plates F, secured to opposite sides of the hoop and having vertical slots and having their exposed faces roughened or ribbed, the binding-screw G, and the washer and the collar I on the screw G and having the sides opposite the plates roughened, substantially as described, for the purpose specified.

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

HOBART C. MIDDLEBROOKE.

Witnesses:

O. A. PHILIPP,

THEODORE B. GOULD.