

(No Model.)

J. BARRATT.

RESONATOR FOR SKIN HEADED MUSICAL INSTRUMENTS.

No. 455,297.

Patented July 7, 1891.

Fig. 1.

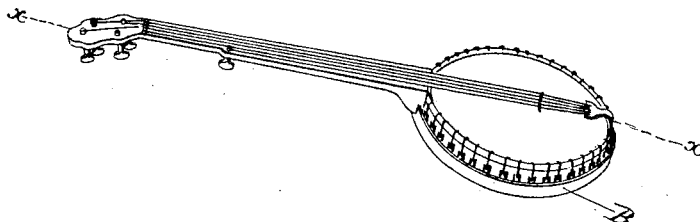


Fig. 2.

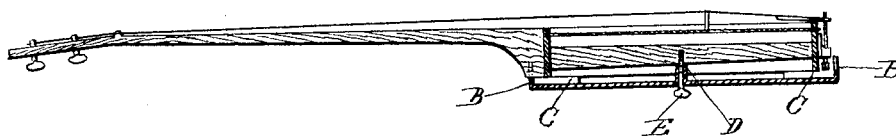
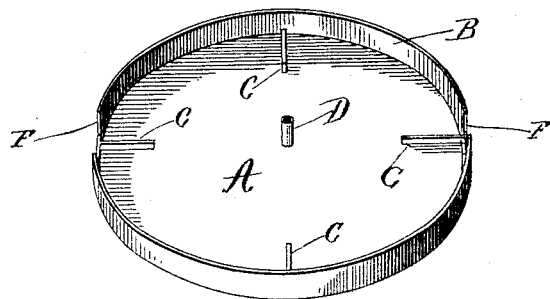


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## RESONATOR FOR SKIN-HEADED MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 455,297, dated July 7, 1891.

Application filed March 21, 1891. Serial No. 385,923. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BARRATT, of the city, county, and State of New York, have invented a new and useful Improvement in  
5 Resonators for Skin-Headed Musical Instruments, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification,  
10 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a banjo having the implement applied thereto. Fig. 2 is a longitudinal section taken on the line  
15 *x x*, Fig. 1; and Fig. 3 is a perspective view of the resonator removed from the instrument.

My invention has for its object an increase in the volume of sound in skin-headed musical instruments without impairing the melody.

The invention consists of a flanged disk of metal constituting the resonator, which is so constructed that it will be easy of adjustment  
25 to the backs of banjos, drums, or other musical instruments to which it may be found applicable.

The instrument further consists in details of construction, which will be hereinafter fully  
30 described, and pointed out in the claims.

I will describe my invention as applied to a banjo.

A represents the resonator, which is formed of a disk of metal or any other suitable material. B is an upturned flange thereon, located, preferably, at the margin of the disk. C C C C are ribs or lugs affixed to the inner surface of said disk, extending from the inner periphery of said flange at suitable distances apart, preferably diametrically in direction of the center, for the purpose of spacing the instrument to which it is applied from the disk, thereby allowing the detonations of the instrument free access. In the  
40 center of said disk, projecting in the direction of said upturned flange, a sleeve or thimble D is located, which is screw-threaded in its socket to receive a thumb-screw E, inserted from the outer surface of said disk, which screw is screwed into the neck, passing  
50 through the banjo-head or other convenient

support upon musical instruments to which it is applied, to firmly hold the resonator in place thereon, or any other approved fastening devices may be employed. The said up-  
55 turned flange is notched at F F to receive the neck G and the extension thereof passing through the head.

When a resonator is in position upon a banjo, the flange B is spaced some distance  
60 from the head-rim of the instrument, and a resonant-chamber is formed below the membrane of the head, having its only outlet at the sides of the head. Thus the tone, which is collected and augmented in the chamber,  
65 finds a ready exit in a direction only in which the instrument is faced. The flange B is preferably made of a width to extend to a point at or near the center of the head-rim.

By the use of this resonator on banjos, the  
70 flange fitting over and virtually covering the screws usually employed to fasten the head of the instrument to the frame thereof, the clothes of the player are prevented from coming in contact therewith, saving the usual  
75 wear of clothes caused by the roughened outer surface of the head-section.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—  
80

1. As an improved article of manufacture, a resonator for skin-headed musical instruments, consisting of a flanged disk of greater diameter than the head of the instrument and devices for attaching the disk to the  
85 head, substantially as described.

2. A resonator for skin-headed musical instruments, consisting of a disk of greater diameter than the head, provided with a flange near its margin and ribs upon one face within  
90 the flange, substantially as described.

3. A resonator for skin-headed musical instruments, consisting of a disk of greater diameter than the head, provided with a flange near its margin and ribs upon one face within  
95 the flange, and a fastening device, substantially as described, for attaching the disk to the head, as and for the purpose specified.

4. The combination, with the head of a banjo or other instrument provided with a  
100 skin sound-conductor, of a resonator comprising a flanged disk of greater diameter than

the head of the instrument, ribs produced  
upon one face within the flange, and a fast-  
ening device, the resonator being adapted to  
receive the head and the ribs for engagement  
5 with the rim of the head, substantially as  
shown and described.

The foregoing specification of my new and  
improved resonator for skin-headed musical

instruments signed by me this 16th day of  
March, 1891, in the presence of the below-  
subscribed witnesses.

JOHN BARRATT.

Witnesses:

ROBT. H. BENARY,  
E. F. KROYER.