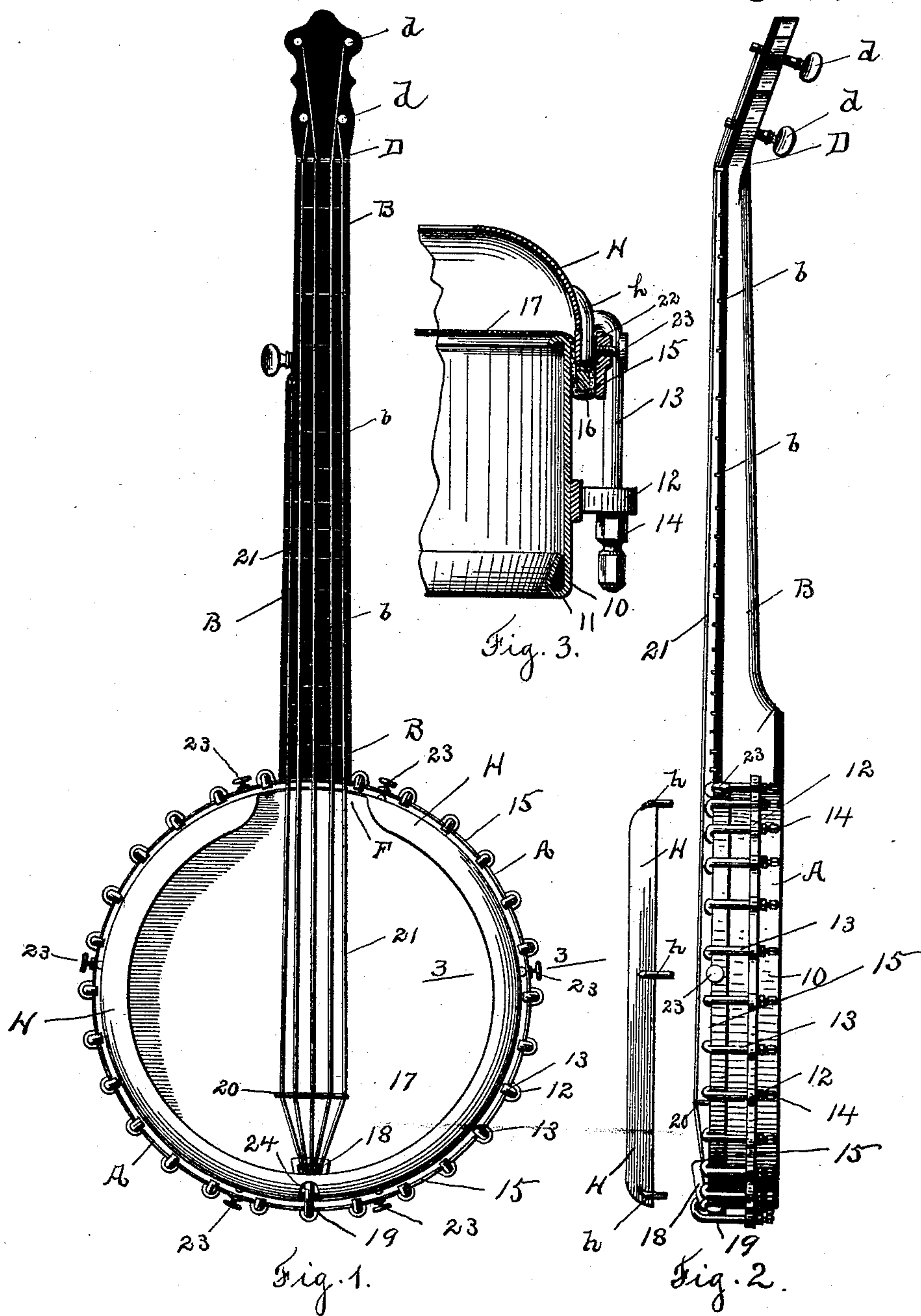


(No Model.)

W. H. NEEDHAM.  
ATTACHMENT FOR BANJOS.

No. 524,728.

Patented Aug. 21, 1894.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. NEEDHAM, OF WORCESTER, MASSACHUSETTS.

## ATTACHMENT FOR BANJOS.

SPECIFICATION forming part of Letters Patent No. 524,728, dated August 21, 1894.

Application filed October 21, 1893. Renewed June 16, 1894. Serial No. 514,811. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. NEEDHAM, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Attachments for Banjos, of which the following is a specification.

My invention relates to musical instruments of the banjo or guitar class, and while the especial object of my invention is to provide a sounding rim or resonator for the banjo, it is evident that my invention is equally applicable to guitars, mandolins, or other instruments of the same class.

To this end, my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a front elevation of a banjo with my sounding rim or resonator applied thereto. Fig. 2 is a side elevation of the same with the sounding rim detached, and Fig. 3 is an enlarged detail sectional view taken on the line 3—3 of Fig. 1.

Referring to the drawings and in detail, A represents the rim or body of the banjo, which is preferably connected to a neck B, which is fretted in the ordinary manner as indicated by *b*, and is bent back at D, and receives the tuning-pegs *d*.

The rim of the banjo may be formed in any preferred manner, and, as shown, it is constructed of a metal body 10, and is suitably rounded over or turned in at the bottom as indicated at 11, the upper or face edge of the rim being also rounded over to prevent presenting a sharp corner to the parchment or head 17, which is stretched over the same. The rim 10 is provided with a series of lugs 12, which may be formed integrally with the rim 10, or may be secured thereto, as desired. Passing through the lugs 12 are the hooks 13 which are adapted to fit over and engage the straining hoop 15, the hooks being tightened and held in place by the nuts 14. The straining hoop 15 is rabbeted or cutaway at its inner edge, and fits over a rim 16 around which the parchment or head 17 may be wrapped. The strings 21 are secured to a suitable tail-

piece 18 which may be fastened to the rim by a hook 19, the strings passing over a bridge 20, and having their opposite ends secured to the tuning pegs *d*. These parts may be of any preferred or ordinary construction, and need not be described at length.

H designates my sounding rim or resonator, and as shown, it is constructed of sheet metal, and is provided with dowel-pins *h*, by means of which it may be detachably secured to the banjo.

The dowel-pins *h*, as shown, are adapted to fit into holes 22 in the straining-hoop 15, and the rim is firmly held in place by tightening the set-screws 23. I do not wish, however, to be limited to any particular means for securing the sounding rim in place, as the rim may be secured in any preferred manner, so that it will extend out over the strings and the face of the instrument.

As shown in the drawings, the sounding rim or resonator is broken away at F so as not to interfere with the strings of the instrument, and it is also cut away at its lower portion as shown at 24, to provide means for securing the tail piece in place.

It is evident that my sounding-rim or resonator may be made of ebonite, celluloid, or any material that may be desired, and that it may be extended over more or less of the face of the instrument, as desired, and that it may be curved in different manners, in order to produce different qualities of tone.

In practice, it has been found that an instrument provided with my improved sounding-rim or resonator produces a much sharper and clearer tone than the ordinary instrument, as the sounding-rim collects and reinforces the vibrations as given out by the strings, and a clear and bell-like tone is produced.

I am aware that many changes may be made in the construction of the device, by those skilled in the art, and I do not wish to be limited to the exact construction which I have disclosed.

What I do claim, and desire to secure by Letters Patent, is—

1. In a musical instrument, the combination of a frame or body-portion adapted to receive and support a series of strings above its front face, and a sounding-rim or resona-

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tor extending upwardly with relation to the front face of the instrument to reinforce and concentrate the sound, substantially as described.

- 5 2. In a banjo, the combination of the rim or body portion, a parchment head stretched over the same, a straining hoop for securing the parchment head, and a sounding rim or resonator secured to the straining hoop, and  
10 extending up from the stringed face of the instrument, substantially as described.

3. The combination of a banjo and a detachable sounding rim or resonator adapted to fit over the stringed face of the banjo, substantially as described.  
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4. In a banjo, the combination of the rim A, the parchment head 17 stretched over the same, a straining hoop 15 for securing the parchment head in place, a sounding rim H  
20 extending up from the stringed face of the parchment head, and means for securing the sounding rim to the straining hoop, substantially as described.

5. In a banjo, the combination of the rim

A having the lugs 12, a parchment head 17 25 stretched over said rim, a straining hoop 15 for holding the head in place, the hooks 13 passing through the lugs 12, and engaging the straining-hoop, and the sounding-rim H having the dowel-pins *h* adapted to enter holes 30 22 in the straining-rim, and to be secured in place by the set-screws 23, substantially as described.

6. In a musical instrument, the combination of a body-portion and a neck suitably 35 secured to the same and adapted to receive the strings, of a detachable sounding-rim or resonator adapted to extend up from the face of the body-portion, substantially as described.  
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In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM H. NEEDHAM.

Witnesses:

H. E. HILL,

PHIL. W. SOUTHGATE.