

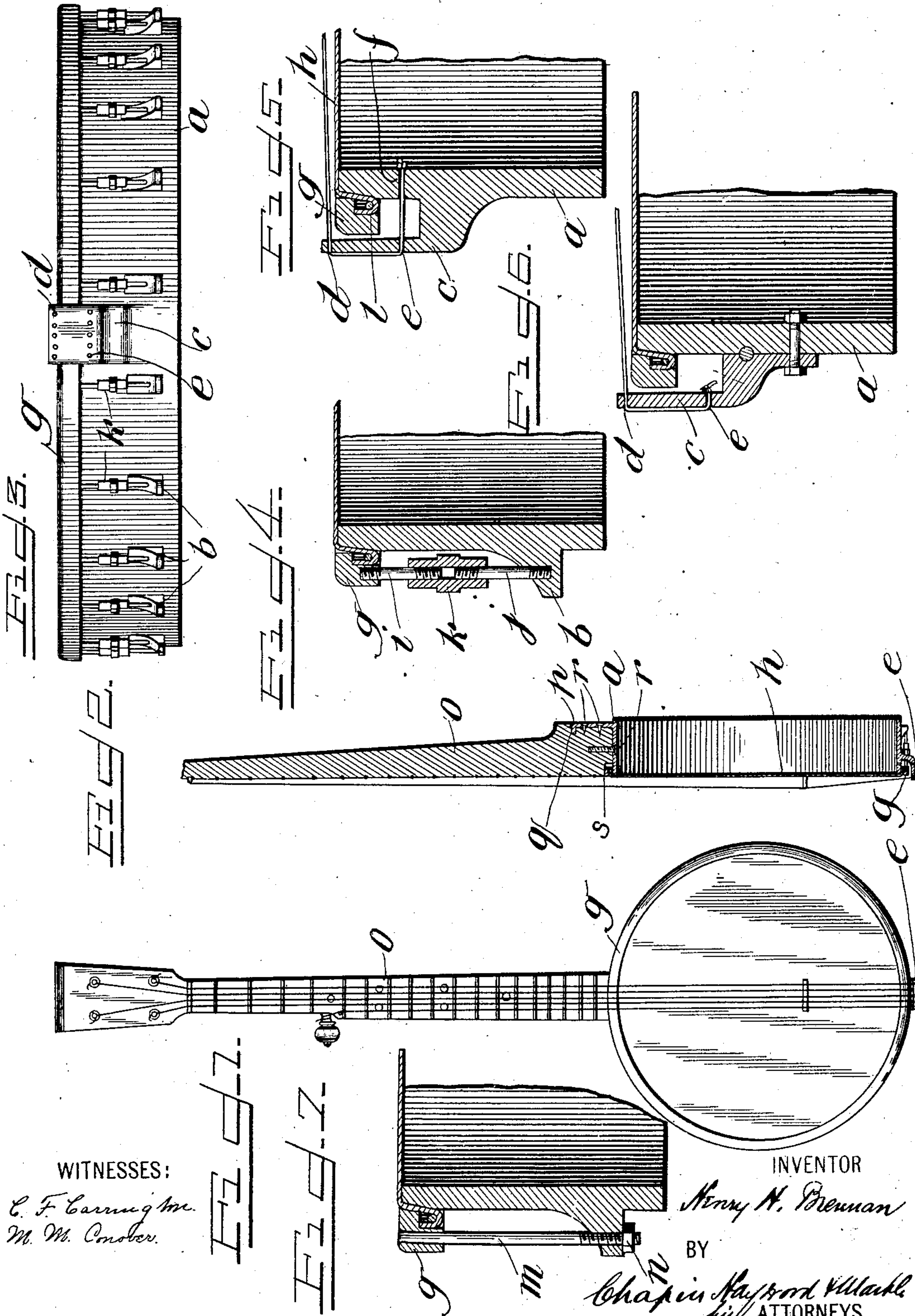
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PATENTED MAY 26, 1903.

H. H. BRENNAN.  
MUSICAL INSTRUMENT.

APPLICATION FILED JUNE 28, 1902.

NO. MODEL.



WITNESSES:

C. F. Canning Mr.  
M. W. Conover.

INVENTOR

*Henry H. Brennan*

BY

Chapin Raymond Willard  
his ATTORNEYS



# UNITED STATES PATENT OFFICE.

HENRY HOEY BRENNAN, OF NEW YORK, N. Y.

## MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 729,041, dated May 26, 1903.

Application filed June 28, 1902. Serial No. 113,597. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY HOEY BRENNAN, a citizen of the United States of America, and a resident of the city of New York, county

5 and State of New York, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

10 My invention relates to musical instruments, and particularly to that class of musical instruments known as the "banjo."

My invention consists in improved features of construction in which the rim, the brackets, and a device for securing the rim to the neck are all formed in one integral casting, in an improved tailpiece formed either separately or integrally with the casting comprising the rim, in improvements in the tension devices for the head or drum, and in improvements in the construction of the neck and in the method of attaching same to the rim.

The objects of my invention are, first, to reduce the number of parts necessary to the construction of a musical instrument of this character; second, to improve the appearance of the banjo by concealing the tension devices from view when looking directly at the face of the instrument; third, to prevent any portion from projecting unduly or as might be likely to catch in the clothing; fourth, to simplify and strengthen the means of attachment between the neck and the rim, so as to render the same rigid without employing a construction in which a portion of the neck projects clear through from one side of the rim to the other, as is usual; fifth, to provide means for stringing the instrument in several ways, so as to produce different tones according to the way the instrument is strung, and to improve the tone or tones rendered, and, lastly, to simplify and improve the construction and arrangement of parts.

My invention further relates to certain details of construction and combination of parts, as will be set forth in the following description, and other advantages will appear hereinafter.

I will now proceed to describe a banjo embodying my invention and will then point out the novel features in claims.

In the drawings, Figure 1 is a face view of a banjo embodying my invention. Fig. 2 is a view in central longitudinal section there-through. Fig. 3 is an end view. Fig. 4 is a detail view, in transverse section, illustrating the improved tension device for the head. Fig. 5 is a detail view in section through the tailpiece. Fig. 6 is a similar detail sectional view illustrating a slightly-modified form of tailpiece. Fig. 7 is a sectional view similar to Fig. 4, showing a slightly-modified form of tension for the head.

In carrying out my invention I provide a single integral casting comprising the rim *a* and the brackets *b*. The brackets *b* are for the purpose of receiving the tension-screws for applying tension to the head and which have hitherto been secured to the rim *a*, as by screws or bolts. In my invention they are formed integrally with the rim, and simplicity of construction and a great saving of loose parts are thereby effected.

The rim *a* is provided with a tailpiece *c* of novel construction, which tailpiece is also preferably an integral portion of the casting comprising the rim and brackets aforesaid, as shown in Figs. 2, 3, and 5. It may, however, if desired, be a separate piece and secured to the rim, as by bolting, as shown in Fig. 6. The tailpiece *c* is provided with two sets of holes *d* and *e*, through which the strings of the instrument are adapted to be threaded, and the rim *a* is also preferably provided with a series of similar holes *f* for a similar purpose. There are of course as many holes in each series *d*, *e*, and *f* as there are strings employed.

It will be noted that the upper part of the tailpiece *c*, or that part in which are the holes *d* and *e*, is arranged at some little distance away from the body portion of the rim and does not touch the hoop or the head or drum of the instrument. The hoop herein is designated by the reference character *g*, the drum or head, which may be of calfskin or parchment or the like, by the reference character *h*.

With my improved form of tailpiece the instrument may be strung in three different ways and three entirely different tones obtained. The heaviest tone will be obtained



when the banjo is strung in the manner shown in Fig. 5, in which the strings are first passed through the holes *f* in the rim *a*, then through the holes in the tailpiece *c* and also through the holes *d* therein, and thence over the head or drum and neck to the pegs in the usual manner. A lighter tone will be obtained by passing the strings merely through the two sets of holes *d* and *e*, as shown in Fig. 6, and not permitting them to pass through the holes *f* in the rim. A still lighter tone will be obtained by only passing the strings through the first set of holes *d* in the tailpiece, as shown in Fig. 2.

It will be noted that when the series of holes *e* or the two series of holes *e* and *f* are employed the knots at the end of the coil will be concealed from view, giving a very neat appearance to the instrument.

In the modification shown in Fig. 6 the tailpiece *c* is shown as a separate piece and not integral with the rim *a*. A tailpiece so constructed is adapted to be used with a banjo in which the other features of my invention are not present, and for this reason I have shown the rim *a* in said figure as being without the series of holes *f* present in the rims of the other figures. The tailpiece *c*, however, has the two series of holes *d* and *e*, so that the strings may be threaded through both these holes to get the somewhat heavier tone than would be obtained by stringing only through the holes *d* and, further, for the purpose of concealing the knots.

In my improved tension device for the drum or head I have provided the hoop *g* with a plurality of studs *i*, preferably rigidly secured thereto, and I have provided the brackets *b* with a plurality of studs *j*, also preferably rigidly secured thereto. I have then threaded the inner ends of the studs *i* and *j* in opposite directions and have provided turnbuckles *k* similarly threaded to engage with the studs.

The drum or head *h* is arranged to pass over the upper edge of the rim *a*, and the edges thereof are turned back upon themselves and preferably around a wire *l*. The turned-over edges of the drum or head and the wire thereof are received in an annular recess in the hoop *g*, and adjustment of the hoop *g* downwardly will tend to tighten the drum or head in a manner well known. The downward adjustment of the hoop *g* may be obtained by adjusting the turnbuckles *k*, and in this manner a uniform tension may be applied to the head. The upper outer edge of the hoop *g* is preferably rounded, and by reason of this and of the fact that the tension studs or bolts are received into the hoop and do not surround it, as is usual, the outer edge of this portion of the instrument is free from such projections as will be likely to catch in the clothing and, further, presents a very neat and attractive appearance to the eye.

In Fig. 7 I have shown a somewhat-modified form of the tension device, in which the

tension studs or bolts *m* are headed and pass through suitable orifices in the hoop *g* in such a manner as to leave the upper faces of the headed portions substantially flush with the upper surface of the hoop and are threaded at their lower ends and provided with suitable adjusting-nuts *n*.

The neck *o* I preferably construct of a single piece of hard wood—as *lignum-vitæ*, rosewood, or the like—such as will be sufficiently hard to form the finger-board as well as the neck proper, and I provide suitable means for securing the neck *o* to the rim *a* in such a manner as to hold the same rigid and prevent undue bowing thereof, due to strain upon the strings, without carrying a portion of the neck clear through one side of the rim to the other at the back of the drum or head, as is usually done. Extension of the neck behind the drum or head is undesirable as interfering with and deadening the sound-vibrations of the drum. In my construction I provide an extension *p* of the rim *a*, such extension being preferably formed integrally with the rim, and upon the outer end of the extension *p* I provide a projection *q*, extending at substantially right angles therefrom. The extension *p*, with its projection *q*, is fitted into a suitable recess in the neck *o*, and screws *r*, passing through the extension *p* and the rim *a* into the neck, secure the parts together. The lower edge of the front portion of the neck is also recessed at *s* to receive the hoop *g*. The projection *q*, fitting snugly into the recess in its neck, will positively prevent any bowing of the neck at this point, and the construction has been found to be a very simple, rigid, and desirable one.

It will of course be understood that modifications of my device from the precise construction and arrangement of parts herein shown may be made within the scope of this invention and that certain features may be employed in instruments of other construction than herein shown and in which other features of my invention are not present.

What I claim is—

1. In a musical instrument of the type described, the combination with a rim, a hoop thereon, and means for adjusting the hoop, of a tailpiece rigid with the said rim, said tailpiece having an offset portion, arranged at the rear of said hoop, and having a series of orifices therein at a point above the edge of said hoop, and another series of corresponding orifices therein at a point below the lower edge of said hoop, substantially as and for the purpose specified.

2. In a musical instrument of the type described, the combination with a rim, a hoop thereon, and means for adjusting the hoop, of a tailpiece rigid with the said rim, said tailpiece having an offset portion, arranged at the rear of said hoop, and having a series of orifices therein at a point above the edge of said hoop, and another series of correspond-



ing orifices therein at a point below the lower edge of said hoop, said rim also having a series of corresponding orifices therein adjacent the said tailpiece, substantially as and for the purpose specified.

3. A tailpiece, for a musical instrument of the type described, comprising a body portion adapted to be rigidly secured to the rim of the instrument and an overhanging portion offset therefrom to clear but partially inclose the hoop of the instrument, and having two parallel series of orifices therein transversely through the offset portion, substantially as and for the purpose specified.

4. In a musical instrument of the type described, the combination with a rim having a portion extending radially outwardly therefrom, said portion having a transversely-arranged projection, of a neck recessed and transversely shouldered to receive and engage the said projection, and means for securing the neck and rim together.

5. In a musical instrument of the type described, the combination with a rim having an integral portion thereof extending radially outwardly therefrom, said portion having a transversely-arranged projection, of a neck recessed and transversely shouldered to receive and engage the said projection, and screws engaging the rim and neck for securing said rim and neck together.

6. In a musical instrument of the type described, the combination with a rim having a radial extension  $p$  thereon, said extension having a transverse projection  $q$ , of a neck recessed to receive the extension  $p$ , and transversely shouldered to engage its projection  $q$ , and screws  $r$  for securing the neck and rim together, substantially as set forth.

HENRY HOEY BRENNAN.

Witnesses:

C. F. CARRINGTON,  
M. M. CONOVER.