

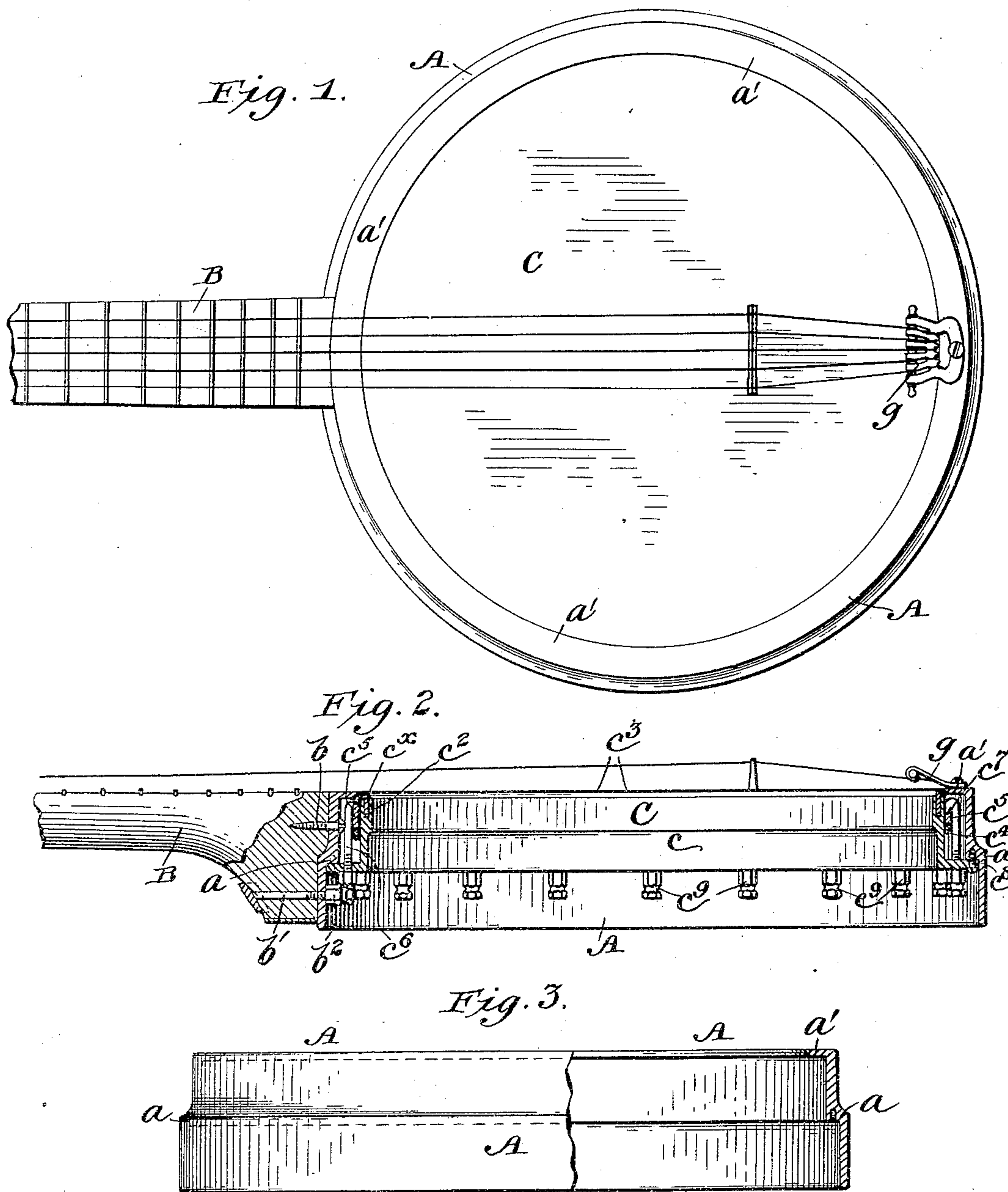
(No Model.)

2 Sheets—Sheet 1.

N. MERRILL.
MUSICAL INSTRUMENT.

No. 559,302.

Patented Apr. 28, 1896.



WITNESSES

Everance
N. S. Hockman

INVENTOR

Neil Merrill
by his Attys
Wm. T. Smith & Co.

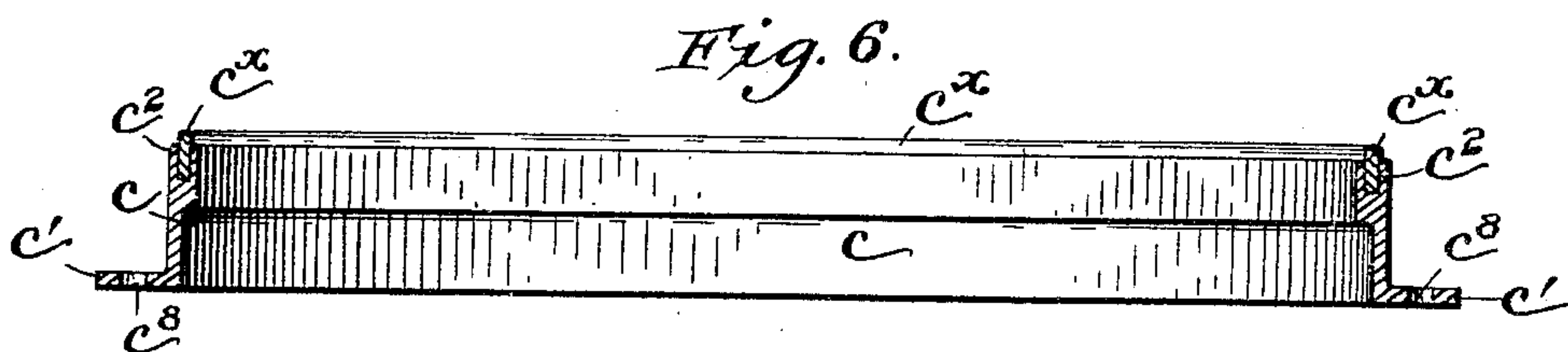
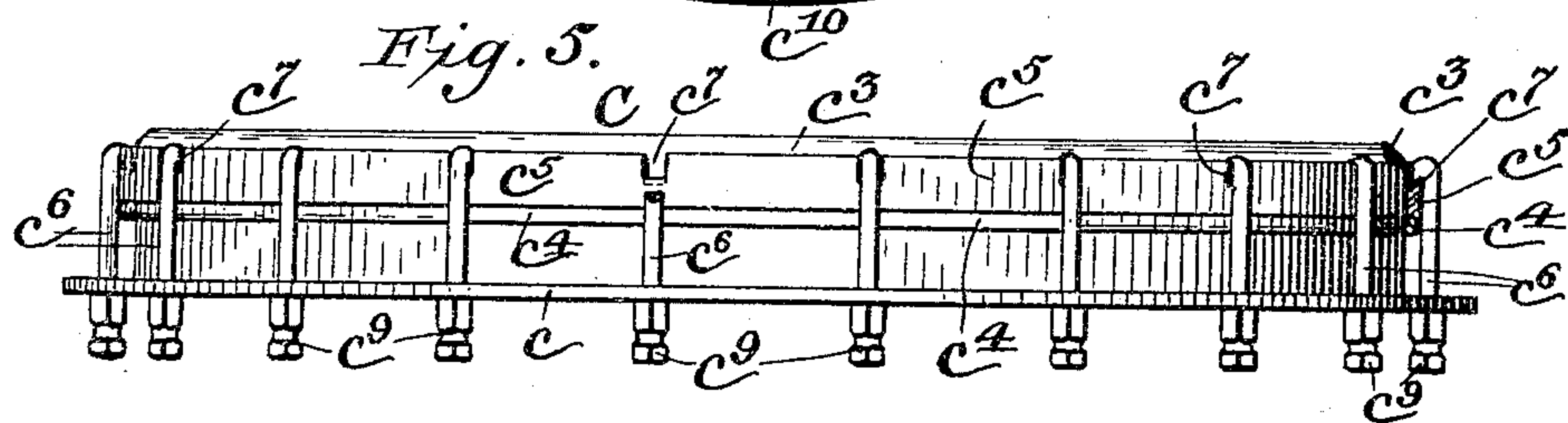
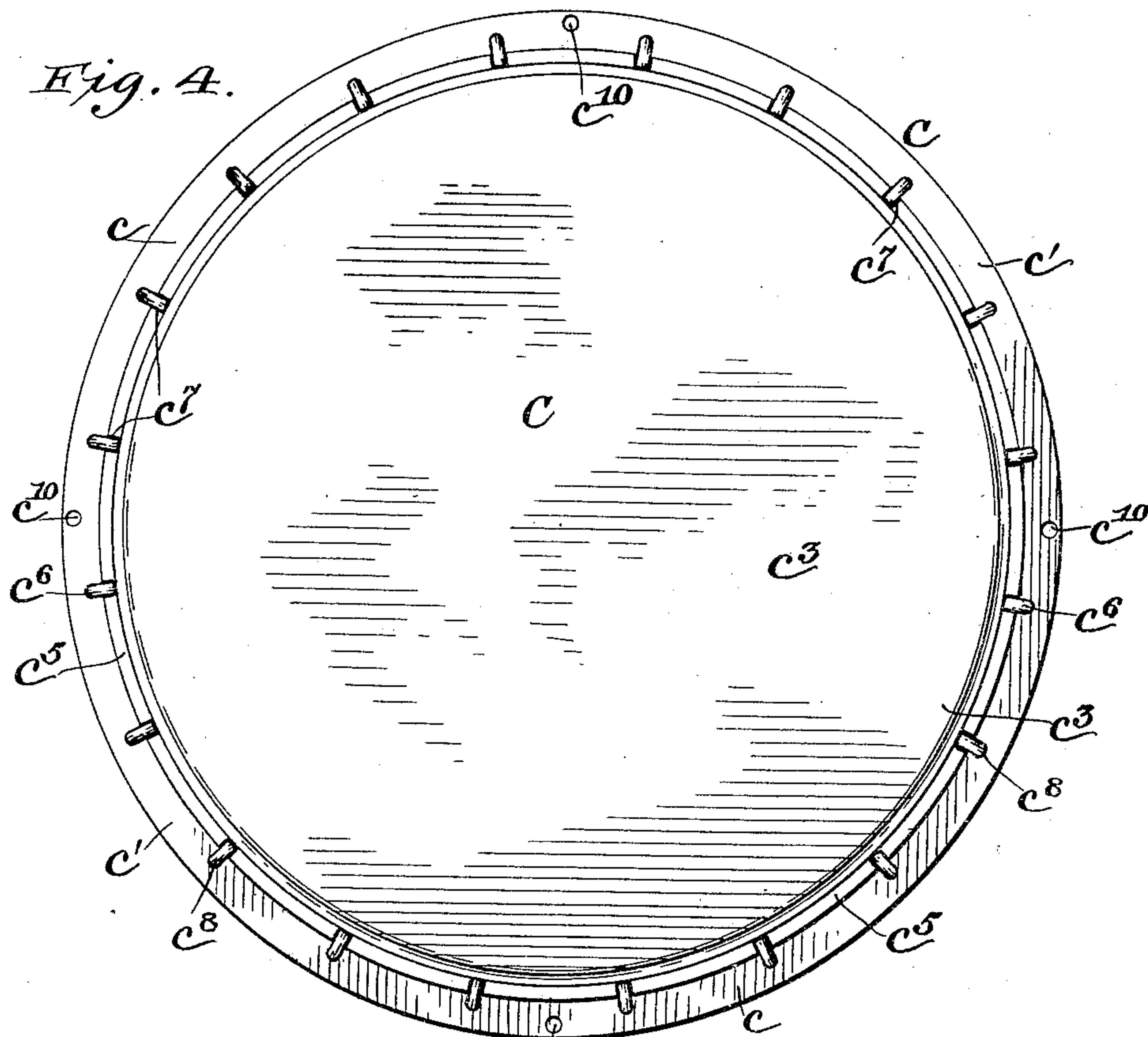
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INVENTOR

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Neil Merritt
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Norm Finch Lawrence

UNITED STATES PATENT OFFICE.

NEIL MERRILL, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE ALUMINUM MUSICAL INSTRUMENT COMPANY, OF NEW YORK, N. Y.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 559,302, dated April 28, 1896.

Application filed May 4, 1895. Renewed January 8, 1896. Serial No. 574,755. (No model.)

To all whom it may concern:

Be it known that I, NEIL MERRILL, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Musical Instruments; 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.

My invention relates to improvements in musical instruments, and has particular relation to banjos.

The invention consists of the combination of a rim and an independent head, comprising a skin and suitable mounting and tightening devices for said skin, said head being adapted to be applied to or removed from the rim as a whole and without disturbing or loosening the skin.

It also consists of the combination of a rim having an internal annular shoulder and an independent removable head, comprising a rim having an annular projecting flange, a skin, a strainer-hoop, and means for tightening said strainer-hoop, the flange of the head-rim being adapted to engage the shoulder of the rim proper when said head is applied thereto.

It also consists of certain other novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the drawings forming part of this specification, Figure 1 represents a top plan view of the banjo embodying my invention. Fig. 2 represents a central vertical longitudinal section through the same. Fig. 3 represents a detail side elevation, partly broken away, of the rim proper. Fig. 4 represents a detail top plan view of the detachable head. Fig. 5 represents a side elevation of the same, and Fig. 6 represents a detail central vertical section of the head-rim with the wooden or like ring applied therein.

A in the drawings represents the rim of the banjo, B the neck, and C the removable head.

The rim proper, A, is made of any suitable material, but preferably aluminium or its alloys, and is formed about its middle with an annular shoulder *a*, and about its upper edge with an inwardly-projecting flange *a'*, having

its inner edge beveled downwardly and outwardly.

The horizontal portion of the shoulder *a* is provided with suitable screw-threaded apertures for receiving screws for securing the detachable head in place.

The neck B is of the usual construction, with the exception that it does not pass through the rim, but is secured to the same by a screw *b*, which passes through said rim. As an additional means of attaching said neck and tightening it on the rim to a greater extent than can be secured by ordinary screws I provide a headed bolt *b'*, which passes through the foot of the neck and the rim, and is secured on the inside of the rim by a nut *b''*. This nut is adapted to be tightened by a suitable wrench, whereby said neck is rigidly connected to said rim.

The removable independent head C comprises a rim *c*, having an annular outwardly-projecting flange *c'* at its lower edge. A hoop *c^x* of wood or similar material is set into a groove *c²* in the top of said rim, a skin stretched over said hoop and provided with a skin or flesh hoop *c⁴*, a strainer-hoop *c⁵*, and tightening-bolts *c⁶*. These bolts are provided with hooks at their upper ends adapted to engage notches *c⁷* cut in the strainer-hoop *c⁵*. The opposite screw-threaded ends of these bolts pass through apertures *c⁸* cut in the horizontal flange *c'* and are provided with tightening-nuts *c⁹*, that bear against the under side of said flange. The said flange *c'* is also provided with apertures *c¹⁰*, through which screws are passed when the head is applied in the rim proper, with said flange *c* resting upon the shoulder *a*, to which it is thereby attached. When said head is so applied in the rim proper, the stretched skin just comes on a level with the top surface of the flange *a'*. A suitable tailpiece *g* is attached to the flange *a'* by screws.

By the use of the wooden hoop *c^x* the skin is prevented from cutting by coming into direct contact with the metal of the rim of the head, and gives a clearer and fuller tone than it would if it were in contact with the said metal.

It will be seen from the foregoing that the head carrying the skin can be removed from

or applied to the rim in a few minutes by simply removing or inserting the three or four screws that hold it in place. It is not necessary to disturb the strings at all during such removal or insertion.

This invention is especially useful to traveling professional people, as they can carry two or three of the removable heads with them, and if one suddenly breaks it will only take a few minutes to insert another, whereas with the old banjos it would take perhaps a week to apply a new head to a banjo, as it could not be used until the head dries and the strainer-hoop, which is above the level of the skin, can be pulled down to a level, so that the strings will not strike the same. The skin in my banjo is always on a level with the flange a' , no matter how much the same is tightened.

It will be noticed from the foregoing that all the bolts and other parts are hid from view and the rim of the banjo presents a neat and clean appearance. I preferably construct both rims and the strainer-hoop of aluminium or its alloys. By constructing the rim proper of aluminium and in one piece I secure a much finer and fuller tone for the banjo, as the rim acts as a bell and prolongs and beautifies the vibrations imparted to it by the vibrating skin.

It will also be noticed that by removing the neck from the rim, which can readily be done by removing the securing-screws, the banjo can be packed into a very small space, as the neck is not, as is usual, the length of the whole instrument when assembled. This is a very important feature, especially to traveling people.

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

1. In a musical instrument, the combination of a rim, and an independent head comprising a skin and suitable mounting and tightening devices for said skin; said head being adapted to be applied to or removed from the rim as a whole and without disturbing or loosening the skin, substantially as described.

2. In a musical instrument, the combination of a rim having an internal annular shoulder and an independent removable head comprising a rim having an annular projecting flange, a skin, and means for tightening the skin, the flange of the head-rim being adapted to engage the shoulder of the rim proper when said head is applied thereto, substantially as described.

3. In a musical instrument, the combination of a rim having an internal annular shoulder, and an inwardly-extending annular flange at its upper edge, with an independent removable head comprising a rim having an annular projecting flange, a skin, a strainer-hoop, and means for tightening said strainer-hoop; the flange of the head-rim being adapted to engage the shoulder of the rim proper when said head is applied thereto, substantially as described.

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

NEIL MERRILL.

Witnesses:

E. G. FERGUSON,
HERMAN STRAUB.