(No Model.)

N. MERRILL.

BANJO.

No. 541,976. Patented July 2, 1895.

Fig. 1.

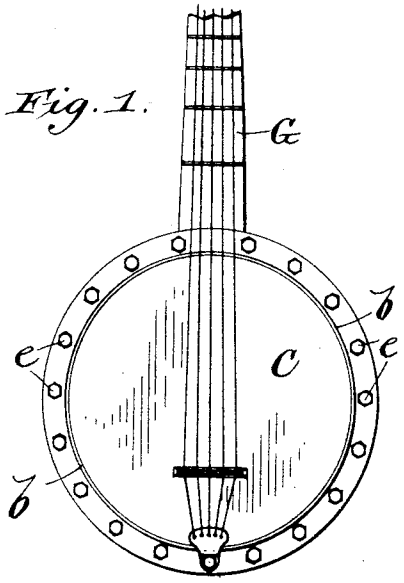

Fig. 2.

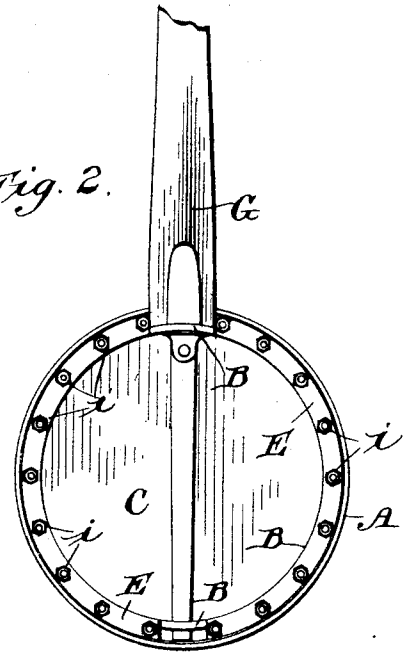

Fig. 3.

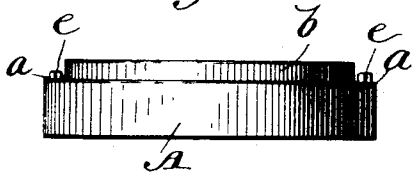

Fig. 4.

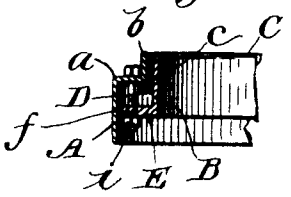

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

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BANJO.

SPECIFICATION forming part of Letters Patent No. 541,976, dated July 2, 1895.

Application filed July 19, 1894. Serial No. 518,022. (No model.)

To all whom it may concern:

Be it known that I, NEIL MERRILL, a citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Banjos; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to the construction of musical instruments, and it consists, first, in constructing the head of an instrument with a horizontal diaphragm composed of thin sounding metal and having a downwardly-extending homogenous rim portion, which latter is provided with an annular projection, which forms a permanent part of the rim; second, it consists of a banjo-head made of thin sounding metal and having a downward-extending side or rim portion, which latter is provided with a flesh-hoop which forms a permanent part of the same, and, third, it consists of a banjo having a head made of thin sounding metal and having a downwardly-extending side portion or rim provided with a flesh-hoop which forms a permanent part of the same, the rim proper of the banjo being provided with an outwardly-extending perforated flange, in combination with an outer auxiliary rim or cover provided with a perforated flange and a strainer-hoop, and bolts and nuts for uniting the parts, all as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of the front, and Fig. 2 of the back, of my improved banjo. Fig. 3 is a side elevation of the outer auxiliary rim of the banjo. Fig. 4 is a vertical section of a portion of the banjo, showing an outer rim applied to the same and means for securing the parts together and tightening the head. Fig. 5 is a sectional view of a portion of the head provided with a permanent flesh-hoop, and Fig. 6 is a sectional view of a portion of the head constructed with a permanent strainer-hoop.

Similar letters refer to similar parts in each view.

Heretofore in banjos a calf-skin or parchment head has been used, which was very flexible and was put upon the rim wet and drawn down by means of a flesh-hoop or wire, over which the edges were turned and brought up under a strainer-hoop, which latter was pulled down to tighten the head and hold the skin around the flesh-hoop by means of hooks and nuts operated by a wrench. After the head had been stretched over the rim in this manner it was allowed to dry and thereby tighten, and then the protruding edges were trimmed off around the hoop.

In my invention I use a thin metal head and attach it by soldering or otherwise directly to the flesh-hoop, as shown in Fig. 5. The head is not flexible to any extent and does not need stretching over the rim in the manner of a calf-skin head. I simplify the manner of putting on the head by constructing the head of a thin horizontal metal sounding portion and providing it with a downwardly-extending side portion or rim, on which is constructed a flesh-hoop, so that it is ready to be applied to the rim of any banjo. I make different sizes of heads with the flesh-hoop permanently attached to the same to fit different-sized rims and furnish them as a new article of manufacture to dealers and others all complete to put upon a banjo.

I do not wish to confine myself to any particular mode of attaching the flesh-hoop to the head, as the head may be soldered or riveted to or spun around the flesh-hoop or formed integral therewith. This portion of my invention is also applicable to drum-heads.

In Fig. 6 I have shown the head attached directly to a strainer-hoop B by soldering or otherwise. This construction can be either used in connection with my particular form of banjo or it may be attached to any banjo of ordinary construction. It will be observed that with its use the flesh-hoop is unnecessary, as the hooks can be passed over the upper edge of the strainer-hoop and then tightened in the ordinary manner.

It is customary with banjos now in use to tighten the head by strainer hooks and nuts, which pull down on the strainer-hoop, the

hooks passing through brackets provided on the outside of the rim proper, and a wrench being used to tighten the nuts against the brackets. Banjos of this construction are hard to keep clean, the strainer-hoop, when tightly drawn upon, is liable to cut the calf-skin head, and the nuts, hooks, and brackets are unsightly and liable to tear the clothing. By the use of my outer auxiliary rim the hooks and brackets are completely hidden.

In the drawings, A is a combined outside rim and strainer-hoop, which is formed with an inwardly and upwardly extending portion which forms a shoulder at *a*, and a strainer-hoop *b*, the strainer-hoop *b* being integral with the rim A. The lower edge *c* of the strainer-hoop, when the rim is in position on the banjo, presses downward upon the flesh-hoop D, to which latter the head C is permanently attached, as hereinbefore described.

B is a banjo rim proper, which is provided with a circular flange E, extending around it, excepting where the neck passes through.

e e e are bolts extending downward vertically through the outside rim and down through eyes *f* in the flange E.

i i i are nuts screwing upon the bolts to bring down the strainer-hoop and tighten the head. The nuts are operated by an ordinary banjo-wrench. The neck G is attached to the inside rim B.

The use of the two rims, as described, adds to the carrying tone of the banjo, and either rim may be made thicker than the other to produce two sets of vibrations to increase or carry the intensity of the tone. The outside rim herein described may be used on any banjo, and I regard it as a very important feature of my invention. All of the brackets, as well as the handle, are attached to the inside rim, leaving the outside rim free to vibrate the same as a bell, and thereby the carrying tone is greatly increased and improved.

What I claim as my invention is—

1. As an improved article of manufacture, a head for a musical instrument comprising a horizontal diaphragm constructed of thin sounding metal and having a downwardly extending homogeneous rim portion which latter is provided with an annular projection which forms a permanent part of the rim, substantially as described.

2. As an improved article of manufacture, a banjo head made of thin sounding metal having a downwardly extending rim or side portion which latter is provided with a flesh hoop which forms a permanent part of the same, substantially as described.

3. A banjo comprising in its construction a head formed of thin sounding metal, and having a downwardly extending rim or side portion provided with a flesh hoop which forms a permanent part of the same, a rim proper provided with a horizontally extended perforated flange, an outer rim formed with an inwardly and upwardly extending flange forming a strainer hoop, said rim also being provided with bolt holes; and bolts and nuts for uniting the several parts, substantially as described.

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

NEIL MERRILL.

Witnesses:
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