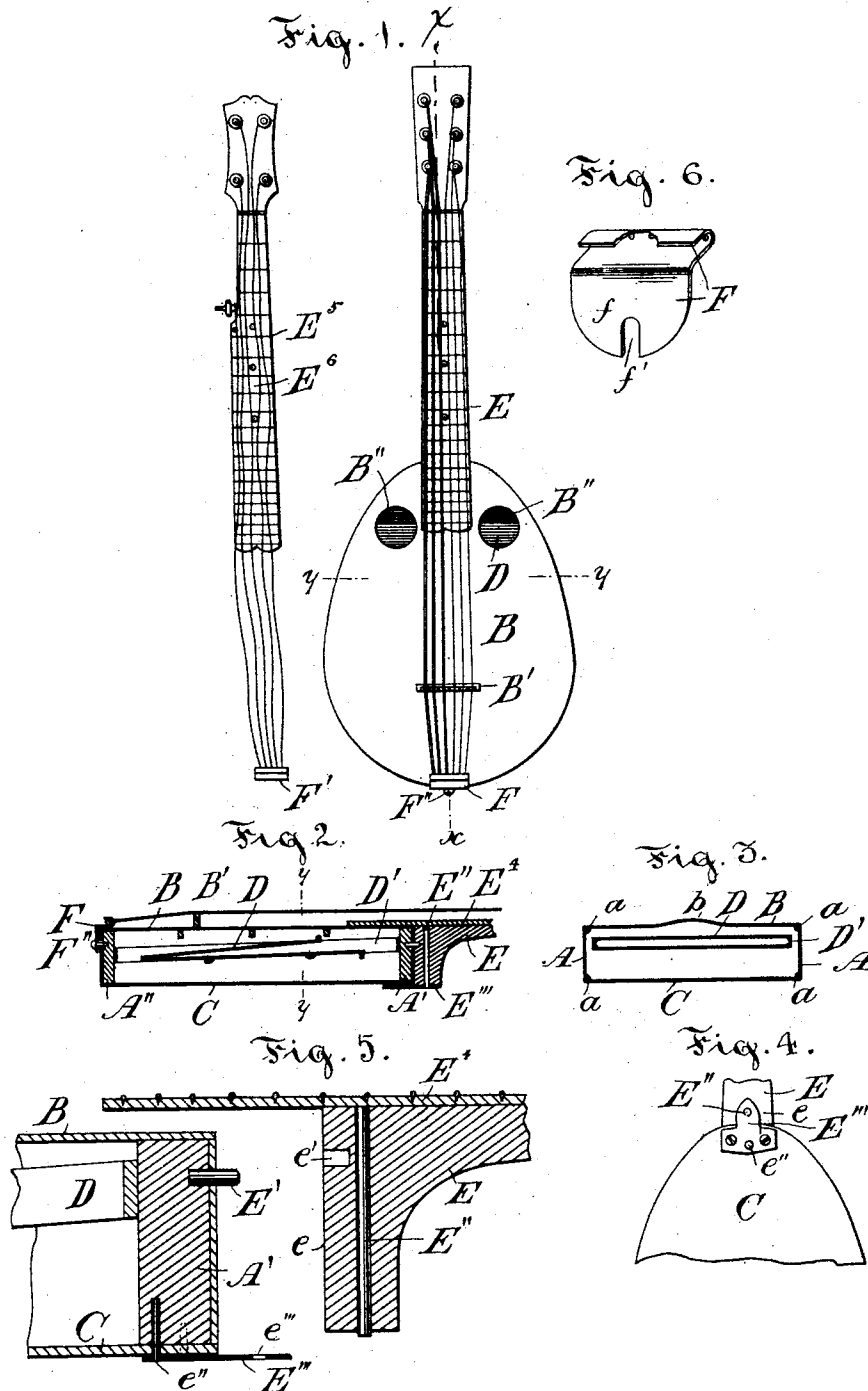


(No Model.)

J. S. BACK.
STRINGED MUSICAL HAND INSTRUMENT.

No. 514,877.

Patented Feb. 13, 1894.



Witnesses:

Charles Raley,
West Noffke.

James S. Back
Inventor

by A. Harvey
his Attorney.

UNITED STATES PATENT OFFICE.

JAMES S. BACK, OF OTTAWA, CANADA, ASSIGNOR OF ONE-HALF TO GEORGE LEWIS ORME, OF SAME PLACE.

STRINGED MUSICAL HAND-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 514,877, dated February 13, 1894.

Application filed October 23, 1893. Serial No. 438,844. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. BACK, of the city of Ottawa, in the county of Carleton and Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Stringed Musical Hand-Instruments; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part hereof.

My invention, which will be hereinafter fully set forth and claimed, relates to stringed musical instruments of the nature of guitars, banjos, bandolins, mandolins and the like.

The objects of my invention are a new instrument resembling to some extent a guitar, banjo, bandolin, mandolin or the like, but differing from any such in shape, tone and convenience and also an interchangeable neck for the same and applicable to other instruments.

Figure 1 is a top view of my new instrument fitted with a short neck, with a banjo neck shown alongside of it. Fig. 2 is a longitudinal section of the same on line *x x*, Fig. 1. Fig. 3 is a transverse section of the same on line *y y*, Figs. 1 and 2. Fig. 4 is a view of part of the back, showing the neck plate. Fig. 5 is a section of the neck attachment on a larger scale, and Fig. 6 is a perspective view of the tail piece.

The construction of the shell is the ordinary one used in guitars and similar instruments, consisting of a rim A connected at the neck and tail ends by the end-blocks A' and A'' and having the belly B and back C, strengthened with ribs, secured to it by continuous corner blocks *a*. The outline or contour of the belly and back, to which the rim conforms, differs from other instruments and is oval, the larger end being the tail end as usual and its width and length are less than that of the guitar, the loss of body thereby occasioned being approximately compensated for by the omission of a contraction known as a waist in the guitar shell.

I prefer to construct the belly B with a raised ridge *b*, consisting of a narrow transverse arch, extending longitudinally from tail end to neck end, carrying the bridge B'

which is preferably made a fixture and provided with two sets of notches, one for the guitar strings and one for the banjo strings. I also prefer to use double internal sound-board D carried by a separate rim D' secured to the end blocks A' A''. Said double sound-board runs from near the neck end and close to but not touching the belly to near the tail end sloping toward the back and then returns sloping toward the belly again and terminating nearer the neck than the point from where it started. When this internal sound-board is used, two sound-holes B'' of smaller size are provided about centrally above the lower or longer end of the same near the neck instead of a larger one centrally nearer the tail end. This instrument may, however, be made without said internal sound-board D and without the raised ridge *b* and still give good results and in such cases the ordinary sound-hole may be provided in the usual place.

E is the neck of the instrument which I prefer to make shorter than the ordinary length but which may be of the ordinary length, which I prefer to make detachable and interchangeable. For this purpose the neck is made with a plain butt joint *e* fitting against the neck end of the shell and a dowel pin E' is secured in the neck end of the shell adapted to engage a dowel hole *e'* provided in the joint face *e* of the neck. A pin E'' inserted in the cross grain of the neck end to strengthen the same is allowed to project a little below, to adapt it to engage an eye *e'''* in the projecting end of a plate E''' secured to the upper end of the back C and further secured by a pin *e''* passing through into the end block A'. The neck carries the finger board E⁴ in the usual way.

E⁵ is the interchangeable banjo neck with finger board E⁶, the neck joint being the same as the one above described. The upper end of the shell which joins the neck is made round, *i. e.* forms the small end of the oval, in contradistinction to a pointed end or pear shaped shell (speaking of the shape of the belly and back only); this shape being adopted as it affords a better surface to make the neck joint on two necks of different width fitting equally close, which cannot be accom-

plished by an end which gradually curves into the neck or by one ending in a point.

F is the tail piece for the guitar strings and F' the tail piece for the banjo strings. Each is made with an end *f* bent down to lie flat against the rim A and provided with a slot *f'* in the end to engage the neck of a pin or screw F'' passing through the rim into the end block A'' and adjusted to allow the tail piece to slip readily on or off when the strings are slackened.

It is preferred that each interchangeable neck should be provided with a set of strings secured to a tail piece ready for attachment to the instrument, so that a change may be effected quite readily within a brief space of time. When the strings are slackened, the tail piece is readily slipped off and the neck is then easily disengaged from the dowel pins, while when the neck and tail piece are in their proper positions, the tension of the strings keeps them securely in place, the dowel pins preventing the parts from moving out of position.

I claim as my invention—

1. In a new stringed musical hand instrument the combination of an oval shaped flat backed shell of smaller size than a guitar with belly B having a raised ridge *b* extending longitudinally over its entire length and provided with two sound holes near the neck, a double internal sound-board D carried by a separate internal rim D', a neck secured detachably by means of a doweled butt joint *e* and an eyed plate E''' secured to the neck end and engaging a pin E'' in the cross grain of the

neck joint and a tail piece having a bent and slotted end engaging a tail pin, substantially as set forth.

2. In a detachable neck joint, the combination of a butt face *e* having a dowel hole therein, a dowel pin E' inserted in the neck end of the rim and end block adapted to engage said hole, a plate E''' secured to the back C and end block A' and having a projecting end with an eye and a pin E'' inserted in the cross grain of the neck end parallel to the butt face and projecting at the lower end and adapted to engage the eye in the said plate, substantially as set forth.

3. The combination with the shell of stringed hand instruments of a neck having a butt joint fitted against the neck end of the shell, the dowel pin E' inserted in the rim and engaging a dowel hole in said butt face, the plate E''' secured to the back under the end block and having a projecting end with an eye, a pin E'' inserted in the cross grain of the neck end and projecting below and engaging the eye in said plate, a tail piece having a bent end *f* with a slot *f'*, a tail pin or screw F'' in the tail end of the shell adapted to engage said slot in the tail piece, and the strings secured to said tail piece and the head of the neck, substantially as set forth.

In testimony whereof I have signed in the presence of the undersigned witnesses.

JAS. S. BACK.

Witnesses:

A. TROWSE,
B. HARNEY.