(No Model.) 2 Sheets—Sheet 1.

D. T. MOORE.

BANJO.

No. 484,222. Patented Oct. 11, 1892.

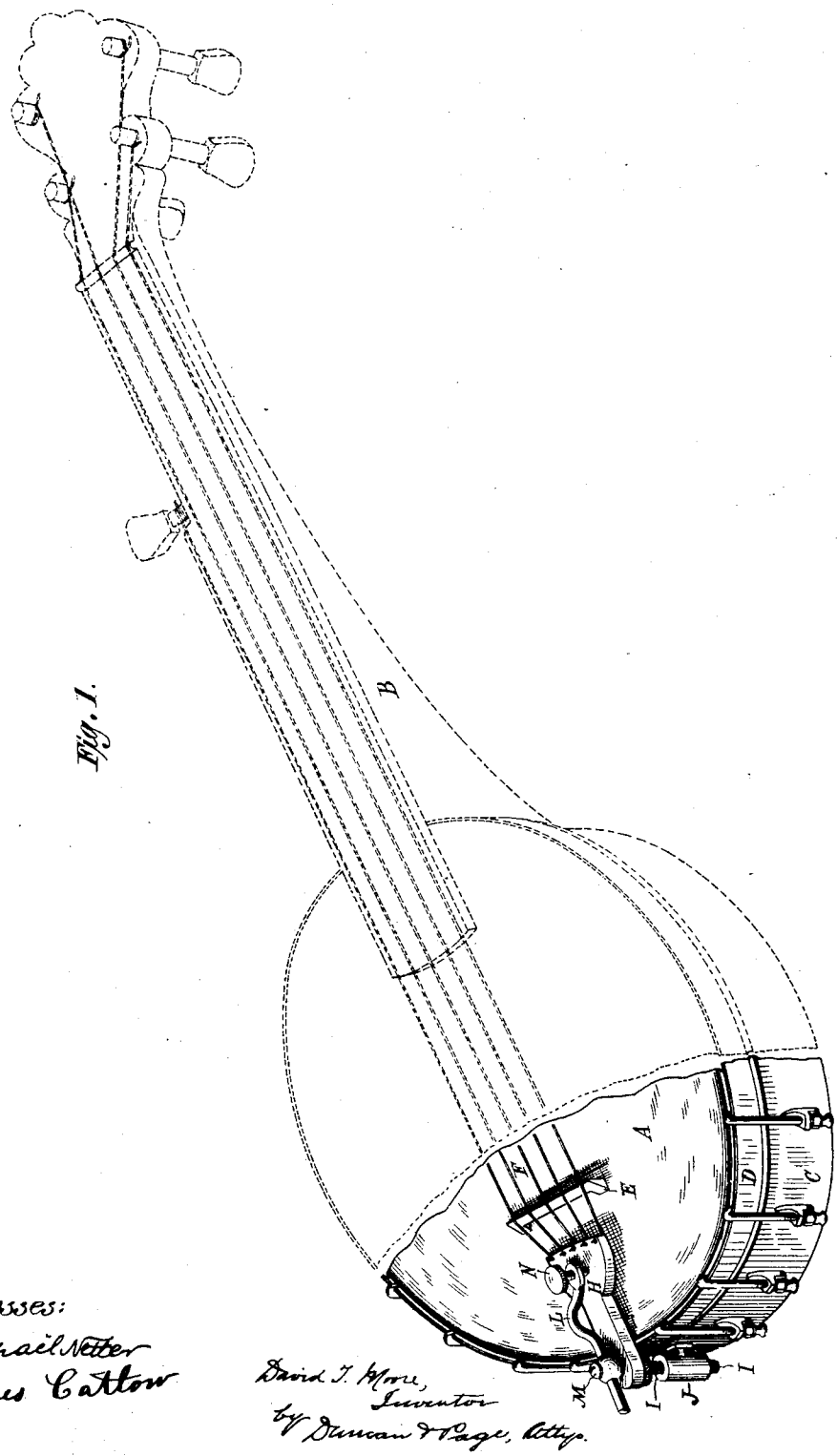

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2

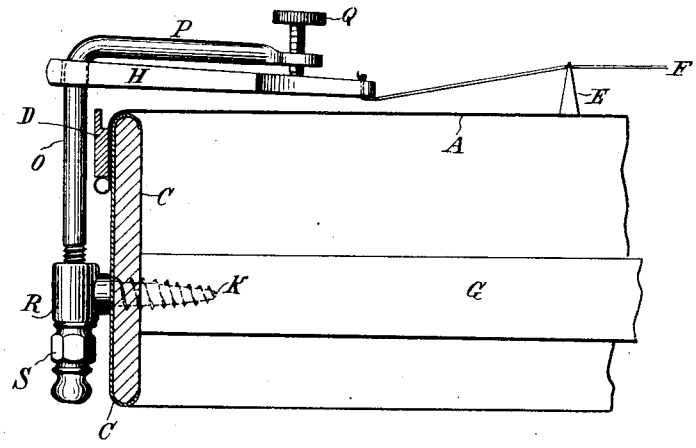


Fig. 3

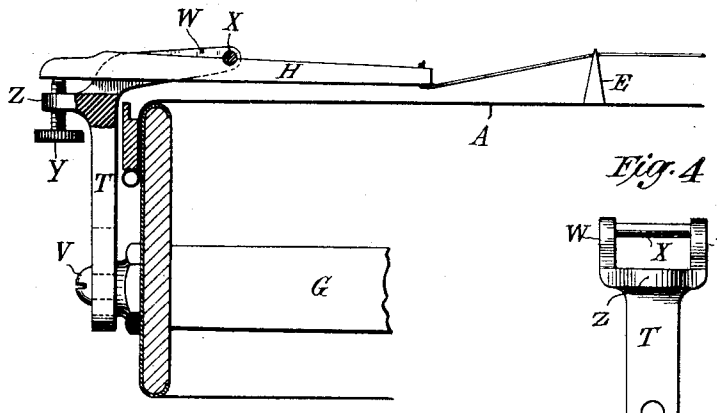
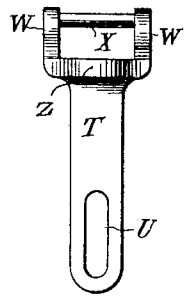


Fig. 4



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UNITED STATES PATENT OFFICE.

DAVID T. MOORE, OF BROOKLYN, NEW YORK.

BANJO.

SPECIFICATION forming part of Letters Patent No. 484,222, dated October 11, 1892.

Application filed July 20, 1892. Serial No. 440,653. (No model.)

To all whom it may concern:

Be it known that I, DAVID T. MOORE, a citizen of the United States, residing at Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Improvement in Banjos, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

This invention relates to improvements in the tail-pieces of banjos.

In the construction and arrangement of the strings on a banjo, as is well understood, the strings are attached at the head of the instrument to a tail-piece, which is pivotally or movably secured to the hoop, and the strings pass over and bear upon a bridge resting on the parchment head. The tail-piece of a banjo, as heretofore commonly used, has been connected to the hoop by various means and devices; but in most, if not all, cases the tail-piece has preferably been so attached as to be capable of lateral deflection both horizontally and vertically. The bridge also of a banjo is capable of movement on the head, it being impracticable because of the stretching of the head to fixedly secure it thereto. These conditions, more or less necessarily present, as is well understood by players of the banjo, involve the likelihood of the displacement of the bridge and the consequent disturbance of the musical interval between the strings. This is particularly the case whenever the strings are strongly manipulated by the player, and the main cause is to be found in the fact that the front end of the tail-piece—the end next the bridge—is movable vertically. A vigorous pull or pluck, particularly on the heaviest string, lifts the front end of the tail-piece and forces or tends to force the bridge out of the position in which it was when the instrument was tuned.

It is the object of my improvement to secure the tail-piece of a banjo so that its forward end will be held securely against movement by the manipulation of the strings, and to also arrange the tail-piece so that its forward end can be adjusted vertically to and from the head at the will of the player to increase or reduce the tension of the strings.

The invention consists of a banjo provided with a support supplemental to the tail-piece and bearing upon the same in such manner as to hold the front end of the tail-piece depressed or against vertical movement away from the head, which supplemental support is preferably arranged so as to prevent lateral movement of the tail-piece as well as vertical, and is provided with means whereby it can be adjusted relatively to the tail-piece and also adjusted to bear upon the tail-piece with any desired pressure.

In the drawings, Figure 1 is a perspective view of a banjo, shown as provided with one form of support for controlling the forward end of the tail-piece. Figs. 2 and 3 are enlarged detail views on vertical planes through the axes of the head of modified forms of tail-piece supports. Fig. 4 is a detail elevation view of the tail-piece support shown in Fig. 3.

In these views, A represents the head of a banjo; B, the neck; C, the hoop; D, the adjustable head-stretching ring; E, the bridge; F, the strings, and G the neck-bar that spans and braces the hoop.

H is the tail-piece. This is of any suitable form and material and is supported on a screw I, passing freely through a hole in the rear end of the tail-piece and through the screw-head J, which in turn carries a screw-shank K, that is firmly screwed through the hoop and into the end of the neck-bar, as seen in Fig. 2. The size and strength of these parts are such that they act to sustain the tension of the strings without essential deflection.

L is a rigid or practically-inflexible arm, which is lengthwise adjustable in and is supported by the head or upper end of the screw I, a set-screw M serving to fix the arm at any desired position. This arm extends centrally along and above the tail-piece, and at its forward end carries a thumb-screw N, the point of which bears upon the front end of the tail-piece. It will now be plain that by turning the screw N down pressure will be put upon the forward end of the tail-piece and the same will be depressed, and that such screw and its supporting-arm will resist any upward tendency of the forward end of the tail-piece when the strings of the instrument are being manipulated. By these means the bridge is prevented being displaced on the head and the strings are readily kept in perfect tune

individually and relatively. This device also constitutes a means whereby the tone of the strings can be delicately shaded, since by the slight alteration of the vertical position of the forward end of the tail-piece will the tension on the strings be altered.

In Fig. 2 I show a tail-piece support in which the vertical part O and horizontal part P, that carries the bearing-screw Q, are integral. This support passes loosely through the rear end of the tail-piece and through the head R of the screw K, and a nut S serves to adjust the holder vertically.

In Fig. 3 the tail-piece support is a forked piece T, adapted to be vertically secured to and adjusted on the banjo-hoop, as by slot U and screw V. The fork or arms W are connected by pin X at their forward ends. The rear end of the tail-piece is inserted between these arms, and a cross-slot in the same engages the pin X, while the rear end bears upon a screw Y, threaded in the bracket Z. Turning the screw Y up or down causes the forward end of the tail-piece to be depressed or permits it to rise.

Various other forms of this improvement are possible, and I do not therefore limit myself to any particular form.

What is claimed as new is—

1. In combination with the tail-piece of a banjo, a support or bearing adapted to press upon and hold the forward end of the tail-piece against upward movement, substantially as set forth.

2. In combination with a banjo and the tail-piece thereof, a vertically-adjustable support adapted to bear upon the front end of the tail-piece and hold the same against upward movement, substantially as set forth.

3. In combination with a banjo and its tail-piece, a support for the tail-piece, adapted to hold the forward end of the same against upward movement, substantially as set forth.

4. In combination with a banjo and its tail-piece support, an arm arranged adjacent the tail-piece and carrying a screw which bears upon the tail-piece and is adapted to hold the same against vertical movement, substantially as set forth.

5. In combination with a banjo and its tail-piece and tail-piece support, a vertically-adjustable arm arranged adjacent the tail-piece and adapted to bear on the tail-piece and hold the same against upward movement, substantially as set forth.

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