

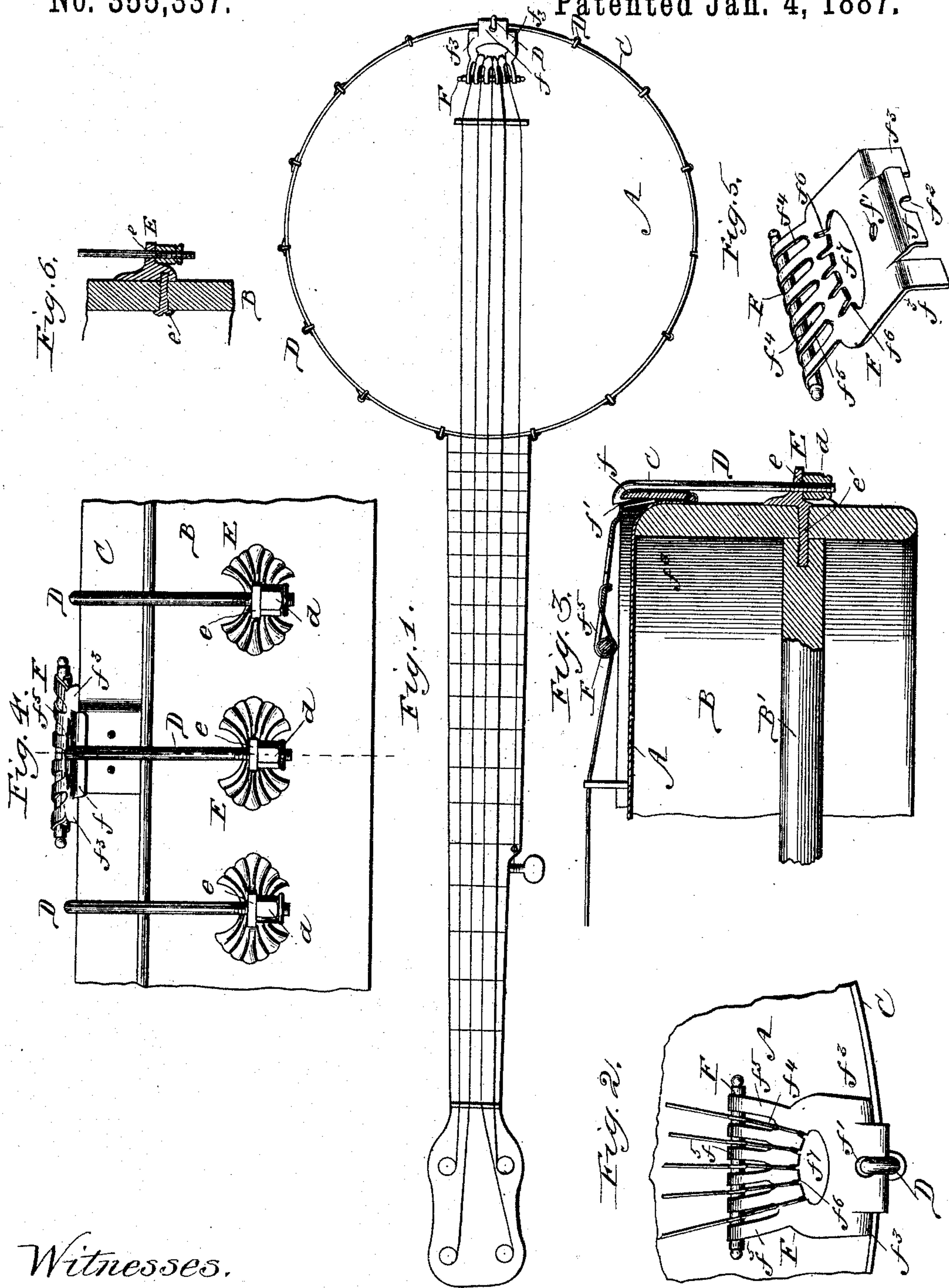
(No Model.)

C. N. POST & G. B. DURKEE.

BANJO.

No. 355,337.

Patented Jan. 4, 1887.



*Witnesses.*

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# UNITED STATES PATENT OFFICE.

CHARLES N. POST AND GEORGE B. DURKEE, OF CHICAGO, ILLINOIS, AS.  
SIGNORS TO LYON & HEALY, OF SAME PLACE.

## BANJO.

SPECIFICATION forming part of Letters Patent No. 355,337, dated January 4, 1887.

Application filed February 27, 1886. Serial No. 193,410. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES N. POST and GEORGE B. DURKEE, both citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Banjos, of which the following is a specification.

The principal objects of this invention are to provide improved means for holding the tail-piece of a banjo in place upon the instrument; to improve the construction of a metal banjo tail-piece with reference to its securement upon the banjo; to permit the utilization of one of a set of ordinary tension-hooks that hold down the stretching rim or ring, as a means for holding down the tail-piece, and to provide certain improved details, hereinafter set forth.

To the attainment of the foregoing and other useful ends, our invention consists in matters hereinafter described, and particularly pointed out in the claims.

Figure 1 represents a face view of a banjo provided with our improvement. Fig. 2 shows, on a larger scale, a plan view of the tail-piece applied to a banjo, of which latter only a portion of the head and stretching-ring is shown. Fig. 3 represents a section taken on line *x x*, Fig. 4. Fig. 4 represents in side elevation a portion of the banjo. Fig. 5 is a perspective view of the tail-piece. Fig. 6 is a detail showing one of the ways the brackets can be attached to the hoop.

The construction of banjo herein illustrated involves the head A, that is stretched over and to some extent drawn down upon the hoop B by means of a stretching band or ring, C, which latter is controlled and securely held in place by means of a series of ordinary adjustable tension-hook bolts, D. These tension-hook bolts are arranged at intervals around the hoop, and have their upper hook ends applied to engage the upper edge or rim of the stretching-ring.

The tension-hook bolts are guided in their end adjustments, and also maintained in place around the hoop, by brackets E, that are detachably secured to the hoop. Each bracket consists of an ornamental plate provided with an eye, *e*, for its allotted hook-bolt. The

brackets are held against the outer side of the hoop by screws which pass through the hoop, the bracket opposite the rear end of the brace B' having the screw *e'* integral with the bracket-plate, for convenience, while the screws for the remaining brackets can obviously be separate from the brackets and arranged to pass through the hoop from the inner side thereof, so as to engage threaded sockets in the brackets, as in Fig. 6.

As a means for adjusting the tension-hook bolts, each bolt is threaded at its lower end and provided with a nut, *d*, that can be tightened up against the eye through which the bolt passes, in which way the several bolts can be adjusted so as to draw down the stretching-ring and thus tighten the head to the required degree.

The foregoing stated organization of brackets and adjustable tension-hook bolts constitutes an efficient and extremely desirable arrangement of means for effecting the required tension of the head. This organization of parts also involves the desiderata of neatness, simplicity, and general desirability. It is particularly desirable that said system or organization of parts should not be interrupted, and that the appearance should not be marred by the introduction of any other construction of device for holding the tail-piece to which the strings are attached, and in view of this desideratum one of the features of this invention consists in securing the tail-piece in place by one of the aforesaid tension-hook bolts, the tail-piece being at its rear end portion adapted with reference to said means for holding it in place upon the banjo, as will hereinafter appear.

To the furtherance of said end we provide a tail-piece, F, which, while possessing features that have direct reference to its attachment to the stretching-ring and to the tension-hook bolt that holds it in place thereon, also possesses features which, as will be hereinafter seen, have particular reference to the attachment to said tail-piece of the banjo-strings. With reference to its attachment to the stretching-ring, the tail-piece comprises a metal plate bent down at one end to form a lip, *f*, which, when the tail-piece is in position over the head of the banjo, laps over and embraces



a portion of the outer side of the stretching-ring. In this way one end of the tail-piece is practically made into a hook adapted to engage the upper rim portion of the stretching-ring. The tension-hook bolt, which is utilized for holding the tail-piece in place, is arranged immediately in rear of the tail-piece, and is adjusted so that its hook portion shall be drawn down upon the rear end portion of the tail-piece, thus clamping or holding the latter down upon the stretching-ring, which serves as a rest for the tail-piece, as hereinbefore stated.

Preferably the tail-piece has its rear end portion bent slightly down from a point in advance of its hook end, in order to permit the hook to be lowered when the tail-piece is lifted at its forward end, by reason of the height of the bridge that is placed under the strings. The tail-piece is also provided with a perforation,  $f'$ , located forward of its rear bent terminal, and consequently forward of that portion of the stretching ring or band on which the tail-piece rests, said perforation being in position to receive the terminal of the hook end of the tension-bolt. The object of this feature is to allow the tension-hook bolt to be lowered sufficiently to more firmly engage the tail-piece, and also to hold the tail-piece against displacement. The tail-piece being hooked onto the stretching ring or band, which forms a seat for the tail-piece, necessarily of itself resists the tendency of the strings to draw it forward, while at the same time the engagement with the tail-piece of the terminal of the hook portion of the tension-hook bolt at a point forward of the downwardly-bent lip or hook-portion of the tail-piece serves as an additional means for holding back the tail-piece, which latter is securely held down and clamped between the hook of said tension-bolt and the upper edge of the stretching-ring.

The hook end of the tail-piece is herein shown provided with a notch,  $f^2$ , (see Fig. 5,) of a width sufficient to receive a portion of the tension-bolt. Where the hook end of the tail-piece comes opposite the lapping ends of the stretching-ring, said notch is especially desirable on account of the increased thickness of material, which, if augmented by the thickness of the metal plate forming the tail-piece, might prevent the tension-hook bolt from assuming its proper upright position; but in any event, where a portion of the tension-bolt is thus received in a notch in the hook end of the tail-piece, the latter will be securely held, and, in fact, this feature, in conjunction with the hook-bolt entering the perforation in the tail-piece, would sufficiently hold the latter. The tail-piece is hooked onto the rim portion of the stretching-ring and the tension-hook bolt applied, so as to draw its hook end down upon the tail-piece, as illustrated.

As an auxiliary for preventing any side shifting of the tail-piece, and for preventing it from dropping off in case the bolt should be loosened up, the tail-piece is provided with one or more, but desirably with a pair, of

downwardly-bent lips,  $f^3$ , arranged to bear or lie against the inner side of the stretching-ring, which latter, as will be seen, projects above the head sufficiently for such purpose.

With reference to the means devised for permitting the attachment of the strings, the tail-piece is further constructed as follows, to wit: At its forward end portion it is provided with a series of substantially-longitudinal slits or slots formed to extend back from its front edge for a comparatively short distance, and desirably corresponding in number to the number of strings. The outer terminals of the strips or prongs  $f^5$  that are thus formed are bent so as to grasp and hold a transversely-arranged cylindric bar,  $F$ , which is rigid with the tail-piece, substantially as has heretofore been accomplished in devices of this class. This bar affords at the spaces occurring between said strips  $f^5$  cylindric surfaces about which the strings can be wrapped without injury to the strings, while those portions of the slots that are back of the bar afford spaces through which the strings can be passed in order to carry them around the bar. Back of these said slots  $f^4$  the metal plate forming the main body of the tail-piece is provided with a series of short slots or notches,  $f^6$ , both in alignment with and corresponding in number to the slots  $f^4$ . The object of these notches  $f^6$  is to provide means whereby the strings, after being wrapped one or more times round the bar, can, in place of being tied to the latter, be knotted at their terminals, and their said knotted terminals carried back and engaged in the notches  $f^6$ , which are of a size to permit the passage of the strings, but too small to permit the knots to be drawn through them. In this way the strings can be securely fastened to the tail-piece, since with banjo-strings but little dependence could be placed upon strings passed around and tied to the bar, and, furthermore, the unsightly appearance of strings tied to the bar is avoided.

To facilitate the fitting of the strings into the notches  $f^6$ , with the knots of the strings below said notches, the latter all run into an opening,  $f^7$ , which can be readily made at the time the slots and notches are formed.

If preferred, the portion of the metal plate intervening between the slots  $f^4$  and the notches  $f^6$  can be provided with shallow channels leading from the slots to the notches, so as to provide gutters for the strings passing from the one to the other to lie in, although such construction is not absolutely or particularly necessary.

The passage of the strings around the bar and also over the metal intervening between the slots and notches serves to practically avoid strain upon the knots, since the strain upon the latter is so slight as to be productive of no casualties whatever.

What we claim as our invention is—

1. The tail-piece hooked onto the stretching band or ring, combined with an adjustable tension-hook bolt having its hook end applied to engage and hold the tail-piece in engage-



ment with the stretching-ring, substantially as described.

2. The tail-piece having its rear terminal portion bent to form a hook, *f*, which is hooked  
5 onto the stretching-ring of a banjo, combined with an adjustable tension-hook bolt, *D*, applied with the terminal of its hook portion in engagement with the tail-piece, which latter is held down and clamped between said hook  
10 of the adjustable tension-hook bolt and the upper edge of the stretching band or ring, substantially as described.

3. The tail-piece adapted and applied to hook onto the stretching-ring, in combination  
15 with one of the herein-described tension-hook bolts applied to secure the tail-piece, which latter is cut away at its hook end to provide space for that portion of the said bolt which

is opposite the stretching-ring, substantially as described.

4. The tail-piece combined with and held  
20 down by the hook portion of an adjustable tension-hook bolt, said tail-piece being provided with a perforation, *f'*, in which the terminal of the hook end of the said adjustable  
25 hook-bolt is received, substantially as described.

5. The tail-piece hooked onto the stretching-ring and provided with one or more pendent lips arranged to bear against the inner  
30 side of said ring, substantially as described.

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