May 21, 1929. M. A. OETTINGER 1,713,855

BANJO AND THE LIKE

Original Filed March 27, 1924 2 Sheets-Sheet 1

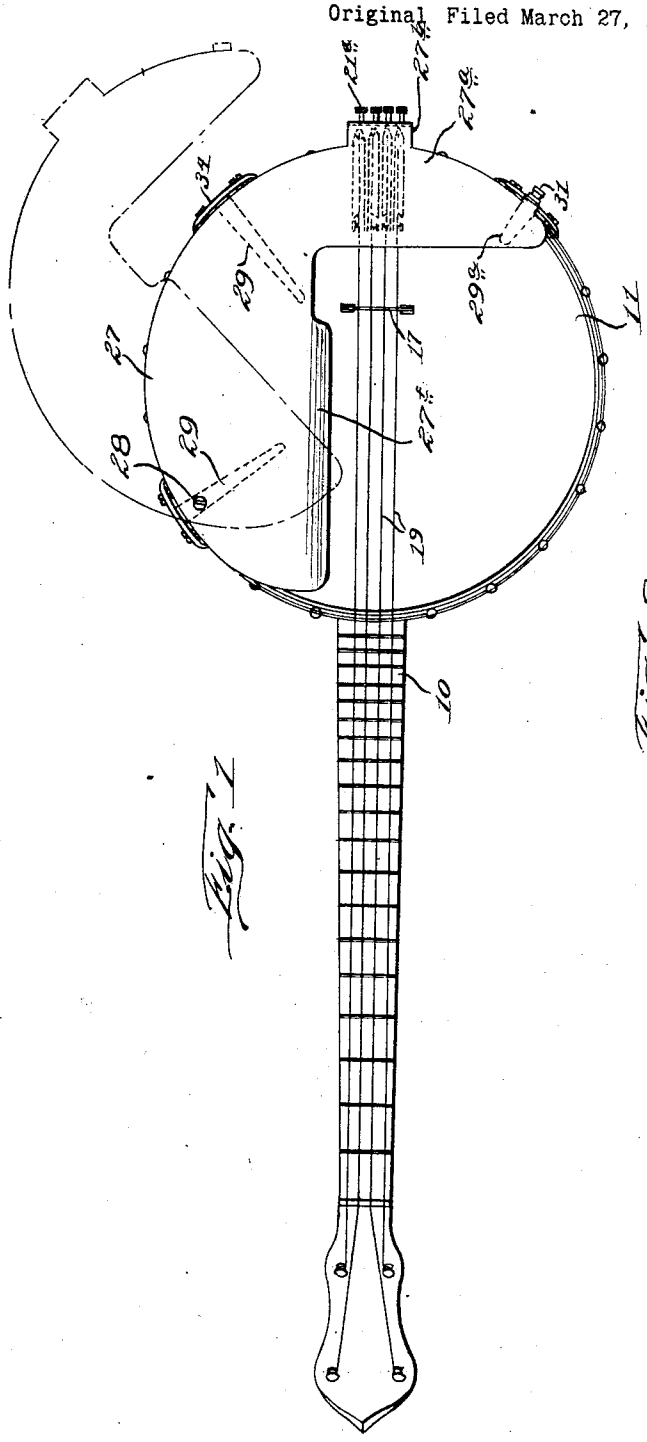

Fig. 1

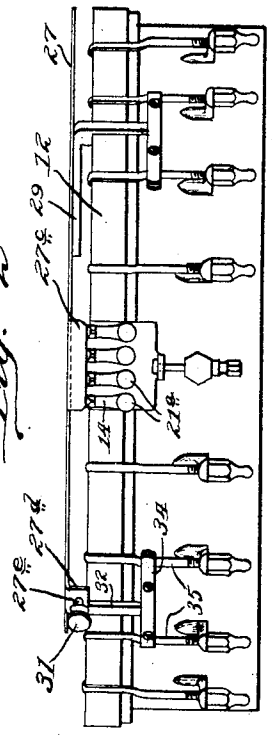

Fig. 2

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Fig. 3

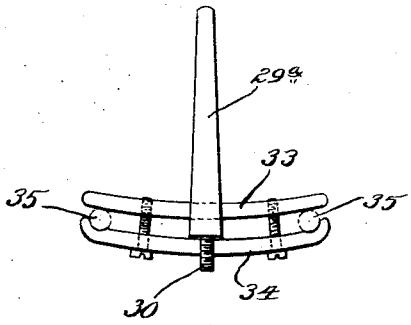


Fig. 4

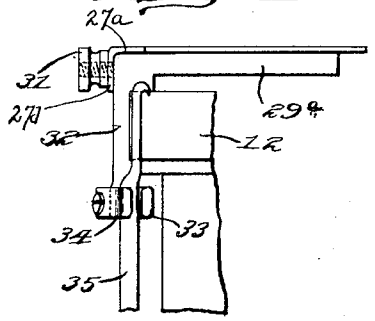


Fig. 5

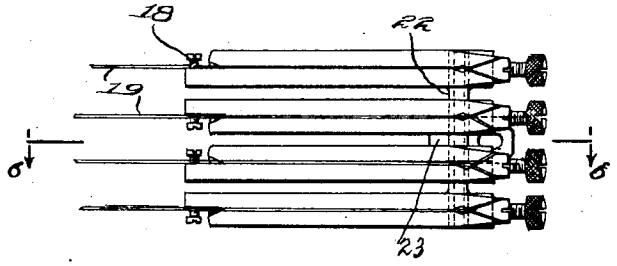


Fig. 6

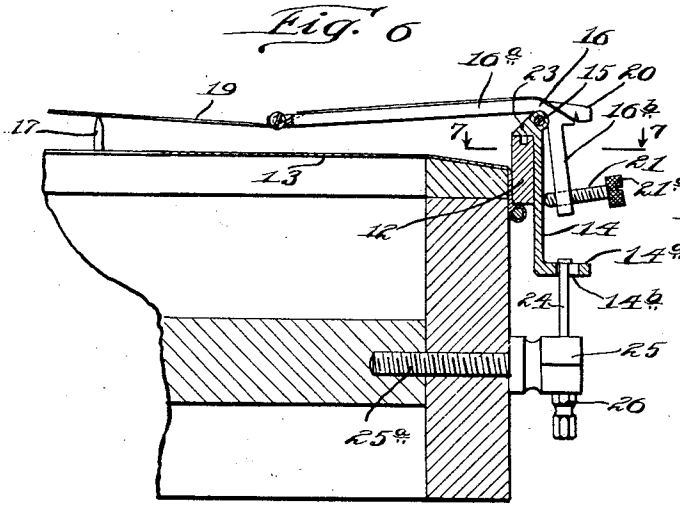
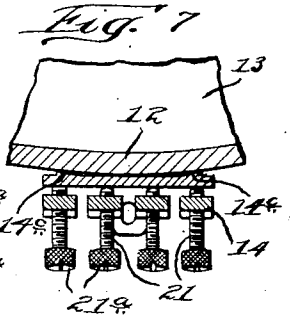


Fig. 7



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UNITED STATES PATENT OFFICE.

MARK A. OETTINGER, OF WATERTOWN, MASSACHUSETTS, ASSIGNOR TO BACON BANJO CO., INC., OF GROTON, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BANJO AND THE LIKE.

Application filed March 27, 1924, Serial No. 702,331. Renewed March 12, 1929.

This invention relates to banjos and other plectrum musical instruments of the banjo type, the term banjo as hereinafter used being intended to include and typify instruments of this character. One principal object of the invention is to provide a tailpiece for instruments of the banjo type equipped with provision for an accurate or micrometric tuning of the individual strings thereof, the tailpiece for this purpose being equipped with individual adjusting elements such as screws, which act on fingers extending inward of the banjo head to act upon the respective strings relatively close to the bridge of the instrument, with a pressure that may be varied at will so as to raise or lower the pitch of the respective strings. A further object is to provide an improved construction of arm rest adapted to be detachably engaged with the head of the instrument, such arm rest serving also as a cover and protector for the tailpiece and the adjusting elements mounted thereon, as well as for the clothing of the player, and serving still further as a resonator increasing the volume of sound. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description taken in connection with the accompanying drawings, and the distinctive features of novelty will be pointed out in the appended claims.

Referring to the drawings:

Fig. 1 is a plan view of a banjo equipped with the invention;

Fig. 2 is an end view thereof;

Fig. 3 is a fragmentary plan view showing a rest and securing means for one end of the arm rest plate;

Fig. 4 is a fragmetary side view thereof;

Fig. 5 is a detail plan view of the string adjusting tailpiece;

Fig. 6 is a vertical section through the string adjusting tailpiece on line 6—6 of Figure 5; and showing also a portion of the banjo head in diametrical section; and

Fig. 7 is a fragmentary horizontal section on line 7—7 of Figure 6.

10 indicates the banjo having a usual head 11, which is illustratively shown as equipped with a stout metallic band 12 adjustably fitted therearound at the side to which the stretched parchment 13 is applied, though the invention is not limited to this particular type. In carrying out my invention I provide a tailpiece comprising a bed plate 14 equipped at its upper end with a bearing pintle 15, on which are pivotally mounted a plurality of L-shaped lever members 16 corresponding in number to the number of strings of the instrument, i. e., four as shown. The lever members 16 comprise relatively long fingers 16^a which extend well inward of the head and relatively close to the bridge 17 of the instrument, with their extremities rabbeted and equipped with pins or studs 18 adapted to have the instrument strings 19 engaged thereunder and thence extended outward over the tops of these fingers with the extremities of the strings engaged with, and secured to, notched projections 20 extending outward a small distance from the inner extremities of these fingers. The lever members 16 also comprise relatively short arms 16^b, extending downward in proximity to the outer surface of the bed plate 14 and bearing adjusting screws 21 tapped in the extremities thereof, to extend inward and engage against the bed plate 14, these screws preferably having knurled heads 21^a for convenient hand adjustment. Certain of the lever members 16, i. e., as shown the two outer ones, may be equipped with spacing bosses 22 at the sides thereof, at the locality of their pivot mounting to hold them properly spaced from the two inner lever in accordance with the spacing of the strings. The bed plate 14 is provided with a beak 23 which extends upward between the two central lever arms 16 to serve as a spacer therefor, this beak also serving to engage over the top of the metallic band 12 and co-operate in clamping the bed plate rigidly in place. For thus clamping the tailpiece bed plate it is provided with an outturned lower extermity 14^a, through a slot 14^b of which a bolt 24 is passed, this bolt having a head engaging the bed plate portion 14^a, and having its other end passed loosely through an opening of a head 25 borne by a screw 25^a which is set into the banjo

head and cooperates in holding the parts assembled, this head 25 being of usual construction for securing the tailpiece in place. The bolt 24 has a nut 26 threaded thereon, which as it is turned engages against the head 25 to draw the bed plate 14 of the tailpiece downward and clamp it securely in place by the engagement of the beak 23 upon the top of the band 12. In order to provide adequate bearing surface of the bed plate 14 upon the curving periphery of the band 12 of the banjo head, so as to avoid any tendency of the bed plate to rock, it is provided with vertical ribs 14^c adjacent the sides thereof, these ribs being of a thickness to engage the band 12 at these spaced apart localities, and thus hold the bed plate secure. By the described construction the tailpiece is held rigidly clamped in place and is unaffected by variations in tension of the individual strings,—i. e., a relative lessening of the tension of a string at one side or the other does not tend to draw the tailpiece askew or out of alinement, as has been the case with tailpieces hitherto which have embodied means engaging the strings inward of the head so far as known to me. It will be understood from the foregoing description that the tension upon the several strings may be individually adjusted by turning the several adjusting screws 21 as required to raise or lower the pitch of each particular string, and that the micrometric tuning effect thus obtained, is exerted by the pressure of the fingers 16^a upon the respective strings relatively close to the bridge 17 which results also in increasing the tone volume of the instrument. The invention also comprehends an improved arm rest which is constituted to also serve as a cover for the adjusting elements of my improved tailpiece. This arm rest comprises a plate 27 which may be pivoted at 28 to one of a plurality of fingers 29 that are secured to the head of the instrument and extend radially inward as a support for the arm rest plate 27. This arm rest, as shown, comprises a portion 27^a which extends over the adjusting fingers 16^a with an outward extension 27^b having a down turned end 27^c extending over the tailpiece and the extremities of the adjusting levers to which the ends of the strings are secured. These portions 27^a and 27^b of the arm rest, thus serve to completely guard and protect the adjusting elements of the tailpiece against injury, and also protect the clothing of the player from catching on any part of the tailpiece mechanism. The extremity of the plate portion 27^a is formed with a down turned lip 27^d having a notch or open ended slot 27^e therein adapted to engage a threaded stud 30 borne by a finger 29^a at the other side of the head from the pivot 28, this threaded stud being equipped with a knurled nut 31 for clamping the arm rest in place. Thus upon release of this knurled nut the arm rest may be swung outward to the dotted line position as indicated at 27 to facilitate tuning adjustments and when it is desired to have access to the tailpiece for any attention thereto. The arm rest may be provided with a portion 27^f which may extend inward of the head in parallelism with the strings and relatively near thereto for the convenience of the player in picking the strings. As herein illustratively shown there are three of the inwardly extending fingers 29 to support the arm rest, including a shorter one 29^a where the outer extremity of the arm rest is secured. These fingers 29 have down turned extensions 32 at the outer ends thereof which are adapted to be clamped between bars 33, 34, and the extremities of these bars are clamped to adjacent ones of the draw rods 35 which engage the band 12 to tension the parchment head as usual. The arm rest thus constituted serves not only as a guard for the head and for the tailpiece and as a protector for the clothing of the player, but it also acts as a resonator producing a substantially greater tone volume for the reason that it makes in effect a closed tone chamber between it and the parchment head. I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

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

1. In a banjo or the like, a tailpiece equipped with means for effecting individual micrometer adjustment of the strings, consisting in a bed plate clamped to the head of the instrument and bearing a plurality of bent lever members equipped with means for adjusting the same individually, each of said members having a finger extending inward of the head a substantial distance with its extremity engaged with the string.

2. In a banjo or the like, a tailpiece bearing a series of individually adjustable pivoted fingers extending inward of the head to bear upon the respective strings relatively near the bridge of the instrument, and means for moving any finger independently of any other finger toward or from its respective string to tune said string.

3. A tailpiece for banjos and the like, equipped with means for clamping the same to the head of the instrument and having pivoted thereto a plurality of bent lever members in spaced apart relation, said members consisting in fingers extending inward of the head a substantial distance to engage the respective strings, and downward extensions

bearing screws adapted to engage said clamping means for variably tensioning the strings.

4. A tailpiece for banjos and the like, comprising a bed plate to be clamped against the head of the instrument, equipped with bearing ribs spaced apart adjacent the sides thereof to engage the curving contour of the head, and means mounted on said bed plate extending substantially inward of the head to engage the respective strings, and equipped with means for variably tensioning them.

In testimony whereof, I have signed my name to this specification.

MARK A. OETTINGER.