

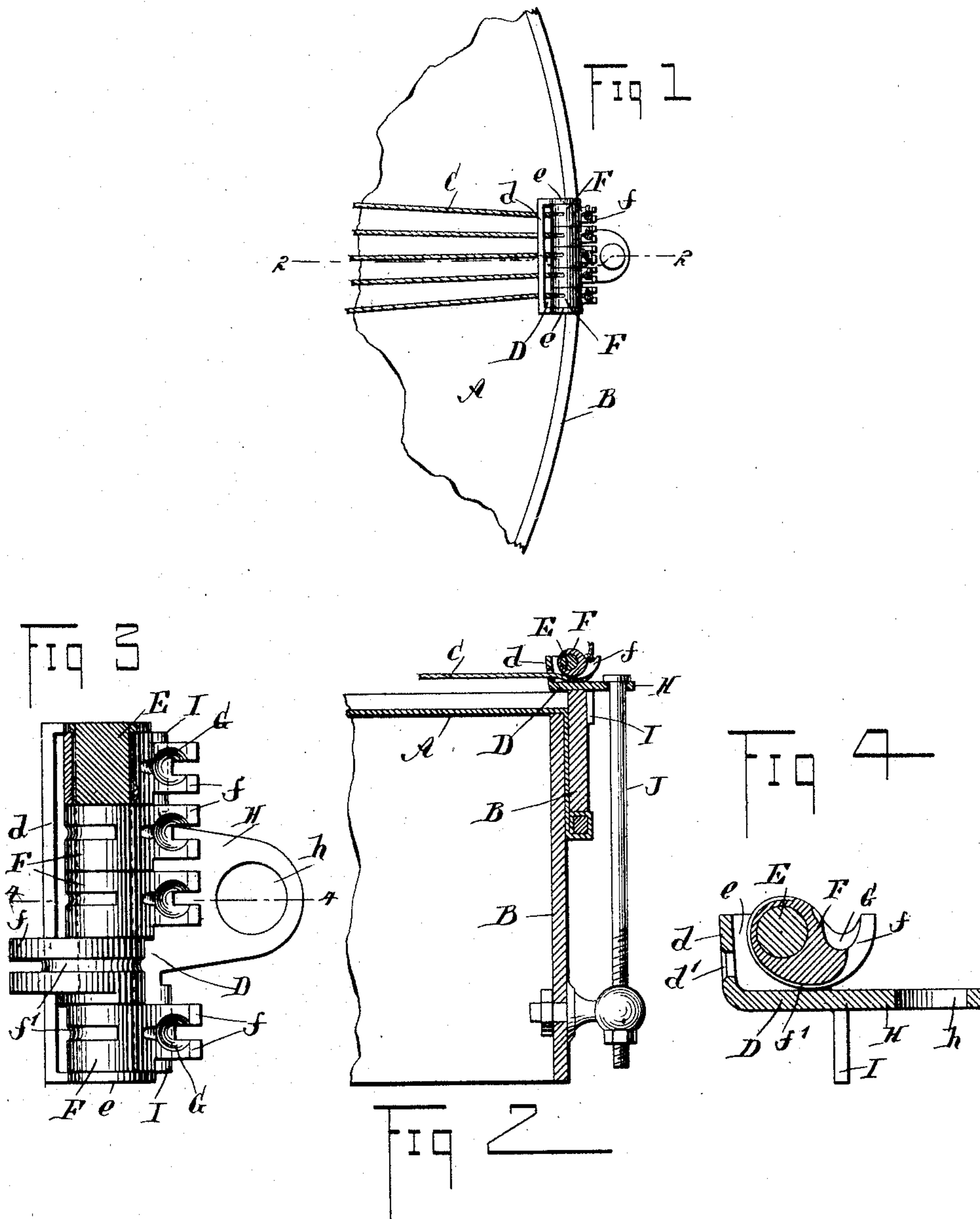
No. 617,915.

Patented Jan. 17, 1899.

G. F. WELLS.  
TAILPIECE FOR STRINGED MUSICAL INSTRUMENTS.

(Application filed Mar. 3, 1898.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

GEORGE FREEMAN WELLS, OF PHILADELPHIA, PENNSYLVANIA.

## TAILPIECE FOR STRINGED MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 617,915, dated January 17, 1899.

Application filed March 3, 1898. Serial No. 672,411. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE FREEMAN WELLS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have  
5 invented a new and Improved Tailpiece for Stringed Instruments, of which the following is a full, clear, and exact description.

My invention relates to an improvement in tailpieces for stringed musical instruments,  
10 such as the banjo and guitar, and has for its object to produce a convenient fastening means for these strings and one which will securely hold the strings without injuring the strings by a fraying or bending action, and  
15 thus conduce materially to the life of the string.

My invention consists of certain novel constructions, which will be hereinafter described and claimed.

20 Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a top plan view of a portion of  
25 a banjo-head, showing the tailpiece applied thereto. Fig. 2 is a cross-sectional elevation of the same on the line 2 2 in Fig. 1. Fig. 3 is a top plan view of the tailpiece on a larger scale, showing one of the cam-shoes and its  
30 portion of the shaft in section; and Fig. 4 is a cross-sectional elevation of the tailpiece, on an enlarged scale, on the line 4 4 in Fig. 3.

With the greater portion of the tailpieces in common use the string is attached in such  
35 a manner that it is either bent over a sharp corner or secured in some other manner, so that the string will be eventually broken at this point and long before the string has reached its normal life. In my invention the  
40 object is to secure the string in such a manner that it will be securely held without breaking until it has reached the limit of its normal life.

The principal member of the tailpiece consists of the plate D, which is bent in such a  
45 manner as to form a frame for the remainder of the tailpiece, said remainder consisting of a shaft E and the cam-shoes F, which are journaled upon the shaft E. This frame  
50 piece or plate D is preferably formed of a plate of wrought metal having flanges bent

thereon in the manner hereinafter described. It may, however, be formed in any suitable manner and of any suitable material.

The plate D has a flange *d*, bent upward at its  
55 forward edge or the edge which is toward the center of the instrument-body. This flange *d* is provided with a series of holes *d'*, extending through the same near its base and adapted to receive the strings. Upon opposite sides  
60 of the plate D, next to and at right angles to the flange *d*, are flanges *e*. These flanges *e* are also at right angles to the base-plate D and form supports for the ends of the shaft E.

Upon the shaft E are pivoted a series of in-  
65 dependent cam levers or shoes F. The shaft E is located at such a distance above the plate D that the cam-surface of the shoes will come in contact with the upper surface of the plate. These cam-shoes are provided with a rear-  
70 wardly-extending toe *f*, which is centrally split, forming a notch adapted to receive the knotted end of the string. The shoes are also preferably provided with a groove *f'*, extending through the length of the cam-surface and  
75 connecting with the slot between the toes *f*. The upper surface of the cam near the toes *f* is provided with a central recess or pocket G, adapted to receive the knot on the end of the  
80 string.

In use the string is passed through the hole  
*d'* and beneath the cam-shoe F. The end of the string is then knotted and passed within the slot between the toes *f*, with the knot resting in the pocket G. The body of the string  
85 then extends beneath the shoe F and is engaged between the same and the plate D, occupying the groove *d'* in the shoe. The strain upon the string will cause the shoe F to be pressed firmly down upon the plate D and  
90 upon the string between them. By this construction the entire strain upon the string is not communicated to the knotted end, but is partially absorbed by the pressure between the shoe and the plate. The strain is there-  
95 fore reduced more nearly to a direct pull upon the string, and it is not therefore as liable to be injured at the fastening as otherwise. In fact, the string will wear out from use before it  
100 will yield at the fastening.

The plate D is provided with a rearwardly-extending arm H, which is preferably ar-



ranged at the center of the plate. This arm is provided with suitable means for securing it to the instrument.

As shown in the drawings, the tailpiece is 5 designed for use in connection with a banjo. It is therefore provided with a hole *h*, adapted to receive a rod or bolt *J*, which at its lower end is attached in any suitable manner to the banjo-frame. The plate *D* is provided with 10 downwardly-extending flanges *I*, adapted to engage the rear surface of the instrument-body. These flanges are preferably located one upon each side of the plate. They are placed so as to bear against the upper outer 15 surface of the ring *B*, which is placed about the upper edge of the banjo-frame. The banjo-head is represented by *A* and the strings by *C*.

It is evident that this tailpiece may be used 20 for any form of musical instrument using strings and is applicable to a guitar or mandolin, as well as to a banjo.

Having thus described my invention, I claim as new and desire to secure by Letters 25 Patent—

1. A tailpiece for stringed musical instruments, comprising a plate having a cam lever or shoe pivoted thereon, having a split at the 30 toe adapted to receive the knotted end of a string, substantially as described.

2. A tailpiece for stringed musical instruments, comprising a plate having a cam lever or shoe pivoted thereon, the said shoe having a split at its toe, one side surface of the cam-shoe having a groove leading to the split in 35 the toe, said surface of the cam being adapted to engage the surface of the plate, substantially as described.

3. A tailpiece for stringed musical instru-

ments, comprising a plate having a cam lever 40 or shoe pivoted thereon, said shoe having a split at its toe adapted to receive the knotted end of a string, and a recess or pocket in the upper side of the toe and connected with the split in the toe, substantially as described. 45

4. A tailpiece for stringed musical instruments, comprising a plate having a flange extending across one end at right angles to the body of the plate, said flange having a series of holes therein adapted to receive the strings, 50 a shaft close within and parallel with the flange, supports for the ends thereof extending upward from the plate, and a series of independent cam levers or shoes journaled upon the shaft and each having a split at its 55 toe adapted to receive the knotted end of the string, the pull of the string causing said shoes to engage the plate by their cam-surfaces and to grip the strings between them, substantially as described. 60

5. A tailpiece for stringed musical instruments, comprising a plate having an upwardly-extending flange at its forward edge provided with holes adapted to receive the strings, upwardly-extending flanges at opposite sides at 65 right angles to the first flange, a shaft pivoted in said latter flanges, means for securing the strings thereto, downwardly-extending flanges at the ends of the rear edge adapted to engage the rear end of the instrument-body, 70 and a rearwardly-extending central arm provided with means for securing it to the instrument, substantially as described.

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Witnesses:

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