(No Model.)

W. & W. A. LANG.

TUNING PEG.

No. 566,776. Patented Sept. 1, 1896.

Fig: 1.

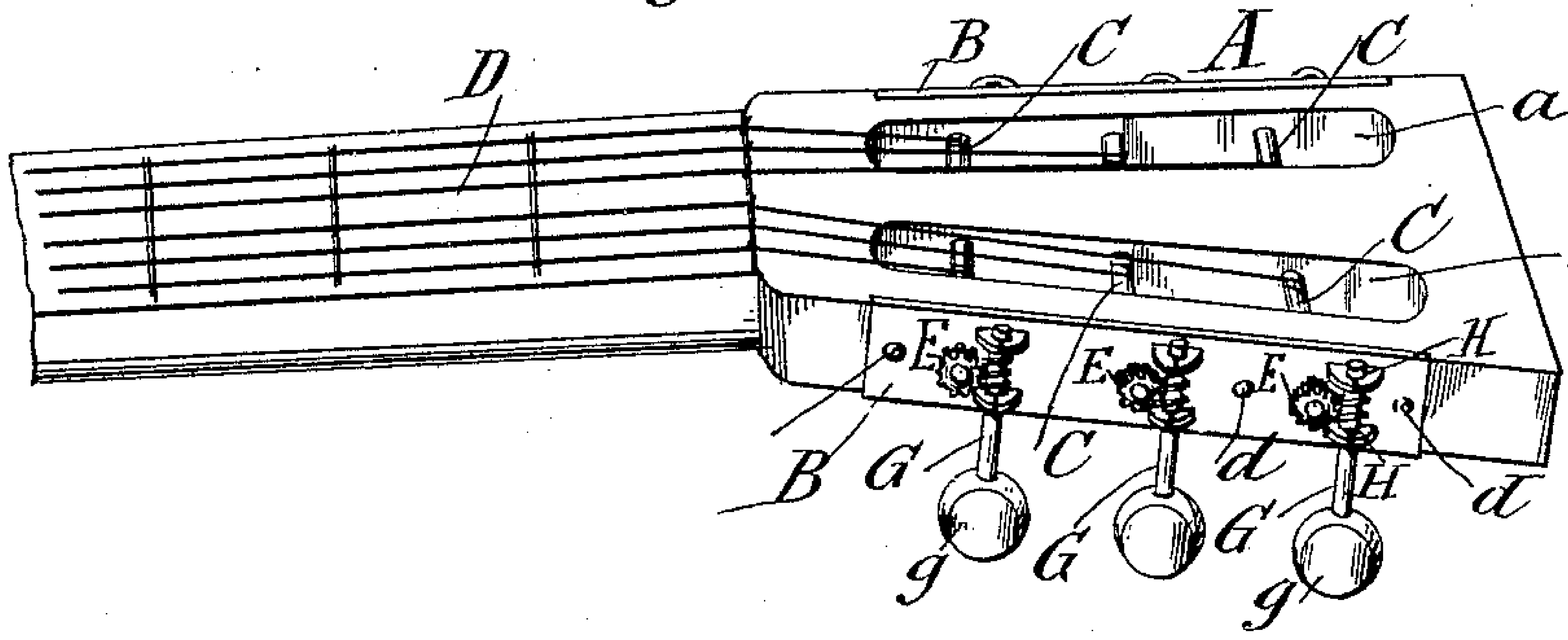


Fig: 2.

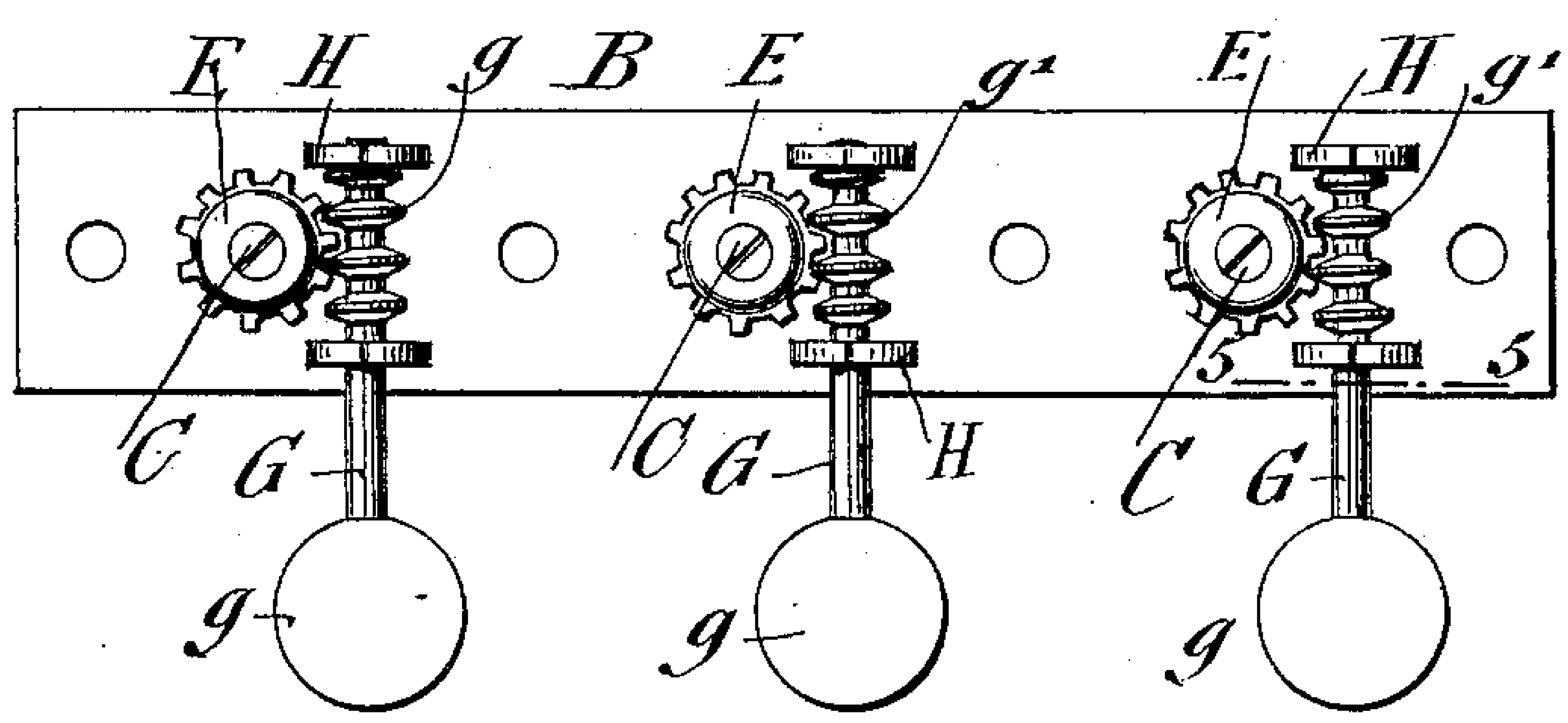


Fig: 3.

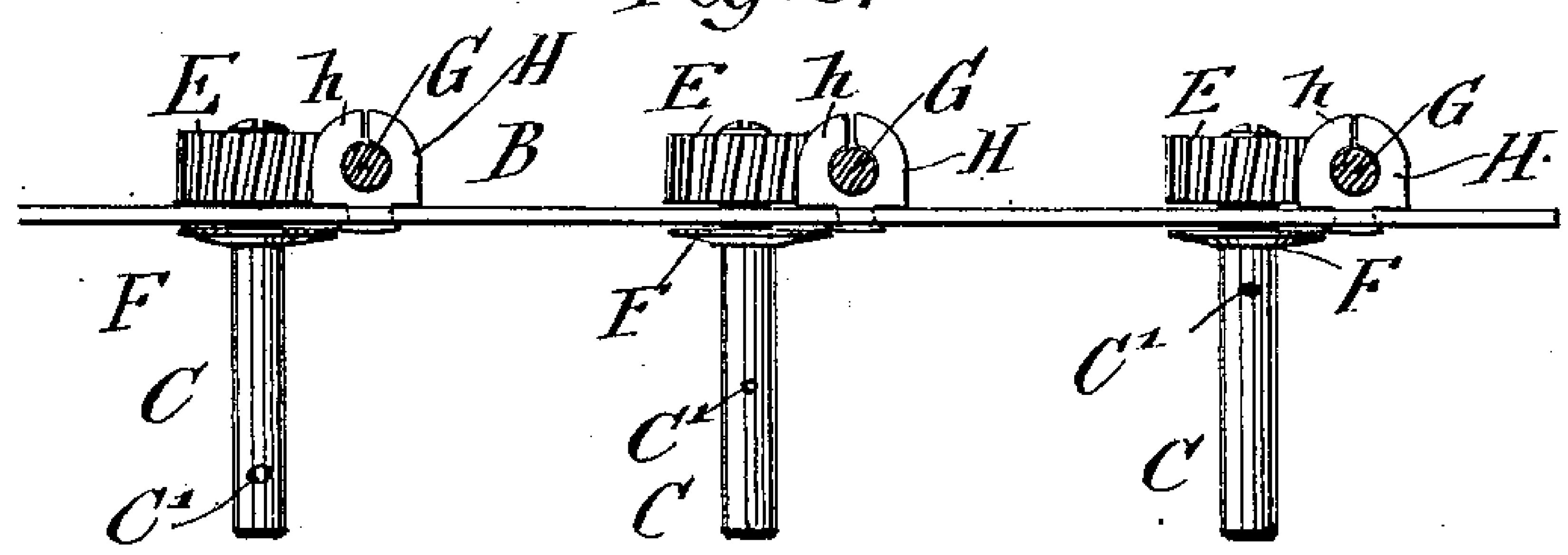


Fig: 4.

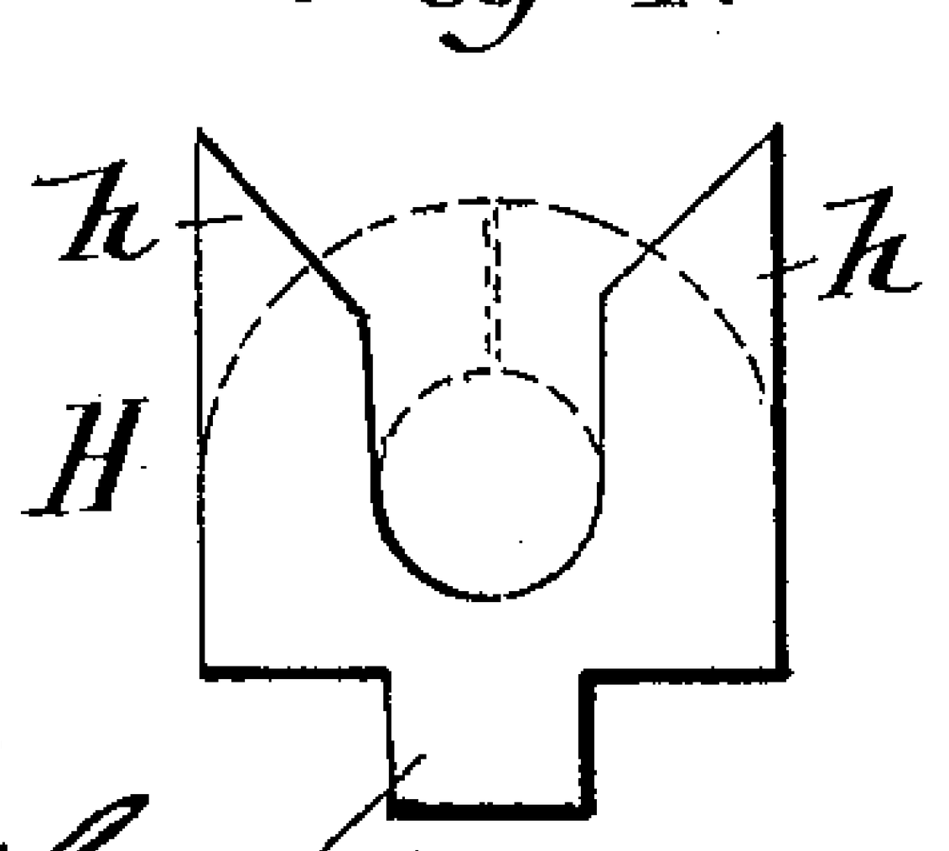
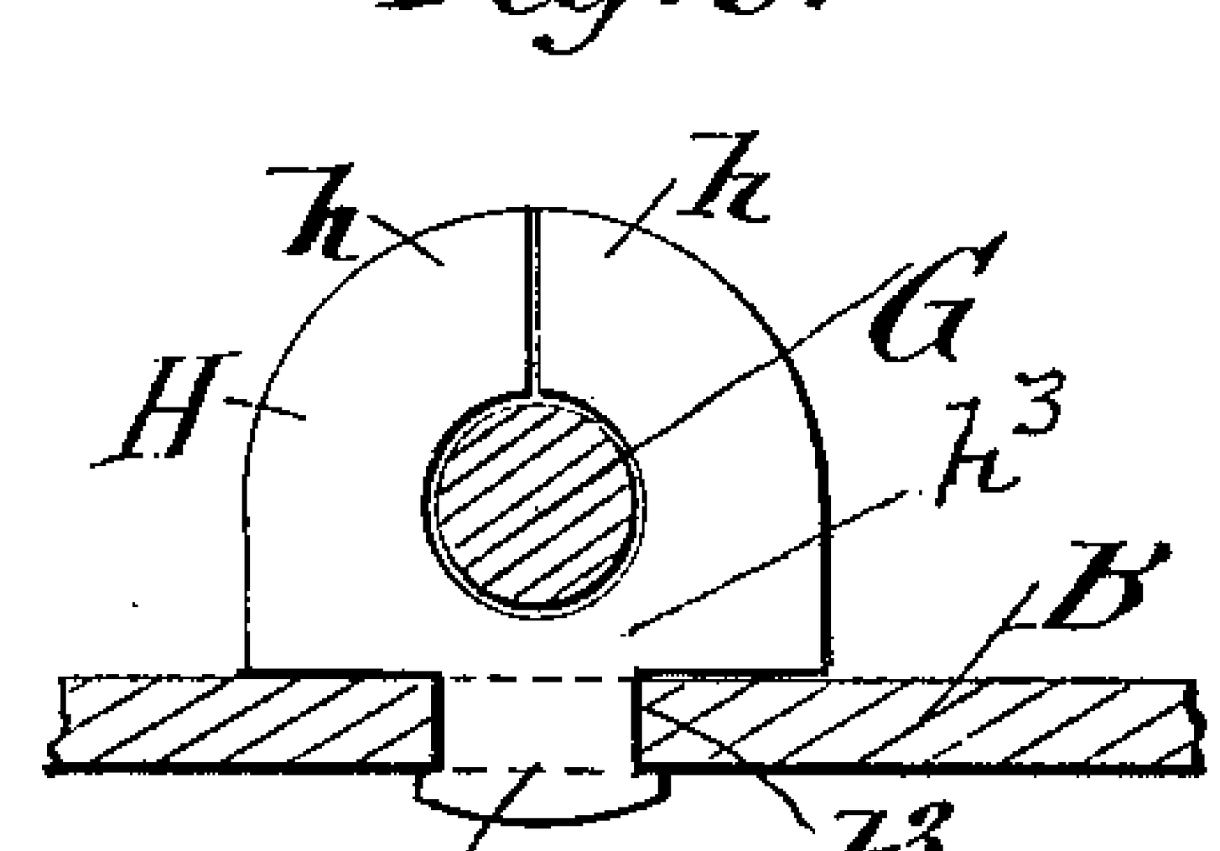


Fig: 5.



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TUNING-PEG.

SPECIFICATION forming part of Letters Patent No. 566,776, dated September 1, 1896.

Application filed September 21, 1895. Serial No. 563,250. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM LANG and WILLIAM A. LANG, citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in String-Winding Devices for Musical Instruments, of which the following is a specification.

This invention relates to an improved string-winding device for guitars, banjos, mandolins, and other like stringed musical instruments, the objects of the same being to cheapen and simplify the construction of the mountings or bearings of the pegs and to provide means whereby the performer can readily create more friction on the shafts of the tuning-pegs by simply hammering upon the outer parts of the bearings.

To these ends our invention consists of a bearing for string-winding devices of musical instruments, consisting of a lug provided with malleable bifurcations widely separated at and extending at right angles from the base of the same, and means located at the base of the lug for attaching it to a suitable mounting-plate, said bifurcations being adapted to be struck or hammered down upon the shaft to be journaled in the same; and the invention further consists of a mounting-plate provided with bifurcated bearing-lugs, the bifurcations of said lugs extending approximately at right angles to the bases of the lugs and their free ends being bent toward each other, and a bottom shaft journaled in the bearing-lugs and provided with a finger-piece, in combination with a peg journaled in the plate and provided with a worm-wheel meshing with the worm-shaft, the bent-over ends of the bifurcations extending over the worm-shaft, as hereinafter fully described and then particularly claimed.

In the accompanying drawings, Figure 1 represents a perspective view of the neck of a guitar provided with our improved bearing-lug and string-winding device. Fig. 2 is a side elevation of a string-winding device with our improvements. Fig. 3 is an edge view of Fig. 2, partly in section, through the shaft of the finger-pieces or keys. Fig. 4 is a plan view of one of the lugs as struck out of sheet metal and before a bearing is formed therefrom, the bifurcations being shown in dotted lines as bent down; and Fig. 5 is a detail enlarged section on line 5 5 of Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the neck of a musical instrument, such as a guitar, on which are fastened at both sides mounting-plates B B. The plates are each shown as provided with three pegs C, each having an opening C′, in which one end of each of the strings D is secured in the usual manner. The tuning-pegs are secured in position in the bearings of the plates by means of worm-wheels E, which are arranged at one side of each plate at the outer ends of the pegs, and by means of collars F, which are secured on the pegs at the other side of said plate, said collar being held on the pegs by friction. The mounting-plates B B are perforated and are secured to the neck in any suitable manner, as by fastenings *d*, which pass through the perforations and into the woodwork of the neck. As is usual in this class of string-winding devices, the plates are secured to the neck so that the pegs will extend across longitudinal openings *a* therein, said pegs having bearing in the bores formed in the neck.

The individual rotation of each peg is accomplished by means of a worm-shaft G, provided with a finger-piece *g* at one end, and near the other end with a worm *g′*, which meshes with the worm-wheel E of the associated tuning-peg. Each bearing for the worm-shafts consists of a lug H, which is split, so as to provide bifurcations *h*, that extend at approximate right angles to the bases h^3 of the lugs, and are separated a distance from each other corresponding to the diameter of the worm-shaft, and which bifurcations are cut at an angle at their extremities, so that, when the bifurcations are hammered or struck down in order to inclose the worm-shaft, said extremities will match or lie together, either in contact or at a slight distance from each other, as shown.

The bearing-lugs are each provided with a stud *h′* at the base, which passes through an opening h^2 in the mounting-plate, and the end whereof is riveted onto the opposite side of the mounting-plate from that on which the bearing-lug is fixed. Any other means for securing the lugs to the mounting-plates can

of course be adopted, and will suggest themselves to any skilled mechanic, and it is also evident that instead of the bearing-lugs being formed separately from the mounting-plate the same may be formed integral therewith, which feature is evident without detailed illustration.

To assemble the parts of our improved string-winding device, it is only necessary to place the worm-shafts into their respective bearing-lugs and then strike or hammer down the bifurcations thereof, which are located at opposite sides of the lugs, so that the shafts are inclosed within their bearings. It is designed to always so proportion the bearing-lugs that when the bifurcations are struck or hammered down their extremities will not come in contact with each other, so that after the instrument has been used for a length of time and the bearings or the worm-shafts become worn the performer can, by simply hammering upon the bifurcations, cause a greater friction on the worm-shafts.

We do not limit ourselves to the number of pegs, nor to the manner in which the attachments are applied to the instruments, as the manufacturer will use his judgment as to the nature and kind of the same.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A bearing for string-winding devices for musical instruments, consisting of a lug provided with malleable bifurcations widely separated at and extending at right angles from the base of the same, and means located at the base of the lug for attaching it to a mounting-plate, said bifurcations being adapted to be struck or hammered down upon the shaft to be journaled in the same, substantially as set forth.

2. A mounting-plate for string-winding devices for musical instruments, provided with bearing-lugs having bifurcations extending at right angles from the base of the lugs the free ends of said bifurcations being bent toward each other, substantially as set forth.

3. A string-winding device for musical instruments consisting of a plate provided with bifurcated bearing-lugs, the bifurcations of said lugs extending at approximately right angles from the base of the lugs and the free ends being bent toward each other, and a worm-shaft journaled in the bearing-lugs and provided with a finger-piece, in combination with a peg journaled in the plate and provided with a worm-wheel meshing with the worm-shaft, the bent-over ends of the bifurcations extending over the worm-shaft, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

WILLIAM LANG,
WILLIAM A. LANG.

Witnesses:
PAUL GOEPEL,
GEORGE W. JAEKEL.