No. 765,019. PATENTED JULY 12, 1904.

A. LARSON.

MUSICAL INSTRUMENT.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

FIG. 1.

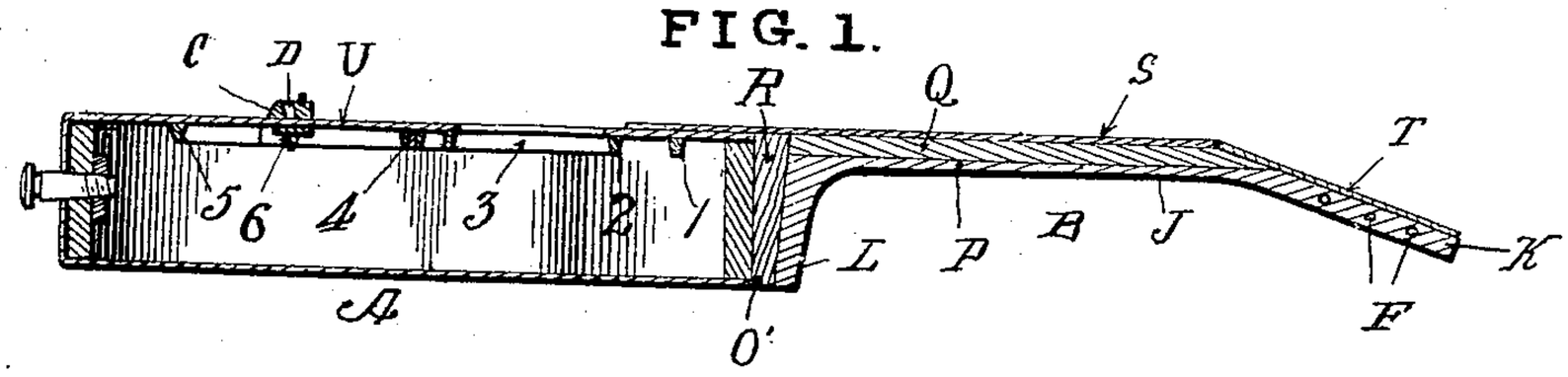


FIG. 2.

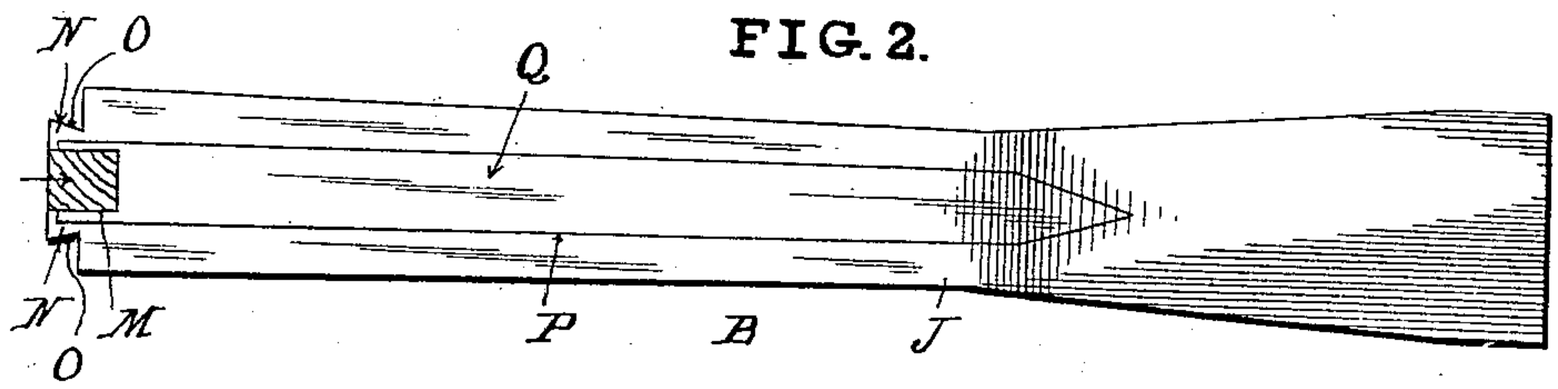


FIG. 3.

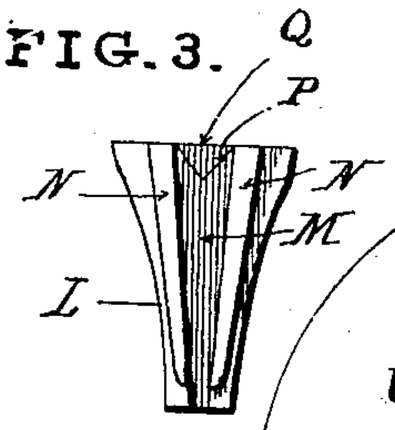
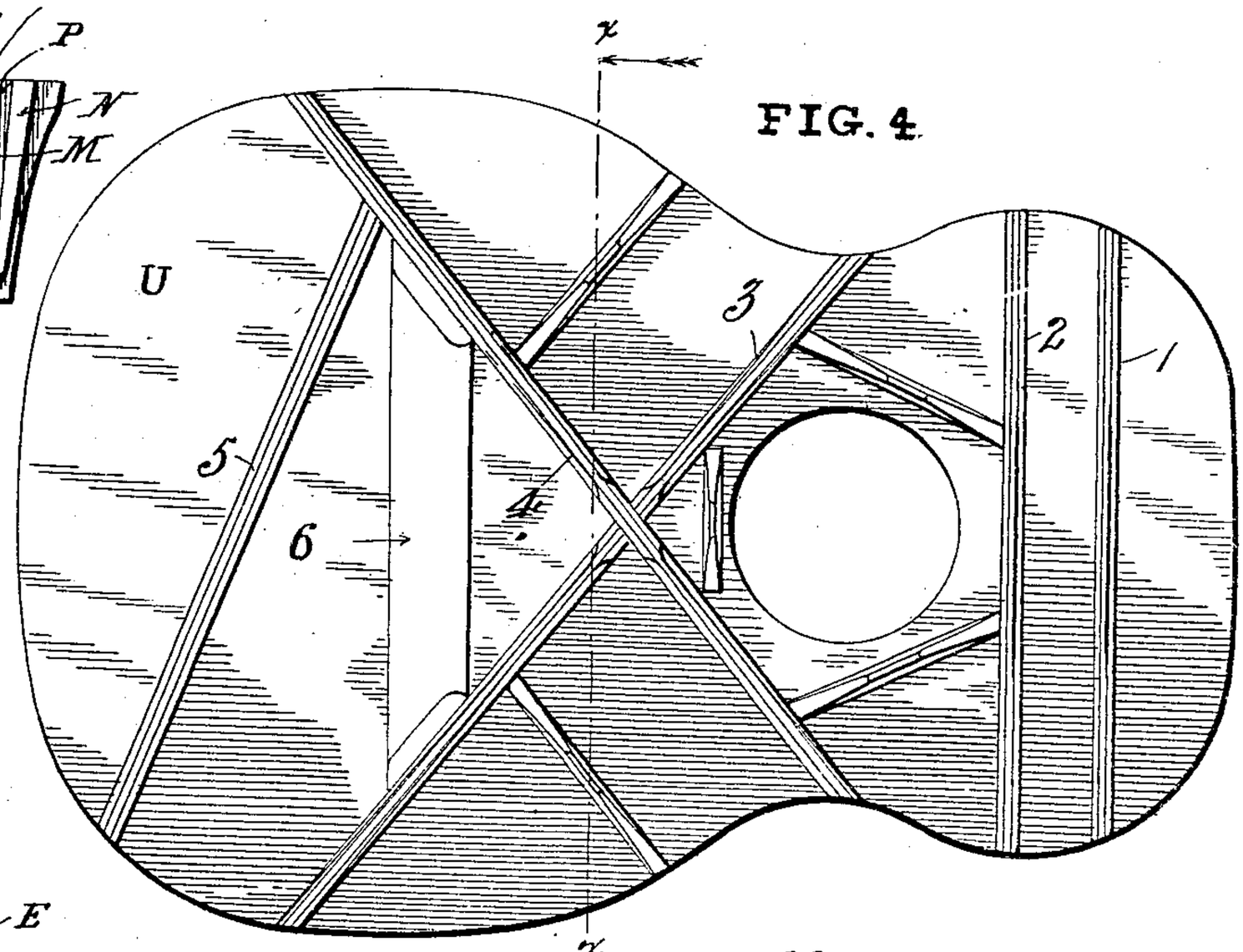


FIG. 4



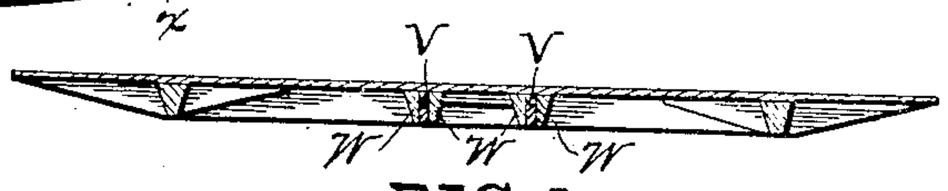


FIG. 5.

FIG. 6.

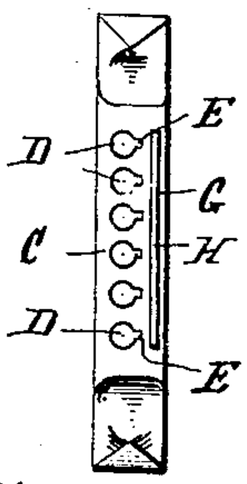
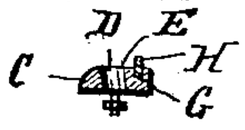


FIG. 7.



Witnesses

Chas. K. Davies

W. S. Crowley.

Inventor

August Larson,

by Cook Howe & Moore.

Attorneys

No. 765,019. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

AUGUST LARSON, OF CHICAGO, ILLINOIS.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 765,019, dated July 12, 1904.

Application filed September 8, 1903. Serial No. 172,252. (No model.)

To all whom it may concern:

Be it known that I, AUGUST LARSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification.

My present invention relates to improvements in musical instruments, and more especially to those known as "guitars" and "mandolins;" and the main object is the provision of strengthening means for the top so arranged as to convey the vibrations from the top to the sides of the instrument, thus assisting in rendering the tones of the instrument sweet and mellow.

To attain these objects, the invention consists of a musical instrument embodying novel features of construction and combination of parts substantially as discolosed herein.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of the guitar made according to and embodying my invention. Fig. 2 is a top plan view of the neck thereof having the fret-board removed to show the splicing of the parts. Fig. 3 is an end view of the neck removed. Fig. 4 is a bottom plan view of the top of the instrument. Fig. 5 is a cross-section on line *x x*, Fig. 4. Fig. 6 is a top plan view of the device for securing the strings. Fig. 7 is a cross-section therethrough.

Referring to the drawings, A designates the body of the instrument, and B the neck thereof.

Secured upon the body of the instrument is the string-securing device C, which is provided with the openings D, having the reduced recesses E in the forward edge thereof to prevent the knots of the strings from slipping through the openings when the strings are being tightened by the keys F. In the body of this device is a transverse groove or recess G, which has mounted therein the string-strip H, the same being cemented therein opposite the neck of my improved instrument, consisting substantially of the body J, which is provided with the key-supporting board K and the downwardly-projecting brace L upon the opposite end. This brace is provided in its extreme end with the wedge-shaped groove M, which extends over the top toward the bottom, the same being wider at the top. Projecting from each end of the downwardly-projecting portion and flush with the top of the neck are the two inclining lugs or wings N, whose inner faces are in line with the sides of the wedge-shaped portion, but whose outer surfaces are inclined, as at O, so as to provide a dovetailed connection by which the neck is secured to the body of the instrument, the lower end of said wings terminating in an incline, as at O′, above the lower edge of the downwardly-projecting portion of the neck. These members are all made in one piece of material, and therefore the grain runs the same, generally longitudinally. Provided in the upper surface of the neck is the longitudinal angle groove or channel P, in which is secured the angle-strip Q, of softer wood, which forms a reinforcing-strip practically the entire length of the neck. Adapted to fit in the wedge-shaped portion of the neck is a wedge R, whose grain runs diagonally to the grain of the neck and is adapted to prevent the splitting of the neck in the event that the dovetailed part of the neck breaks from the neck proper and throws the entire pull of the strings on this part of the reinforcement. It is a common occurrence with string instruments generally constructed and it is only a matter of time before the pull of strings will warp or bend the neck upward, and therefore change the relative fret distances of the neck and cause the instrument to become out of tune, and it is therefore my object to prevent this evil, as this construction of neck maintains the neck rigid in the proper position. These reinforcements also allow much lighter pieces of wood to be employed, thus lessening the bulk of wood, and by so doing the wood can be better seasoned, thus insuring a better quality of instrument.

Secured to the top of the neck and projecting over upon the top of the instrument is a fret-carrying strip or board S, and secured upon the extreme end of the neck is a bracing-strip T, which gives a finish to the neck as well as bracing the same.

As clearly shown in Fig. 4, the top U of

the body has secured upon the under side thereof the five supporting-strips 1, 2, 3, 4, and 5. The two strips 1 and 2 are secured transversely near the neck of the body and brace the grain thereof transversely, while the two strips 3 and 4 cross each other, as indicated, and brace the top at the narrowest part and also at its widest part, the said braces crossing substantially in the center of the top. The bracing or supporting strip 5 is connected to the top near the lower end of the inclined strip 4, having its body inclining slightly toward the lower end of the strip 3, but terminating at the edge of the top and out of contact with the lower edge of the strip 3, so as to properly assist the crossing braces or supports in supporting the large end of the top. Secured to the top are the ordinary bracing-strips 6. Each one of the supporting-strips 1, 2, 3, 4, and 5 consist, substantially, of the central hard-wood strip V and the two incasing soft-wood strips W. In place of the hard-wood strips I have found that strips of steel can be used with the same effect and that I not only secure a lighter and much more rigid top by using these strips either constructed of hard wood or steel, but that the hard wood acts to convey the vibrations from the top to the sides of the instrument much more perfectly than in the general construction.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a musical instrument, the combination of a body having a top, a series of laminated supporting-strips secured upon the under surface of the top so as to convey the vibrations from the top to the sides of the instrument, a neck secured to the body of the instrument, and means for securing strings to the instrument mounted upon the body.

2. In a musical instrument the combination of a body, comprising a top, a series of laminated strips secured to the under surface of the top adapted to strengthen the same and to convey the vibrations from the top to the sides of the body.

3. In a musical instrument, the combination of a body having a top provided with laminated strips secured upon the under side thereof adapted to strengthen the same and convey the vibrations from the top to the sides of the body.

4. In a musical instrument, the combination of a body having a top provided with laminated strips secured upon the under side thereof adapted to strengthen the same and convey the vibrations from the top to the sides of the body, said strips being so secured as to have one or more of their extreme ends in contact with the sides of the body.

5. In a musical instrument, the combination of a body and a top, of a strip adapted to strengthen the top thereof and to convey the vibrations from the top to the sides of the body consisting of a central member of hard material and two incasing members of soft material.

6. In a musical instrument, the combination of a body, having a top, of a series of supporting-strips secured upon the under face of the top so as to convey the vibrations from the top to the sides of the instrument, said supporting-strips being made in a series of three longitudinal sections the central one of which is of harder material than the outer ones, and means for securing the strings to the instrument.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST LARSON.

Witnesses:
IRVING CREGO,
JNO. ADAMS.