

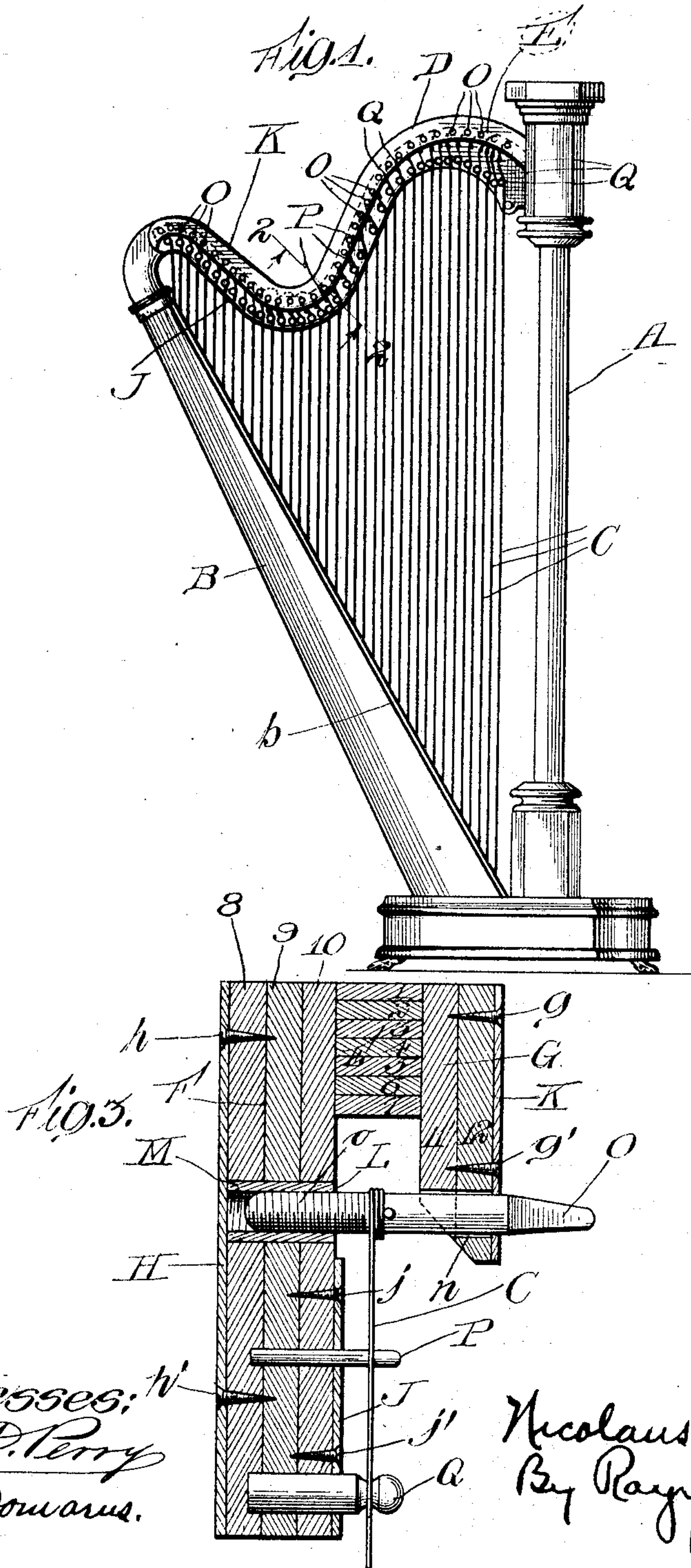
No. 812,209.

PATENTED FEB. 13, 1906.

N. KOLBY.
HARP.

APPLICATION FILED NOV. 20, 1905.

2 SHEETS—SHEET 1.



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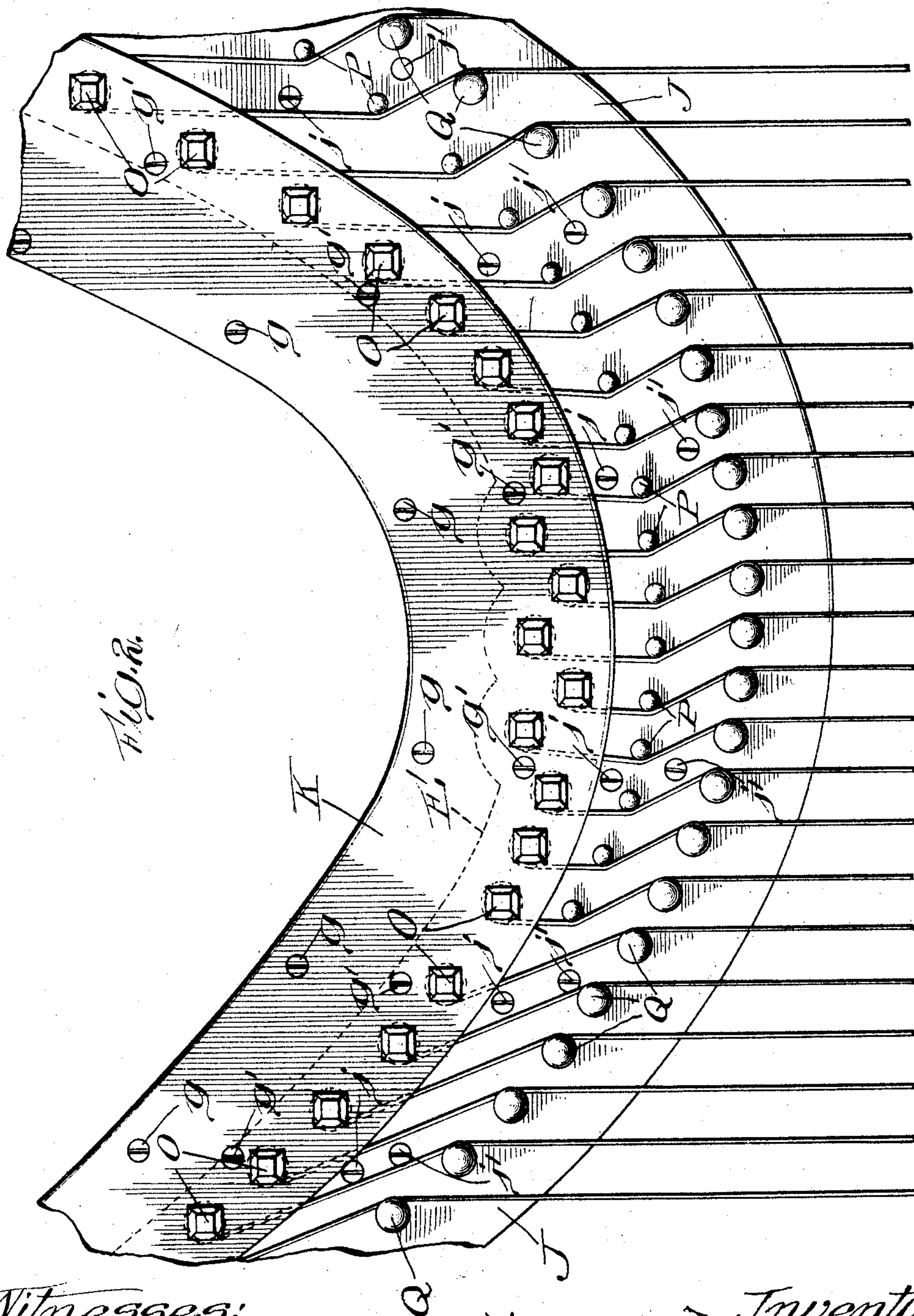
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UNITED STATES PATENT OFFICE.

NICOLAUS KOLBY, OF CHICAGO, ILLINOIS, ASSIGNOR TO HENRY DETMER,
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HARP.

No. 812,209.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, NICOLAUS KOLBY, 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 Harps, of which the following is a specification.

This invention relates to improvements in harps, and particularly to improvements in that part known as the "neck" of the harp and which carries the tuning-pins.

When a harp is tuned for playing, an exceedingly heavy strain is exerted upon the neck of the same, and as harps have heretofore been constructed this strain is carried by the neck and tuning-pins in such a way that a powerful leverage is exerted upon these parts, tending to twist the neck.

The object of the present invention is the provision of a harp-neck of such form and construction that the leverage existing in older forms of harps and tending to twist the neck is not present. This and such other objects as may hereinafter appear are attained by the invention, a convenient embodiment of which is shown in the accompanying drawings, in which—

Figure 1 is an elevational view of a harp constructed in accordance with my invention. Fig. 2 is an enlarged broken elevation showing a part of the neck of the harp; and Fig. 3 is a sectional view of the neck of the harp, the section being taken on the line 2 2 of Fig. 1 looking in the direction indicated by the arrows.

In the drawings, A is the pillar of the harp, and B is the body of the same, having the usual sounding-board *b*, to which the strings C are secured.

D is the neck of the harp. The neck D is made up, preferably, of layers or strips of wood assembled to form a laminated structure. The thin strips 1, 2, 3, 4, 5, 6, and 7 are bent to the proper curves and extend throughout the length of the neck, the grain of the wood running lengthwise of the neck. These strips are firmly united to form a compact and rigid body E, which body serves as a web, uniting the principal neck and the supplemental neck. To one side of this body is secured a body F, forming the principal neck and made up of three heavy strips 8, 9, and 10, these strips being likewise firmly united and arranged to have the grain of the

wood in each strip running crosswise that of the strip next it: To the other side of the body E is secured a body G, forming a supplemental neck and made up of two heavy strips 11 and 12. These two strips are arranged to have the grain of the wood run crosswise of each other and are firmly united.

On the outer side of the principal neck F, I arrange a metal plate H, this plate being preferably of substantially the width of the principal neck F and extending, preferably, the length of the same. This plate H may be secured to the principal neck F by means of screws *h h'*. On the opposite side of the principal neck F, I arrange a second metal plate J, this plate having about one-half the width of the plate H and likewise extending throughout the length of the neck. This plate J may be secured in place by rows of small screws *j j'*. A third plate K is secured to the outside of the supplemental neck G by rows of screws *g g'*. This plate is preferably of substantially the same width as the supplemental neck G and preferably extends throughout the length of the same.

The principal neck F is provided with a series of openings L, suitable sleeves M being let into these openings, the sleeves being interiorly screw-threaded. The supplemental neck G is also provided with openings N, registering with the openings L. A tuning-pin O is inserted through each of the openings in the supplemental neck into the corresponding sleeve in the principal neck. The string C winds upon the tuning-pin O between the principal neck and the supplemental neck. The tuning-pin is provided with a screw-thread *o*, adapted to take into the screw-thread in the sleeve M. Suitable stop-pins P and Q are provided, the strings being deflected over these stop-pins, as is usual in instruments of this class.

It will be seen that I have provided a construction in which a pin is supported upon both sides of the string. In the older forms of construction the pin is supported at one side of the string only, so that the pull of the strings is exerted upon the pins and neck at one side of the center of the neck, whereas in a harp constructed in accordance with my invention this pull is exerted in a line passing substantially through the center of the neck. By the use of this improved construction I succeed in providing a harp in which the tend-

ency to twisting and warping of the neck, present in former constructions, is wholly done away with.

I claim—

- 5 1. In a harp, the combination with a principal neck having a bearing for a tuning-pin, of a supplemental neck also having a bearing for said tuning-pin, and a string winding upon said tuning-pin between said bearings.
- 10 2. In a harp, the combination of a principal neck for said harp, a supplemental neck, a bearing in said principal neck, a bearing in said supplemental neck, a tuning-pin supported in said bearings, and a string winding upon said pin between said principal neck and said supplemental neck.
- 15 3. In a harp, the combination of a principal neck with a bearing therein for a tuning-pin, a supplemental neck with a bearing therein for a tuning-pin, a tuning-pin supported in said bearings, said tuning-pin having a screw-thread upon one end thereof, and a string winding upon said tuning-pin.
- 20 4. In a harp, the combination of a principal neck, a supplementary neck, a bearing in said principal neck, a bearing in said supplemental neck, a tuning-pin supported in said bearing, said tuning-pin having means upon one end thereof adapted to engage suitable means in its bearing whereby the rotation of the pin moves said pin inwardly, and a string winding upon said pin.
- 25 5. In a harp, a neck comprising in combination a principal neck made up of a plurality of layers of material secured together, a supplemental neck made up of a plurality of layers of material secured together, and a web portion between said principal neck and said supplemental neck, said principal and supplemental necks being provided with bearings for a tuning-pin.
- 30 6. In a harp, a neck comprising in combination a principal neck made up of a plurality of layers of material secured together, a

supplemental neck made up of a plurality of layers of material secured together, and a web portion connecting said principal neck and said supplemental neck, said web portion being also made up of a plurality of layers of material secured together. 45

7. In a harp, the combination of a principal neck, a supplemental neck, and a web portion between said principal and supplemental necks made up of a plurality of layers of material, said principal and supplemental necks having each a series of bearings for tuning-pins. 50

8. In a harp, the combination of a principal neck, a supplemental neck, and a web portion between said principal and supplemental necks, said web portion being made up of a plurality of layers of material, said principal and supplemental necks being reinforced with metallic strips. 55

9. In a harp, the combination of a principal neck, a supplemental neck, a web portion connecting said principal and supplemental necks, a metal strip reinforcing said principal neck and shaped to conform to the curves thereof and a metal strip reinforcing said supplemental neck, said strip also conforming to the curves of the neck. 60

10. In a harp, the combination of a principal neck, a supplemental neck of less width than the principal neck, a web portion connecting said principal and supplemental necks, a tuning-pin having one of its ends supported in the principal neck and its opposite end projecting through the supplemental neck, a metal plate secured to the principal neck and extending substantially the length of the latter, and a metal plate secured to the supplemental neck and extending substantially the length of said supplemental neck. 75

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