(No Model.)

G. GOODWIN.

STRING FASTENING FOR SOUNDING BOARDS OF MUSICAL INSTRUMENTS.

No. 572,677. Patented Dec. 8, 1896.

Fig. 1.

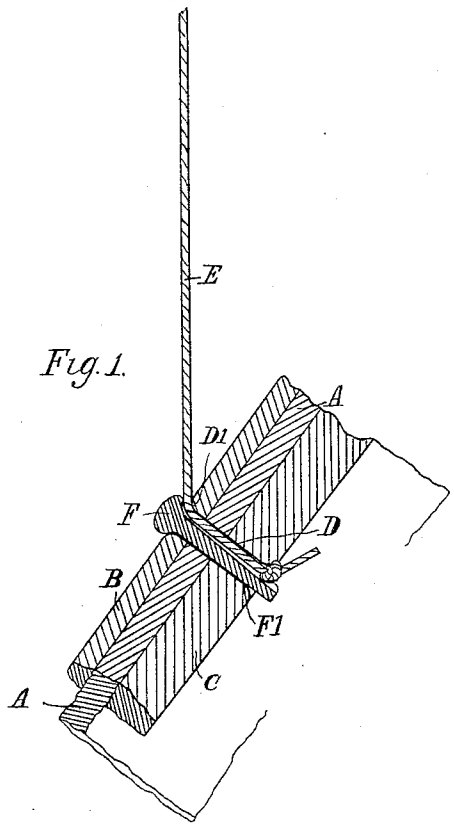


Fig. 3.

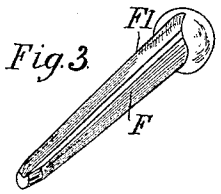
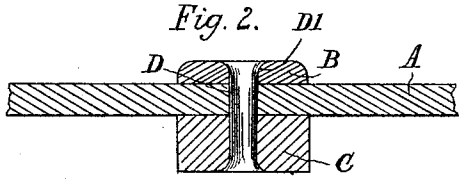


Fig. 2.



Witnesses

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Paul Wostenius

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE GOODWIN, OF LONDON, ENGLAND, ASSIGNOR TO DANIEL MAYER, OF SAME PLACE.

STRING-FASTENING FOR SOUNDING-BOARDS OF MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 572,677, dated December 8, 1896.

Application filed July 27, 1896. Serial No. 600,689. (No model.)

To all whom it may concern:

Be it known that I, GEORGE GOODWIN, a subject of the Queen of England, residing at London, England, have invented a certain new and useful String-Fastening for Sounding-Boards of Musical Instruments, of which the following is a specification.

According to this improvement a sounding-board for a harp has the string-holes lined with metal, so that a smooth bearing-surface is provided for the strings while the parts of the sounding-board are firmly held together.

In the accompanying drawings, Figure 1 is a longitudinal section through a portion of the sounding-board of a harp, showing my improvement. Fig. 2 is a transverse section through a single-string peg-hole, while Fig. 3 is a perspective view of the peg employed for fastening the strings.

Like letters indicate like parts throughout the drawings.

A sounding-board A has upper and lower strips B and C laid on it and string peg-holes bored in it in the usual way. These holes are lined with metal, preferably in the form of a tube or ferrule D, which is inserted in the hole and belled out at its ends, so as to hold the strips B and C firmly in contact with the sounding-board A while forming a smooth bearing-surface for the strings in the holes, and particularly at the corner D′, where the string is liable to be frayed or cut. The end of the string E is preferably secured in the manner shown in Fig. 1 by knotting the end, which is passed through the string peg-hole, and inserting the peg F in the hole, so that the string E lies in the groove F′ in this peg. Said peg is preferably tapering in its length, and is provided with a head which serves to bear upon or against the string in such manner as to prevent the latter from easily working loose should the end of the string not be knotted. The groove F′ is formed to extend into the under side of the head of the peg, so as to receive that portion of the string beneath the head where the string is turned to one side to pass into the peg-holes, and in this way the peg can be pushed down farther and its head will not project so far beyond the surface of the sounding-board, as would result from a head of comparative thickness, and which is objectionable and unsightly.

If preferred, the ferrules D may be constructed as hollow bolts, being externally screw-threaded at one end for the reception of a nut, together with a washer or washers, if necessary, or the ferrules may take the form of hollow screws, the external screw-thread being carried throughout their length, or a suitable form of hollow metal rivet or other equivalent arrangement, (flat or hollowed plates, for example,) such as will fulfil the objects above mentioned, may be employed.

Lining the string peg-holes with metal will be found to give an improved tone to the instrument, and the strength of the sounding-board is increased by binding the parts together in the manner indicated, while the liability to split both strips and board by driving in the ivory pins or disks at present used is avoided.

From the construction and arrangement described it will be seen that the portion of the string through the hole in the sounding-board is confined between two metallic bodies, *i. e.*, the grooved peg and the tube or ferrule, so that the tone of the instrument is materially improved, and is much better in effect from what would be produced if said string was in contact partly with metal and partly with wood.

I claim—

1. The combination in a harp or similar musical instrument, of a sound-board comprising reinforcing-strips arranged in contact with the board and provided with peg-holes for the passage of the strings, metallic tubes or ferrules passing through the holes and securing the strips to the board, pegs fitting into said ferrules and each having a longitudinal groove, and the strings having portions of their length confined between the said ferrules and pegs and received into the grooves of the latter, substantially as described.

2. The combination in a harp or similar musical instrument, of a sound-board comprising reinforcing-strips arranged in contact with the board and provided with peg-holes for the passage of the strings, metallic tubes or ferrules passing through said holes and

flared at each end to confine the strips in place, and headed pegs fitting in said ferrules and securing the lower ends of the strings, the said pegs each having a longitudinal groove extending into the under side of the head thereof and receiving portions of the string, substantially as described.

3. The combination with the sounding-board and the upper and lower strips thereof, each having coinciding holes extending through the board and strips, of metallic tubes inserted in said holes and provided at their ends with means which secure the parts together, substantially as described.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

GEORGE GOODWIN.

Witnesses:
HAROLD WADE,
HARRY B. BRIDGE.