



How to mount the strings on a classical guitar

1. INTRODUCTIONS

In terms of the sonority of the instrument, the mounting of the guitar strings is not to be underrated. No matter how noble the construction or choice of woods, a bad attachment of the strings will compromise those aspects of the sound which are essential to the musical and technical aims. The most important aspects of sound are tone, intensity and duration, all of which can be compromised by imprecise attachments which reduce the fidelity of the produced sound and therefore also the will of the musician.

An imprecise attachment can reduce the duration and limit dynamics of the sound, rendering difficult or incomprehensible the expression of a melody, thereby falsifying the thought of the composer. Such anomalies render the duration of the sound uneven between the strings. The consequential effect is to obtain chords that are imprecise and difficult to produce.

Technically an instrument is much more subject to continual scordatura due to the constant re-settling of the attachment. This in turn brings about a short life to the strings.

The production of harmony and therefore of tone is limited by the incorrect distribution of the curves which a string produces on the instrument itself. The curves are a result of the vibrations released on the resonating board as well as the attachment onto the nut. This provokes the paralysis of movement of the stretch of string between the bridge and nut, which in turn limits the oscillation of the string on the bridge. This prevents the complete harmonic division of the vibrating string with the effect of obtaining poorer and uneven notes among the notes produced on the same chord. It reduces greatly the harmonics developed for sympathy, which further limit the production of the third sound, the essential aesthetic characteristic for the emotive expression of musical thought. We therefore advise to take the following precautions when mounting nylon-perlon strings adopted for the classical guitar, which present new elements for fixing a string.

Do not underrate the banal node proposed in the description, in as far as at the moment, it is the only system in order to obtain the tension load on the entire diameter of the string using the minimum material possible for the construction of the mount, through which it is possible to obtain a stable mount and a correct disposition of the string, which, coming out from the relative mounting hole and bending on the bridge (fig. 2b part. 4), provokes an opposing curve which frees the movement of the string on the bridge itself.

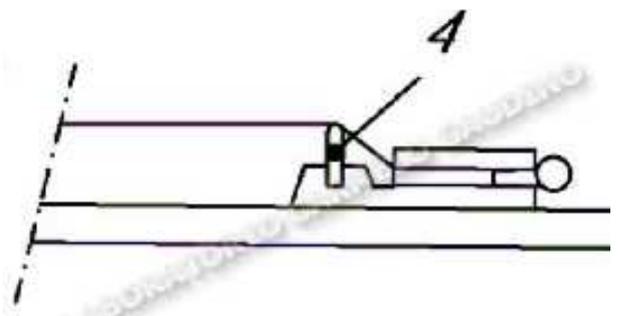


fig. 2b



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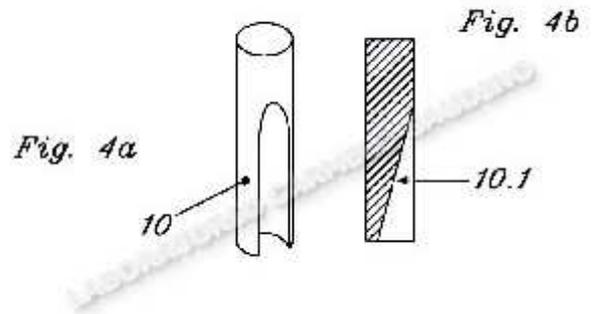
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2. INSTRUCTIONS

Necessary material

In order to construct a reliable mount, both on the bridge and on the mechanics, it is necessary to obtain some nylon strings with a round section of the diameter equal to that of the free hole. It is best to measure it before passing the string through the hole, on which it is advised to make a mark with your nail (fig. 4a -10) of the thickness of the string or cut a side obliquely (fig. 4b 10.1).



Preparation of the covered strings E, A and D

In order to block the string to the bridge, make a simple knot on the string so that it acts as the main string (fig. 6), keeping about 2cm of string on the other side of the knot. It is necessary then to remove the covering of the centre of about 1cm. After having cut the covering, melt the centre part of the string with a flame so that it stays attached to the covering (fig. 6 part. F - this will assure that the centre does not slip into the covering).

Preparation of the covered strings G, B and E

In order to block the string to the bridge, proceed as for the covered string, as explained above.

When the strings and wedges are prepared, insert the string into the bridge hole, approaching the knot at the beginning of the hole and insert the wedge (fig. 6), making sure you arrange the wedge well so as not to leave spaces free within which the knot can escape. This is particularly for the high strings.

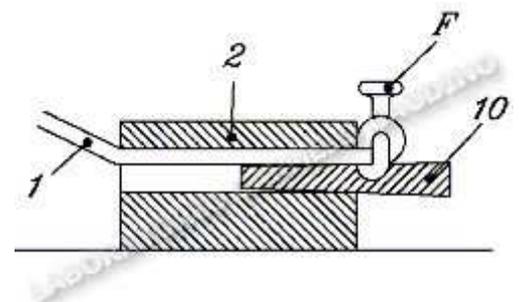


Fig. 6



Having mounted the strings onto the bridge, it is necessary to create a mount onto the mechanics, by passing the string through the relative hole to the mount, pulling the string so that there is no excess in the way, and inserting the wedge into the empty space of the hole. The string will block on the inside.

The covered strings must then be cut, leaving about 2.5cm. Proceed by blocking the centre of the string in the same way as for the blocking to the bridge, melting the covering for 1 cm. and fusing the centre in nylon until it arrives right onto the covering (fig. 4c part.1).

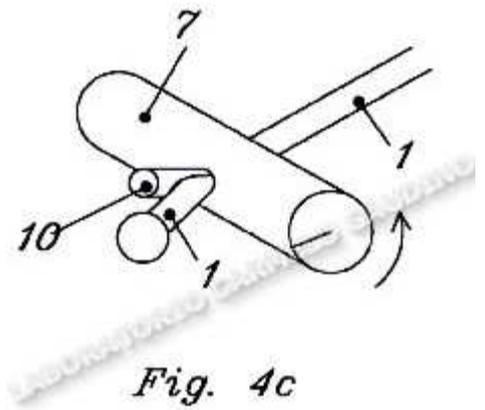


Fig. 4c

At this point, rotate the mechanics, guiding the string so that after half a turn, it passes between the wedge and the main string. The string will then be blocked and it will be possible to reset the tension for tuning the new string.

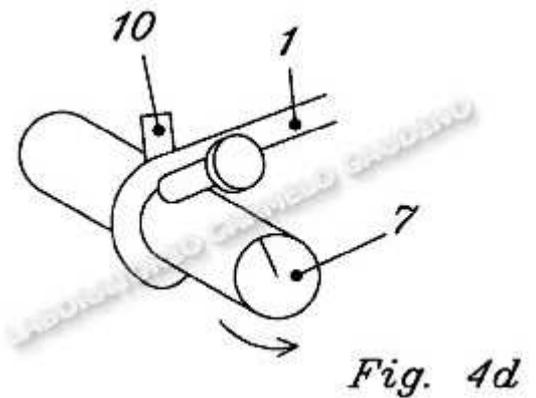


Fig. 4d

For the uncovered strings, proceed in the same way as for those which are covered, but do not cut the excessive length immediately. This is because many mechanics adopt an embrasure at the edges of the hole, which, if greatly emphasized, will impede the blocking of the string at the half turn. If this happens, let the string slip - after one turn it will block. We therefore advise to cut the excess after having put tension in the string.

N.B. The illustrated modifications are protected by an industrial patent.

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