

ORPHARION

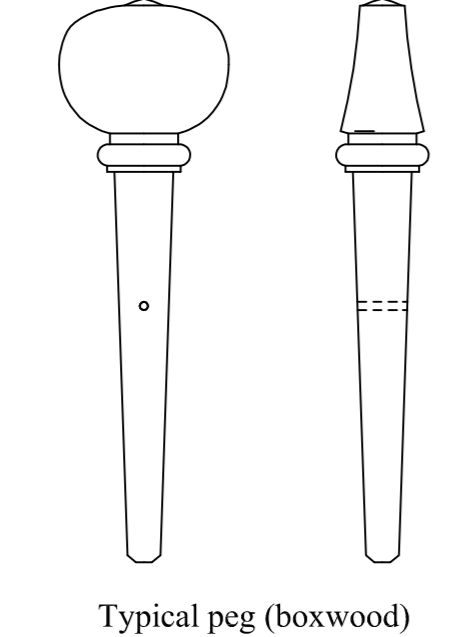
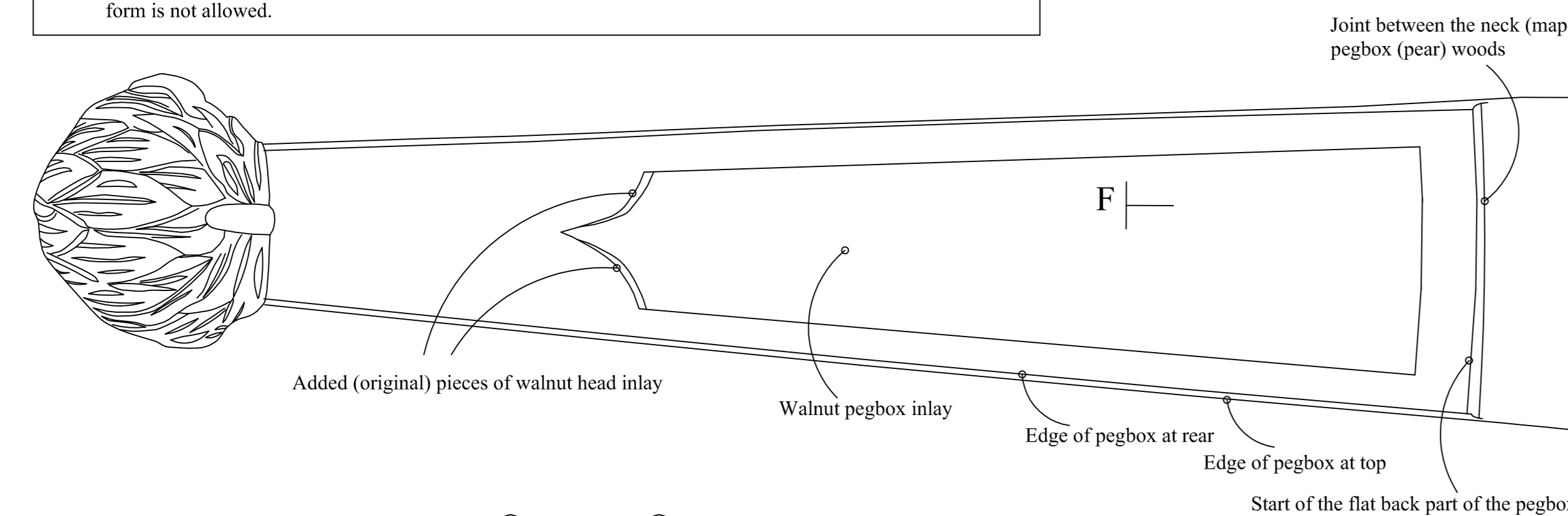
FRANCIS PALMER, LONDON, 1617

Collection of
Musikmuseet, Musikhistorisk Museum & Carl Claudius' Samling
Copenhagen, Denmark
Inv. No. CL 139

Measured (2004 and 2005) and drawn (2007) by
Darryl Martin, Edinburgh

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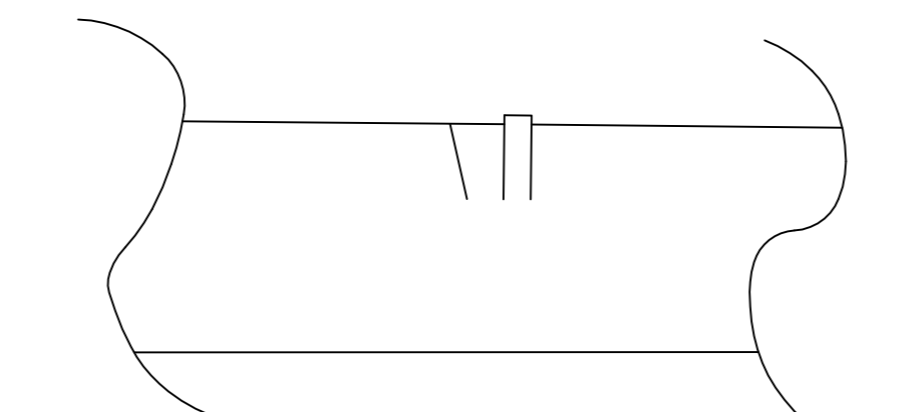
Section B
Section C
Section D
Section E



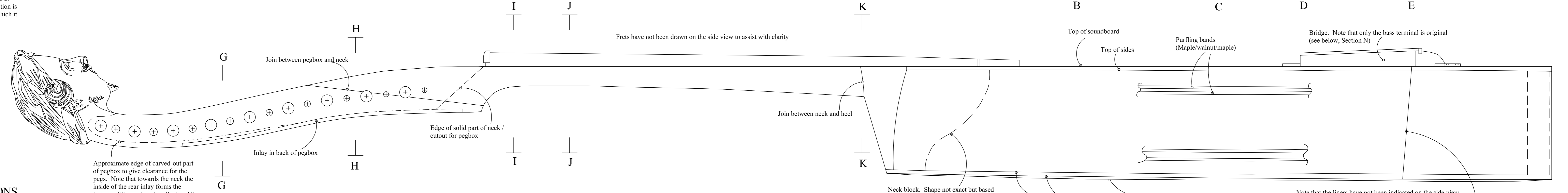
MATERIALS

- Coniferwood (spruce?) - soundboard, endblock?, liners, soundboard barring
- Walnut - sides, back, purfling strips, fingerboard, pegbox rear inlay
- Maple - back, neck, neck block?, purfling strips, wedges
- Pear - pegbox (including head), original bridge?
- Boxwood - pegs
- Ebony - nut, wedges
- Brass - frets
- Linen - support over inside of back joints

Fret width 0.8 mm, height above fingerboard 0.3 mm.
Wedge width 1.9 mm.

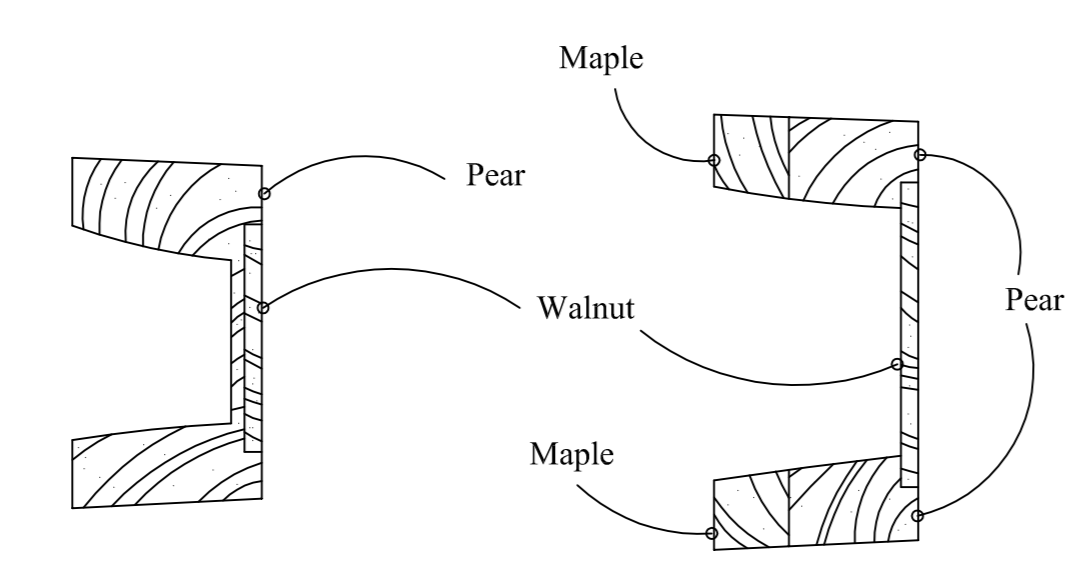


Enlarged (x4) section view showing the wedge and fret. The depth of the fret and wedge cannot be determined.



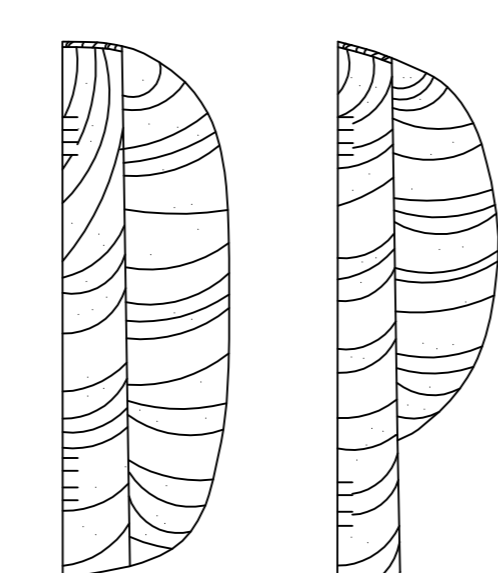
CONVENTIONS

- Wood in section, not indicative of grain direction
- Hidden edge or joint
- Continuation of solid pieces (ie. purfling bands)
- Continuation of individual pieces (ie. liners)
- Position in plan view through which a section has been taken
- Thickness of soundboard or back in millimetres
- Depth of sides (not including the soundboard or back) in millimetres. Where it occurs directly above or below the back thickness measurement it has been taken in the same position
- Position of tuning peg



Section G

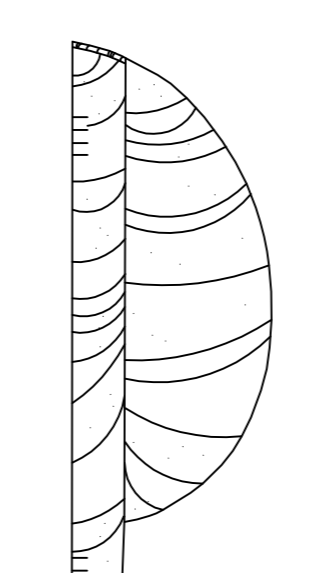
Sections through pegbox. The pegbox is of pear, with an inlaid piece in the rear of walnut.



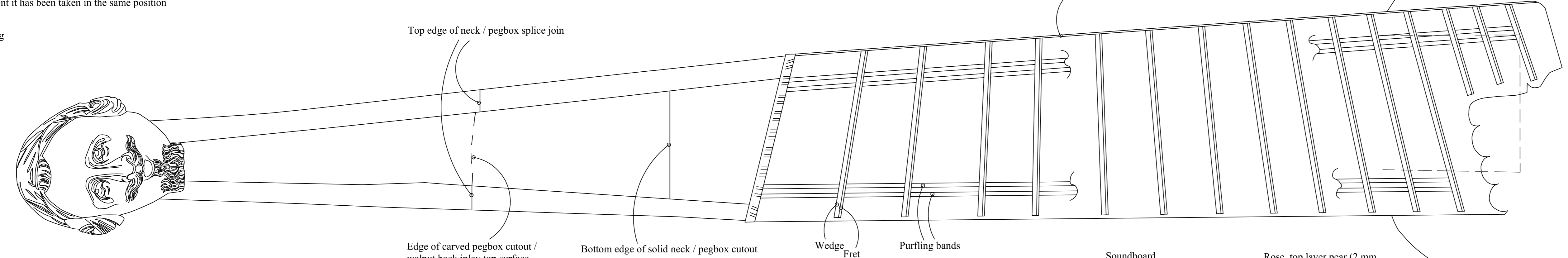
Section H

Sections through neck and fingerboard. Please note that any frets and/or wedges in the sections have not been drawn. The purfling depth cannot be determined. Each purfling band consists of three thin strips (maple/walnut/maple), with a total typical thickness of 1.7 mm. Only the outside edges of each band has been shown to avoid cluttering the drawing.

Section I



Section J



Section K

FRET DISTANCES

- From the edge of the nut to the centre of the fret at each end of the fret
- Fret 1 - 35.8 (bass), 30.5 (treble)
 - Fret 2 - 64.5, 55.5
 - Fret 3 - 97.0, 83.3
 - Fret 4 - 120.1, 104.5
 - Fret 5 - 149.8, 129.9
 - Fret 6 - 174.9, 151.3
 - Fret 7 - 198.7, 173.7
 - Fret 8 - 221.7, 192.7
 - Fret 9 - 242.4, 210.9
 - Fret 10 - 263.6, 228.9
 - Fret 11 - 282.5, 245.3
 - Fret 12 - 301.4, 261.0
 - Fret 13 - 277.3 (treble)
 - Fret 14 - 290.3
 - Fret 15 - 304.1

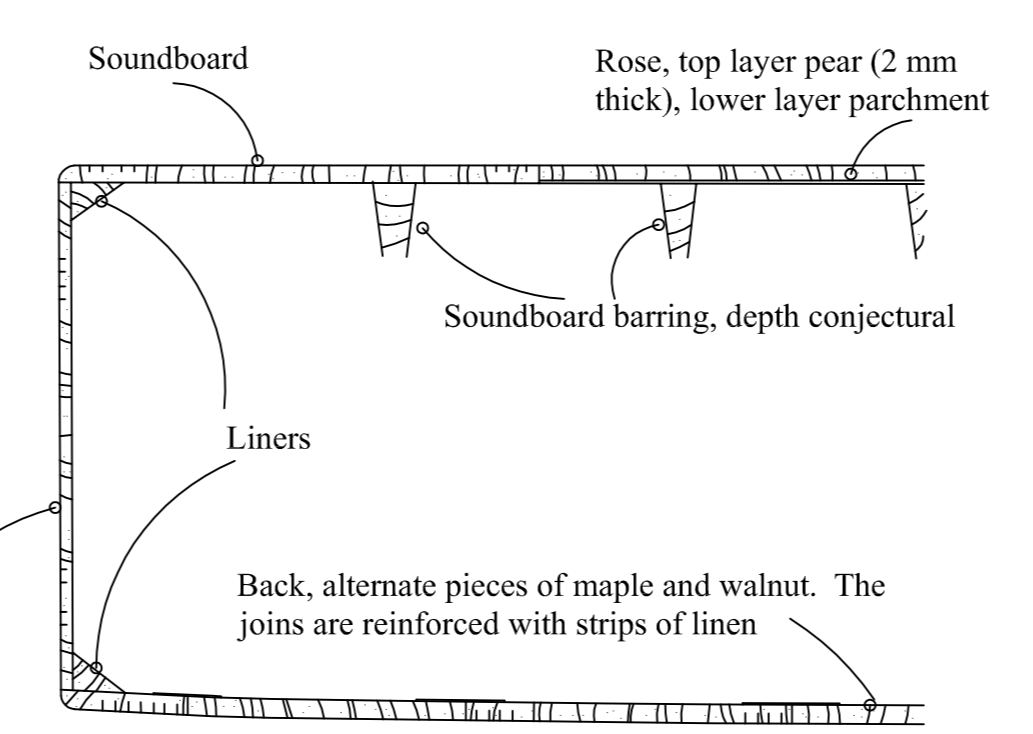
All measurements in millimetres. The highest three frets were only accurately measured at the treble end

WEDGES

- Frets 2, 3, 5, 7, 9, 10, 12 and 14 have ebony wedges.
- Frets 1, 4, 6, 8, 11, 13 and 15 have maple wedges

Note all purfling band depths are conjectural. Purfling bands on the back and sides are strips of maple/walnut/maple, and on the soundboard (around the edge and the rosette) are walnut/maple/walnut. All purfling bands have a typical width of 1.7 mm.

Sides (walnut) typically 1.2 - 1.6 mm thick



Section A

All interior pieces shown with dashed lines, positions determined from X-ray picture. The depth and ends of the soundbars cannot be determined.

Bridge. Only the flower part from which Section N has been taken is original. Although the present bridge is in the correct position on the soundboard, it is too high and the saddle is too far forward.

