

ORPHARION
FRANCIS PALMER, LONDON, 1617

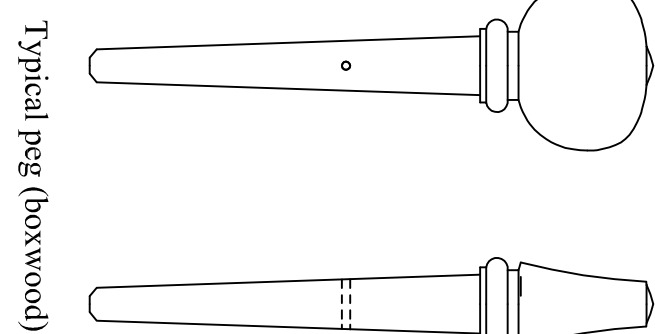
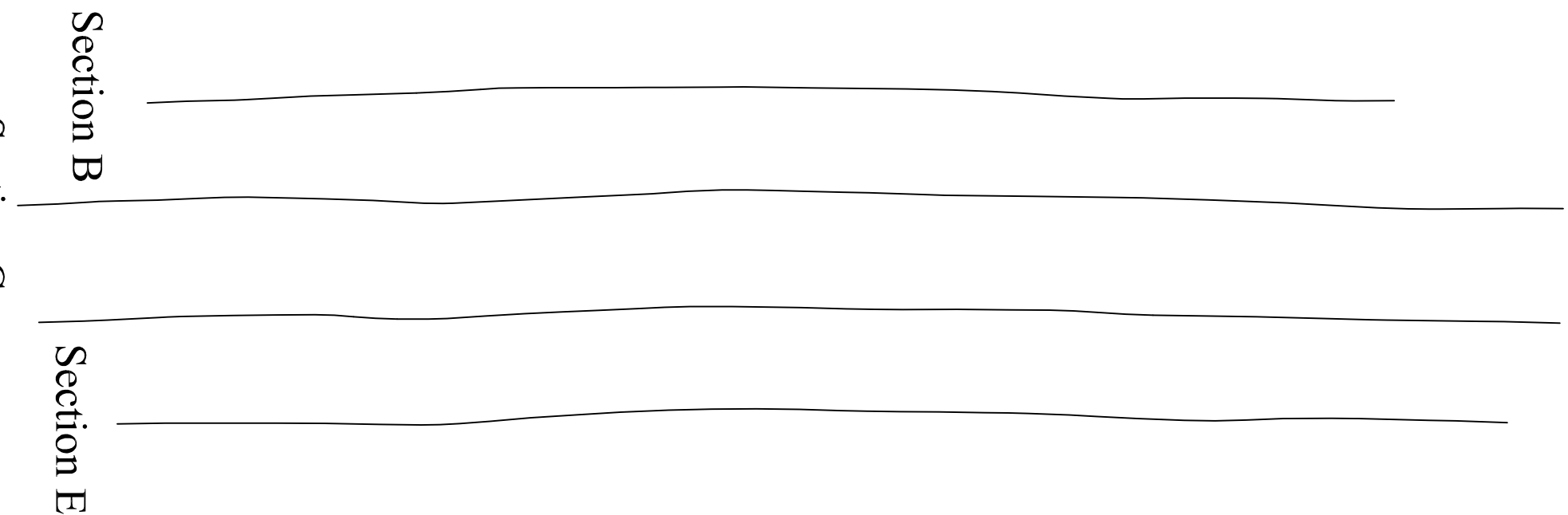
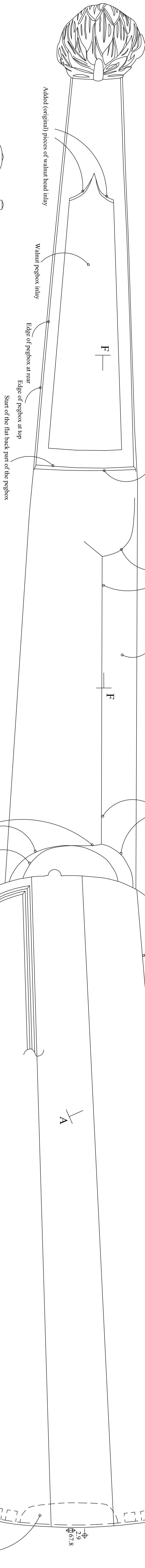
Collection of
Musikmuseet, Musikhistorisk Museum & Carl Claudius' Samling
Copenhagen, Denmark
Inv. No. CL 139
Measured (2004 and 2005) and drawn (2007) by
Darryl Martin, Edinburgh
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Section F

Joint between the neck (maple) and
pegbox (pear) woods

Joints in back (alternate pieces
of maple and walnut). The joints
are supported inside by linen
strips (seen in Section A)

Liners between the sides and back
of dead part; pieces are exact,
but the present bridge is not
typical. Lines continue around the
instrument.



MATERIALS

Coniferwood (spruce?) - soundboard, endblock?; liners, soundboard barring
Walnut - sides, back, purfling strips, fingerboard, pegbox rear rim
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

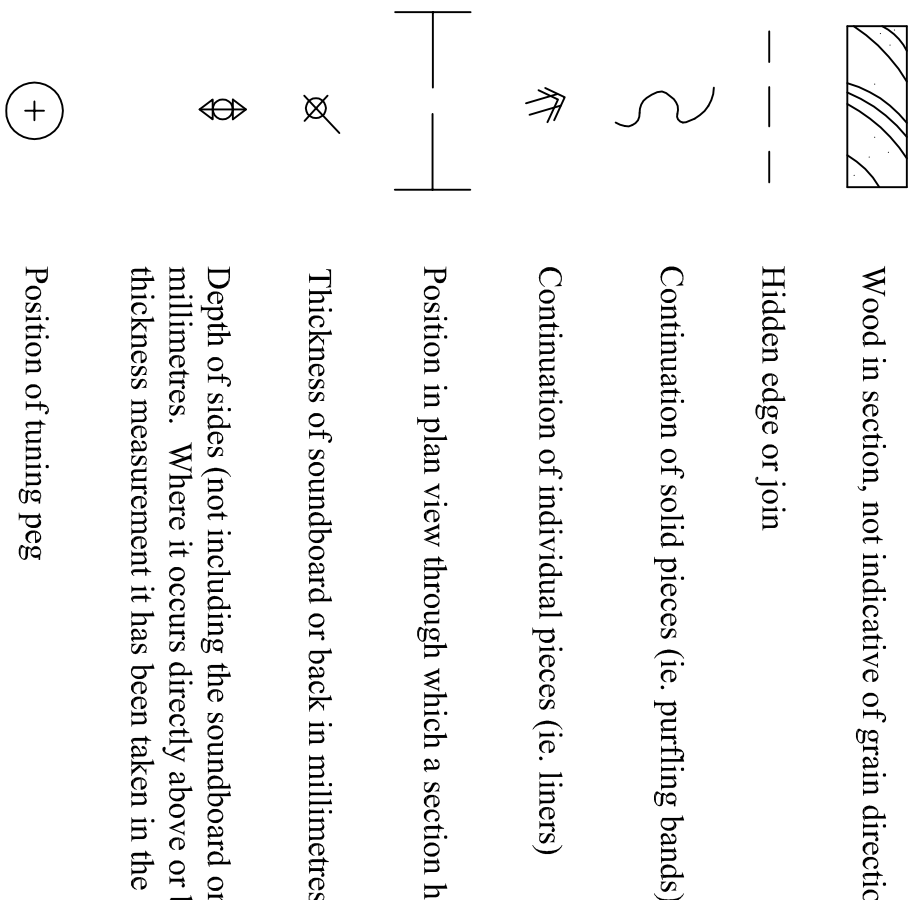
Fret width 0.8 mm, height above fingerboard 0.3 mm.
Wedge width 1.9 mm.

Heel profile at join with neck
Purfling bands. Only the walnut pieces
have purfling (maple/walnutmaple). Only
the outer edges of the bands have been
shown for clarity.
Note that the neck block is not drawn on the rear
view for the sake of clarity.

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

Frets have not been drawn on the side view to assist with clarity

CONVENTIONS



Approximate edge of carved-out part
of pegbox to give clearance for the
peg. Note that towards the neck the
edge of the pegbox is not shown, but the
bottom of the pegbox (see Section H).

Joint between pegbox and neck

Joint between neck and heel

Joint between neck and back

Neck block. Shape not exact but based
on X-ray image

Bottom of sides

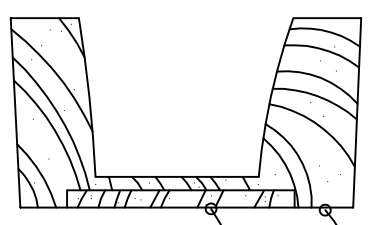
Bottom of back along
longitudinal back end)

The bridge is not original, but the present replacement is in the
correct position of the present top and bottom courses of strings have
been indicated

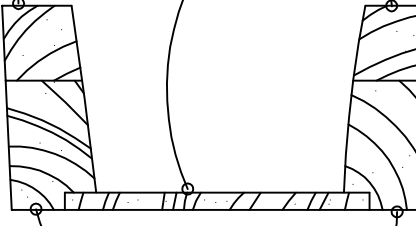
Joint between the lower and bass side pieces.
Note that the present instrument was not built on a form.

Liners between the sides and
soundboard are of dead positions
are not exact, but the size and
spacing between is typical. Liners
continue around the instrument.

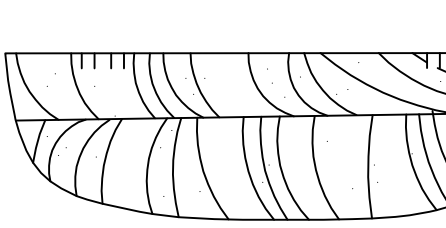
Section G



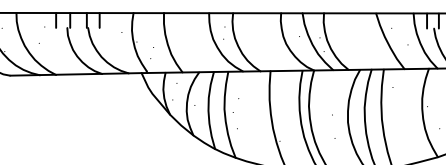
Section H



Section I

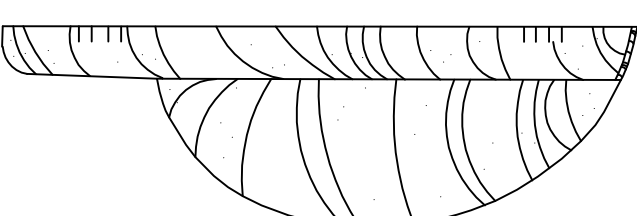


Section J



Walnut capping piece covering ends of frets
and wedges - full depth of the fingerboard

Section K



FRET DISTANCES

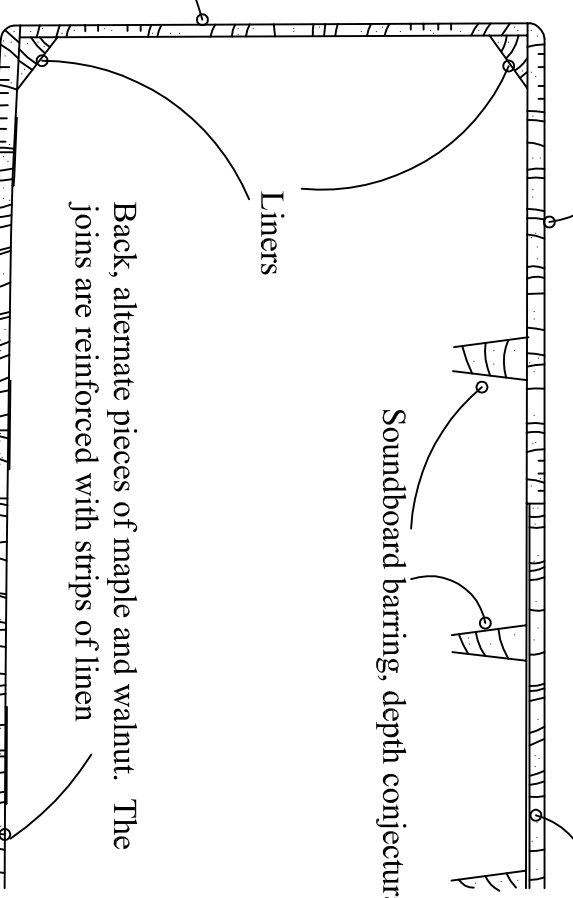
From the edge of the nut to the centre of the fret at each end of the fret

Fret 1 - 35.8 (frets), 30.5 (note)
Fret 2 - 64.5, 55.5
Fret 3 - 97.0, 83.3
Fret 4 - 120.1, 104.5
Fret 5 - 143.2, 124.9
Fret 6 - 174.9, 151.3
Fret 7 - 198.7, 173.7
Fret 8 - 221.7, 192.7
Fret 9 - 245.4, 228.9
Fret 10 - 261.6, 248.3
Fret 11 - 282.5, 261.0
Fret 12 - 301.4, 261.0
Fret 13 - 277.3 (note)
Fret 15 - 304.1

WEDGES

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

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



Section A

All interior pieces shown with dashed lines, positions
are conjectured. The depth and ends of the
soundboard cannot be determined.

Section L

Section M

Section N

Darryl Martin