

# CATALOGUE

Catalogue of the Stradivarian relics  
contained in the “Ala Ponzzone” Civic Museum of Cremona

## FORMS

These served for modelling the form of the instrument and gave the definitive shape of the ribs and the position of the top and bottom blocks, and the blocks of the points to which, when they were attached to the form, the ribs were glued. To all the forms Stradivari gave an identifying mark of either one or two letters of the alphabet. These identifying letters were repeated on all of the separate parts of the patterns used for the completion of a particular model. On each model is also a mark made with two apertures of a compass. This denotes the height of the ribs, which, with the exception of the forms S and G, is always of 30 mm for the top bout and 32 mm for the CCs and bottom bout. The distance between the two parallel lines traced on the form in correspondence with their points gives the radius of curvature of the circles of the development of the point as these were important for the geometric construction of the form.

The abbreviations U.B. upper bout, L.B. lower bout and CC bout are used throughout the descriptions, measurements after these letters indicate the maximum width measurement of the upper and lower bout or the width measurement of the body at the centre point of the CC bout between the upper and lower points, except where stated otherwise. All measurements are given in millimetres.

NO. 1 "MB" Form of Niccolò Amati (1596-1684) made in walnut wood marked with the letters "MB" (*Modello Buono*); this form is characterised by its points which are all equal in form and for the accentuated curvature of the CCs. The length including the top and bottom blocks is 343 mm. U.B. 155 mm, L.B. 193.2 mm, CCs 101.5 mm; radius for the curve of the points 23 mm; thickness of the form 14 mm; the height of the ribs is not indicated on the form (fig. 42).

NOS. 2 - 5 "S" Form of A. Stradivari (1648/49 - 1737) made in walnut wood, marked with the letter "S" (*Seconda*) apparently from the instrument maker's first period as it presents the characteristics of the Amatis - that is, points equal in form and accentuated curvature of the CCs. Length including head and tail blocks 346 mm. U.B. 157 mm; L.B. 196.2 mm; CCs 103.9 mm; radius for the curve of the points 25 mm; height of the ribs: top block 29 mm, CCs 30 mm, and bottom block 32 mm; thickness of the form 14 mm. This form has together with it the patterns in maple wood for the cutting of the blocks of the head 58 mm×13.5 mm and blocks of the bottom part 48 mm×13.5 mm and of the points 11×25 mm. The pattern for one of the points has an autograph in Cremonese dialect *sima* which signifies above and high.

NOS. 6 - 10 "SL" Form of A. Stradivari in walnut wood marked with the letters "SL" (*Seconda Lunga*), carrying the date in the original inscription 9th November, 1691. Length including the top and bottom blocks 350 mm; U.B. 154.5 mm; L.B. 195.5 mm; CCs 100 mm; radius for the curve of the upper points 25 mm and for the lower points 24 mm, thickness of the form 13 mm, furnished with models in maple wood for the cutting of the top and bottom blocks 59.5×14 mm and 46×13.5 mm respectively, of the upper points 11.5×25 mm and of the lower points 13×24 mm (fig. 26).

NOS. 11 - 15 "B" Form of A. Stradivari in walnut wood marked with the letter "B" (*Buona*) carrying the date in the original inscription, 3rd June 1692, much changed from the preceding form because of elongation. Length including the top and bottom blocks 353.5 mm; U.B. 154.5 mm; L.B. 194.8 mm; CCs 93.2 mm; radius for the cutting of the top and bottom blocks 63×15 mm and 46×13.5 mm respectively, for the upper point 10×25 mm and the lower one 10.5×24.5 mm (fig. 21).

NO. 16 "B" Form of A. Stradivari in walnut wood marked with the letter "B" (*Buona*) carrying the date marked with an original inscription, 6th December 1692, and presenting the same characteristics as the preceding form "B", 3rd June 1692, but shortened. According to the annotation added by Count Cozio di Salabue it was used again in 1736. Length including the top and bottom blocks 347.5 mm; U.B 154.5 mm; L.B 195.5 mm; CCs 103.5 mm; radius for the curvature of the points 25 mm, thickness of the form 13 mm, for the cutting of the blocks the models of the preceding form were used.

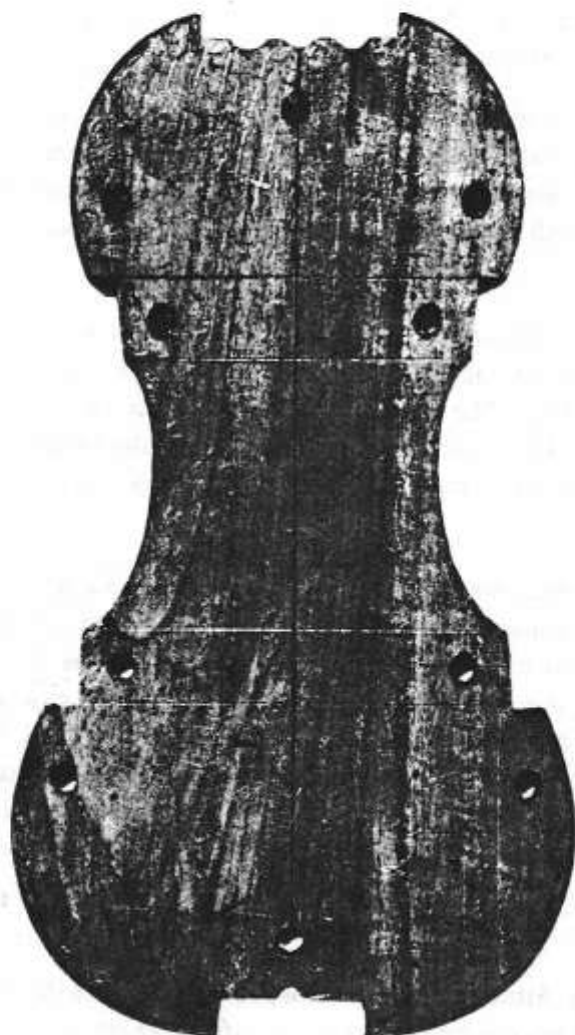


Fig. 151 A. Stradivari: the "T" form for violins (Cat. Nos. 44-48).

NOS. 17 - 21 "S" Form of A. Stradivari in walnut wood marked with the letter "S" (*Seconda*) carrying the autographed date, 20th September 1703, this being repeated also on the patterns for the top and bottom blocks. Length including the top and bottom blocks 345 mm, U.B 155 mm, L.B 195 mm, CCs 98.5 mm; radius for the curve of the upper points 28 mm and of the lower ones 25 mm, thickness of the form 14 mm. This form is furnished with the patterns in maple wood for the cutting of the top and bottom blocks respectively 64.5 mm×13 mm and 47×12.5 mm for, the upper points 8.5×27.5 mm and the lower points 11×25 mm (fig. 152).

NOS. 22 - 26 "P" Form of A. Stradivari in walnut wood marked with the letter "P" (*Prima*). Length including top and bottom blocks 346 mm; U.B 161 mm; L.B 196 mm; CCs 102 mm; radius for the curvature of the upper points 27 mm and for the lower ones 25 mm; thickness of the form 15 mm. Included also with this form are the models in maple wood for the cutting of the top and bottom blocks, 64×14 mm and 48.5×12.5 mm respectively, for the upper points 11.5×27 mm and for the lower ones 12 mm×24.5 mm. On the reverse can be read a "B" in cursive script, which signifies *buona* (good) and a number - 1.

NOS. 27 - 31 "P" Form of A. Stradivari in walnut wood marked with the letter "P" (*Prima*) carrying the date in the original inscription, 25th February 1705. Length including the top and bottom blocks 348 mm, U.B 161 mm, L.B 200 mm, CCs 103 mm; radius for the curve of the upper points 27 mm and the lower points 25 mm. Thickness of the form 13 mm. The form is furnished with patterns in maple wood for the cutting of the top and bottom blocks respectively 61.5×14.5 mm and 49×13 mm, for the upper points 12×28 mm and lower points 12.5×25 mm. The indications "*sima*" and "*baso*" on the models for the top and bottom blocks are in the handwriting of Stradivari's sons (fig. 20).

NOS. 32 - 38 "PG" Form of A. Stradivari in walnut wood marked with the letters "PG" (*Prima Grande*), also carrying the date marked with an original inscription, 4th June 1689, which affirms his break with the Amatis from this period. Length including the head and tail blocks 348 mm; U.B 161 mm; L.B 200 mm, CCs 106 mm; radius for the curvature of the upper points 26 mm and of the lower points 24 mm; thickness of the form 14 mm. Furnished with models in maple wood for the cutting of the top block 61×14 mm, bottom block 49×12.5 mm, the upper left point 10×25.5 mm, upper right point 11×26.5 mm, lower left point 11.5×25 mm and of the lower right 13×24 mm (fig. 43).

NOS. 39 - 43 "G" Form of Stradivari in walnut wood marked with the letter "G" (*Grande*). Coming from the period of Stradivari's artistic maturity, with the use of this form were constructed some of the most celebrated violins among which can be noted the Cremonese ex Joachim, now conserved in the town hall of Cremona. Length including the top and bottom blocks 354 mm; U.B 161.5 mm, L.B 201 mm; CCs 103.8 mm; radius for the curve of the upper points 25 mm and of the upper points 24 mm, height of the ribs 29.5 mm at the top block increasing to 31.5 mm at the CCs. Thickness of the form 14.5 mm. The form is furnished with the patterns in maple wood for the cutting of the top and bottom blocks 63×14 mm and 38.5×13 mm respectively, for the upper points 10×26 mm and for the lower points 13×23 mm (fig. 25).

NOS. 44 - 48 "T" Form of A. Stradivari in walnut wood marked with the letter "T" (*Terza*). Length including the top and bottom blocks, 340 mm; U.B 151 mm; L.B 190 mm; CCs 98 mm; radius for the curvature of the upper points 27 mm; lower points 24 mm. Thickness of the form 14.5 mm. Included with the form are the models in maple wood for the cutting of the head and tail blocks 65×12 mm and 47×13.5 mm respectively, for the upper points 10×27.5 mm and for the lower points 10.5×24.5 mm (fig. 151).

NOS. 49 - 53 "Q" Form of Omobono and Francesco Stradivari (1679-1742 1671-1743) in walnut wood for a violin, seven-eighths size, marked with the letter "Q" (*Quarta*). Length including top and bottom blocks 331 mm, U.B 145 mm; L.B 183 mm; CCs 96 mm; radius for the curve of the points 25 mm; height of

the ribs 28.5 mm and 30 mm respectively; thickness of the form 14 mm. The form is furnished with the models in maple wood for the cutting of the top and bottom blocks 66×11 mm and 46×12.5 mm respectively, for the upper points 9.5×26 mm and for the lower points 8.5×25.5 mm.

NO. 54 Form of A. Stradivari for a quarter size violin in poplar wood. With this form was constructed the Aiglon violin of 1734. The model has a neck terminating with a volute carrying a shield in place of the

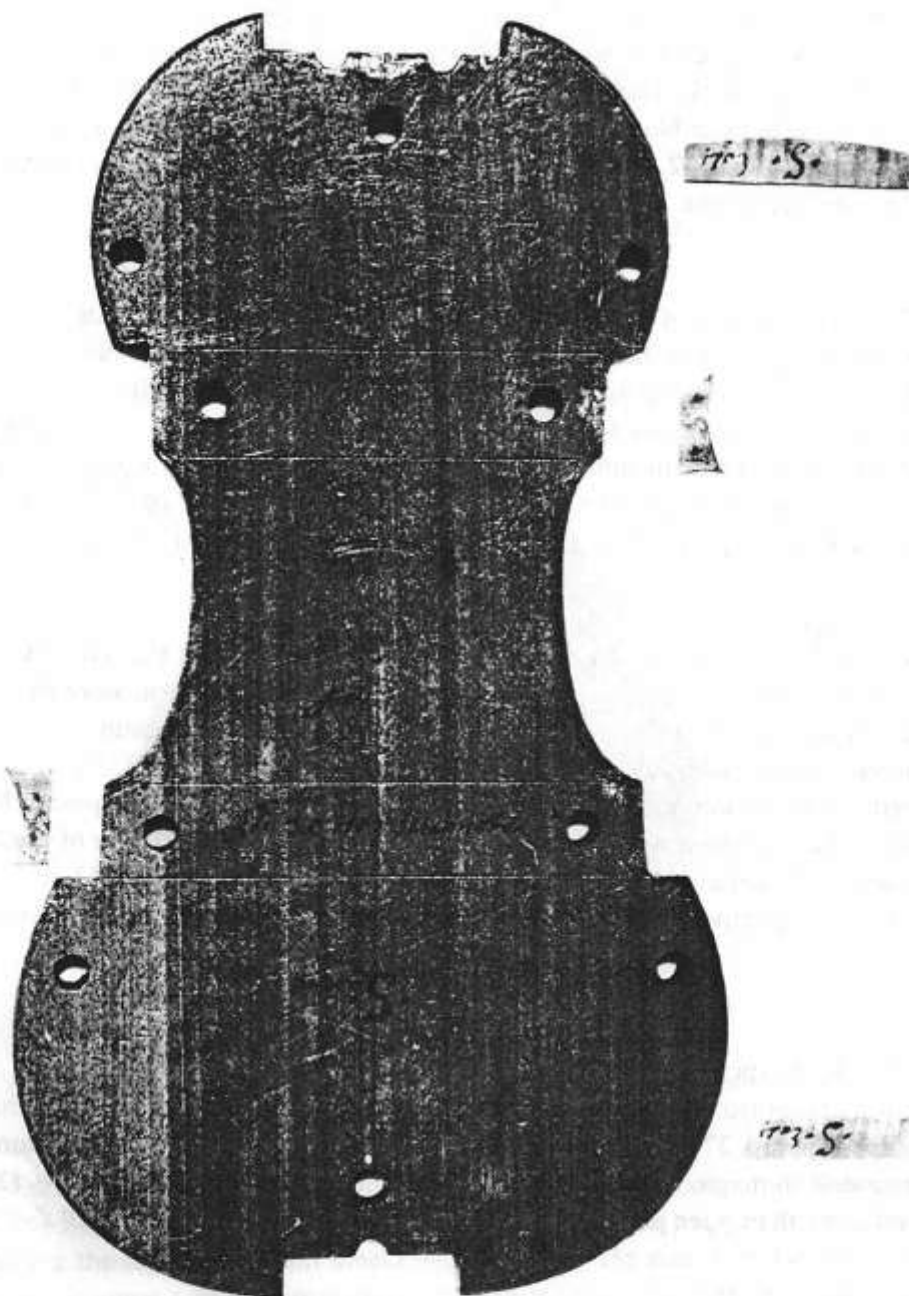


Fig. 152 A. Stradivari: the "S" form of 1703 for violins (Cat. Nos. 17-21).



normal scroll, as does the soprano viola. Length including the top and bottom blocks 260 mm, U.B 117 mm, L.B 144 mm, at the centre of the CCs 77 mm; radius for the curve of the upper points 22 mm and the lower points 18 mm, height of the ribs 24 mm at the neck block, and 26 mm at the CCs; thickness of the form 12 mm (fig. 30).

NOS. 55 - 58 Form of A. Stradivari for the construction of the viola contralto in willow wood. This form was used for the construction of his first viola contralto of 1672 and this is the only instrument known to have been constructed on this form. All the following instruments came from the form of 1690 made for the viola contralto *Medicea*. Length including the top and bottom blocks 403 mm, U.B 184 mm, L.B 241 mm, CCs 124 mm; radius for the curve of the upper points 30.3 mm and the lower points 30 mm. Height of the ribs 38 mm at the neck, 40 mm at the CCs and 43 mm at the bottom block. Thickness of the form 16 mm. The longitudinal cut was for handling. The form is furnished with patterns in maple wood for the cutting of the top and bottom blocks 60×15 mm and 59×14.5 mm respectively and of the lower points 13.5×31 mm. (fig. 34).

NO. 59 Counter-form of A. Stradivari in poplar wood 395×200 mm. This form was used to hold the plates of the violin during their carving and finishing.

Convex counter-blocks for the glueing of the ribs to the blocks of the points, each one marked with a reference letter, according to the form on which it was to be used. Concave counter-block for the bottom block usable in the case of all the forms. Wooden dowels of various lengths which were used for insertion into the round holes in the form and in their turn served for the operation of pressing the rib against its corresponding block by the use of binding string during the glueing of the ribs.

NOS. 60 - 67 Eight convex counter-forms in maple wood 80×18.5 mm, marked with the following, "+ B +" (fig. 50).

NOS. 68 - 75 Eight convex counter-forms in linden wood each 74×12 mm, marked with the following, "...B...".

NOS. 76 - 79 Four convex counter-forms in poplar wood each 79×19 mm, marked with the letter "S" (fig. 50).

NOS. 80 - 83 Four convex counter-forms in walnut wood 72×13 mm, marked with the letters "PG" (fig. 50).

NOS. 84 - 87 Four convex counter-forms in maple wood 80×19 mm, marked with the letter "P".

NOS. 88 - 91 Four convex counter-forms in walnut wood 75×12 mm, marked with the letter "P". (fig. 50).

NOS. 92 - 97 Six convex counter-forms in willow wood 85×19 mm, marked each with the letter ".T.".

NOS. 98 - 99 Two convex counter-forms in willow wood 75×14 mm without markings.

NOS. 100 - 101 Two concave counter-forms in linden wood 27×41 mm (fig. 50).

NOS. 102 - 107 Six small dowels in walnut wood of lengths varying from 86 mm to 117 mm (fig. 50).

## DESIGNS AND MODELS FOR SEPARATE PARTS OF VIOLINS OF DIVERSE FORMS.

NOS. 108 - 111 Francesco and Omobono Stradivari. Models in maple wood marked with a cross for the cutting of the top blocks of a violin  $52.5 \times 13$  mm, for the bottom block  $47 \times 11$  mm, for the upper points  $10 \times 26$  mm and for the bottom points  $12 \times 26.5$  mm.

NOS. 112 - 114 Francesco and Omobono Stradivari. Models in maple wood marked with three small points, used for the cutting of the top block  $65 \times 10.5$  mm, bottom block  $45 \times 13$  mm and for the upper points  $10 \times 26$  mm.

NOS. 115 Model in maple wood of A. Stradivari  $61 \times 14$  mm for the cutting of a bottom block, marked with the letter "P".

NO. 116 Compass design of A. Stradivari of the CCs of a violin of the "P" form on a piece of paper  $136 \times 240$  mm. Here is traced the scheme for finding the just measure of the ff holes and their correct placement. Diameter of the upper eye 7 mm, of the lower one 9 mm; distance between the centres of the upper eyes of the ffs 46 mm, and distance between the lower eyes 120 mm; distance between the two parallel lines of the axis of the ffs 7.5 mm.

NO. 117 Compass design of A. Stradivari of the CC bout of a violin of the "G" form drawn on a piece of paper  $287 \times 220$  mm. This has traced on it the scheme for finding the just measure of the ff holes and their correct placement. Diameter of the upper eye 8 mm, of the lower eye 10 mm; distance between the centres of the upper eyes 49 mm, distance between the lower eyes 119 mm and distance between the two parallel lines of the axis of the ffs 8 mm. On the reverse side of the sheet of paper is traced the design of the CC bout of the violin of the "P" form described in the preceding number (fig. 81).

NOS. 118 - 123 Three pairs of models in paper of the curved axis of the ff holes of a violin of A. Stradivari of 70 mm in height and of a width measurement at their centre of 7 mm.

NOS. 124 - 125 A pair of models in paper of the curved axis of the ff holes of a violin of A. Stradivari of 77 mm in height, width measurement at their centre 6.5 mm.

NOS. 126 - 127 Pair of models in paper of the complete ff holes of a violin of A. Stradivari 77 mm in height and of a width measurement at their centre of 7.5 mm.

NO. 128 Original neck of the *Soil* Violin of A. Stradivari of 1714, 122 mm in length, on the upper part can be read the autographed letter "G", which indicates the form with which the instrument was cons-

trucked. There still can be seen the little hole for the pin used for centering the neck during construction. The neck is not in its completely original state as the thumb stop has been hollowed out to make it more definite for the player (fig. 93, fig. 118).

NO. 129 Original fingerboard from a violin of A. Stradivari, length 213 mm. The fingerboard is made in willow wood with borders of maple, veneered on its playing face with figured ebony and purfling in black ebony and ivory. Width at the nut is 25.5 mm; maximum width at the bridge end is 40 mm and the length of the hollow under the bridge end of the fingerboard\* extends to 94 mm (fig. 124).

NO. 130 A. Stradivari. Pattern of a fingerboard in walnut wood for a large violin, length 213 mm. Indicated on it, on the bottom part, are the thicknesses at the nut and at the line for the starting of the underside hollow. The inscription *M<sup>o</sup>: Ta (modello Tappa) più longa e più grande 1715*, is in the handwriting of Cozio di Salabue. Width at the nut 27 mm, at the foot 41 mm; the length of the hollow or excavation extends to 91 mm from the bridge end of the model.

NO. 131 A. Stradivari - Pattern for a fingerboard made in walnut wood for the violin of the "P" form. Length 207 mm, width at the nut 25 mm, at the foot 39 mm. Line of excavation\* 79 mm from the foot. Thickness at this point 17.5 mm.

NO. 132 A. Stradivari - Pattern for a fingerboard made in maple wood, for violins of the "G" form. Length 207 mm, width at the nut 26 mm at the foot 40 mm. Line of excavation\* 78 mm from the foot; thickness at this point 18 mm (fig. 125).

NO. 133 A duplicate of the preceding pattern in walnut wood - letter "G".

NO. 134 A. Stradivari - Pattern in maple wood for a fingerboard of a violin of the "PG" form. Length 212 mm, width at nut 26 mm, at the base 40 mm; thickness at the line of excavation\* 15.5 mm.

NO. 135 A. Stradivari - Pattern for a fingerboard of a violin, in paper with impressions for decorative inlay. Length 190 mm, width at nut 26.5 mm, at the base 37 mm (fig. 126).

NO. 136 Original tail block of the *Phipps* Violin made by Antonio Stradivari in 1722 (fig. 28).

NO. 137 A. Stradivari - Pattern in wood of a tailpiece of a violin of the "MG" form, 109 mm in length, bearing indications of the thicknesses, of the holes for the attachment of the tailgut and strings; width at the largest point (upper) 41 mm, at the smallest (lower) 22 mm.

NO. 138 A. Stradivari - Pattern in wood of a tail piece of a violin of the "B" form. Length 109 mm. Upper width 40 mm, lower width 20 mm.



NO. 139 Duplicate in pear wood of the preceding pattern of a tailpiece of the "B" form with scribed impressions for decorative inlay.

NO. 140 - 141 Two strips of maple wood, 122 mm in length. One with the inscription "*Longezza del capotasto sina al mollo abassa*" written in the handwriting of one of the sons of Stradivari. This is for verifying and checking the length of a violin neck from the nut to the higher rib. The other strip 120 mm in length bears the sole inscription, again in the handwriting of the sons "*Altezza dal ponticello*" (height from the bridge).

NO. 142 A. Stradivari - Pattern for a violin bridge in maple wood, able to be used also for viola d'amore. Written on this item in the handwriting of Stradivari are the words "*Pe la viola da liù*". Height at the centre of the bridge 32 mm, width at the base 41 mm.

NO. 143 A. Stradivari. Paper pattern for a bridge bearing in the handwriting of the sons of Stradivari "*Adi Primo Agosto 1711 Mostra*" (sample). Height at the centre of the bridge 28 mm, width at the base 32 mm (fig. 131).

NO. 144 A. Stradivari - A paper pattern for a bridge, height at the centre 27 mm, width at the base 38 mm.

NO. 145 A. Stradivari - A paper pattern for a bridge, height at the centre 25 mm, width at the base 36 mm.

NO. 146 A. Stradivari - A paper pattern for a bridge, height at the centre 24 mm, width at the base 37 mm.

NO. 147 - 152 A. Stradivari - Six wooden facsimiles of bridges for checking the alignment of the neck and inclination of the fingerboard. No. 147 has a width at its base of 42 mm in correspondence with a height at its centre of 22 mm\*. On this pattern is written in handwriting "*Modello da scodere la corda*".  
No. 148 measuring 39.5 mm×20 mm is marked with the letters "PA".  
No. 149 Measuring\* 38 mm×19 mm is marked with the letters "FG".  
No. 150 Measuring\* 38 mm×19 mm.  
No. 151 Measuring\* 38 mm×18.5 mm.  
No. 152 Measuring\* 29 mm×16 mm.

## EQUIPMENT OF THE CONSTRUCTION OF A POCHETTE

NOS. 153 - 157 A. Stradivari. A poplar wood form having unworked blocks attached at its points. Length including top and bottom blocks 157 mm, width of the upper bout 63 mm, lower bout 89 mm, width at the centre of the CCs 48 mm; radius for the curve of the upper points 14 mm and of the lower points 11.5 mm; height of the ribs 16.5 mm and 18 mm respectively, the thickness of the form 8 mm. This form is furnished with the wooden patterns for the cutting of the top block 24.5 mm×8 mm; of the bottom block 23.5 mm×7.5 mm; of the upper points 5 mm×14.5 mm and the lower points 6.5 mm×11.5 mm (fig. 45).

NO. 158 - 159 Two convex counter-forms in willow wood measuring 10 mm in width by 49 mm in height.

NOS. 160 - 161 Two convex counter-forms in willow wood 7.5 mm×49 mm.

NOS. 162 - 165 Four convex counter-forms in willow wood 6.5 mm×47 mm.

NO. 166 Model in paper of the table of the pochette measuring 159 mm×49 mm. The ff holes are cut out on this pattern.

NO. 167 Paper model of a complete axis of an f hole 36 mm in length by 4 mm at its centre.

NO. 168 Paper model of the neck with the scroll measuring 21 mm×189 mm. Length of the head from its parting with the nut 63 mm, from the heel to the nut 126 mm.

NO. 169 A geometric development of the scroll, traced with a compass on a strip of paper measuring 46 mm×119 mm. This served for determining the various widths of the back of the scroll.

NO. 170 Paper pattern of a part of the side of the scroll 67.5 mm in length with indications for the positioning of the peg holes marked on it.

NO. 171 Paper pattern of the fingerboard. Length 145 mm; width at the nut 24 mm; at its base 34 mm; thickness at the line of excavation 16 mm.

NO. 172 Paper pattern of the tailpiece. Length 46 mm; width at the point of attachment of the strings 24 mm and at its base 15 mm.

NOS. - 173 - 185 and 186 - 204 Two complete series in wood of the so called "quinte", used for obtaining the just curvature of the back and belly, both internally and externally. These were copied by Count Cozio of Salabue, one from a violin of Nicolò Amati of 1654, which had belonged to the violinist Alessandro Rolla, the other from a violin of A. Stradivari of 1710. Stradivari, however, used only forms of curvature for the outside of his instruments, using for the inside determination of the curve an opposing point thickness gauge (See fig. 75) with which he was able to control the reduction of thickness when and where he wanted.

## EQUIPMENT FOR THE CONSTRUCTION OF THE VIOLA CONTRALTO DATED THE 4th OCTOBER 1690.

All the individual pieces which make up the equipment have been counter-signed by Stradivari with the letters "CV" (*Contralto Viola*). With this pattern were constructed the most famous of the violas, among which are the "*Toscana*" of 1690, the "*Mac Donald*" of 1701 and the "*Paganini*" of 1731 (figs. 1 and 2, pages 2 and 3).

NOS. 205 - 209 Form in walnut wood bearing the following in the handwriting of Stradivari, repeated by Count Cozio of Salabue: "*1690 forma nuova per il contralto fatta ha posta per il illus.mo Grande Principe di Fiorenza*". Length including neck and bottom blocks 403 mm. U.B 177 mm; L.B 233 mm; CCs 118 mm; radius for the curve of the upper points 32 mm and lower points 29 mm; height of the ribs 37 mm and 39 mm; thickness of the form 17 mm. The form is furnished with the patterns in maple wood for the cutting of the neck block 60.5 mm×15 mm and the bottom block 54 mm×15.5 mm; for the upper points 12 mm×31.5 mm and for the lower points 13 mm×29 mm.

NO. 210 Design for the CCs of the viola, on a sheet of paper measuring 360 mm×238 mm. On this sheet is traced the scheme for obtaining the measurements of the ff holes and their correct positioning. The paper carries the words in handwriting: "*Musura giusta per li occhi del contralto fatto ha posta per il Gran Principe di Toscana adi 4 ottob 1690*". Diameter of the upper eyes of the ffs 8 mm; lower eyes 11 mm; distance between the two upper eyes 50 mm; distance between the lower eyes 135 mm; distance between the parallel lines of the axis of the ff holes 7.5 mm.

NOS. 211 and 212 Patterns in paper of the two ff holes measuring 85 mm×7.5 mm, marked "CV".

NO. 213 Paper model of the neck including the scroll 47 mm×280 mm; indicated by the mark of a compass are the maximum width at the eye of the scroll 52 mm, and the depth of the chamfer along its edges 2 mm. Height of the scroll from the nut 160 mm; height of the neck from the heel to the nut 120 mm.

NO. 214 Geometric development of the scroll, marked with a compass on a strip of paper 96 mm×286 mm with the following in handwriting: "*Misura per il scartozzo del contrato adi 4 Ottobre 1690*". The diameters of the circles indicate the width of the back of the scroll at those points along its development to which they correspond.

NO. 215 Paper pattern of part of the side development of the scroll 124 mm in height, bearing marks for the positioning of the holes for the tuning pegs.

NO. 216 Paper pattern of the heel of the neck 39.5 mm×82.5 mm.

NO. 217 Pattern for the fingerboard in maple wood 236 mm in length, with indication for thicknesses. Width at the nut 24 mm, at the base 46 mm, thickness at the line of excavation 23 mm.

NO. 218 Pattern for the tailpiece in walnut wood 139 mm in length, with an indication of the measurements for the holes used to attach the strings and those for the attachment of the tailgut. Upper width 51 mm; lower width 26 mm.

NO. 219 Paper pattern for the tailpiece having the same measurements as the preceding pattern No. 218, bearing incised lines indicating decorative inlay.

NO. 220 Paper pattern for the bridge, width at its base 45 mm, height 37 mm at the centre line.

NO. 221 Facsimile in wood of the bridge, used for the alignment of the neck and for obtaining the correct inclination of the fingerboard; width at its base 56 mm, height at the centre line 29 mm.

NO. 222 Sample of three gut strings, sewn with cotton thread on a rectangle of paper measuring 149 mm×104 mm, on which is written in the hand of the sons of Stradivari "*Adi agosto 1727 queste quattro corde sono la grossezza per finire la viola a quattro corde cioè il contralto*". On the back of the little sheet are outlined several staves, autographed by Stradivari with numbers at the positions of the notes.

NO. 223 Rectangle of wood measuring 63 mm×22 mm, with indications for a thickening of 3.5 mm and 4 mm. On one side of this piece we read "*Misura della grossezza dell' copercho et fondo dell' contralto*"; on the other side "*Fatta misura della grossezza dell' coperchio et fondo dell' Tenore*". This may suggest that the measurement for the thickness of the borders for the belly and back would be successful also for the tenor viola.

NOS. 224 - 227 Patterns in maple wood probably by the sons of Stradivari for the cutting of the blocks of a viola contralto. No. 224, neck block 85 mm×16.5 mm; No. 225, bottom block 56 mm×14 mm; No. 226, blocks for the upper points 13 mm×24 mm; No. 227, blocks for the lower points 12 mm×29 mm, counter-signed with a letter "P".

NO. 228 Stick of poplar wood measuring 484 mm×18 mm for the measurement of the ribs of the viola. On this one can read "*Longezza della fassa della viola C*".

## EQUIPMENT FOR THE CONSTRUCTION OF THE TENOR VIOLA DATED THE 4th OCTOBER 1690

Each single piece which composes the equipment is marked by Stradivari with the letters "TV" (Tenor Viola). On this pattern was constructed the large tenor viol of 1690 called the Medicea (figs. 18 and 19).

NOS. 229 - 233 Form in walnut wood on which is written in the handwriting of Stradivari, corrected and copied by Count Cozio di Salabue the following - "*1690 forma nova per il contralto (tenore) fatta ha posta per il ill.mo Gran Principe di Fiorenza*". Length including neck and bottom block 468 mm. U.B 207 mm L.B 257 mm. CCs 137 mm. Radius for the curve of the upper points 31 mm. Lower points 30.5 mm.

Height of the ribs 39.5 mm and 42 mm. Thickness of the form 17 mm. The form is furnished with the small patterns in maple wood for the cutting of the neck block 70 mm×16.5 mm. Bottom block 57 mm×16 mm. The upper points 12 mm×32 mm and the lower points 13.5 mm×31 mm.

NO. 234 A sheet of paper measuring 360 mm×237 mm on which is traced by compass a design for the CC bouts of the viola. It includes also the scheme for obtaining the measurement of the ff holes and their correct placement. Written in handwriting are the words "*Musura giusta per il Tenore de occhi fatte ha posa per ill' Gran Principe de Toscana adi 4 Ottob 1690*". The diameter of the upper eye of the ffs measures 9.5 mm, of the lower one 12.4 mm; distance between the centres of the upper circles 65.5 mm; distance between the centres of the lower circles 152.5; distance between the two parallel lines of the axis of the ffs 8.5 mm.

NOS. 235 - 236 Paper patterns for the main body of the two ffs 88 mm×7.5 mm.

NO. 237 Paper pattern for the neck including the scroll measuring 480 mm×288 mm, bearing compass marks for the maximum measurement between the eye of the scroll 53.3 mm, and the depth of the chamfer on the edges of the scroll 2 mm. Length of the scroll from the nut 128 mm; of the neck from the heel to the nut 160 mm.

NO. 238 Piece of paper 80 mm×282 mm bearing a compass design for the geometric development of the peg box and scroll, with an addition of the following in handwriting "*Misura per il scartozzo del tenore fatto adi 4 ottob 1690*". From this drawing were derived the various widths of the back of the scroll and peg box.

NO. 239 Paper pattern of part of the side of the peg box measuring 130 mm in height with marks indicating the position of the peg holes.

NO. 240 Paper pattern for the heel of the neck measuring 43 mm×86 mm.

NO. 241 Pattern in walnut wood of the fingerboard, length 251 mm with indications for thicknesses. Width at the nut 30 mm, at its base 46 mm, thickness at the line of excavation 23 mm.

NO. 242 Paper pattern of the fingerboard of size identical to the preceding wooden pattern, with scribed impressions of a design for decorative inlay, comprised of circles and parallelograms.

NO. 243 Pattern in maple wood of the tailpiece measuring 150 mm in length, with indications of thicknesses, of the positions of the holes for the attachment of the strings and for the attachment of the tailgut. Upper width 54.5 mm, lower 28 mm.



NOS. 244 and 245 Two paper patterns of the tailpiece both having the same measurements of the preceding pattern, one bearing impressions of a design for decorative inlay, comprised of circles and parallelograms.

NO. 246 Paper pattern for the bridge measuring 56 mm in width at its base, and 43 mm in height at its centre line.

NO. 247 A facsimile in wood of the bridge, used for the alignment of the neck and for obtaining the correct inclination of the fingerboard, width at its base 64 mm, height at the centre line 33 mm.

NO. 248 Rectangle of wood 57 mm×22 mm with indications on its surface of a thickness measurement of 5 mm and 6 mm. It is supposed that this represents the measurement for the borders of the back and belly.

NO. 249 Original bridge of a tenor viola measuring 57.5 mm at its base and of a height at its centre line of 41 mm (fig. 129).

## EQUIPMENT FOR THE CONSTRUCTION OF A VIOLA DA GAMBA OR BASS DATED THE 23<sup>rd</sup> FEBRUARY 1684

A viola with five strings, with arched back, points similar to a violoncello and a neck terminated with a scroll.

NO. 250 Paper pattern of the neck including scroll measuring 163 mm×554 mm, with compass marks indicating the maximum measurement between the eyes of the scroll 73.5 mm and the position of the five holes for tuning pegs. On this pattern we can read in the handwriting of Stradivari "*Misura del manico della viola da gamba fatta il adi 23 febbraio 1684 per la Sig.na Ill.ma Sig.mo Contessa Sola de Bergno*". Height of the scroll from the nut 220 mm; height of the neck from the heel to the nut 334 mm (fig. 153).

NO. 251 Strip of paper 86 mm×318 mm with a geometric development for the scroll and peg box drawn by compass, and the following in handwriting: *Misura della voluta del manico della viola da gamba fatta il 23 febbraio 1684*. From this drawing were derived the various widths of the back of the scroll (fig. 153).

NO. 252 A measure on a strip of card 22 mm×325 mm of the length of the neck from the nut to the upper rib 325 mm, with indications for the divisions of the five strings, and the writing in the hand of the sons of Stradivari "*Misura della lunghezza del manico dalle fasce sino al capotasto da Van*" (fig. 153).

NO. 253 Pattern in maple wood for the cutting of the neck block 121 mm×65 mm, with the autograph writing "*La misura del mol - per la viola da Gamba con la goba 23: 1684 per il manico*".

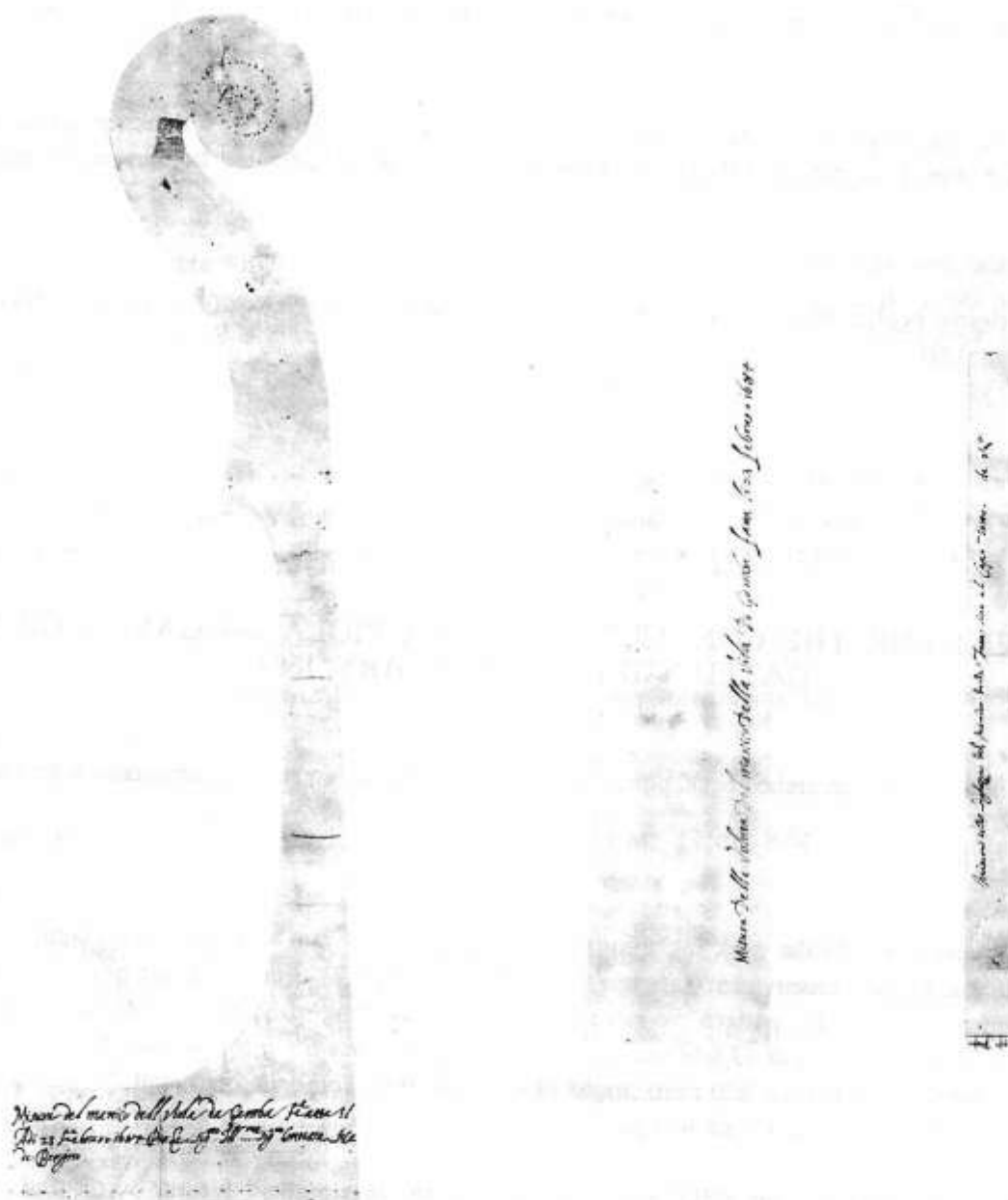


Fig. 153 A. Stradivari: patterns for the scroll and neck of the viola da gamba of 1684 (Cat. Nos. 250, 251 and 252).

NO. 254 Pattern in maple wood for the cutting of the neck block measuring 117 mm×28 mm. This would be used when the Viola Da Gamba form was used for the construction of a violonello. This pattern has written on it the indication "*V.D.G. mollo per far il violoncello*".

NO. 255 Paper model of the fingerboard 495 mm in length, with impressions for a decorative inlay and with the handwritten indication "*Viola da Gamba 23: 1684*". Width at the nut 41.5 mm, at the base 68.5 mm.

NO. 256 Pattern in maple wood of the fingerboard 449 mm in length, with indications of measurements of the divisions for the frets, and of the line for the commencement of the excavation on the underside of the fingerboard. This pattern has written on it in the handwriting of the sons of Stradivari "*B Questi pontini ha la larghezza delli tasti della viola della Sig.na: Cristina Visconta*". The letter "B" is an indication that this pattern was also used in the construction of the violoncellos of the "B" form. Width at the nut 29 mm, at the base 62 mm. The line for the commencement of the hollow of the underside is 168 mm from the bridge end of the fingerboard. The thickness at this point is 30 mm.

NO. 257 Paper pattern of the tailpiece 238 mm in length, with the impression of a design for decorative inlay and the following script, "*Viola da gamba 23 1684*". Width at the position of attachment of the strings 85 mm; at the tailgut end 46 mm.

NO. 258 Design on a piece of rib of maple wood 78×21.5 mm, reproducing the curvature of the fingerboard together with the following script by the sons of Stradivari "*Questo è il tondo della tappa della viola della Sig.na Cristina Visconta*".

NOS. 259 - 265 A. Stradivari. Paper pattern for the construction of the form in wood for another viola da gamba, measuring 670 mm×214 mm. Length including the neck and bottom block 691 mm. U.B 326 mm. L.B 403 mm. CCs 214 mm. Height of the upper block 50 mm. Line of the shoulder of the back is 91 mm from the block. This form is furnished with the patterns in maple wood for the cutting of their respective blocks. Front of the neck block 140 mm×50 mm. Back of the neck block 136 mm×50 mm. Plan of the neck block 72 mm×82 mm. This pattern bears the following writing in script, by the sons of Stradivari "*La larghezza del mollo della gobba di sopra dove va piantata il manicho ha cova di rondena*". Bottom block 86 mm×21 mm. Block for the upper points 13 mm×32 mm. Block for the lower points 14 mm×34 mm (fig. 154).

NO. 266 Paper pattern of a tailpiece 154 mm in length. Width at the point of attachment of the strings 88 mm, at the point of attachment of the tailgut 40 mm.

NO. 267 Paper pattern of the foot of the neck 102 mm×262 mm.

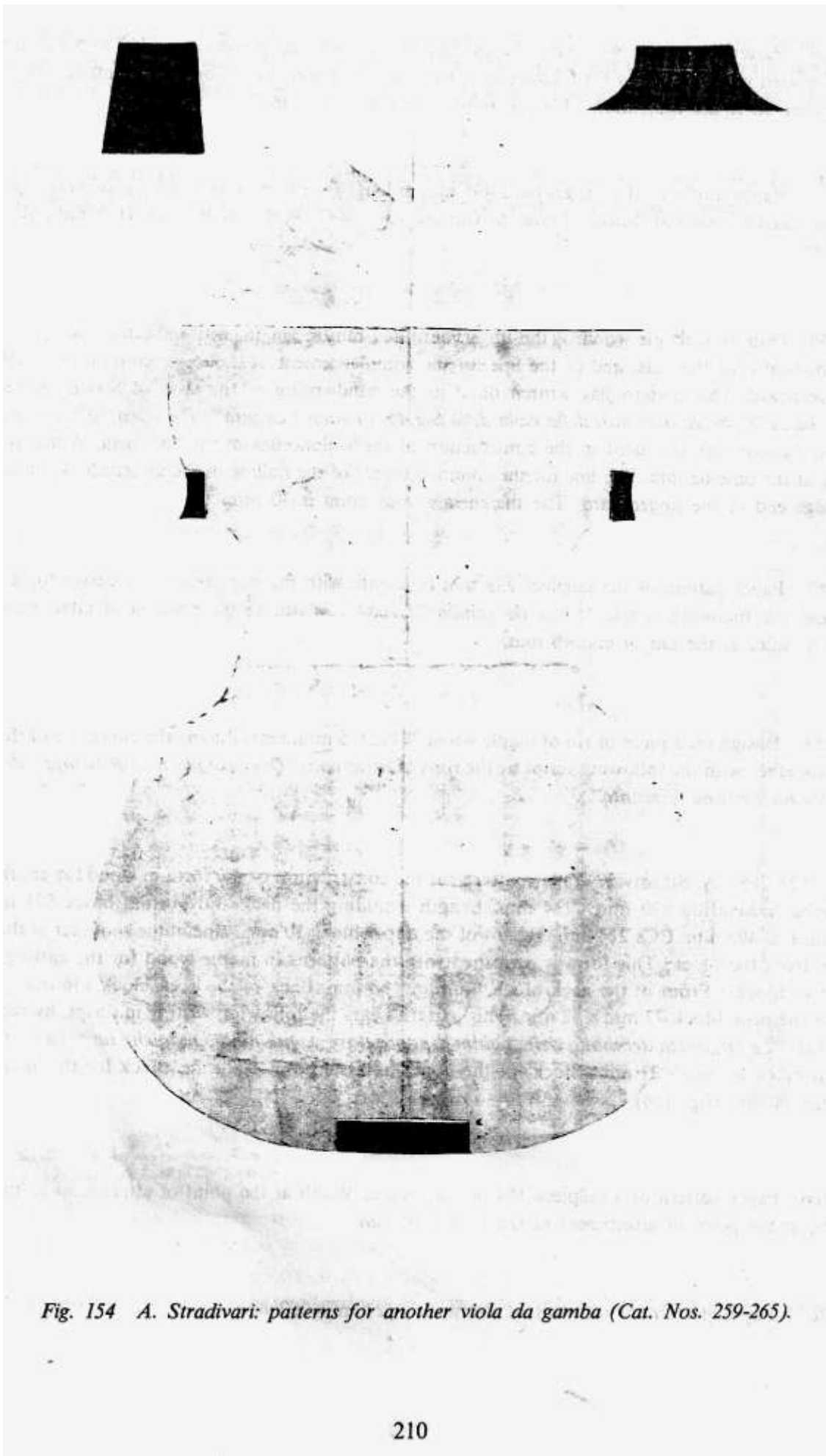


Fig. 154 A. Stradivari: patterns for another viola da gamba (Cat. Nos. 259-265).

## EQUIPMENT FOR THE CONSTRUCTION OF THE VIOLONCELLOS OF THE "B" FORM

This equipment was probably made in 1709 and with it were constructed numerous celebrated instruments among which are the *Gore Booth of 1710*, the *Duport of 1711*, the *Batta of 1714*, the *Piatti of 1720* and the *Vaslin of 1725*.

Cozio di Salabue, gives three measures for violoncello, 'Ordinario' of neck length 265 mm, 'Forma B' 282 mm, and 'Veneziana' 340 mm.

All the parts which make up the equipment for this form are marked with the letter "B".

NOS. 268 - 271 Patterns in maple wood for the cutting of the neck block 120 mm×19 mm. Bottom block 113 mm×20.5 mm. For the upper points 12 mm×36 mm. For the lower points 13 mm×36 mm. There is a relation to be identified between this form "B" and the form in willow wood, with longitudinal handling slots which is conserved in the Museum of the Conservatory of Paris. This form is not in its original state having been reduced in size by the sons of Stradivari for the construction of smaller cellos.

NO. 272 Sheet of paper measuring 213 mm×312 mm bearing the handwritten script of Stradivari "*musura per la forma B per far li occhi del violincello*". This piece of paper has drawn on it the design for the measurement of the ff holes and their correct positioning. The diameter of the upper eye of the ffs is 14 mm, of the lower eye 19 mm. The distance between the two upper eyes of the ffs is 88 mm. The distance between the two lower eyes 202 mm. Distance between the two parallel lines of the axis of the ffs is 11 mm. On the back of this sheet is drawn the same design but with diverse measurements and bearing the following in the handwritten script of the sons of Stradivari "*Per far li occhi della forma B piccola di violincello*". We must consider that the restructuring of the design took place after the reduction in size of the form by the sons. Diameter of the upper eyes 14 mm. Lower eyes 16.5 mm. Distance between the centres of the upper eyes 104 mm. Distance between the centres of the lower eyes 216 mm. Distance between the parallel lines of the axis of the ffs 10.5 mm (fig. 37, fig. 41).

NOS. 273 and 274 Paper pattern of the main body of the ff holes measuring 137 mm in length×11 mm at their centre.

NO. 275 Pattern in maple wood measuring 28 mm×75 mm for the enlargement and the refinishing of the points of the back and belly with the handwritten script of Stradivari "*Musura per fa le punte alli violincelli*".

NO. 276 Paper pattern of the neck with the scroll measuring 158 mm×474 mm with compass marks for the distance between the eyes of the scroll 68 mm and the depth of the chamfer on the edges of the scroll 2.5 mm; length of the scroll from nut 188 mm, of the neck from heel to nut 286 mm (fig. 155).



NOS. 277 - 278 Two identical geometric developments of the scroll, inscribed by compass on a strip of card measuring 84×290 mm. From these designs were derived the various widths of the back of the scroll (fig. 155).

NO. 279 Paper pattern of the heel of the neck 138 mm×18.5 mm.

NO. 280 Paper pattern of the fingerboard 424 mm in length with indication of the thickness at the line of commencement of the hollow under the fingerboard about 29 mm. Width at the nut 35 mm, at the base 65.5 mm. On the upper part is the impression of a design for decorative inlay.

NO. 281 Wooden pattern of the tailpiece 242 mm in length with indications of thicknesses. Holes for the attachment of the strings and for the attachment of the tailgut. Upper measurement 78 mm. Lower measurement 38 mm.

NO. 282 Another paper pattern of the same model with a design in pen for inlaid decoration, carried out on the tailpiece of the "*Toscano*" of 1690 (fig. 127).

NO. 283 Rectangle of paper 47 mm×116 mm with a pierced stencil of a cupid which was inlaid on the tailpiece of the "*Toscano*" (fig. 128).

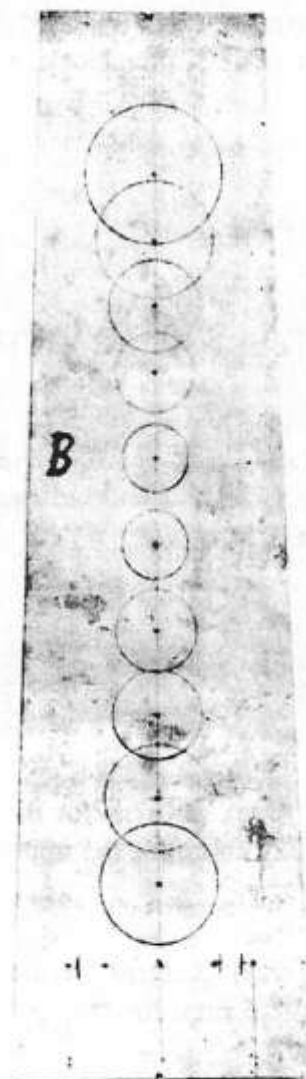
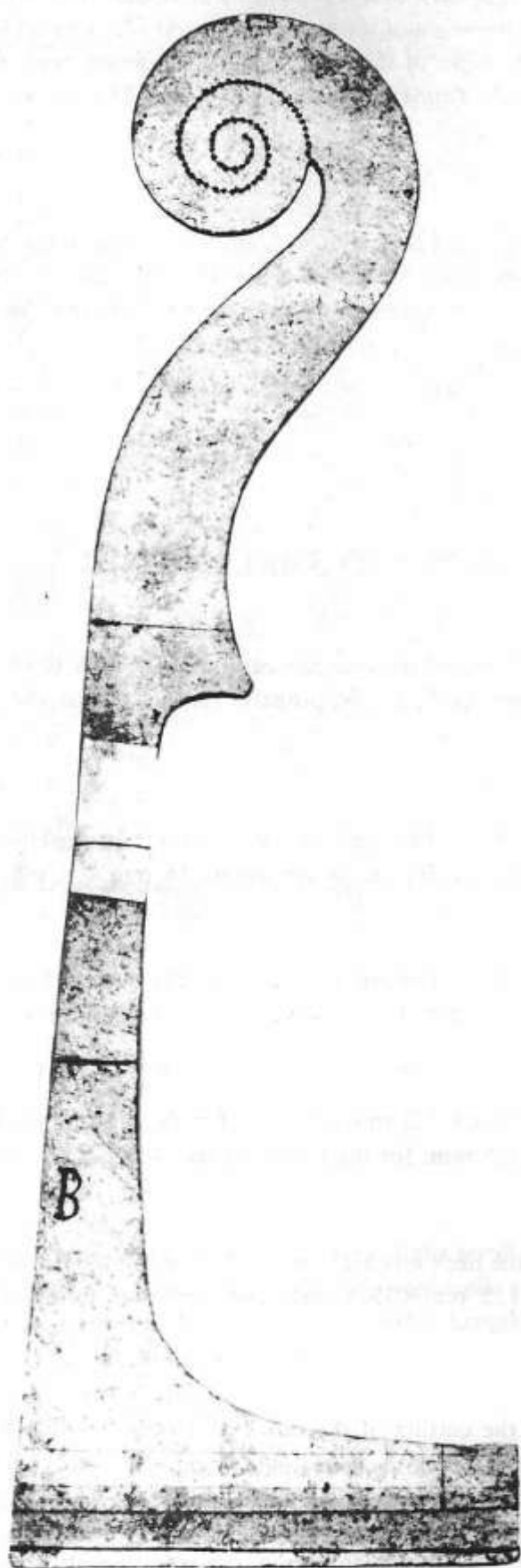
NO. 284 Paper pattern of the bridge, width at the base 81 mm, height at the centre 71 mm.

NO. 285 Paper pattern of the bridge. Width at the base 85 mm. Height at the centre 72 mm, marked with the letters MO. BO. (Modello Bono).

NO. 286 Paper pattern of the bridge. Width at the base 87 mm, height at the centre 75 mm marked with the letters BO (bono) (fig. 130).

NO. 287 Facsimile of a bridge made in willow wood. Width at the base 101 mm. Height at the centre 59 mm, bearing the following in the handwriting of Stradivari "*B Musura per scodere la corda - Bono 1709*". On the reverse side is scribed the design of the bridge. This facsimile was used for the alignment of the neck and for obtaining the correct inclination of the fingerboard.

NO. 288 Rectangle of poplar wood 88 mm×32 mm carrying indications for thicknesses of 7 mm and 7.5 mm. Also in the handwritten script of the sons of Stradivari "*Grorezza del fondo della fo: B*". Supposedly the correct measurement for the border of the belly and back.



*Fig. 155 A. Stradivari: patterns for the scroll and neck of the "B" form cello (Cat. Nos. 276 and 277).*

NO. 289 A fragment of a rib in maple wood measuring 209 mm×36 mm, with marks for three measurements. Two of them made with a compass indicate the height of the ribs 127 mm and 122.5 mm. The other of 11.5 mm made by ruler, supposedly indicates the height of the rib linings. The fragment bears in the handwriting of the sons of Stradivari the following - "*B Misura dell'altezza del violoncello e grossezza del fondo del violoncello*".

NO. 290 Original bottom block in willow wood measuring 122.5 mm×102 mm×18 mm approximately in thickness. This originated from "the Pawle" cello made by Stradivari in 1731. We can see the lines for the centering of the block on the form and marks of clamps used in gluing the ribs onto the block (fig. 27).

## PATTERNS FOR OTHER VIOLONCELLOS AND SMALL BASSES

NOS. 291 - 306 Four complete series of patterns in maple wood used for the cutting of the neck blocks, bottom blocks and points, marked respectively with the letters Q, P, T, FN, probably for violincellos whose forms have been lost.

- Q series (Quarta): patterns for the cutting of the neck block 109 mm×20 mm; or the bottom block 89 mm×21 mm, for the upper points 12 mm×34.5 mm, for the lower points 16 mm×31 mm.
- P series (Prima): patterns for the cutting of the neck block 120 mm×24 mm; for the bottom block 118 mm×22.5 mm; for the upper points 13.5 mm×34.5 mm; for the lower points 14.5×34.5 mm.
- T series (Terza): patterns for the cutting of the neck block 121 mm×23 mm; for the bottom block 120 mm×22.5 mm; for the upper points 12 mm×32.5 mm; for the lower points 14 mm×32 mm.
- FN series (Forma Nuova): patterns for the cutting of the neck block 113 mm×23 mm; for the bottom block 112 mm×22.5 mm; for the upper points 11.5 mm×35.5 mm; for the lower points 15 mm.×36 mm.

NO. 307 Pattern in maple wood 95 mm×21 mm for the cutting of the block of a cello or viola da gamba.

NO. 308 Paper pattern of a neck with scroll 156 mm×464 mm with compass marks indicating the

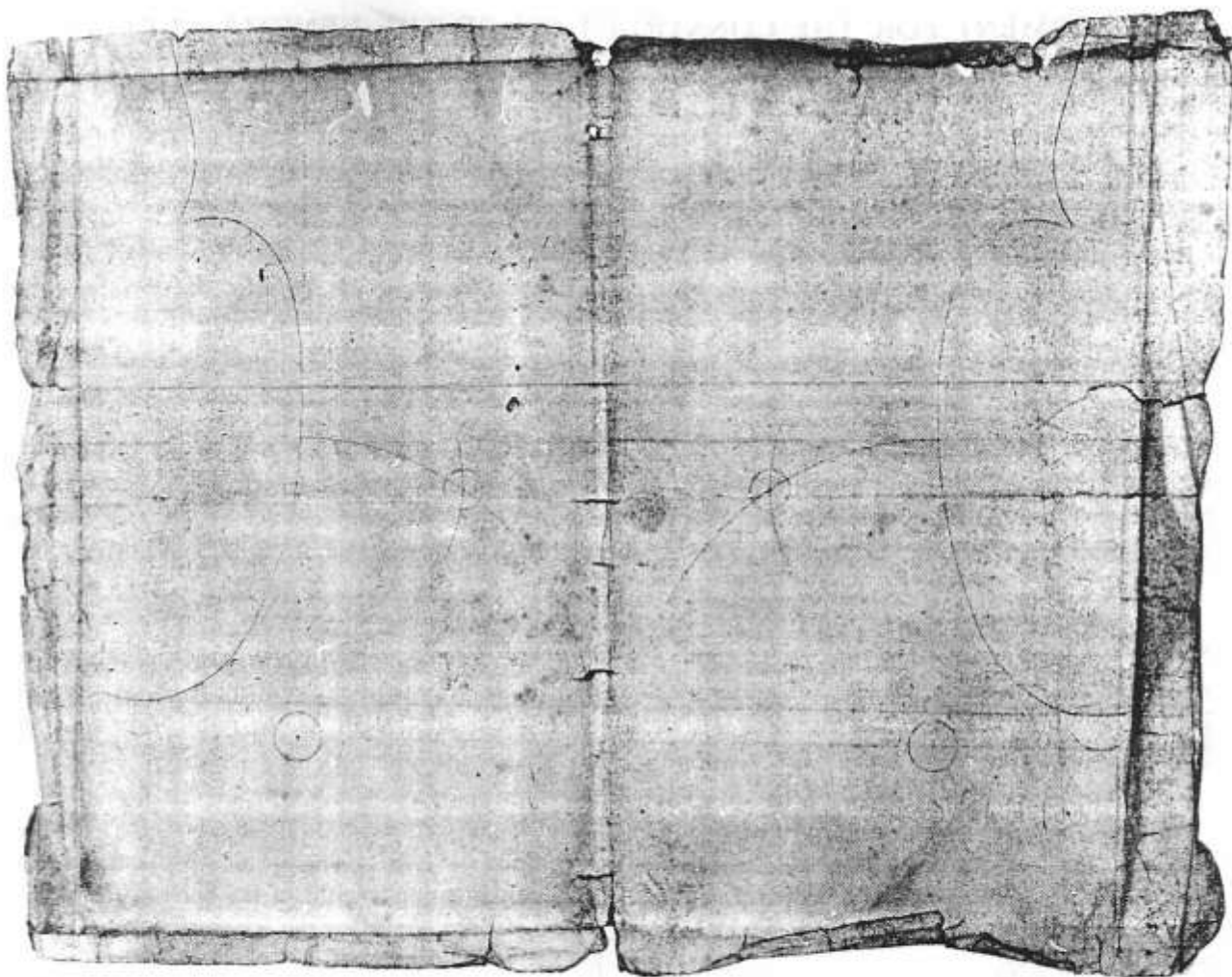


Fig. 156 A. Stradivari: a design for the correct positioning of the ff holes of the Bassetto (Cat. No. 310).

maximum width between the eyes of the scroll 73 mm. We can read on this pattern in the handwriting of Stradivari "*Musura del manico del violincello ordinari*" and again "*Manico della longezza della viola della Sig.na Cristina Visconta fatta li 1707*". Length of the scroll from nut 195 mm. Length of the neck from heel to nut 269 mm (fig. 112).

NO. 309 Sample of three strings for violincello with indications of how they were worked. The strings are threaded through holes on a rectangle of card 144 mm×94 mm on which is written in the handwriting of the sons of Stradivari the following "*Queste sono le mostre del tre corde grosse quella mostra che sono di budello va filata è vidalba*".

## EQUIPMENT FOR THE CONSTRUCTION OF THE VENETIAN CELLO

The so called large violoncello or bassetto of 1696, whose form served for the construction among others of the "Aylesford" of the same year.

NO. 310 A sheet of paper 475 mm×363 mm on which is drawn a design in compass of the method for the measurement of the ff holes and their correct positioning. Diameter of the upper eyes 15.5 mm; of the lower eyes 19 mm. Distance between the centres of the upper eyes 120 mm. Distance between the centres of the lower eyes 249 mm. Distance between the parallel lines of the axis of the ffs 12.5 mm (fig. 156).

NO. 311 Paper model of a neck with scroll 157 mm×508 mm, with compass marks indicating the maximum width between the eyes of the scroll 72.5 mm. In the handwritten script of Stradivari on this item we can read "*Musura del manicho del violincello de Venetia*". Length of the scroll from nut 196 mm. Length of neck from heel to nut 312 mm.

NO. 312 Strip of paper 78 mm×293 mm bearing a compass-designed geometric development for the head and scroll, from which were taken the measurements of the various widths of the back of the scroll and head. Indicated also is the measurement for the depth of the chamfer on the edges of the scroll 2.5 mm (fig. 112).

NO. 313 Paper pattern of the side of the peg box and scroll. Length 198 mm with indications for the position of the peg holes (fig. 112).

NO. 314 A willow wood facsimile of a bridge for the alignment of the neck and for finding the correct inclination of the fingerboard. Width at its base 101 mm and a height at its centre of 66 mm, bearing also in the handwritten script of Stradivari the following "*1696 adi 4 Dicembre Musura del violoncello da scodere 1 - Corda*".

NO. 315 Paper pattern of a bridge, width at the base 123 mm, height at the centre 102 mm.

NO. 316 Pattern in maple wood of a bridge, width at the base 93 mm, height at its centre 72 mm.

NO. 317 Pattern in maple wood of a bridge. Width at the base 97 mm, height at its centre 74 mm.



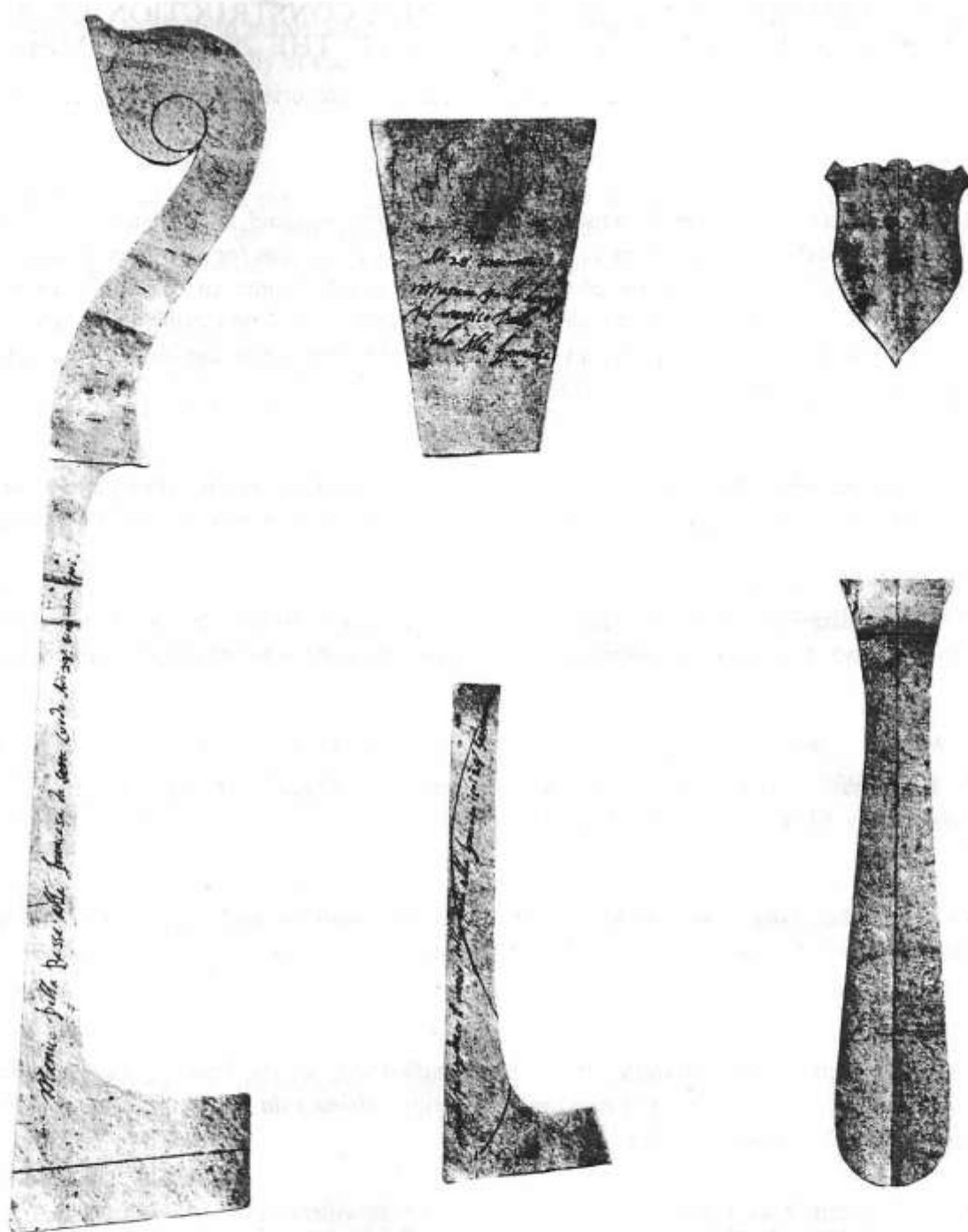


Fig. 157 A. Stradivari: patterns for the neck and volutoid finial of the french style Viola da Gamba of 1701 (Cat. Nos. 318, 324, 323, 321 and 320).

## PATTERNS AND MEASUREMENTS FOR THE CONSTRUCTION OF A VIOLA DA GAMBA OF THE FRENCH FORM DATED THE 28th SEPTEMBER 1701.

NO. 318 Paper pattern of the neck including the peg box and volutoid finial measuring 112 mm×573 mm, with marks indicating: the positions of the holes for the tuning pegs for the seven strings; the line of the position of the nut; the measurements of the width of the shield, 84 mm and 62 mm. This bears in the handwritten script of Stradivari: *Manico Della Bassa alla francese da Sette Corde Adi 28 settembre 1701*. Height of the volute from the nut 214 mm, of the neck from the upper rib to the nut 331 mm; height of the point of the heel of the neck 28 mm (fig. 157).

NO. 319 Paper pattern of the neck with volutoid finial, the same as the preceding pattern, bearing the following in handwritten script "*Manico della viola da sette corde ala francese 1701 Adi 28 Settembre*".

NO. 320 Paper pattern of the development of the volutoid finial of the neck 289 mm in length, 59 mm in width at the top end. From this development were derived the various widths of the back of the volute (fig. 157).

NO. 321 Paper pattern of the shield with which the volute terminates. 104 mm in length by 72 mm in width at its top by 64 mm at its centre (fig. 157).

NO. 322 Pattern in paper of the shield shaped finial for a small volute, height 90 mm, upper width 66 mm, central width 53 mm.

NO. 323 Paper pattern for obtaining the correct inclination of the heel of the neck measuring 81 mm×235 mm, with the following in hand written script "*Musura da squadrare il manico della viola alla Francese 1701 28 Settembre*" (fig. 157).

NO. 324 Paper pattern in plan view of the heel of the neck 159 mm in length by 108 mm and 57 mm in width, with the following in handwritten script "*Musura della larghezza del manico della viola alla Francese*", and written on the reverse side "*Musura dove vai sopra la tappa*". On this pattern are indications for the various thicknesses and measurements for the heel of the neck, dovetail\* joint and mortice.

NO. 325 Rectangle of rib in maple wood 81 mm×22 mm, with indications of the width of the border of back and belly with the following in the handwritten script of Stradivari "*Musura del oradello della Bassa alla francese*".

NO. 326 Rectangle of rib in maple wood 63 mm×24 mm, bearing marks which indicate the probable thickness of the wood of the belly of the instrument prior to its sculpturing, bearing also the handwritten script "*Grorezza per far il Coperto della bassa alla francese da set corde*".

NO. 327 Fragment of a small slip of maple wood 320 mm in length, with marks which are probably the distance between the frets of the instrument, bearing also in the handwritten script of the sons of Stradivari the following "*Longezza del manicho alla Francesa à tasti*".

## PATTERNS FOR THE CONSTRUCTION OF THE VIOLA DA GAMBA OF THE FRENCH STYLE OF 1737 PROBABLY BY THE SONS OF STRADIVARI

All the indications born by the pieces are in the handwriting of the sons of Stradivari.

NO. 328 Paper pattern of the neck with volutoid finial 617 mm×111 mm. Length of the head from volute to nut 338 mm; of the neck from the upper rib to the nut 259 mm; from the extremity of the dovetail tenon to the start of the heel 20 mm.

NO. 329 Paper pattern of the front face of the neck block with details of the dovetail joint. Width at its base 135 mm, at its top 67 mm, height 50 mm. Depth of penetration of the dovetail mortice into the block approximately 18 mm.

NO. 330 Paper pattern of the rear face of the neck block with details of the dovetail joint. Width at its base 119 mm; at its top 46 mm; height 51 mm; depth of penetration of the mortice into the block 18 mm approximately.

NO. 331 Paper pattern for the cutting of the blocks of the upper points 16 mm×39 mm: marked "Cima 1737".

NO. 332 Paper pattern for the cutting of the blocks of the lower points 14.5 mm×39 mm: marked "Basso 1737".

NO. 333 Paper pattern for the fingerboard 484 mm in length by 64 mm in width at the nut, and 9.2 mm in width at its base. Indicated on this piece are: the distance between the frets, the line for the commencement of the hollow which lies under the fingerboard, 167 mm from the base, and also the thicknesses at the nut, at the base and at the line of the commencement of the hollow 35 mm. Written transversely on this item is the following in handwritten script "*Tappa per il medemo manicho della Bassa de viola alla francese*" and further at the top "*Larghezza qui dentro da questi segni neri tanto uno come laltro*" and on the reverse side "*Larghezza di fondo a questo segno*".

NOS. 334 and 335 Patterns in maple wood, the first for the camber of the fingerboard and the curvature of the nut measuring 625 mm×20 mm, with indications of the arrangement of the strings, the second corresponding to the curvature of the fingerboard at its base measuring 92 mm×26 mm.

NO. 336 Paper pattern of the tailpiece measuring 216 mm×92 mm×5 mm, with marks indicating the positions for the attachment of the strings and the tailgut. On this item is written "*Misura della tappeta a sette corde alla francese*".

NO. 337 Paper pattern of the bridge 90 mm wide at the base, 78 mm in height. On this item is written "*Misura del cavaletto a sette corde alla francese*".

NO. 338 Facsimile in willow wood of the bridge measuring 103 mm in width at the base, by 70 mm high. This item was used for the alignment of the neck and to obtain the correct inclination of the fingerboard, bearing the handwritten script "*Misura del cavaletto per scodere la corda della Bassa da viola alla francese*".

NO. 339 Strip of maple wood 126 mm×37 mm with the measurement of the thickness made by the inclined portion of the flat back at the heel. On this item is written the following: "*Altezza della viola a sette corde - Altezza sina alla scavizza - Altezza dove va piantato il manico*".

NOS. 340 - 342 Patterns in maple wood for the cutting of the bottom block 62 mm×14 mm. The upper points 12 mm×33 mm, and the lower points 13 mm×29 mm, these being for other smaller model viola da gamba.

NO. 343 Paper pattern of the tailpiece 140 mm×65 mm×36 mm for the smaller six string model viola da gamba.

NO. 344 Designs on a piece of paper measuring 600 mm×434 mm for the construction of the viola d'amore accurately described as the following. Design of the form of the body of the instrument: length from the bottom edge to the button 393 mm. Distance to the line behind the button 20 mm: U.B 181 mm. L.B 231 mm: CCs 123 mm. There are indications for the height of the ribs 55 mm and 57 mm and the handwritten indications "*Botone al manico di sotto; Altezza del 'Fasse à basso; Altezza de la Fassa alla Goba 'al mollo*". Designs for the neck with fingerboard: (a) measuring 157 mm×43 mm×34 mm with the indication "*Questo va incastrato nel mollo e Longezza e Larghezza tanto di sotto quanto di sopra dell Immanigadura*"; (b) measuring 198 mm×34 mm×49 mm with the indication "*Longeza della bisola Piroli dodisi, ciove sei corde de Budella, è sei da spinetta, è le corde da spinetta si taccha alla Covetta di sotto è la se passa di sotto alla tapa la quale Tapa di sotto è aperta 25: Genaro 1727*"; (c) measuring 36 mm×49 mm×52 mm, with the indication "*Testa Groseza*". Total length of the head with the scroll 390 mm (fig. 158).

## EQUIPMENT FOR THE CONSTRUCTION OF THE VIOLA D'AMORE WITH TWELVE STRINGS (OF 1727)

All of the indications born on the individual items are in the handwriting of the sons.

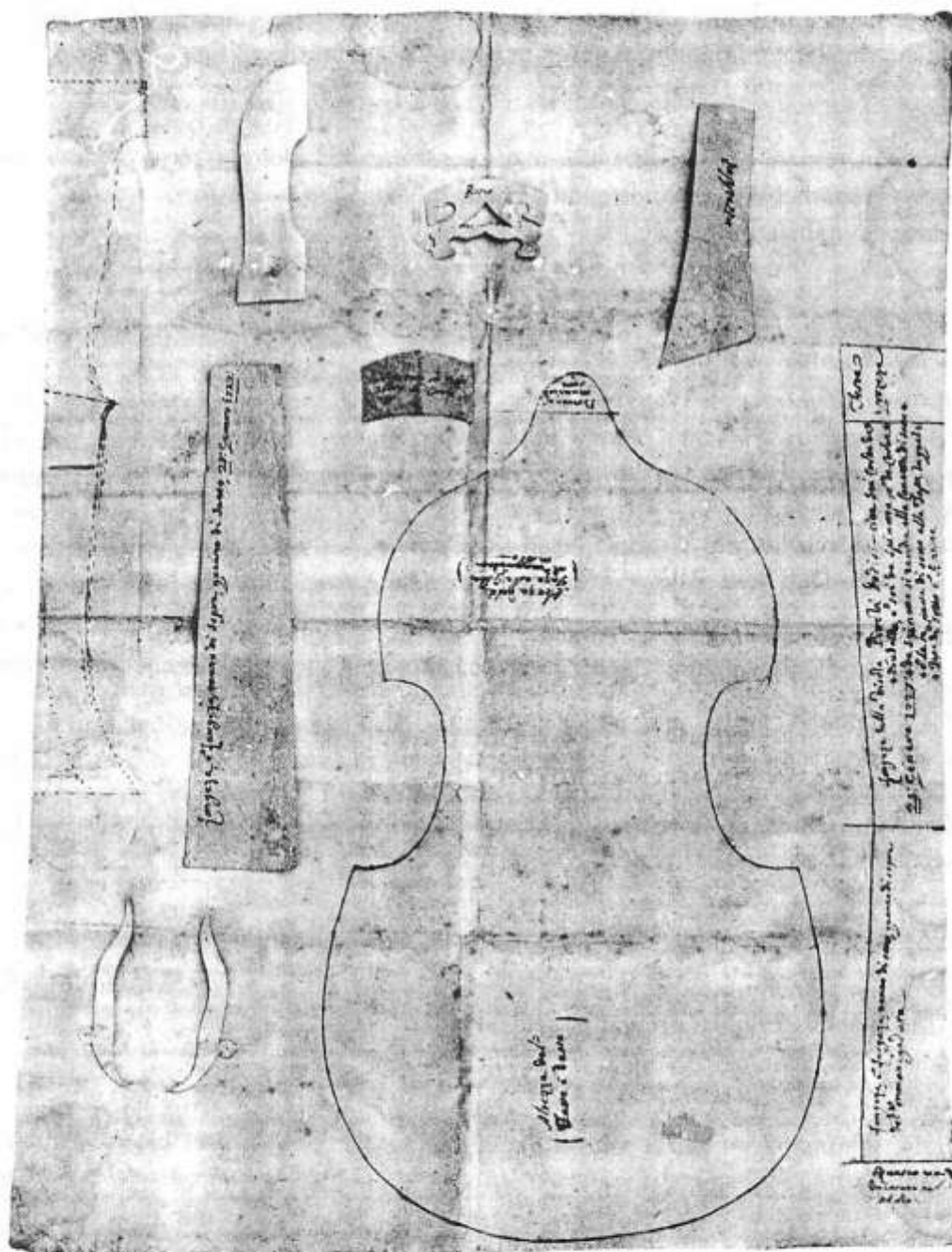


Fig. 158 Francesco and Omobono Stradivari: patterns and designs for the Viola d'Amore of 1727 (Cat. Nos. 344, 345, 347, 348, 349, 350, 351 and 353).



NO. 345 Original fingerboard made in willow wood with a maple wood border with the playing surface veneered in ebony, measuring 210 mm×26 mm×42 mm.

NO. 346 Paper pattern of the fingerboard measuring 243 mm×35 mm×52 mm bearing the following in handwritten script: "*Longeza e' Largeza tanto di sopra quanto di sotto, 25: Genaro 1727*" (fig. 158).

NO. 347 Paper pattern measuring 117 mm×33 mm for the correct positioning of the holes for the pegs of the sympathetic strings identified as the upper peg box of a chitarrone (fig. 158).

NO. 348 Paper pattern of the tailpiece 123 mm long, measured along its centre line by 40 mm and 27 mm respectively in width. With the indication "*Tappetta*", and the marks for the distribution of six holes for the attachment of the strings (fig. 158).

NOS. 349 - 350 Paper patterns for the cutting of the flame shaped ff holes, measuring 90 mm in length (fig. 158).

NO. 351 Pattern in paper of the bridge 51 mm in width at its base and 40 mm in height at its centre, with the written indication "*Bono*" (fig. 158).

NO. 352 Facsimile of the bridge in maple wood measuring 54 mm in width at the base by 40 mm in height at its centre, used for aligning the neck and for obtaining the correct inclination of the fingerboard with the indication "*M.D. V da More*".

NO. 353 Paper pattern for the facsimile of the bridge 52 mm×32 mm with the indication in handwriting "*Musura da scodere la corda*" (fig. 158).

NOS. 354 - 359 Six flat counterforms in poplar wood measuring 82 mm×20 mm for the holding of the ribs against the blocks during the operation of gluing.

NO. 360 Pattern in maple wood for the cutting of the front face of the neck block 94 mm and 36 mm by 32 mm in height, with the following in handwritten script "*1728, 27 gennaio Modello del Coperchio della viola d' Amore*".

NO. 361 Pattern in maple wood for the cutting of the rear face of the neck block, with the following in handwritten script "*1728 27 gennaio Modello del fondo della viola d'Amore*".

NO. 362 Paper pattern of the tailpiece for another viola d'amore, 150 mm in length at its centre, by 50 mm at the position of attachment of the strings by 34 mm at its base. Identified as the pattern for the upper peg box of a chitarrone (fig. 158 top left).

NO. 363 Paper pattern 141 mm×36 mm for the correct placement of the holes for the tuning pegs for a viola d'amore of fourteen strings.

### PATTERN FOR THE CONSTRUCTION OF SMALL SOPRANO VIOLAS DA BRACCIO

These had six strings and characteristics similar to violins: points, flat back with inclined top section, neck and peg box, terminating with a volute with a shield shaped finial. For one of these violas with a flat back Villaume made an arched back and substituted the volutoid shield shaped finial with a normal scroll made by the brothers Antonio and Gerolamo Amati. The ff holes in this model are spaced rather far apart owing to the extra distance needed for the six strings. None of the instruments of this pattern are conserved in their original state, all having been transformed at a later date into violins.

NO. 364 Paper pattern used for the construction of the wooden form for the ribs of the instrument, 372 mm in length including the blocks. U.B 169 mm, L.B 217 mm, CCs 112 mm. On this pattern are indicated the height of the ribs 59 mm. The height of the top of button above the upper block 26 mm. The upper and lower points are equal at 11 mm×24 mm; the head block 33 mm in height by 114 mm and 48 mm in width. The bottom block when cut would be 15 mm in depth by 62.5 mm in width (fig. 159).

NO. 365 Paper pattern for the construction of other violas 372 mm in length including the blocks; U.B 162 mm, L.B 197 mm and 110 mm at the CCs. The following items are also indicated on this pattern: the measure from the upper block to the point of inclination of the flat back 31 mm, the upper and lower points which are equal, 12 mm×6 mm, and the head block which is 20 mm deep by 66 mm and 54 mm in width (fig. 159).

NO. 366 Paper pattern of a shield used as the finial of the volute of the peg box and head; height at the centre 39 mm; width at the uppermost part 42 mm and at the centre 36 mm.

NO. 367 Sheet of paper measuring 105 mm×110 mm bearing the design for the heel of a neck 51 mm deep; inscribed in the handwriting of Stradivari is the following "*Musura del pianta de manico*".