

Ruckers. A Harpsichord and Virginal Building Tradition

Volume III



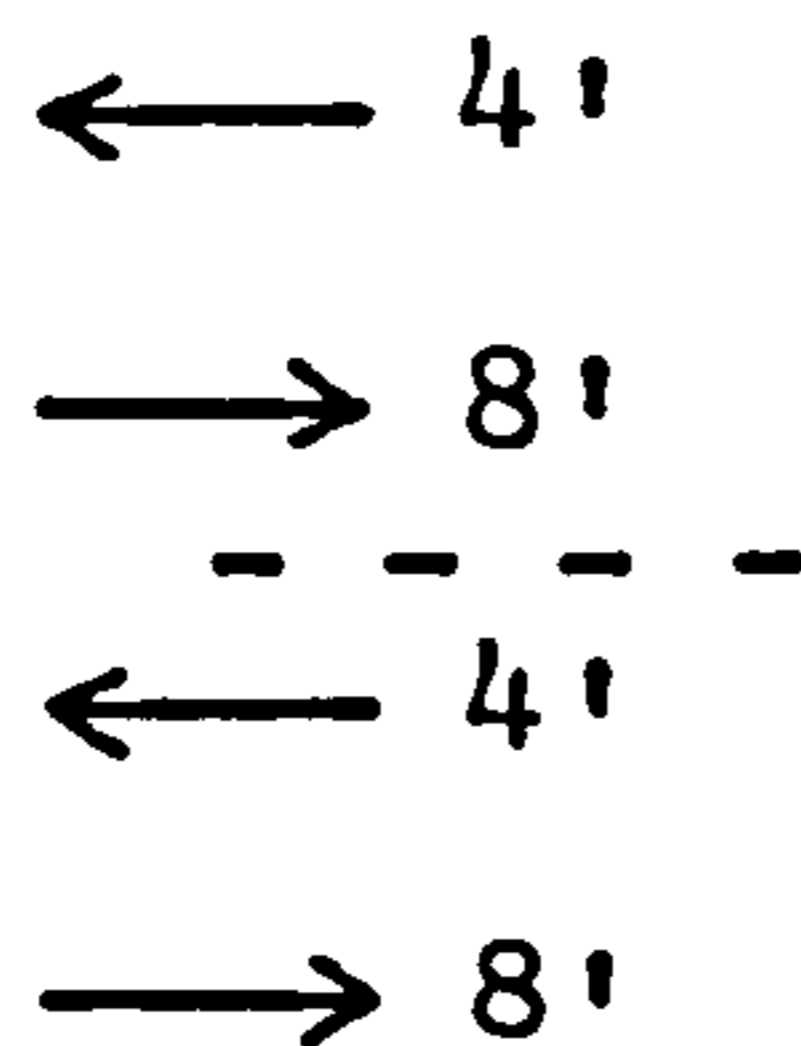
Catalogue of Ruckers InstrumentsIntroduction

The instruments listed in the catalogue below have been authenticated according to the principles outlined in Chapter 9, and have not been included here unless I was confident that they were genuine. Counterfeit instruments dishonestly attributed to Ruckers by their makers, instruments altered after being made and given fake inscriptions, roses, etc., and instruments referred to in the literature but otherwise lost sight of have not been included.

The virginals and single-manual harpsichords may be assumed originally to have had the compass C/E to  $c^3$ , four octaves, unless otherwise specified. If no alteration is noted this is also the present compass. The double-manual harpsichords originally had their keyboards playing at pitches a fourth apart. Unless otherwise specified these instruments had an upper manual compass of C/E to  $c^3$  (with a block of wood filling up the space of 3 naturals in the bass) and a lower-manual compass of C/E to  $f^3$ . These compasses refer in all cases to the apparent note played, and not to the note sounded. Unless otherwise noted the disposition of the single-manual harpsichords was originally:

← 4'  
→ 8'

and the original disposition of the double-manual harpsichords was:



The paper types refer to those listed in the catalogue of the Ruckers block-printed paper patterns listed in Chapter 7.

Literature references are not given in full, but the full reference may be found in the bibliography.

### Hans Ruckers

1581 HR

Hans Ruckers, 1581, double muselar mother and child virginal.

Location: Metropolitan Museum of Art, New York, No. 29.90.

Rose diameter: mother - 84 mm, 64 mm

child - 53 mm

#### Case dimensions:

Length: mother - 1786 mm      child - 800 mm

Width:           "      - 492 mm           "      - 372 mm

Height:          "      - 236 mm           "      - 126 mm

Keywell:        "      - 650 mm           "      - 648 mm

Scalings: mother-C/E = 1533mm,  $c^2 = 368$  mm,  $c^3 = 188$  mm

child-C/E = 718.5 mm,  $c^2 = 193$  mm,  $c^3 = 99$  mm

Ruckers Mottoes: front flap of mother - MVSICA DVLCE

LABORVM LEVAMEN

#### General description:

This is the earliest extant Ruckers instrument. It is thought to have been a gift of Philip II of Spain to

the Marquis de Oropeza of Cuzco, Peru, who was a descendant of the ancient Incas. It retains most of its original parts and decoration. The lid of the main instrument has an original 16th century Flemish painting showing a rural scene with a castle and elegantly dressed courtiers engaged in boating, dancing, music-making and feasting. The soundwell, keywell, front flap, etc. instead of being decorated with printed paper patterns as is usual in the later Ruckers instruments, are here delicately painted, and give the instrument a rich, lavish appearance. Above the keyboard of the mother instrument are two relief medallions of Philip II of Spain and his fourth wife Anne of Austria. The soundboard painting is in the usual Hans Ruckers style and is very well preserved in both instruments, but especially in the child which was protected inside the mother instrument.

Neither instrument bears the usual HR rose with an angel playing a harp, but instead both instruments have original roses of pierced parchment cut in geometrical patterns. The child has only the usual one rose, but the mother has two roses, one in the usual position above the keyboard, and the second in the middle of the soundboard area to the right of the bass jackrail support. The mother's jackrail is not original, but the child's jackrail is signed HANS RVEKERS ME FECIT, and the initials HR are painted on the top of the toolbox on the left-hand side of the mother.

Most of the keys retain their original arcades. The parchment backing of the arcades, which was originally

dyed red, has now faded and Hebrew writing is visible on it on many of the keys. The bone naturals have the usual scribed lines and nicks decorating them and, like many early Flemish and other Ruckers instrument, the sharps are also decorated with similar nicks and scribed lines.

The outside of the mother instrument is painted black, but underneath this there are clear traces of the original green and off-white imitation porphyry marble decoration.

Like the later Ruckers double virginals, the mother and child can be coupled by placing the child above the jacks of the mother instrument. The main instrument has a harpichordium stop, not only on the straight bass-section of the right bridge, but also on the curved descant part. The two sections are split between  $e^1$  and  $f^1$ , and can operate separately or together on the treble and bass strings.

#### Literature:

Boalch #2; p. 204-205 Hirt (1955); p. 51, Curtis (1960/61); Plate 210, Buchner (1956); p. 43 Besseler, (1959); Plate 6, Winternitz, (1961);/p. 169, The Connoisseur (1916); p. 137, 138, 143, 145, van der Meer (1971c); p. 149, Russell (1959); p. 269 Lambrechts-Douillez (1977); p. 78, Koster (1977); p. 52, Koster (1980); p. 65, Germann (1978).

Former owners: Marquis of Oropeza, Cuzco, Peru; B.H. Homan who gave it in 1929 to the Metropolitan Museum.

Hans Ruckers, 1583, 4-voet spinett virginal at R + 5.

Location: François Meyer, Paris

Rose diameter: 64 mm

Case dimensions: Length: 1143 mm

Width: 431 mm

Height: 178 mm without baseboard

Width of keywell: 598 mm

Present original compass: C/E to  $a^2$

Scalings: C/E = 946 mm,  $c^2$  = 238 mm,  $a^2$  = 134 mm.

#### General description:

This is the second oldest Ruckers instrument and the only Hans Ruckers clavecimbel at quint pitch. It has many features of other early Flemish virginals: its compass goes only to  $a^2$  in the treble, the jackrail, soundwell, keywell, lid and flap decorations are painted rather than being covered by block-printed papers, the natural touch-plates are of wood (box?) rather than bone, the sharps as well as the naturals have decorative nicks and scribed lines, and the case mouldings are painted with alternate stripes of black and varnished wood like the two Karest virginals. The nameboard is decorated with medallions representing Catherine de Medici and Diane de Poitier, and the lid painting represents a Flemish hunting scene. The keys have many of their original arcades, the parchment backing of which is inscribed with Hebrew writing.

#### Literature:

Boalch #2a; p. 145, Plate 32, Thibault (1961); p. 117,

Plate 287, Bridgeman and Lesure (1961); p. 131, 143, plate

10, van der Meer (1971c); p. 43, O'Brien (1977a).

Former owners: formerly in the Strauss Collection, Paris

1591a HR

Hans Ruckers, 1591, 6-voet polygonal spinett virginal.

Location: Gruuthuuse Museum, Bruges, No. 2296

Ruckers number: ?/30.      Rose diameter: 65 mm.

Case dimensions:    Length: 1711 mm

                          Width:    467 mm

                          Height: 224 mm without, 236 mm with

  baseboard

                          Width of keywell: 647 mm

The scalings are not original as the right bridge is a replacement.

Ruckers papers: Lid - type 1 (early), type 8, border

                          Keywell and faceboard - type 3 (early)

Ruckers mottoes: (in lid) -SCIENTIA NON HABET INIMICVM

  NISI INGNORANTEM(Sic)

#### General description:

This is the only Ruckers virginal which is polygonal in shape. It is otherwise identical to the usual 6-voet spinett virginals except that the inactive areas of soundboard at the rear corners have been eliminated. The front flap and its decoration are not original. But the outer decoration of the rest of the case and of the lid is original and shows the usual green and off-white imitation porphyry marble. The lid in two hinged sections is original, and the papered interior is original and shows traces of the original ochre wood graining, although most of this has now disappeared except near the letters 'IN' of INGNORANTEM.

The rose has been re-gilded and the flowers painted around it are not original, although the 'pearls' in the rose wreath are similar to those found on other earlier Hans Ruckers instruments.

The right-hand bridge, and therefore the present scalings, are not original. Most of the keyboard action, including many of the jacks, are original.

The instrument has been signed 'Restauré en 1959 par Henri Maillefer à Renens (Suisse)'.

Literature:

Boalch #5; Plate 24, Russell (1959); p. 140, 145, van der Meer (1971c); p. 77, Henkel (1979a); p. 77, 87, O'Brien (1974a); p. 456, 458, O'Brien (1979).

Former owners: Theodore Joseph Cannel (a painter and former director of the Académie Royale, Ghent).

(1591)b HR

Hans Ruckers, 1591?, muselar mother and child virginals.

Location: Yale University, New Haven, Conn., No. 242.

Ruckers number: M/24. Rose diameter: mother - 67 mm  
child - 60 mm

Case dimensions:

Length:	mother - 1707 mm	child - 820 mm
Width:	" - 495 mm	" 420 including keyboard
Height:	" - 254 without, 266 with baseboard	
	child - 133 mm with baseboard.	

Width of keywell: 648 mm in both instruments

Present compass: C to c<sup>3</sup>



Present scalings: mother -  $C = 1448$  mm,  $c^2 = 312$  mm,  $c^3 = 185$  mm; child -  $C = 692$  mm,  $c^2 = 165$  mm,  $c^3 = 88$  mm

Original scalings: mother -  $c^2 =$  about 360 mm

General description:

The dating of this instrument is based only on the inscription "1591/A" which appears on the trunk of a tree in the left-hand side of the lid painting. Although it appears to have been decorated by Hans' usual soundboard decorator, it has many affinities with the (c1600) HR spinett double virginal in Milan. Like the Milan instrument it has HR roses of differing diameters in the two parts, and the top double mouldings on the nameboard and faceboard of both instruments have a curved rather than flat lower surfaces.

The conversion of the bass short-octave to a chromatic bass octave was achieved by making new keyboards with a narrower octave span, new slides with a correspondingly narrow spacing, and by repinning both bridges. The jacks and tuning pins have also been replaced. The present straight bass-section of the right-hand bridge, the mother's removeable nameboard and the mother's front flap are all replacements.

The lid painting depicts the contest between Apollo and Marsyas and the faceboard of the mother is painted with figures dancing and making music, and the whole of the outside of the case of the child virginal is painted with figures of children at play.

The stand is old and may be original.

Literature:

Boalch #6; p. 6, No. 12, Steinert (1892-3); p. 32f, Plate 12, Skinner (1933); p. 47/48, Plate XX, Hipkins (1888) - the stand is upside down!; No. 4, Marcuse (1960); p. 149, Russell (1959); p. 28, No. 242, Rephann (1968); p. 137, 145, van der Meer (1971c); p. 81f, Koster (1977).

Former owners: Messrs. Chappell, London; George Donaldson, London; Morris Steinert, New Haven, Conn.; Belle Skinner.

1594 HR

Hans Ruckers, 1594, single-manual harpsichord/octave virginal combination.

Location: Schloss Köpenich, East Berlin

Rose diameter: 66 mm

Case dimensions: Length: 1804 mm

Width: 709 mm

Height: 224 mm without baseboard

Width of keywell: 683 mm - harpsichord

596 mm - virginal

Present harpsichord compass: C to  $c^3$

Original virginal compass (present compass): C/E to  $g^2, a^2$

Ruckers papers: there are traces of type 1 (early) papers on the inside of the harpsichord treble cheek, and this pattern must originally have decorated the whole of the keywell and faceboard.

General description:

All evidence of the original outer decoration is hidden under the present gesso and black lacquer. The inner

lid painting by Hieronymous Jannsens of a similar instrument with courtiers is not original. The original soundboard decoration has entirely disappeared, and the present decoration is of a later date. Much of the interior mouldings, and surfaces have been repainted a number of times.

The keys, keyframe and slides of the harpsichord part are not original. The instrument is of particular interest because the plan of much of the instrument's construction is scribed onto the baseboard. Three transverse lines at the gap in the harpsichord indicate that it had the usual two registers and a disposition of 1 x 8', 1 x 4'. The length and position of each 8' and 4' string for each c and f are also indicated as well as many of the structural parts of the instrument.

The harpsichord part has the usual HR rose, but the virginal has a geometrical rose composed of several layers of pierced parchment and beech veneer.

This is the only surviving harpsichord by Hans Ruckers.

Literature:

Boalch #7; p. 125-126, Krebs (1892); p. 149, Russell, (1959); p. 128, van der Meer (1971c); p. 60-67, Schmidt (1978).

Former owners: The Kings of Prussia.

Ioannes Ruckers (with HR roses)

1595 HR

Ioannes Ruckers, 1595, child virginal.

Location: Cincinnati Art Museum, Cincinnati, Ohio

Present compass: C to d<sup>3</sup>

Case dimensions: Length: 813 mm  
 Width: 318 mm  
 Height: 140 mm including the baseboard

General description:

This is an example of a much-altered child virginal. The sides of the case were cut down to a level flush with the soundboard and then a new case has been added. The lid, keyblocks and jackrail are also all not original. The original keys from (C/)E to  $c^3$  are original, and the extra keys for C, C $\sharp$ , D, E $\flat$ , c $\sharp^3$  and d $\flat^3$  have been added to the sides of the original keyboard.

The instrument is signed IOHANNES RVQVERS ME FECIT A $^{\circ}$  1595, and although not original it seems to follow the paint of an earlier signature. If this is indeed an instrument by Ioannes it means that he was only 17 years old when he built it (and presumably the mother as well)! The rose is the type used by Ioannes Ruckers in his early instruments, and not that used by Hans. Unfortunately the original soundboard painting has disappeared and been replaced by a new painting so this gives no clue to help identify conclusively the true builder.

Literature:

Boalch #(7a).

Former owners: William Howard Doane.

Ioannes Ruckers, 1598, 6-voet spinett virginal.

Location: Paris Conservatoire, No. E.979.2.6

Ruckers number: 6/61. Rose diameter: 63 mm - rose of papier

Case dimensions: Length: 1660 mm

Width: 479 mm

Height: 234 without the baseboard

Width of keywell: 651 mm

Present compass:  $G_1/B_1$  to  $c^3$

Present scalings:  $G_1/B_1 = 1392$  mm,  $c^2 = 310$  mm,  $c^3 = 158$  mm

Original scalings:  $C/E = 1391$  mm,  $c^2 = 361$  mm,  $c^3 = 179$  mm

Ruckers papers: Lid - type 1 (early) and type 8 (border)

Soundwell - type 17 (spine and sides), type 11  
(behind faceboard and keywell)

Keywell - type 3 (early)

Flap - type 15 and type 29 (border)

Lid motto: DVLCISONVM REFICIT TRISTIA CORDA MELOS 1598

#### General description:

Since this virginal was built in the year that Hans Ruckers died it could be by either Hans or Ioannes Ruckers. However, it is signed IOHANNES RVCKERS FECIT ANTVERPIAE, and also has a papier mâché rose of the type used by Ioannes Ruckers in some of his later instruments (eg. 1604 HR and 1614 HR). Both of these point to Ioannes as the author of this virginal. Also this is the first instrument with a soundboard painted by the painter who worked on the other early clavecimbel of Ioannes Ruckers.

In the keywell is written François Chappelle a refait cette spinette e luy a donné de l'armonie 1739', and this probably refers to the alteration of the compass and scalings. The keyboard was re-made without widening the keyframe or the keywell and with a very narrow 3-octave span

(only 455 mm) to extend the compass downwards. The original keyframe and balance rail were re-used and these show from the original balance pin holes that the compass was originally C/E to  $c^3$ . New jackslots were cut in the soundboard, new lower guides made and the bridges re-pinned to match the new closer spacing of the keys. The resulting scalings are therefore not accurately Pythagorean and correspond to a pitch about a tone higher than originally.

The lid, flap and sides have a very old vine-work decoration. The spine is plain, but underneath the present decoration of this and the front flap one sees traces of the original green porphyry marble which must once have decorated the whole of the outside of the instrument.

Literature:

Boalch #8; p. 47 and Plates 25 & 27 & 69, Russell (1959); p. 36, Juramie (1948); p. 146, Plate 43, Thibault (1961); No. 587, Catalogue (8) (1962); p. 80-81, Thibault (1971); p. 130, 135, 142, 145, van der Meer (1971c).

Former owners: Jeanne Lyon, Paris; Marcel Salomon, Paris; Mme. G. Thibault-de Chambure, Paris. Restored in 1932 by Marcel Asseman and in 1969 by Hubert Bédard.

Ioannes Ruckers 1599, originally a transposing harpsichord, now a ravalé aligned double-manual harpsichord.

Location: Händelhaus, Halle

Rose diameter: 66 mm

Case dimensions:

Length: 2244 mm

Width: now 927 mm, originally about 742 mm

Height: 251 mm without, 262 mm with baseboard

Width of keywell: now 901 mm, originally about 716 mm

Present compass:  $F_1$  to  $f^3$

Original compass: upper manual - C/E to  $a^2$

lower manual - C/E to  $d^3$

Disposition:

$\leftarrow$  8' { original order of these  
 $\leftarrow$  4' { two is not clear  
 - - - - -  
 $\longrightarrow$  8' dogleg

Present scalings: 8' -  $F_1 = 1672$  mm,  $c^2 = 270$  mm,  $f^3 = 129$  mm

4' -  $F_1 = 1028$  mm,  $c^2 = 123$  mm,  $f^3 = 52$  mm

Ruckers papers: Keywell - type 12

soundwell - type 13

Ruckers mottoes: lid flap (not original) - MVSICA MAGNORVM

SOLAMEN DVLCE LABORVM (probably copied from  
the original lid).

General description:

This is the earliest surviving Ruckers double-manual harpsichord. The plugged doubled pinholes for  $e^b/g^\#$  in the bridges and 4' hitchpin rail prove that this was originally a transposing harpsichord, and the number of plugged pins below the bottom set of  $e^b/g^\#$  pins prove that the bottom note of the lower manual was the usual short-octave C/E. But the original width of the instrument (716 mm) indicates that it must originally have reached only to  $a^2$  on the upper manual (or to  $d^3$  on the lower). The non-original

jackrail ascribes the instrument to Hans Ruckers, but Hans was already dead in 1599, and the rose type and soundboard painting style are both characteristic of those found on the early instruments of Ioannes. Thus there is no double-manual harpsichord that can be ascribed to Hans.

The ravalement was carried out by fitting in the extra bass notes without widening the bass side of the case or decreasing the octave span. Thus the treble keys were moved to the right, effectively shortening the scalings to the point where brass would be the appropriate stringing material, rather than iron.

Unfortunately the cheeks have been cut away in the style of the 18th century German and Viennese fortepianos, and the case and stand encrusted with gilded neo-baroque stucco work, probably of the late 19th century or early 20th century.

Literature:

Boalch#9; No. 55, Führer (1938); p. 248-249, Hirt (1955); p. 91 & Plate, Sasse (1958); p. 36/37 & Plate, Sasse (1966); p. 126, 127, 142, van der Meer (1971c); p. 42, O'Brien (1977a); p. 74, Henkel (1979a).

Former owners: formerly part of the Neupert Collection, Nuremberg.

(c1600) HR

Ioannes Ruckers, c. 1600, double spinett mother and child virginals.

Location: Castello Sforzesco, Milan, No. 595



Ruckers number: M/15 and k/15. Rose diameter: mother - 65 mm; child - 58 mm.

Case dimensions:

Length: mother - 1708 mm child - 820 mm  
 Width: " - 493 mm " - 324 mm  
 Height: " - 266 mm " - 159 mm, both measured  
 without the baseboard

Width of keywell: 643 mm in both instruments.

Scalings:

Note	Mother		child	
	String length	Plucking point	String length	Plucking point
c <sup>3</sup>	183 mm	63 mm	89 mm	45 mm
f <sup>2</sup>	269	58	136	44
c <sup>2</sup>	367	71	178	53
f <sup>1</sup>	527	69	261	47
c <sup>1</sup>	708	86	354	53
f	936	95	465	47
c	1131	116	562	57
F	1366	129	673	55
C/E	1397	146	689	51

Ruckers papers:

Mother: type 4 - faceboard child: type 13 - soundwell  
 type 2 - front flap type 5 - case sides  
 & toolbox lid  
 type 18 - soundwell behind faceboard  
 type 23 - rear and sides of soundwell

**General description:**

This instrument is among those few in almost its original state (see Photo 3-26). It has lost its exterior decoration everywhere except on the spine which is the usual imitation green porphyry marble. The rest of the decoration is original and in good condition. The lid painting is particularly fine. The soundboard painting (like the 1612a HR) is very sparse in comparison with later soundboard paintings on Ioannes Ruckers instruments.

This is the only spinett double virginal, and is the only 6-voet spinett virginal with unaltered scalings.

**Literature:**

Boalch #70a; p. 241, Gallini (1963); p. 136, 143, van der Meer (1971c)

1604 HR

Ioannes and Andreas Ruckers, 1604, 5-voet muselar virginal at a pitch R + 1.

Location: Brussels Museum, No. 2927

Ruckers number: 5/34. Rose diameter: 62 mm.

Case dimensions: Length: 1424 mm

Width: 479 mm

Height: 215 mm without baseboard.

Ruckers papers: the keywell, faceboard and soundwell have their original papers, but are covered with a coat of paint.

Keywell and faceboard: type 22

Soundwell: type 17

**General description:**

Although much of the interior and exterior decoration have been covered with a green 18th century decoration, this is a good example of a mostly unaltered 5-voet muselar virginal. The jackrail, which is undoubtedly original, is signed IOANNES ET ANDREAS RVCKERS FECERVNT. Also original is the HR rose, of the type used by Ioannes Ruckers before 1616, which is of papier mâché instead of lead. It is slightly smaller than the usual HR roses, probably because of the shrinkage of the papier mâché in drying.

The rack has its original cloths, 3 layers above and 2 layers below the tails of the keys. Thus this is one of the few instruments to retain its original depth of touch. This is found to be 9 mm in the bass and 8 mm in the treble, measured at the front of the natural keys.

Although the instrument sounds it cannot be considered in musical playing order since many of the soundbars are not original and not positioned as they were originally. More important there are a number of non-original 'stifle' bars underneath the left-hand bridge.

The harp ichordium is a copy of the original which is preserved separately in the museum. About 90% of the jacks are original.

**Literature:**

Boalch #11; No. 2927, Mahillon, Vol. 2 (1893-1922); Plate 26, Russell (1959); p. 142 & Plate IV-19, Bragard and de Hen (1967); p. 157 & Plate IV-20, Bragard and de Hen (1968); p. 26-28 (No. 8) de Maeyer (1969); p. 14-17 (No. 4), de

Maeyer (1972); p. 104, 134, 135, 145, van der Meer (1971c);  
p. 78, 81, O'Brien (1974a); p. 455, 459, O'Brien (1979).

Former owners: Abel Régibo; Caesar Snoeck.

Ioannes Ruckers, 1610, double muselar mother and child  
virginals.

Location: Brussels Museum, No. 275

Ruckers number: M/23 and k/23. Rose diameters: 62 mm.

Case dimensions:

Mother: Length: 1709 mm (not original)

Width: 481 mm (not original)

Height: 269 mm (including the baseboard)

Child: Length: 809 mm

Width: 307 mm without, 414 mm with keyboard

Height: 138 mm (including the baseboard)

Width of keywell: originally about 647 mm in both instruments.

Present compass of both instruments: C to  $f^3$

Present scalings: mother - C = 1526 mm,  $c^2$  = 366 mm,  $f^3$  = 135 mm

child - C = 703 mm,  $c^2$  = 180 mm,  $f^3$  = 56 mm

Original scalings:

mother - C/E = 1465 mm,  $c^2$  = 366 mm,  $c^3$  = 180 mm

child - C/E = 686 mm,  $c^2$  = 180 mm,  $c^3$  = 89 mm

Ruckers papers: mother: type 26 - soundwell

type 4 - keywell

child: type 26 - soundwell

type 24 and 28 combined - around

outside of case

**General description:**

This is a much altered mother and child virginal. The space beside the keyboard of the mother has been filled in, so that the child can only be placed above the keyboard of the mother. The outer case and keywell of both instruments have been painted in a reddish-brown wood-graining. But traces of the original faux marbre green porphyry marble have been uncovered on the outer case of the mother virginal. Above the original paint there are no less than 6 layers (7 including a layer of gesso) of more recent paint on the outside of the mother. The child has a different sequence and number of layers of paint, making the history of the two difficult to tie together. The compass has been extended by adding new keys to the original keys on either side and by extending the registers and bridges to accommodate the extra notes.

The balance rail cloth on both instruments is original. Original pieces of folded playing cards (was Ioannes Ruckers a gambler?) were used to raise the sharps. The three layers of black cloth above the keys in the keyboard rack of the mother are original, as are the cloths glued to the tails of the keys.

**Literature:**

Boalch #12; No. 275, Mahillon, Vol. 1 (1893-1922); p. 337, van der Straeten (1875); p. 204-205, Hirt (1955); p. 9, Harich-Schneider (1958); p. 149 & Plates 29 and 30, Russell (1959); p. 137, van der Meer, (1971c); p. 18-21 (No. 5), de Maeyer (1972); p. 79, 81, O'Brien (1974a)

Former owners: F.J. Fétis, Brussels.

Ioannes Ruckers, 1611, 6-voet muselar virginal.

Location: Vleeshuis Museum, Antwerp, No. VH2112.

Ruckers number: 6/16. Rose hole diameter: 63 mm.

Case dimensions: Length: 1712 mm

Width: 493 mm

Height: 241 mm including the baseboard

Width of keywell: 652 mm

Scalings: C/E = 1475 mm,  $c^2 = 367$  mm,  $c^3 = 183$  mm.

Ruckers papers: type 3 (early) - keywell and faceboard

type 23 - soundwell on spine and sides

type 19 - soundwell behind name-and faceboard

type 12 - toolbox lid

#### General description:

The jackrail of the instrument is signed IOANNES RVCKERS FECIT ANTVERPLÆ. The rose in the instrument is a genuine Andreas Ruckers rose, and is the type normally found in Andreas Ruckers instruments from 1605 to 1634. However, although the Andreas rose fits the rose hole fairly well (the HR rose used by Ioannes at this period and the present AR rose have the same diameters) the hole is slightly too big, and the way the rose is glued in position is not original. But most important of all the traces of soundboard painting are in the usual style of Ioannes and not of Andreas instruments of this period. Both the arabesques and the remaining flower groups are very like the (c1600) HR and the 1604 HR virginals. It is thus clear that the rose now in the instrument <sup>is not original</sup>, and that this virginal must be ascribed to Ioannes.

The scalings and most of the musical parts of this instrument are original. There are some non-original soundbars, and a small section of the right-hand bridge is not original. The harpichordium is missing, but there are traces of glue marks from the blocks which held the harpichordium against the right-hand bridge, and also holes for the wire pins which held it down against the soundboard (one pin still remains).

Underneath the keyboard in the treble corner of the keywell is written "nieuw Aecken gemaect von P.L.Cl. 1769 meert" (new 'hooks' made by P.L.Cl. in March 1769), and this probably refers to the jacks which, although made in the style of Ruckers, are made of plank sawn and not quartered beech, the tongues have a circular quill hole and lack the usual leather pad at their base, and the jacks themselves are not tapered in the Ruckers fashion.

The instrument retains its original keyboard cloths. There are three layers of cloth in the top of the rack, and 2 original layers at the bottom (plus some non-original cloth). The non-original cloth at the bottom of the rack can be pulled back at either end to allow the original depth of touch to be measured. This is found to be 8mm in the bass and 7 mm in the treble. Also the tails of the keylevers have their original cloths on which the jacks rested. These are glued lightly at both ends to the keylevers, and are of the usual cloth about twice the thickness of that in the rack.

The front flap is not original, but is marbled

like the rest of the instrument in red-and-brown. This red marbling is thus not original. There is no trace of the original green porphyry decoration.

The lid which is usually exhibited with the instrument is too small and does not belong to this virginal. The stand, however, seems original and is an extremely fine example of typical turned and arcaded 17th century Flemish furniture.

Literature:

Boalch #75; p. 338, van der Straeten, Vol. 3 (1875); p. 79 & Plate 2, Génard (1876); p. 47 & Plate 6, Lunsingh Scheurleer (1939); Plate 16, Denucé (1941); Plate 28, Russell (1959); No. 32, Catalogus (11), (n.d.); p. 128, 130, Lambrechts-Douillez (1961); p. 238 & Plate 10, *ibid*, 1968; p. 14-16. & Photo, *ibid* (1970a); p. 148 & Plate 418, *ibid* (1981a); p. 133, 141, 143, van der Meer (1971c); p. 71, Germann (1978); p. 462, O'Brien (1979).

Former owners: A. Jacob-Wens, Antwerp; Steen Museum.

1612a HR

Ioannes Ruckers, 1612, now a ravalé double-manual harpsichord, originally a double harpsichord with one manual a fifth below reference pitch.

Location: Fenton House, Hampstead, London.

Rose diameter: 63 mm.

Case dimensions:

Length: 2296 mm

Width: now 881 mm, originally about 735 mm



Height: 270 mm with, 251 without the baseboard

Width of keywell: now 848 mm, originally about 702 mm

Present compass:  $G_1, A_1$  to  $f^3$

Original compass: one manual had a compass of C/E to  $d^3$  and was at a pitch R - 5.

Disposition:

← 4'

← 8' dogleg

→ 8'

Present scalings: 8':  $G_1 = 1718$  mm,  $c^2 = 352$  mm,  $f^3 = 129$  mm

4':  $G_1 = 1011$  mm,  $c^2 = 158$  mm,  $f^3 = 57$  mm

Ruckers papers: type 29 - soundwell (fragmentary)

General description:

The original width of the instrument suggests that the keyboard had 28 naturals. Using the 49-cm rule to locate the original pitch c string and identifying the original pinning of the bridge confirms the 28 natural note compass, and gives the sounded notes  $A_1$  and  $g^2$  as the compass extremes. This suggests that the original compass was C/E to  $d^3$  at a pitch a fifth below reference pitch. This is confirmed by the bridge locating pins which are placed near the played notes c and f<sup>#</sup>. The instrument originally (as now) had two manuals as indicated by the original keywell depth and case height. The pitch of the second manual does not appear to have been a fourth or a fifth away from the first manual since there are no transposing plates or traces of doubled  $e^b/g^{\#}$  hitchpins. The most likely possibility is that the instrument had 3 registers (which in

turn requires that some notes be re-tuned anyway), and that the second manual was a tone higher (at R - 4) than the first.

The instrument is now a brilliantly lacquered instrument with an English ravalement which widened the case and compass to give, firstly a  $G_1, A_1$  to  $e^3$ , and later a  $G_1, A_1$  to  $f^3$  compass.

Literature:

Boalch #16; exhibited at the Inventions Exhibition in London (1885) and at Vienna (1892); p. 7 & Plate, Lees-Milne (1953); p. 12, Russell (1957); p. 11, Harich-Schneider (1958); p. 113, 115, van der Meer (1971c); p. 41, 43, O'Brien (1977a); p. 68, *ibid*, (1977b).

Former owners: the property of H.M. Queen Elizabeth II, on loan to Fenton House.

1612b HR

Ioannes Ruckers, 1612, aligned double-manual harpsichord, formerly a normal transposing double harpsichord.

Location: Musée d'histoire locale, Amiens.

Ruckers number: St/34. Rose diameter: 65 mm.

Case dimensions: Length: 2232 mm

Width: 789 mm

Height: 259 mm without the baseboard

Width of keywell: 762 mm

Present compass:  $G_1/B_1$  to  $d^3$  with a split  $B_1/E^b$  key.

Disposition:

← 4'

→ 8'

- - - - manuals uncoupled

← 4'

→ 8'

Ruckers papers: the presence of old papers is evident in the keywell and soundwell, but the design of the patterns is covered over with later paint.

General description;

This instrument typifies a very conservative alignment of a normal Ruckers double-manual transposing harpsichord. The lower manual was aligned and the upper manual compass extended down to  $G_1/B_1$ . Two notes were added to the treble and one to the bass to extend the compass to  $d^3$  and to enable the  $B_1/E^b$  key to be split, and therefore to play both notes. A third set of strings was not added so that there was no loud-soft contrast possible, but the difference in the plucking points would result in a tonal difference between the two manuals.

The soundboard is in good decorative order, although the arabesques have been re-painted and a number of the flower groups heavily re-touched or entirely re-painted.

The alignment is dated 1730, and the builder who carried it out also labelled the bridges with the 18th century French string gauges to be used to re-string the instrument. These seem to copy the original Ruckers stringing plan (see Table 4-5).

Literature:

Boalch #17a = #30c; p. 78, Thibault-de Chambure (1971); p. 118, van der Meer (1971c); p. 115, Bédard (1977).

Ioannes Ruckers, 1614?, 6-voet muselar virginal.

Location: Brussels Museum, No. 2930.

Ruckers number: 6/20. Rose diameter: 62 mm.

Case dimensions: Length: 1668 mm

Width: 491 mm

Height: 239 mm without the baseboard

Width of keywell: 651 mm

Scalings: C/E = 1432 mm,  $c^2 = 361$  mm,  $c^3 = 181$  mm

General description:

The outer decoration now consists of a geometrical pattern of brown and yellow ochre, but faults in this reveal the original green/white porphyry marbled decoration underneath. The lid interior, keywell and faceboard are all painted with figures of animals and humans engaged in various activities. The entire soundboard has been painted over with flowers, etc. in a very bad imitation Ruckers style. The date 1614 actually does not appear anywhere on the instrument. The rose, like a number of other Ioannes Ruckers HR roses from this period is made of papier mâché.

Some soundbars are missing or replacements, and there are non-original wooden buttons with screws (piano style) and non-original bars under both bridges. This instrument is a good example of one which has been subject to over-restoration.

Literature:

Boalch #19 and #30a; No. 2930, Mahillon, Vol. 2 (1893-1920); p. 132, van der Meer (1971c); p. 25-26 (No. 7), de Maeyer (1969); p. 78, O'Brien (1974a)

Former owners: C. Snoeck, Ghent.

Ioannes Ruckers, 1616, aligned double-manual harpsichord,  
formerly a chromatic bass-octave 'French' double.

Location: M. Nirouet, Paris.

Ruckers number St/17. Rose diameter: 64 mm

Case dimensions: Length: 2251 mm

Width: 830 mm

Height: 267 mm including the baseboard

Width of keywell: 805 mm.

Present compass  $G_1$  to  $c^3$ .

Original compass: upper manual - F to  $f^3$

lower manual -  $G_1$  to  $c^3$

Disposition: it retains its original disposition.

Scalings:

Notè	8'	4'
$c^3$	175 mm	82 mm
$f^2$	266	125
$c^2$	356	172
$f^1$	523	258
$c^1$	672	340
f	912	479
c	1110	585
F	1386	739
C	1571	850
$G_1$	1698	964

General description:

The panelled outer decoration is not original, and is probably 18th century French. The lid, which is in one piece without a flap, is not original. The interior of

the lid, keywell and front flap are painted in mythological scenes. The keys, which have hollowed out arcades with black naturals and white sharps, are in the style of many 17th century French harpsichords and are not original.

The upper manual keyframe is original however, and indicates that the original compass of the upper manual was F to f<sup>3</sup> (with a block 3 naturals in width in the bass). It still has only one set of 4' and one set of 8' strings and retains 4 transposer plates and 4 sets of doubled strings for the e<sup>b</sup>/g<sup>#</sup> notes of each choir. From the position of these plates and tuning pins, and from the width of the case, the original compass of the lower manual can be inferred as G<sub>1</sub> to c<sup>3</sup> chromatic.

The soundboard decoration, although varnished over and slightly retouched is in basically good order. The paper strip decorations above the soundboard have been replaced with a painted decoration in the style of the paper patterns. It retains its original oak turned and arcaded Flemish stand.

Literature:

Boalch #22; p. 45 & Plate 36, Russell (1959); p. 48, van der Meer (1971b); p. 118, 141, 145, *ibid* (1971c).

Former owners: Edgar Castil, Paris; Casadesus family.

Ioannes Ruckers (with IR roses)

Ioannes Ruckers, undated, combined single-manual harpsichord and octave virginal.

Location: Berlin Musikinstrumentenmuseum, No. 2232.

Case dimensions: Length: 1818 mm

Width: 707 mm

Height: 229 mm without the baseboard

Width of keywell: 687 mm (harpsichord part)

Scalings (not original):

Harpsichord: 8': C/E = 1400 mm,  $c^2 = 362$  mm,  $c^3 = 185$  mm

4': C/E = 773 mm,  $c^2 = 185$  mm,  $c^3 = 100$  mm

Virginal: C/E = 801 mm,  $c^2 = 179$ ,  $c^3 = 82$  mm

Ruckers papers: type 4 - keywell and faceboard (painted).

The designs on the flaps and in the soundwell are also all painted in.

Ruckers mottoes: main lid - OMNIS SPIRITVS LAVDET DOMINVM

lid flap - GLORIA DEO

General description:

Although the instrument has its original compass, only the keyframe of the virginal is original, the new keyboards having a 3-octave span of 483 mm (harpsichord) and 475 (virginal). The bridges and thus the bridge pins and scalings are also all not original. The soundboard is original, but it has been doubled in thickness by adding a new second soundboard with new barring below the old one. The virginal's lower guide and the belly rail behind the nameboard and all of its tuning pins are not original.

Most of the rest of the instrument is original including the internal harpsichord bentside which shows signs of being scorched by a strong heat source during bending. The harpsichord registers are original, and the wrestplank painting indicates that there was originally a buff stop. The harpsichord jackrail has its original two layers of damping cloth tacked with pairs of tacks at the ends and  $\frac{1}{3}$  and  $\frac{2}{3}$  of the way along the rail.

The lid painting, on canvas glued to the inside of the lid, shows the conversion of Saul/Paul. The style of the soundboard painting suggests that the instrument was built about 1628, or the period just following.

Literature:

Boalch #70; No. 2232 & Plate, Sachs (1922); Plate 10, Sachs, (1923); p. 149, Russell (1959); p. 27 & Plate, p. 134 Otto (1965); p. 68, Plate X, Ernst (1967); p. 61-62, Plate, Berner (1971); p. 128, 143, van der Meer (1971c); p. 273, Lambrechts-Douillez (1977); p. 60, Schmidt (1978).

(1612) IR

Ioannes Ruckers, 1612?, grand ravalement of a normal double-manual harpsichord.

Location: Paris Conservatoire, No. E1 - C.327.

Rose diameter: 87 mm.

Case dimensions:

Length: now 2401 mm, originally a bit more than 2201 mm

Width: 906 mm (present)

Height: 266 mm with, 253 mm without the baseboard

Width of keywell: now 878 mm, originally about 755 mm.



Present compass:  $F_1$  to  $f^3$

Present scalings:

Note	8'	4'
$f^3$	133 mm	70 mm
$c^3$	175	84
$c^2$	352	169
$c^1$	702	340
c	1253	619
C	1719	935
$F_1$	1824	1126

General description:

This may be the earliest harpsichord to use the Ioannes Ruckers double-manual rose. The date is slightly uncertain, however, as it is written on a non-original part of the soundboard added in the 18th century ravale-ment. The soundboard painting style with its use of birds and very intricate and delicate arabesques is more in the style of the Ioannes soundboard paintings from 1616 to 1624. This, plus the use of the IR double-manual rose which is otherwise not found until 1618, suggests to me that the date of this harpsichord is later than 1612. Perhaps 1617 was mis-read and copied as 161Z, and this has been interpreted as 1612?

The ravalement was carried out by widening the instrument on both the bass and treble sides. In the process dovetailed pieces were added to the wrostplank, belly rail, and toolbox liners. Most of the internal framing was either replaced or supplemented with additional wood. The original

strapwork decoration (the only existing Ioannes strapwork case decoration) can be seen on the spine side, and the extension to the spine near the tail is also visible. The 4' hitchpin rail was extended, new bridges and nuts were made and the entire action was replaced. The date was probably originally written on the wrestplank, and transferred to the soundboard in the process of the grand ravalement. The painting of the pieces added to the soundboard has been done very carefully in the style of the original.

The main lid shows the contest between Apollo and Marysas and was painted by Jan Breughel the Elder (The Velvet Breughel) and Hendrik van Balen. The front flap shows Orpheus taming the wild animals and is by Paul Bril.

Literature:

Boalch #31; No. 222, Chouquet (1875); p. 8-11, Hirt (1955); p. 78-80, Thibault-de Chambure (1971); p. 127, 144, van der Meer (1971c).

Former owners:

Given by Maria de Medici to Elizabeth of France (wife of Philip IV of Spain). Placed in the Escorial and became the property of Maria Theresa. Later given to Madame de Maintenon. Recently belonged to L. Clapisson, Paris.

1617 IR

Ioannes Ruckers, 1617, English grand-ravalement of a normal double-manual harpsichord.

Location: Dr. Robert Johnson, Los Angeles.

Rose diameter: 65 mm.

Case dimensions: Length: 2235 mm

Width: 917 mm (present)

Height: 270 mm (not original)

Width of keywell: now 842 mm

Present compass:  $G_1, A_1$  to  $f^3$

Present disposition:

$\leftarrow$  8' { these two registers  
 $\rightarrow$  4' { may be reversed  
 $\leftarrow$  8' dogleg

Present scalings: 8':  $G_1 = 1678$  mm,  $c^2 = 337$  mm,  $f^3 = 119$  mm

4':  $G_1 = 1010$  mm,  $c^2 = 149$  mm,  $f^3 = 59$  mm

Ruckers papers: type 17 - soundwell

General description:

This is an English ravalement of a normal transposing double-manual harpsichord. It is brilliantly lacquered on the outside of the case in black, and in red inside the lid. The stand is a typical English carved trestle stand.

Most unusually this harpsichord uses a virginal rose instead of a double-manual harpsichord rose. However as it dates from the beginning of the period when Ioannes began to use the 3 different types of roses - according to the type of instrument - it seems likely that he had, in 1617, not yet firmly established the new rose system tradition.

Although the case has been widened the entire inside of the soundwell is decorated with old Flemish block-printed papers. Close examination of these papers and careful comparison with similar papers from other instruments shows that these papers came from an instrument built after 1642.

Thus they must have been taken from another Flemish instrument and glued into the soundwell at the time in which the ravalement occurred. A string-band strip made for this instrument shows the presence originally of the usual  $e^b/g^\sharp$  doubled strings and hitchpins in the usual positions. The soundboard painting and arabesques are typical of the other soundboard paintings of Ioannes Ruckers from the period around 1617.

Literature:

Boalch #33; p. 109, van der Meer (1971c).

Former owners: Morris Steinert, Boston.

1618a IR

Ioannes Ruckers, 1618, child virginal at R + 8.

Location: Paris Conservatoire, No. E.653.C.317.

Ruckers number: k/26. Rose diameter: 65 mm.

Case dimensions: Length: 809 mm

Width: 305 mm (plus the keyboard projects  
90 mm)

Height: 134 mm without the baseboard

Scalings: C/E = 685 mm,  $c^2 = 182$  mm,  $c^3 = 89$  mm.

Ruckers papers: type 12 - case exterior

type 9 - soundwell

General description:

This is a fine example of an unaltered Ruckers child virginal. The soundboard painting is in reasonably good condition, and the papers are very well preserved. The 'name'-batten above the keys is papered, and is held in

place with its original wooden beech pegs. The keys retain most of their Ioannes-style parchment and paper arcades. There is the usual slit in the baseboard to allow the keys to be operated by the jacks of the original mother, and even the cloth pads underneath the key levers appear to be original.

This is the first extant Ioannes Ruckers virginal to use the IR virginal rose characteristic of all of the later Ioannes instruments of this type.

Literature:

Boalch #34; No. 317, Chouquet (1884); p. 81, Thibault-de Chambure (1971); p. 139, van der Meer (1971c); p. 81, O'Brien (1974a).

Former owners: A. Colin, Paris.

1618b IR

Ioannes Ruckers, 1618, aligned double-manual harpsichord.

Location: Schloss Cappenberg, Westphalia, No. C. 3370.

Ruckers number: St/12. Rose diameter: 88 mm.

Case dimensions:

Length: 2210 mm

Width: 784 mm

Height: 254 mm without, 268 mm with the baseboard

Width of keywell: 757 mm

Present compass:  $G_1/B_1$  to  $d^3$

Present scalings:

8':  $G_1/B_1 = 1645$  mm,  $c^2 = 343$  mm,  $c^3 = 167$  mm

4':  $G_1/B_1 = 961$  mm,  $c^2 = 170$  mm,  $c^3 = 86$  mm

Estimated original scalings:

$$8': G_1/B_1 = 1650 \text{ mm}, c^2 = 352 \text{ mm}, c^3 = 178 \text{ mm}$$

$$4': G_1/B_1 = 961 \text{ mm}, c^2 = 170 \text{ mm}, c^3 = 86 \text{ mm}$$

Ruckers papers: type 21 - keywell

type 18 - soundwell and lower manual keyboard

batten

General description:

This is a very interesting harpsichord with many original features, and later features of interest. Many of the jacks are original and some of them retain their original dampers. Most of the keyboard cloths and both balance rail cloths are original. The upper manual has two added treble keys marked St/57, probably from a late Andreas Ruckers single-manual harpsichord from the style of the writing of the number and the original balance point of the keylevers. The depth of touch of the upper manual can be measured and has been found to average 6.6 mm.

The plan of the instrument is scribed on the baseboard in the usual way. The outer case paint has been removed, and the outer case is varnished so that one can see the wooden pegs holding the case joins and framing in place, and also one sees the charring and blackening on the bentside caused by the heating used to effect the bending.

The second 8' choir has been added to the left of the original thus effectively lengthening the scaling. To compensate for this the 8' nut has been moved toward the gap (about 10.5 mm in the treble and 4.5 mm in the bass).

The strings, although not original, seem to copy the original sizes with those gauges available in the 18th or 19th century (see Chapter 4).

The soundboard painting is in reasonably good condition, although only the 'ghosts' of most of the arabesques remain.

Literature:

Boalch #35; p. 49, van der Meer (1971b); p. 122, 123, *ibid*, (1971c); p. 37, O'Brien (1977a); p. 62, *ibid*, (1977b).

Former owners: Loeb Family, Haus Kaldenhoff, near Hamm in Westphalia.

1618c IR

Ioannes Ruckers, 1618, aligned double-manual harpsichord.

Location: Lund University, Kulturhistoriska Museet, Lund.

Rose diameter: 85 mm. Present compass: C to d<sup>3</sup>.

Case dimensions: Length: 2235 mm

Width: 790 mm

Height: 260 mm including the baseboard

Width of keywell: 760 mm

The present disposition is uncertain.

Present scalings:

8': C = 1745 mm, c<sup>2</sup> = 382 mm, c<sup>3</sup> = 173 mm

4': C = 1025 mm, c<sup>2</sup> = 180 mm, c<sup>3</sup> = 88 mm

General description:

This is a much altered double-manual harpsichord, most of which is work done by the Hamburg harpsichord builder Johan Christoph Fleischer in 1724. The soundboard, bridges, nuts, soundboard mouldings, barring, 4' hitchpin

rail, wrestplank veneer, tuning pins, registers, keys, keybeds, lid, stand and cheekpiece are all not original. The Fleischer compass was  $G_1/B_1$  to  $c^3$ , and this was changed later by adding one note and making new keylevers to give C to  $d^3$ .

The inside of the case is painted in vermillion, the outside in imitation tortoise shell. The soundboard painting is by Fleischer. The soundboard is signed near the gap: "Iohannes(sic) Ruckers me fecit Antwerpiae Anno 1618" and "Iohan Christoph Fleischer auxit et restituit Hamburgi(sic) Anno 1724".

Literature:

Boalch #35a

Former owners:

Queen Louisa Ulrica of Sweden (1720-82) daughter of King Friedrich Wilhelm of Prussia.

1619 IR

Ioannes Ruckers, 1619, aligned double-manual harpsichord/virginal combination.

Location: Brussels Museum, No. 2935.

Ruckers number: St on harpsichord keys.

Rose diameter: harpsichord - 85 mm, virginal - 65 mm

Case dimensions: Length: 2188 mm

Width: 817 mm

Height: 254 mm without baseboard

Width of keywell: 750 mm

Present compass: harpsichord -  $G_1/B_1$  to  $c^3$

virginal - C/E to  $c^3$



Present harpsichord disposition:

← 4'  
 → 8'  
 ← 8' dogleg  
 → 8' \*

\*Note: there are no dampers on the near 8' row of jacks.

This suggests that the present plucking direction of this row is not original. As it stands this row cannot be used for *pièce croisée*. If the plucking direction were reversed, and with the dogleg jack dampers cut long enough to damp the long strings even when the dogleg jacks are disengaged, 1 x 8' is available on each manual as well as 2 x 8', 1 x 4' on the lower with 1 x 8' on the upper for 'piano e forte'.

Present scalings:

8':  $G_1/B_1 = 1706$  mm,  $c^2 = 347$  mm,  $c^3 = 180$  mm (all short 8')

4':  $G_1/B_1 = 989$  mm,  $c^2 = 176$  mm,  $c^3 = 92$  mm

Virginal:  $C/E = 927$  mm,  $c^2 = 244$  mm,  $c^3 = 110$  mm

General description:

This instrument is an example of disastrous over-restoration. Most of the instrument and its decoration are not original. The original parts are: the roses, the 'cheek' longside containing the virginal with its upper moulding, most of the keylevers, the keybeds, the sharps of the virginal and of the upper manual of the harpsichord, the harpsichord jackrail, the harpsichord registers and 3 of their bone plates, the lower guides of the harpsichord and virginal, the right-hand support of the virginal jack-

rail and the virginal nameboard. The soundboard (which is not tapered in thickness) and the bridges are all replacements. The soundboard barring is not original and totally atypical of Ruckers usual practice. Most of the interior framing cannot be seen, but is probably also not original. The papers in the lid, soundwell, keywells and flaps are all modern museum papers by Closson. The painting inside the lid is modern. It represents Apollo and the nine muses and is in the style of a similar painting by Marten de Vos (1532-1603, Antwerp) in the Musée des Beaux Arts, Brussels. The soundboard painting is roughly in the style of the early Ioannes painter, and may be copied from the original soundboard. Although the scalings are modern, they are fairly close to the Ruckers normal practice and make clear the fact that the virginal was at quint pitch an octave above the original lower manual of the harpsichord.

Literature:

Boalch #36 and #37; No. 2935, Mahillon, Vol. 2 (1893-1922); p. 117 & Plate XXXVII, James (1930); p. 134 & Fig. 85, Norlind (1939); Plate 10, Pols (1942); p. 16, Lyr (1952); p. 290/291, Hirt (1955); p. 45, 149, Russell (1959); Plate 261, Collear and van der Linden (1961); Plate 115, Harrison and Rimmer (1964); p. 103, 129, van der Meer (1971c); p. 49, *ibid*, (1971b); p. 79, 87, O'Brien (1974a); p. 60, Schmidt (1978).

Former owners: A. Régibo, C. Snoeck.

Ioannes Ruckers, 1620, 6-voet muselar virginal.

Location: Boston Museum of Fine Arts

Ruckers number: 6/3?. Rose diameter: 65 mm.

Case dimensions: Length: 1707 mm

Width: 495 mm

Height: 243 mm without the baseboard

Width of keywell: now 776 mm, originally 652 mm

Present compass: C to  $f^3$

Present scalings: C = 1553 mm,  $c^2$  = 368 mm,  $f^3$  = 101 mm

Original scalings: C/E = about 1460 mm,  $c^2$  = 368 mm,  $c^3$  =  
174 mm

Ruckers papers: type 8 - lid and front flap border, soundwell

type 2 - keywell/faceboard

Both Ruckers papers not original.

Ruckers motto: OMNIS SPIRITVS LAVDET DOMINVM - on non-  
original lid paper.

#### General description:

This is a much-altered 6-voet virginal. The keywell was widened on both sides to extend the compass, but the keyboard was not moved up or down and thus the scalings were not changed. A section was added to the bass of the left-hand bridge to carry the new extra notes. The soundboard painting is in reasonably good condition although it and the (non-original) papers have been heavily varnished over.

The stand is probably 18th century, and is of the same style as the stand on the Dulcken harpsichord in the Smithsonian Institution in Washington.

## Literature:

Boalch #39, p. 134, van der Meer;<sup>(1971c)</sup> p. 78, Koster (1977).

## Former owners:

Messrs. Chickering, Boston, Mass.

## 1622 IR

Ioannes Ruckers, 1622, 6-voet muselar virginal.

Location: Metropolitan Museum of Art, New York, No. 11.176.1

Ruckers number: 6/38. Rose diameter: 65 mm.

Case dimensions: Length: 1706 mm

Width: 488 mm

Height: 228 mm without the baseboard

Width of Keywell: 647 mm originally

Present compass: C to f<sup>3</sup>.

Ruckers papers: type 3 (early) - keywell and faceboard

type 7 - soundwell spine and sides

type 6 - soundwell behind faceboard

type 1 - lid and toolbox lid

type 8 - lid border

type 2 - front flap

Ruckers motto: lid - OMNIS SPIRITVS LAVDET DOMINVM

## General description:

The outside of the case is now painted black, but underneath one sees the heavily textured surface, and traces of paint, of the green and off-white of the original imitation porphyry marble. The decoration is in basically very good order and is mostly original. The soundboard painting style is very similar to that of the 1624 IR

double-manual harpsichord.

The compass was extended on both the treble and bass sides by moving the keywell braces and extending the name-board, and the bass of the left-hand bridge was extended with an additional section mitred on to the end. The original tuning pins are labelled C,F,D,G,E,A ...  $c^3$  and confirm the original compass of C/E to  $c^3$ . The keys are labelled with gauge numbers (probably 18th century) corresponding to the scalings and compass of the ravalement.

The stand, with turned columns and carved ends, may be original although it is not in the style of the other Ruckers instrument stands. It is certainly very old as is revealed by the wear to the bottom stretcher from the player's foot.

Literature:

Boalch #40; p. 41,42 & Plate XVIII, Hipkins (1888 and 1921); p. 132, van der Meer (1971c)

Former owners: Victor Mahillon, Brussels.

1623 IR

Ioannes Ruckers, 1623, double muselar mother and child virginals.

Location: Wurtembergisches Landesmuseum, Stuttgart.

Ruckers number: M/33 and k/33. Rose diameters: 65 mm.

Case dimensions:

Length: mother - 1708 mm, child - 806 mm

Width: - 501 mm - 305 mm

Height: - 253 mm -124 mm both without

baseboard

Width of keywell: mother - 648 mm, child - 645 mm

Scalings:

mother - C/E = 1459 mm,  $c^2 = 367$  mm,  $c^3 = 179$  mm

child - C/E = 676 mm,  $c^2 = 176$  mm,  $c^3 = 83$  mm

Ruckers papers: type 1 - lid and front flap background

type 4 - keywell and faceboard of mother

type 10 - lid border

type 12 - outside of child

type 26 - mother soundwell spine and sides

type 28 - flap border, child soundwell, back  
of keywell and faceboard of child

Ruckers mottoes: lid - AVDI VIDE ET TACE SI VIS VIVERE IN  
PACE

keywell flap: OMNIS SPIRITVS LAVDET DOMINVM.

General description:

This instrument gives a remarkably good idea of the original appearance of a Ruckers mother and child double virginals. Although the outer case paint of the mother is not original, it copies the original imitation porphyry marble decoration. The soundboard painting is rather heavily retouched, but the papers on both instruments are intact, and in good condition.

A paper label pasted to the bottom of the toolbox reads: "Restauré dans les Ateliers du Berceau Royal. Instruments de Musique Anciens M. & A. Salomon, 14 rue Boissy d'Anglais, à Paris, 25 juin 1925". The replacement jacks and the heavy varnish on the soundboards of both instruments may date from this restoration.

(675)



Photo C-1 The 1623 IR muselar double virginals.

## Literature:

Boalch #41; p. 106 & Plate 26, James (1930); p. 117 & Fig. 76, Norlind (1939); p. 149, Plates 31 & 32, Russell (1959); p. 138 & Plate 11, van der Meer (1971c); p. 83, O'Brien (1974a).

Former owners: M. & A. Salomon, Paris; George Harding (brother of president Harding), Chicago; Harding Museum, Chicago.

## 1624 IR

Ioannes Ruckers, 1624, aligned double-manual harpsichord.

Location: Le musée des Unterlinden, Colmar.

Rose hole diameter: 85 mm

Case dimensions: Length: 2237 mm

Width: 789 mm

Height: 267 mm with, 254 mm without the  
baseboard

Width of keywell: 763 mm

Present compass:  $G_1, A_1$  to  $d^3$

Present disposition:

← 8'

← 4'

→ 8' shove coupler

Ruckers papers: type 14 - soundwell.

## General description:

The instrument is not signed by Ruckers and the present rose was made by the author. But from the construction and decorative points of view, there can be no doubt that the harpsichord is by Ioannes Ruckers. The case joins,



soundboard decoration, rose hole diameter, doubled  $e^b/g^\#$  hitchpins and tuning pins, bridge positioning holes, soundboard scribed lines and bridge positioning holes, and the materials, mouldings and baseboard scribed lines are all consistent with those of an instrument built by Ioannes Ruckers in 1624. Also the family records of the de Sade family, who owned the harpsichord until recently, indicate that there was a Ruckers harpsichord among the family's effects in the 18th century. Obviously it must have been this instrument, which subsequently lost its rose and name-batten (the enigmatical rose with the initials GS, which replaced the original, was screwed in place from below and did not properly fit the rose hole diameter).

The instrument went through an initial alignment giving it a compass of  $G_1/B_1$  to  $c^3$  with the original Ruckers string spacing, and then later was given a petit ravalement compass of  $G_1, A_1$  to  $d^3$  by decreasing the string spacing and key spacing to give a 3-octave span of 472 mm, and by a slight increase in the case width. The lower-manual keyblocks were removed and the upper-manual keyblocks were sawn in half to serve as the new keyblocks for both manuals. In the process of these alterations the nuts were replaced and new keyboards were made.

Literature:

(not in Boalch)

Former owners: Comte Xavier de Sade, Condé en Brie, Alan Rubin, London.



Photo C-2 Plan view of the 1624 IR double-manual harpsichord. Scale 1:10

Ioannes Ruckers, 1627, ravalé single-manual harpsichord.

Location: Berlin Musikinstrumentenmuseum, No. 2227.

Ruckers number: St/54. Rose diameter: 73 mm.

Case dimensions:

Length: 1815 mm

Width: now 810 mm, originally about 711 mm

Height: 228 mm without the baseboard

Width of keywell: now 779 mm, originally about 680 mm

Present compass: C to  $e^3$ .

Present disposition:

← 8'

→ 8'

Present scalings (short 8'):

C = 1394 mm,  $c^2$  = 305 mm,  $e^3$  = 133 mm ( $c^2$  long 8' =  
320 mm)

General description:

The ravalement was carried out by widening the case and adding the extra notes in the treble and bass without changing the octave spacing. Thus the keyboard is effectively moved toward the treble relative to its original position in the case. The soundboard, although it is painted in a good imitation of the Ioannes style, is not original, nor are the bridges and nuts, nor the wrestplank and its veneer. However many of the jacks are original, and consist of roughly equal numbers of 8' (with 2 damper holes) and 4' (with only one damper hole) jacks. It is thus clear that the original disposition was the usual 1 x 8', 1 x 4', and from the original width of the instru-

ment the compass must have been C/E to  $c^3$ . This is confirmed by the keylevers from F to  $c^3$  which are original and numbered.

The outer case decoration is a type of strapwork and is continuous around the case and across the ravalement join. This, plus the fact that it has a white gesso ground never used by the Ruckers, confirms that it is not original. Since the case sides are 9 duimen high (the strapwork decoration singles were always  $9\frac{1}{2}$  duimen high) it is likely that the original outer case decoration would have been the usual simple plain imitation marble.

Literature:

Boalch #43; p. 329, van der Straeten, Vol. 3 (1875); No. 2227 & Plate, Sachs (1922); Plate 6, Sachs (1923); p. 27, Otto (1965); p. 113 (No. 34) & Plate, Winternitz (1966); p. 68, Ernst (1967); p. 64 & Plate 14, Otto (1968); p. 60, Berner (1971); p. 51, van der Meer (1971b); p. 111, 115, van der Meer (1971c); p. 37, 41, O'Brien (1977a); p. 74, Germann (1978).

Former owners: E. van der Straeten; C. Snoeck.

Ioannes Ruckers, 1627, aligned standard double-manual harpsichord.

Location: P. de la Raudière, Château de Villebon (Eure et Loire).

Present compass:  $G_1/B_1$  to  $c^3$ .

Ruckers papers: type 21 - keywell

## General Description:

This is a conservatively done alignment of a normal Ruckers double-manual harpsichord. The nuts have not been moved, and the problem of avoiding the long scalings produced when the second set of strings is added (the van Blankenburg problem) has been solved in a unique way. The keytails and string band have a space between d and e<sup>b</sup> and the keys crank upwards by one semitone for all of the notes above this point so that the scalings of the long (added) string are effectively shortened by one semitone. The alignment is dated 1701.

The case is lacquered dark green with gold bands in the usual French style. The stand is old, although probably not original, and the lid is definitely not original. The instrument was restored in 1924 by G. Simer.

## Literature:

Boalch #44b.

Former owners: The instrument was bought by Sully who was a minister to Henry IV, for the Château de Villebon. It was sold in 1904, and again in about 1920 to Salomon, Paris. It was bought again in 1927 by the present owner for the château.

1627c IR

Ioannes Ruckers, 1627, grand ravalement of an extended bass compass 'French' double-manual harpsichord.

Rose diameter: 88 mm.

Location: formerly the property of Claude Mercier-Ythier, Paris.

Case dimensions: Length: (not measured)

Width: 899 mm (not original)

Width of keywell: now 862 mm, originally about 788 mm

Present compass:  $F_1$  to  $f^3$

Present disposition:

← 8'

← 4'

→ 8' shove coupler

Present scalings:

8':  $F_1 = 1728$  mm,  $c^2 = 356$  mm,  $f^3 = 135$  mm

4':  $F_1 = 1030$  mm,  $c^2 = 166$  mm,  $f^3 = 66$  mm

Original scalings:

8':  $G_1 = 1705$  mm,  $c^2 = 356$  mm,  $c^3 = 173$  mm

4':  $G_1 = 1008$  mm,  $c^2 = 175$  mm,  $c^3 = 86$  mm

General description:

This instrument is an interesting example of the process of ravalement. Initially it was aligned and given the compass  $G_1$  to  $d^3$  without widening the case or altering the bridge pinning, but by using a small keyboard octave span, and by adding extra strings at the top and bottom. This process was carried out in 1753 and is signed probably by Jean Goujon, who also carried out the ravalement of the 1632 IR instrument below. Later the original case sides were cut down to the level of the top of the soundboard and a new spine and cheek were added outside of the original case sides. New liners and new strips of soundboard wood extend the compass down 2 semitones (ie from  $G_1$  to  $F_1$ ) and upwards 4 semitones to  $f^3$  (ie from  $d^3$  to  $f^3$  plus

one semitone to avoid breaking strings when adding the second long choir of 8' strings. Extensions to the bass end of the bridges sit on the original spine and liner, but in the treble both the belly rail and case-side have been cut away to allow the soundboard to vibrate freely under the treble bridge extensions. In the bass the spine liner and case-side are sawn through about 2 to 4 mm below the soundboard below the 4' and 8' bridge extensions there so that the soundboard is not absolutely rigid on the top of the liner in these places, thus making it slightly more flexible and able to vibrate.

The extra keys were added beside those of Goujon and signed 'FA', and the nameboard was extended at both ends to reach out to the new cheek and spine pieces. The original marbled decoration on the spine side is visible when the baseboard is removed because of a small space left between the original and added spine. The little toolbox flap from the original spine was moved to the treble side and used as a support for the lower guides.

Literature:

Boalch #44a

Former owners: Salomon, Paris; Mme. Bailly, Paris; Claude Mercier-Ythier, Paris.

1628a IR

Ioannes Ruckers, 1628, double virginal converted to a normal 6-voet muselar single virginal.

Location: Brussels Museum, No. 2926.

Ruckers number: M/34. Rose diameter: 65 mm.

Case dimensions: Length: 1708 mm

Width: 472 mm

Height: 266 mm including the baseboard

Width of keywell: now 755 mm, originally 646 mm.

Present compass C,D to  $f^3$

Present scalings: C = 1558 mm,  $c^2 = 386$  mm,  $f^3 = 133$  mm

General description:

The Ruckers number, visible only under ultraviolet light on the tail of the keyboard proves that this was originally a double virginals. The space for the child beside the keyboard of the mother has been filled up, and the whole of the case and lid have been veneered with simple naive inlay. The bridges (and therefore the scalings) and jacks are not original, although the soundboard, soundbars, wrestplank, rose, etc. are. There is presently a pedal arrangement at the treble end which seems to have once controlled a buff stop or the harpichordium.

Literature:

Boalch # 45; No. 2926, Mahillon, Vol. 2 (1893-1922); p. 132, van der Meer (1971c); p. 80, O'Brien (1974a).

Former owners: L. Jouret, Brussels; Caesar Snoeck, Ghent.

1628bIR

Ioannes Ruckers, 1628, aligned extended-compass 'French' double-manual harpsichord.

Location: Versailles Palace.

Rose diameter: 83 mm



Case dimensions: Length: 2274 mm

Width: 835 mm

Height: 254 mm not including the baseboard

Width of keywell: 806 mm

Present compass:  $G_1$  to  $d^3$

Present disposition:

← 8'

← 4'

→ 8' shove coupler

Original scalings:

8':  $G_1 = 1714$  mm,  $c^2 = 355$  mm,  $c^3 = 178$  mm

4':  $G_1 = ?$  ,  $c^2 = 174$  mm,  $c^3 = 85$  mm

Ruckers papers: type 20 - soundwell

type 24 - jackrail

type 21 - keywell

General description:

This is a fine example of a French petit ravalement of a Ruckers extended compass double-manual harpsichord. The exterior decoration is in the style of Louis XIV and has been attributed to Claude III Audran (1658-1734). The interior of the lid is painted with a pastoral scene. Rather remarkably considering the lavish nature of the rest of the instrument's decoration, the spine retains its original Ruckers marbling in excellent condition.

The bridges have not been repinned when the compass was extended to  $d^3$  and the second set of 8' strings was added, but the extra natural width was achieved by decreasing the octave span of the naturals and fanning out the

tails of the keys to reach the extra notes added.

The keys are dated 1706 and may be by Blanchet. The date of the ravalement makes this harpsichord eminently suitable for the interpretation of the music of François Couperin (le Grand), and his contemporaries.

The harpsichord was restored in 1954 by Marcel Asseman and in 1981 by Claude Mercier-Ythier.

Literature:

Boalch #47, p. 535, Dufourcq (1946); p. 125, No. 1, Kinsky (1930 & 1951); p. 250, 251, Hirt (1955); p. 109, van der Meer (1971c).

Former owners: Musée de Cluny, Paris.

1629 IR

Ioannes Ruckers, 1629, 4½-voet spinett virginal at a pitch of R + 4.

Location: Brussels Museum, No. 2511 (currently on loan to the Russell Collection, Edinburgh).

Ruckers number: 4½/11. Rose diameter: 65 mm.

Case dimensions: Length: 1282 mm

Width: 478 mm

Height: 190 mm without, 220 mm with the

baseboard

Width of keywell: 677 mm

Original and present compass: C/E to d<sup>3</sup>

Scalings: C/E = 1055 mm, c<sup>2</sup> = 274 mm, d<sup>3</sup> = 120.5 mm

Ruckers papers: type 1 - the lid background

The soundwell, keywell, front flap and lid border papers are all modern.

Ruckers motto: lid - OMNIS SPIRITVS LAVDET DOMINVM.

General description:

This is one of two extant  $4\frac{1}{2}$ -voet virginals and the only extant spinett virginal of this length. Most of the instrument is in original condition, except that there are some very heavy non-original bars under the soundboard. The right-hand bridge, unusually, is of cherry and not of beech as is usual. The date is written on the non-original jackrail, but is also visible under ultraviolet light on the soundboard. Most of the soundboard decoration has disappeared.

Literature:

Boalch #49; No. 2511, Mahillon, Vol. 2 (1893-1922); p. 131, van der Meer (1971c); p. 76, O'Brien (1974a); p. 43, *ibid* (1977a); p. 68, *ibid* (1977b); p. 462, *ibid* (1979).

1632 IR

Ioannes Ruckers, 1632, single-manual harpsichord converted into a ravalé double-manual harpsichord.

Location: Musée d'art et d'histoire, Neuchâtel

Rose diameter: 80 mm.

Case dimensions: Length: 2254 mm

Width: 873 mm

Height: 265 mm without, 279 with the base-board

Width of keywell: 842 mm

Present compass:  $G_1$  to  $e^3$

Present disposition:

( plucking direction  
may not be original)

Present scalings:

$$8': G_1 = 1730 \text{ mm}, c^2 = 365 \text{ mm}, e^3 = 145 \text{ mm}$$

$$4': G_1 = 979 \text{ mm}, c^2 = 169 \text{ mm}, e^3 = 69 \text{ mm}$$

General description:

The usual scribed lines on the baseboard indicate that this was originally a single-manual harpsichord with two registers, and the original width between the keyblocks (645 mm) suggests that it originally had a compass of C/E to  $c^3$ .

The monogram on the keylevers indicates that the ravalement to a double was carried out by Jean Goujon in 1745. The original case-sides appear to be enclosed inside the present case with about 10 cm having been added to either side of the case. The points at which the lengthened bridges pass over the original case-sides have been cut away so that the soundboard and bridges can vibrate freely. The rose was re-positioned and most of the soundboard carefully re-painted in exactly the same style as the original Ruckers soundboard painter. The exterior case and stand have been lavishly decorated in the style of Louis XV.

The 8' ravalement scalings are very precise, halving with each octave rise in pitch, and follow the usual 18th century practice, but the 4' scalings are almost a tone shorter (when corrected for the octave difference in pitch) than those of the 8' strings, whereas usual French practice

is that the 4' strings have scalings only about 1 semitone shorter than the 8' scalings.

Literature:

Boalch #53; p. 252, 256, Hirt (1955); p. 110, van der Meer (1971c); p. 41, O'Brien (1977a).

Ioannes Ruckers, 1636, 6-voet muselar virginal.

Location: Harvard University, Cambridge, Mass.

Ruckers number: 6/70. Rose diameter: 68 mm.

Case dimensions: Length: 1708 mm

Width: 497 mm

Height: 227 without, 240 with the baseboard

Width of keywell: 763 mm now, originally 645 mm

Present compass: C to  $f^3$

Present scalings: C = 1479 mm,  $c^2 = 384$  mm,  $f^3 = 104$  mm

Ruckers motto: lid- DVLCISONVM REFICIT(Sic) TRISTIA CORDA  
MEJOS(Sic) - not original

General description:

This is a much-altered 6-voet virginal. The keyboard has been widened at both ends, and the bridges were extended and repinned to take the extra notes (one bridge is a modern replacement). The soundboard painting appears all to be non-original, but some of the flowers are vaguely in the style of the late Ioannes Ruckers/Couchet painter. The date is painted on non-original papers in the lid, and also between the left-hand bridge and spine, an unusual position. Was the date originally 1639, and not 1636? If so it would explain the discrepancy in the Ruckers number

(see Chapter 3, p. 122). The outside of the instrument has a heavy carved oak case glued to the original poplar case. The stand, also of oak, is in the style of 17th century Flemish furniture and may be original.

The keyboard has 4 layers of original black cloth sewn to the top of the rack. The (18th century?) string gauges are marked on the keys by the same person who did the ravalement to the 1622 IR and 1632 AR virginals.

Literature:

Boalch #55a (and #56?); p. 132, 142, 145, van der Meer (1971c).

1637a IR

Ioannes Ruckers, 1637, ravalé single-manual harp sichord.

Location: Russell Collection, Edinburgh, No. 5.

Rose diameter: 72 mm

Case dimensions:

Length: now 1830 mm, originally about 1824 mm

Width: now 840 mm

Height: 243 mm with, 230 mm without the baseboard

Width of keywell: now 814 mm, originally about 734 mm

Present compass:  $A_1$  to  $f^3$

Present disposition:

← 4'

→ 8'

← 8'

Present scalings:

8':  $A_1 = 1429$  mm,  $c^2 = 347$  mm,  $f^3 = 133.5$  mm

4':  $A_1 = 792$  mm,  $c^2 = 165$  mm,  $f^3 = 62$  mm

## General description:

Originally this was one of the few 'English' Ruckers singles with a chromatic bass compass going from C to c<sup>3</sup>. It went through a number of alterations, one of the first of which seems to have been the replacement of the 4' by an 8' register to give 2 x 8', but with the same compass. It was later widened, the bridges were repinned and new keyboards, registers and jacks were fitted, the workmanship of which points to its having been done in England (but probably not in the workshops of either Kirkman or Shudi). There is a pedal to operate the 4' register, with two stop levers functioning in the usual way which operate the two 8' registers.

The soundboard decoration is

in good condition. Some of the painted groups and the arabesques have been retouched. The ravalement addition to the treble soundboard and the wrestplank and bridges are modern replacements by John Barnes of parts which had been incompetently repaired in an earlier 20th century restoration. The outer case is decorated with red lacquer with gilt and ink-wash vine and garland decoration.

## Literature:

Boalch #59; p. 11 & Plate (No. 5), Newman and Williams (1968); p. 36, Barnes (1971a); p. 49-51, van der Meer (1971b); p. 113-115, *ibid* (1971c); p. 44, O'Brien (1977a); p. 453, *ibid* (1979).

Former owners: J.C. Horsley, R.A.; Hugh Gough; Raymond Russell.

Ioannes Ruckers, 1637, normal Ruckers double-manual harpsichord restored to its original state with unaligned keyboards.

Location: Museo degli Strumenti Musicali, Rome, No 817.

Ruckers number: St/14. Rose diameter: 85/86 mm

Case dimensions: Length: 2239 mm

Width: 784 mm

Height: 265 mm with, 254 mm without the  
baseboard

Width of keywell: 760 mm

Original scalings (upper manual pitches):

8':  $G_1/B_1 = 1686$  mm,  $c^2 = 354$  mm,  $c^3 = 164$  mm

4':  $G_1/B_1 = 959$  mm,  $c^2 = 175$  mm,  $c^3 = 83$  mm

Ruckers papers: type 21 - keywell

type 20 - soundwell

type 24 - lower manual keywell batten and  
(n/o) jackrail

type 1 - front flap

Ruckers motto: front flap - ACTA VIRVM PROBANT

General description:

Although the lid is not original, much of the rest of this instrument retains its original features. It was restored in 1969/70 by John Barnes back to its original state with its manuals separated by a fourth in pitch and with its original 1 x 8', 1 x 4' disposition. It is thus the only restored transposing harpsichord. (Unfortunately through recent neglect it has already deteriorated to a point where it is no longer playable.) The soundboard painting and



paper decorations are rather badly damaged, but the exterior marbling is in reasonably good condition; this being one of the few Ioannes Ruckers harpsichords with its original outer case marbling not replaced by a later decoration. It is also one of the few doubles to retain its original key-block decoration. It also has many of its original key arcades.

Literature:

Boalch #71 (= #59a); p. 114-121, van der Meer (1966); p. 49, *ibid* (1971b); p. 119, 122, *ibid* (1971c); p. 322, Cervelli (1976).

Former owners: Evan Gorga, Rome.

1638a IR

Ioannes Ruckers, 1638, 6-voet muselar virginal.

Location: Brussels Museum, No. 2933.

Ruckers number: 6/68. Rose diameter: 65 mm.

Case dimensions: Length: 1709 mm

Width: 494 mm

Present compass: C to  $d^3$

Present scalings: C = 1538 mm,  $c^2$  = 332 mm,  $d^3$  = 158 mm

Ruckers papers: type 1 - lid background paper

type 9 (with border) - lid border

Ruckers motto: lid - MUSICA MAGNORVM EST SOLAMEN DVLCCE

LABORVM.

General description:

The soundboard, bridges, scalings and soundboard barring are all not original. The date is written on the

(non-original) soundboard. The papers and the decoration of the interior of the lid are in reasonably good condition, and the outside of the lid and case show traces of the original olive green and off-white porphyry marbled decoration. The natural keyplates are very worn showing that the instrument has been very heavily used.

Literature:

Boalch #60; No. 2933, Mahillon, Vol. 2 (1893-1922); p. 133, 136, van der Meer (1971c).

Former owners: Cesar Snoeck, Ghent.

Ioannes Ruckers, 1638, normal double-manual harpsichord, with original unaltered keyboards.

Location: Russell Collection, Edinburgh, No. 6.

Ruckers number: St/41. Rose hole diameter: 95 mm (n/o).

Case dimensions: Length 2243 mm

Width: 786 mm

Height: 269 mm with, 255 mm without the  
baseboard.

Width of keywell: 759 mm  
Scalings (upper manual pitches):

$$8': G_1/B_1 = 1693 \text{ mm}, c^2 = 354 \text{ mm}, c^3 = 174 \text{ mm}$$

$$4': G_1/B_1 = 959 \text{ mm}, c^2 = 175 \text{ mm}, c^3 = 83 \text{ mm}$$

Ruckers papers: type 21 - keywell

type 23 - soundwell

type 24 - lower manual keywell batten and  
jackrail

**General description:**

This is the only surviving double-manual harpsichord with its keyboards in their original condition. And the rest of the instrument is also in a basically unaltered state. It was apparently used for some time with only one 8' on the upper manual and one 4' on the lower with the two middle registers stored inside the instrument case. The transposing plates were removed and the recesses for them in the nuts were filled, the register projections on the cheek side were removed and the IR rose was replaced with an Italian style gothic geometrical rose. The upper and lower guides, keyboard cloths, soundboard and case are all in very good condition. The outside of the case is decorated in black lacquer with vine-work and 'classical' heads in the style of the jackrail paper. The buff stop has survived almost 100% intact.

**Literature:**

Boalch #61; p. 417-418, Marcuse (1952); p. 45 & Plates 33-35, Russell (1959); p. 13 & Plates, Newman and Williams (1968); p. 34, Ripin (1968); p. 37-38, Barnes (1971a); p. 48, van der Meer (1971b); p. 117, 121, *ibid* (1971c); p. 45, O'Brien (1977a); p. 104, Wittmayer (1977); p. 74, 108, Henkel (1979a); p. 456, 461, O'Brien (1979).

Former owners: E. Spence, Florence (before 1896); Sir B. Samuelson, sold 1915; Mrs. Lotta van Buren Bizallion, who lent it to Yale University; Raymond Russell.

Ioannes Ruckers, 1639, petit ravalement of an extended compass 'English' single-manual harpsichord.

Location: Victoria and Albert Museum, London, No. 1739-1869.

Rose diameter: 72 mm.

Case dimensions: Length: not measured

Width: 785 mm

Height: not measured

Width of keywell: 758 mm

Present compass: no keyboards, but was probably  $G_1, A_1$  to  $d^3$

Original compass: C to  $d^3$

Approximate original scalings:  $c^2 = 357$  mm,  $c^3 = 180$  mm

$d^3 = 162$  mm

Ruckers papers: none, but design of paper type 5 is painted in the keywell.

#### General description:

Analysis of the original pinning of the bridges from the plugged bridge pin holes shows that this harpsichord originally had a compass of C to  $d^3$  chromatic. It was later altered in England by adding an extra 8' choir of strings and an extra register (the additional space being gained on the soundboard/belly rail side of the gap). The keyboards, registers and jacks were replaced and the compass extended by narrowing the keyblocks, using a smaller keyboard 3-octave span, and by repinning the bridges accordingly. The ravalement keyboards were lost in a fire in Kirkman's factory in 1853, but the most likely compass was probably  $G_1, A_1$  to  $d^3$ , giving a  $c^2$  scaling of 339 mm.

Although heavily varnished over, the soundboard painting is in good condition. The outer case is lacquered black with intertwined vines and flowers around the edges of the case sides. The non-original lid is painted with an elaborate roccoco design.

Literature:

Boalch #62; Plate 13 Russell (1959); p. 42 & Fig. 13, Russell (1968); p. 51, van der Meer (1971b); p. 111, 115, *ibid*, (1971c); p. 45, O'Brien (1977a).

Former owners: Queen Charlotte (consort of George III); Messrs Kirkman & Sons, London.

1640a IR

Ioannes Ruckers, 1640, 5-voet muselar virginal.

Ruckers number: 5/46. Rose hole diameter: 66 mm.

Case dimensions: Length: 1470 mm

Width: 483 mm

Height: 204 mm without, 218 mm with the  
baseboard

Width of keywell: 700 mm now, 648 mm originally.

Present compass: C to  $c^3$ .

Present scalings: C = 1284 mm,  $c^2$  = 332 mm,  $c^3$  = 160 mm

Ruckers papers: type 1 - lid background

type 10 - lid border

type 17 - sides and spine of soundwell

type 9 - soundwell behind faceboard

type 3 (late) - faceboard and nameboard

type 12 - front flap

Ruckers motto: lid- MVSICA LABORVM DVLCE LEVAMEN.

General description:

The conversion of the short-octave to a chromatic bass-octave was achieved by adding the extra keys onto the bass side of the keyframe and by widening the keywell by moving only the bass keywell brace. The bridges were replaced; the new left-hand bridge having a curved section in the bass to take the extra added strings. The new scalings are only slightly longer than the usual 5-voet virginal scalings, but the new position of the strings on the bridges meant that the tuning pins had to be moved as well.

Some of the jacks and tongues are original. The rose is of vellum or leather pierced in a geometrical pattern and is not original - the marks of the rounded tabs used to hold the original rose to the soundboard can be seen underneath the rose hole. The leather of the soundboard jack-slides is in very good condition.

Although both the original jackrail (with the signature) and rose are missing there is no doubt that this virginal is by Ioannes Ruckers. The style of the soundboard decoration, and the decoration of the lid are all in the usual style of the late instruments of Ioannes Ruckers, and in particular that of the 1642a IR 5-voet virginal.

Literature:

Boalch #109b

Former owners:

Formerly in the Rijksmuseum, Amsterdam.

Ioannes Ruckers, 1640, aligned double-manual harpsichord.

Location: Erbdrostenhof, Münster, Westphalia.

Ruckers number: St/14. Rose diameter: 86 mm.

Case dimensions: Length: 2254 mm

Width: 784 mm

Height: 268 mm with, 255 mm without the  
baseboard

Width of keywell: 759 mm

Present compass:  $G_1/B_1$  to  $c^3$ .

Present disposition:

← 4'

→ 8'

← 8' dogleg

← 8'

Present scalings:

8':  $G_1/B_1 = 1708$  mm,  $c^2 = 372$  mm,  $c^3 = 187$  mm

4':  $G_1/B_1 = 956$  mm,  $c^2 = 173$  mm,  $c^3 = 88$  mm

Original scalings (upper manual pitches):

8':  $G_1/B_1 = 1688$  mm,  $c^2 = 354$  mm,  $c^3 = 176$  mm

4':  $G_1/B_1 = 956$  mm,  $c^2 = 173$  mm,  $c^3 = 88$  mm

Ruckers papers: type 22 - keywell

type 20 - soundwell

General description:

This is another 'classic' example of an aligned Ruckers double. The alignment was done in the simplest way: the lower manual keys were re-ordered, and keys from an (Andreas Ruckers?) harpsichord were used to fill out the bass octave of the upper manual. A second set of 8'

strings was added, effectively lengthening the scale, since the 8' nut was not moved (ie. the van Blankenburg problem).

The soundboard painting is in good condition, and the outer case has a beautiful red chinoiserie decoration. The inside of the lid is painted with a scene depicting the contest between Apollo and Pan, the front flap depicts Apollo and the Muses and both are probably by Artus Wolfort (1581-1641), Antwerp, an almost exact contemporary of Ioannes Ruckers. The keys have many original arcades.

The instrument was restored in 1974 by Kurt Wittmayer, and is one of the best examples of the beauty and clarity of the sound of a Ruckers harpsichord.

Literature:

Boalch # 63; p. 123-128, Reuter, (1968); p. 49, van der Meer (1971b); p. 118, 143 & Plates 4 and 5, *ibid*, (1971c); p. 81, O'Brien (1974a); p. 266, Lambrechts-Douillez (1977); p. 97-108, Wittmayer (1977).

Former owners: owned by the Landgrave of Landsberg-Velen, Schloss Ahaus, and on loan to the Erbdrostenhof, Münster.

1642a IR

Ioannes Ruckers, 1642, 5-voet muselar virginal.

Location: Musikmuseet, Stockholm

Ruckers number: 5/78. Rose diameter: 70/71 mm (see Photo 7-26).

Case dimensions: Length: 1474 mm

Width: 486 mm



Height: 202 mm without the baseboard

Width of keywell: 652 mm

Scalings: C/E = 1270 mm,  $c^2$  = 304 mm,  $c^3$  = 155 mm

Ruckers papers: type 2 - keywell and faceboard

type 12 - front flap and toolbox lid

type 1 - lid background

type 8 - lid border

type 17 - soundwell spine and sides

type 6 - soundwell behind faceboard

Ruckers motto: lid- MVSICA LABORVM DVLCE LEVAMEN

#### General description:

Except for those in the lid, the papers on this instrument are in poor condition. The outer surface of the case is painted vermillion red, but underneath this the original green porphyry marbled decoration can be seen.

Probably in the 18th century the original compass was increased to C to  $c^3$  chromatic. This was again reduced to C/E to  $c^3$  in a recent restoration by moving the keywell braces back to their original positions, and by replacing the old cut-down left-hand piece of faceboard and moulding with a new piece. There was once an harpichordium, probably operating up to f! The strings are now not properly spaced on the straight section of the right-hand bridge for the (equally spaced) harpichordium hooks. Thus the bass scalings are not quite those of the original state.

The rose is of a unique type among those of Ioannes Ruckers. Like the earlier roses this one has a star-shaped pattern on the back surface caused when a backing plate

with channels in it to bleed off the excess lead was pressed against the back of the mould. It has a larger diameter than the earlier Ioannes virginal roses and the angel's harp faces to his right instead of to his left. Something seems to have happened to the cast for the earlier rose, and so this rose was cast just before Ioannes' death in 1642. Quite naturally it was this later casting which was copied by Couchet for his virginal rose, and not the somewhat smaller earlier Ioannes Ruckers rose.

Literature:

Boalch #63a; p. 133, 135, van der Meer (1971c).

1642b IR

Ioannes Ruckers, 1642, aligned double-manual harpsichord.

Location: Mr. Hugh Gough, New York, N.Y.

Ruckers number: St/24

Present compass:  $G_1/B_1$  to  $d^3$ .

General description:

This is a very fine example of a Ruckers aligned double-manual harpsichord. The enlarged compass of  $G_1/B_1$  to  $d^3$  was obtained by reducing the octave span of the keyboards and fitting in the added  $c^{\#3}$  and  $d^3$  into the original space between the keyblocks. Space for the extra treble notes was obtained by extending the bridges and nuts in the treble.

The interior of the lid and lid flap are decorated with very fine paintings showing scenes from classical mythology. The exterior of the case has italianate vine-

work decoration and the instrument sits on a delicate gilt stand.

Literature:

Boalch #64; p. 431, Musical Times, Vol. XLV (1904); p. 170 Catalogue 3 (1909); p. 418-419, Marcuse (1952); p. 49, van der Meer (1971b); p. 119, 143 & Plate 6, *ibid*, (1971c); p. 4-6, Gough (1971); p. 272, Lambrechts-Douillez (1977); p. 58-59, Koster (1980).

Former owners: Cornelius Winklaar, Zaandam (1832); F.R. Leyland of Speke Hall and South Kensington; Countess of Dudley; Richard Newton, Henley-in-Avon.

Andreas Ruckers

(1605) AR

Andreas Ruckers, undated, single-manual harpsichord.

Location: Vleeshuis Museum, Antwerp, No. VH 2136.

Ruckers number: St/2. Rose diameter: 62 mm.

Case dimensions: Length: 1826 mm

Width: 723 mm

Height: 240 mm including the baseboard

Width of keywell: 692 mm

Present disposition: 2 x 8'.

Original scalings: C/E = 1381 mm,  $c^2 = 356$  mm,  $c^3 = 178$  mm

General description:

The existence of 45 original tuning pins, 45 4' hitchpins, and the conformity to the 49 cm rule, all confirm the original C/E to  $c^3$  compass of this harpsichord. The altered state seems to have had 48 notes, suggesting

perhaps C,D to  $c^3$ . But the second set of 8' tuning pins is staggered to indicate their note names in the French way, and these read to give  $e^b3(?)$  as the top note, with the bottom note being indeterminate since the staggering of the pins does not read anything intelligible.

The 8' nut is a modern replacement in oak, but is in the same position as the original. The lid and lid flap are original, and are painted on the inside. The lid flap seems to have been painted by the same artist (modern) who painted the inside of the 1646 IC double in Brussels.

Most of the soundboard painting is not original, but what little remains, the type of rose, and the Ruckers number suggest that the date of this harpsichord is about 1605.

Literature:

Boalch #130; p. 26, Génard (1859); p. 26, *ibid* (1876); p. 50, 52, van der Meer (1971b); p. 113, *ibid* (1971c); No. 35 & p. 19-20 *Catalogus* (11); p. 18-19, Lambrechts-Douilliez (1970a); p. 152, *ibid* (1981a); p. 83, 85, O'Brien (1974a).

Former owners: formerly exhibited in the Steen Museum, Antwerp.

1608 AR

Andreas Ruckers, 1608, aligned double-manual harpsichord.

Location: Russell Collection, Edinburgh, No. 3.

Ruckers number: St/19. Rose diameter: 65 mm.

Case dimensions: Length: 2230 mm

Width: 794 mm

Height: 268 with, 255 without baseboard

Width of keywell: 764 mm

Present compass: C to  $d^3$

Present disposition (modern):

← 4'

→ 8'

← 8' dogleg

← 8'

Present scalings:

8': C = 1661 mm,  $c^2$  = 379 mm,  $d^3$  = 169 mm

4': C = 950 mm,  $c^2$  = 178 mm,  $d^3$  = 79 mm

Ruckers papers: type 6 - soundwell

Ruckers motto: 'ACTA VIRVM PROBANT' is written on the base-board inside the keywell, and is presumably copied from the original keywell flap.

General description:

This is a very fine instrument which has suffered a number of alterations. The original lower manual keys and keyframe survive and these indicate that after an initial simple alignment to give a  $G_1/B_1$  to  $c^3$  compass, the compass was made C to  $d^3$ . Because of the effect of lengthening the scale when adding the second (long) 8' (the van Blankenburg problem), and because the keyboard was shifted to the left, effecting a further lengthening of the scale, both the 8' and 4' nuts were replaced and new nuts were positioned closer to the gap to reduce the scalings. Unfortunately the exact disposition and number of registers at this stage of the instrument's history cannot now be determined.

At some time around the end of the 18th century, the instrument was converted to a pianoforte, still with the compass C to d<sup>3</sup>. Then in 1928, it was converted back to a harpsichord with a new upper manual, and in the process the piano action was lost. The stand was also cut down, presumably to make it a more comfortable height. In 1953 new keyboards were again made with the spurious compass G<sub>1</sub>/B<sub>1</sub> to c<sup>3</sup>,d<sup>3</sup>, and it was given an equally spurious disposition with a peau de buffle, shove coupler and a mixture of hard leather and quill registers.

The lid and lid flap both have very fine paintings and are signed P.C. IV (Pieter Codde (1619-1666)). The outer case is painted in green lacquer with gold and black vine-work borders. The soundboard painting has virtually all disappeared.

Literature:

Boalch #72; Lot 1904, Catalogue (4) (1927); p. 43, Plate 38  
 Russell (1959); p. 5 & Plate, Lambrechts-Douillez (1970b);  
 p. 7 (No. 3), Newman and Williams (1968); p. 104, 141, van  
 der Meer (1971c); p. 38-39, Barnes (1971a).

Former owners: C. van Raalte; Sir Arthur Wheeler, Brownsea  
 Island; John Morley, London; Alex Hodson, London; Dulcie  
 Lawrence Smith, Wickambrook, Suffolk; Raymond Russell,  
 London.

Andreas Ruckers, 1609, ravalé single-manual harpsichord.

Location: Prof. Peter Williams, Edinburgh.

Rose diameter: 65 mm

Case dimensions: Length: 1834 mm

Width: now 787 mm

Height: 243 mm including the baseboard

Width of keywell: now 756 mm

Present compass: C to  $d^3$

Present disposition (modern):

← 8'

← 4'

→ 8'

Present scalings (modern):

8': C = 1458,  $c^2$  = 352 mm,  $d^3$  = 176 mm

4': C = 832 mm,  $c^2$  = 176 mm,  $d^3$  = 82 mm

Ruckers papers: type 13 - soundwell

General description:

About 70 mm has been added to the treble side of this single-manual harpsichord to widen its compass from the original C/E to  $c^3$ . From the style of the outer case decoration, which is now veneered, and the hinges, the rav-  
 alement must have taken place in the 18th century in Eng-  
 land. The soundboard painting is in good condition and most  
 of the printed papers are original. Unfortunately the 8'  
 bridge is a replacement (18th century) and the keys, reg-  
 isters, jacks, nuts, scalings, etc. are all those of Dol-  
 metsch who carried out a major 'restoration' of the instru-  
 ment which changed the 18th century compass, scalings and  
 plucking points.

## Literature:

Boalch # 73; p. 50, van der Meer (1971b); p. 106, *ibid*, (1971c).

Former owners: Arnold Dolmetsch, Haselmere; Herbert Lambert, and then Mrs. Lambert, Bath.

(c1610)a AR

Andreas Ruckers, undated, 2½-voet virginal at a pitch of R + 9.

Location: Private, Australia

Ruckers number: ?/51. Rose diameter: 65 mm

Case dimensions: Length: 711 mm

Width: 380 mm

Height: 185 mm at the back, 76 mm at the front, both including the baseboard

Width of keywell: 651 mm

Scalings: C/E = 606 mm,  $c^2 = 147$  mm,  $c^3 = 75$  mm

## General description:

This is a unique example of a Ruckers instrument at R + 9, and is the only 2½-voet Ruckers clavecimbel. Aside from its unusual pitch, it has a number of other features which are not normal with Ruckers instruments. Because of the extremely short strings demanded by such a high pitch, there is not enough space between the bridges for the normal width of register and jacks. The jacks and jackslots are therefore narrower than normal, and the bass and treble key tails are cranked in towards the middle of the instrument to line up with the jacks. Also the case has an



unusual shape, being high at the back and low at the front, with sloping case sides.

Unfortunately the instrument is undated and, without any other instruments of its type to compare it to, its number does not help in giving it an approximate date. However, details of the style of the rose and the soundboard decoration date the instrument to the period around 1610. The soundboard lacks the usual flower, bird and insect decoration, but is painted with the usual scallops and arabesques, and a red and white chain pattern around the rose. The case is painted with the usual mottled green faux porphyry marble, and the inside of the lid has a fine painting of courtiers in a rural setting near a castle and waterway. (For a full description and photographs, see Appendix 3)

Literature:

(There is no reference to this instrument in the literature.)

Former owners: Hans Adler, Johannesburg, South Africa.

1610b AR

Andreas Ruckers, 1610,  $4\frac{1}{2}$ -voet muselar virginal at a pitch of R + 4.

Location: Museum of Fine Arts, Boston.

Ruckers number: 4x/35. Rose hole diameter: 65 mm.

Case dimensions: Length: 1307 mm

Width: 454 mm

Height: 204 mm with, 191 mm without the  
baseboard

Width of keywell: 650 mm

Scalings:

Note	String length	Plucking point
c <sup>3</sup>	137 mm	81 mm
f <sup>2</sup>	201	95
c <sup>2</sup>	276	121
f <sup>1</sup>	398	147
c <sup>1</sup>	546	197
f	722	230
c	876	281
F	1057	327
C/E	1108	354

Ruckers papers: type 12 - keywell, faceboard and front flap

type 13 - soundwell and (n/o) lid border

type 1 - lid background (n/o)

Ruckers mottoes (not original): OMNIS SPIRITUS(Sic)

LAUDET(Sic) DOMINUM(Sic)

General description:

Although the rose is not original, the style of the soundboard painting is correct for an Andreas Ruckers instrument of 1610. This is the only  $4\frac{1}{2}$ -voet muselar Ruckers virginal that exists, and the only Ruckers muselar virginal in which the left-hand jackrail support, instead of being attached to the soundboard, is attached to the side of the left-hand keywell brace, and flies up over the soundboard. The jackrail, toolbox flap, front flap and lid are all not original. But the harpichordium with its finger stop, and

iron hold-down pins are original and in relatively good condition. Many of the jacks are original and some of the keys have remnants of their original arcades.

Literature:

Boalch #74; No. 295 & Photo, Bessaraboff (1941); Catalogue (5), (1941); Plate 24, Galpin (1965); p. 45, 46, Russell (1959); p. 134, 135 van der Meer (1971c).

Former owners: Canon F.W. Galpin.

1613a AR

Andreas Ruckers, 1613, 4-voet spinett virginal at a pitch of R + 5.

Location: Brussels Museum, No. 274.

Ruckers number: 4/11. Rose diameter: 64 mm.

Case dimensions: Length: 1139 mm

Width: 444 mm

Height: 189 mm with, 178 mm without the  
baseboard

Scalings: C/E = 921 mm,  $c^2 = 244$  mm,  $c^3 = 117$  mm

Ruckers papers: none of the present papers is original.

General description:

The scalings and compass of this virginal are original and confirm that it was originally at quint pitch. The case has been re-painted and the interior has been re-papered with modern papers. The soundboard has lost all traces of its original decoration.

Although the jacks and register guides are not original, the soundboard, soundboard barring, bridges, framing,

etc. are original so that it remains a good example of its type.

Literature:

Boalch # 76; No. 274, Mahillon Vol. 1 (1893-1922); p. 47, Russell (1959); p. 131, van der Meer (1971c); p. 84-85, O'Brien (1974a).

Former owners: Mathias van der Gheyn, 1740; Chevalier X. van Elvyck, Leuven.

1613b AR

Andreas Ruckers, 1613, 4-voet spinett virginal at a pitch of R + 5.

Location: Brussels Museum, No 2928.

Ruckers number: (4)/40. Rose diameter: 63 mm.

Case dimensions: Length: 1138 mm

Width: 440 mm

Height: 190 mm including the baseboard

Scalings: C/E = 916 mm,  $c^2 = 243$  mm,  $c^3 = 122$  mm

Ruckers papers: type 12 - keywell and faceboard

type 6 - soundwell; inked on (from original?)

type 2 (n/o) - front flap

type 7 (n/a) - lid border

Ruckers motto: lid (n/o) - OMNIS SPIRITVS LAVDET DOMINVM

General description:

Like the 1613a AR, this virginal has its original scalings, but has lost its original papers and soundboard decoration. The case has been re-painted, but the original imitation porphyry marble decoration is visible through faults in the later paint, although it is difficult to tell

whether the base colour is dark red or dark green. The jacks are original, although the tongues have non-original leather plectra. The register leather on the soundboard and the lower guide (of walnut) are not original. The top two natural keylevers,  $b^2$  and  $c^3$ , have traces of their original arcades.

Literature:

Boalch #77; No. 2928, Mahillon, Vol. 2, (1893-1922); p. 47, Russell (1959); p. 131, van der Meer (1971c).

Former owners: M. Haveaux, Rebecq-Rognon; C Snoeck, Ghent.

1613c AR

Andreas Ruckers, 1613, child virginal.

Location: Cincinnati Art Museum, Cincinnati, Ohio, No.

1914.300. Rose diameter: 66 mm

Case dimensions: Length: 835 mm

Width: 330 mm plus 96 mm keyboard pro-

jection

Height: 140 mm with the baseboard

Present compass: C/E to  $d^3$ .

Ruckers papers: type 12 - around outside of the case

type 9 - in soundwell

General description:

This instrument is a typical 'motherless child', and is in reasonably good condition. Some of the soundboard decoration has disappeared, but the arabesques and long sinewy leaves and stems of the flowers are typical of the soundboard painting style of Andreas Ruckers instruments of about 1613.

The action is entirely a replacement, with new key-levers, key facings, jacks, etc. The additional two notes have been squeezed in by narrowing the octave span, and by re-piercing the jackslots through a new wooden covering replacing the original leather jackslides.

Literature:

Boalch #133; No. 52, Catalogue (6) (1949); p. 139, van der Meer (1971c).

Former owners: William Howard Doane, Cincinnati.

1614 AR

Andreas Ruckers, 1614, ravalement double-manual harpsichord.

Location: Mr. Leonard Elmhirst, Dartington Hall, Devon.

Rose diameter: 65 mm.

Present compass:  $A_1$  to  $e^3$

Ruckers papers: type 13 - soundwell (parts not original)

General description:

This is a typical English 18th century ravalement of a Ruckers harpsichord. The case was widened and the octave span narrowed to accommodate the extra notes. New keyboards, jacks and slides were made and the bridges and nuts were re-pinned and extended. The harpsichord now has a lute register, and this was also probably a feature of the 18th century alteration. However, subsequent 'restorations' have destroyed any evidence which might have enabled a positive dating of the lute. The outer case and lid are veneered. Although the blue arabesques, scallops and 'snowflakes' are re-touched, the basic paintwork of the

soundboard is in good condition. The inside of the main lid is painted with a depiction of St. Theresa's home town of Avila in Spain, with the cathedral which breaches the town embattlements. The painting is 17th century and is attributed to van der Meulen (1632-1690).

The instrument is greatly over-restored. The spine and cheek side, the internal framing, jacks and slides, and baseboard are all modern. The soundboard barring, with many stifle bars under the 8' bridge, is all modern.

Literature:

Boalch #78; No. 12, Boddington Catalogue; p. 110, van der Meer (1971c).

Former owners: Dr. Blow, Bath; Rev. John Bower, Bath; General Hopkinson, J. Kendrick Pyne and Boddington College, Manchester; Howard Head, London; W.C. Priestley and Messrs. Angell, Bath.

1615 AR

Andreas Ruckers, 1615, aligned double-manual harpsichord.

Location: Vleeshuis Museum, Antwerp, No. VH2113.

Ruckers number: St/4. Rose hole diameter: 65 mm.

Case dimensions: Length: 2244 mm

Width: 789 mm

Height: 265 mm including the baseboard

Present compass:  $G_1/B_1$  to  $c^3$

Scalings (Upper manual pitches):

8':  $G_1/B_1 = 1654$  mm,  $c^2 = 351$  mm,  $c^3 = 176$  mm

4' :  $G_1/B_1 = 934$  mm,  $c^2 = 175$  mm,  $c^3 = 87$  mm

Ruckers papers: type 1 - lid background

type 12 - keywell

type 13 - lid border, soundwell, keyblock  
sides

Ruckers mottoes: main lid - CONCORDIA RES PARVÆ CRESCVNT

DISCORDIA MAXIMÆ DILABVNTVR

lid flap - OMNIS SPIRITVS LAVDET DOMINVM

General description:

Although only one of the original keys remains it is clear from the re-pinning of the lower-manual balance rail that the compass was altered from C/E to  $f^3$  to  $G_1/B_1$  to  $c^3$ . This alignment was carried out without adding a third set of strings and, in fact, without removing the wooden block from the bass side of the upper-manual keyboard.

The rose is missing and so the authorship of the instrument has to be decided on the basis of the workmanship and decoration. Both Andreas and Ioannes were using roses of diameter 65 mm up until about 1616 so this provides no clue. But the decoration of the soundboard and especially the lid, is clearly that of the Andreas Ruckers decorator. The style of the wreath around the rose, the shape of the sinewy leaves and stems on the flowers, and the depiction of various types of animals are all characteristic of the early Andreas decorator. Further, the date is painted on the soundboard, whereas the Ioannes decorator painted the date on the wrestplank during this period. And also characteristic of Andreas is the square cross-section of the treble part of the 4' hitchpin rail instead of the narrow,



high hitchrail found on Ioannes harpsichords.

Although it is in a poor state of preservation, this harpsichord retains a number of original features. The buff stop, registers, and register hold-down blocks are all original. It is one of only three original Ruckers doubles (the others are the 1616 HR and the 1640b AR) to retain its transposing plates for the  $e^b/g^\#$  doubled strings. The keyboard rack cloths are original. The upper manual rack has three layers of cloth above the keys and two layers below; the lower manual has 4 layers above the keys and the lower cloths are missing. Using a virginal key of the correct length from the front of the key to the balance point, the depth of touch of the upper manual was found to be 6.5 to 7 mm.

Except for the soundboard painting the decoration is in good order. The exterior of the case is marbled with a unique "fan" white scumble on the usual reddish-brown background.

Literature:

Boalch #79 = #80; p. 29, de Burbure (1863); p. 334, van der Straeten vol. 3 (1875); p. 79 & Plate 3, Génard (1876); p. 417f, Marcuse (1952); p. 65, Hubbard (1965); p. 34, Ripin (1968); P. 16 & Plate 7, Lambrechts-Douillez (1970a); p. 48, van der Meer (1971b); p. 117, 144 & Plate 3, *ibid* (1971c); p. 47, Libin (1975); p. 37, O'Brien (1977a); p. 71, Germann (1978); p. 133, Henkel (1979a); p. 154 & Plate 425, Lambrechts-Douillez (1981a); No. 33 Catalogus (11) (n.d.).

Former owners: St. Jacobskerk, Antwerp; Steen Museum, Antwerp.

Andreas Ruckers, 1617, 6-voet spinett virginal.

Location: Deutsches Museum, Munich.

Ruckers number: 6/23. Rose hole diameter: 68 mm.

Case dimensions: Length: 1658 mm

Width: 472 mm (originally about 497 mm)

Height: 241 mm including the baseboard.

Present compass: C to  $f^3$

Original scalings: C/E = 1379 mm,  $c^2$  = 367 mm,  $c^3$  = 179 mm

General description:

The compass of this, one of the few Ruckers spinett 6-voet virginals, has been widened without altering the original scalings or plucking points. Both keywell braces were moved to widen the keywell for the extra notes, and the extra jackslots were pierced through the soundboard. The lower guide is entirely new. Additions were made to the original keyframe in both the treble and bass, and both the original and added keylevers received new touchplates (ebony naturals and bone-topped sharps). The bridges were extended to carry the additional strings.

The lid has engraved papers printed in both French and Flemish (almost certainly in what is now Belgium) with the year 1720 in numerous different chronograms. This suggests that this may be the date of the alteration, or at least it indicates the earliest possible date of the alteration. The rose is the same casting as the 1633a in Brussels, and suggests that both instruments at one time passed through the hands of the same restorer (or even that this replacement rose was put in the instruments in the 18th

century).

The original soundboard painting has entirely disappeared, and the present naive soundboard painting is of a more recent date.

Literature:

Boalch #82; p. 239-247, Wallner (1925); p. 105, 130 & Plates 8 and 9, van der Meer (1971c).

1618 AR

Andreas Ruckers, 1618, single-manual harpsichord.

Location: Berlin Musikinstrumentenmuseum, No. 2224.

Ruckers number: St/1. Rose diameter: 65 mm.

Case dimensions: Length: 1828 mm

Width: 728 mm (n/o)

Height: 229 mm without, 242 mm with the  
baseboard

Width of keywell: 697 mm (n/o)

Scalings:

8': C/E = 1368 mm,  $c^2 = 352$  mm,  $c^3 = 177$  mm

4': C/E = 745 mm,  $c^2 = 170$  mm,  $c^3 = 80$  mm

Ruckers papers: type 1 - lid background

type 8 - lid border

type 13 - soundwell

type 3 (early) - keywell

Ruckers mottoes: lid - 1618 / SOLI / DEO GLORIA

General description:

Probably in the 18th century, the harpsichord received a grand ravalement, and from the re-numbering of the keys

it is clear that the compass was widened to C to  $f^3$ . It appears from the plugged tuning pin holes in the wrestplank that the disposition was both 2 x 8', and 1 x 8', 1 x 4' with this widened compass. At some time (pre 1922) it was brought back to its original width and compass, and amazingly retained its original scalings and plucking points, registers and lower guides, and many of its original keys and jacks. The outer decoration and the tuning pins are not original.

The original jacks seem to have been made by the same person who made the jacks of the 1618b IR. The baseboard is original and retains the scribed plan of the instrument on it. Originally there was a buff, split between  $f^1$  and  $f^{\#1}$ , and there are the usual holes for the wire hold-down pins in the 8' bridge, and there is a plugged square hole in the cheek for the usual projection of the right-hand portion of the buff register.

Literature:

Boalch #83; No. 2224 & Plate IX, Sachs (1922); p. 63f & Plate IX Ernst (1967); p. 27, Otto (1965); No. 13, p. 64 & Plate, *ibid.* (1968); p. 111, 115, 144, van der Meer (1971c); p. 51, *ibid.* (1971b); p. 53, Berner (1971).

Former owners: C. Snoeck, Ghent.

1620a AR

Andreas Ruckers, 1620, 4-voet spinett virginal at a pitch of R + 5.

Location: Smithsonian Institution, Washington, No. 303,543.

Ruckers number: 4/69. Rose diameter: 65 mm.

Case dimensions: Length: 1143 mm

Width: 450 mm

Height: 190 mm with the baseboard

Scalings: C/E = 929 mm,  $c^2 = 242$  mm,  $c^3 = 114$  mm

Ruckers papers: type 1 - lid background

type 8 - lid border

type 12 - keywell, faceboard and front flap

type 17 - soundwell

type 2 ( $\frac{1}{2}$  repeat) - toolbox lid

Ruckers motto: lid- SIC TRANSIT GLORIA MVNDI.

General description:

This virginal retains many of its original features including many different original papers inside, its original keys and touchplates, its original key arcades and 12 original jacks. The case exterior, especially the spine, shows the typical mottled surface texture of the original (green porphyry imitation marble?) paint underneath a layer of more recent red-brown paint. The balance rail cloth is original, but the leather or card squares normally found on the sharp balance pins are missing. The cloth on the tails of the keys on which the jacks rest, and the upper touch rack cloths are original. Much of the soundboard painting is of later date, but follows the outlines of the original.

It was restored in 1959 by William Dowd and is in playing condition.

Literature:

Boalch #85; p. 28, No. 13 Steinert (1892-3); p. 176-177, Hirt (1955); p. 46 & Fig. 6, Checklist (1967/75); p. 6f,

& Plates 2-5, Hoover (1969); p. 131, van der Meer (1971c); p. 61, Germann (1978).

Former owners: Morris Steinert, New Haven, Conn.; Hugo Worch, Washington, D.C.

## 1620b AR

Andreas Ruckers, 1620, 6-voet muselar virginal.

Location: Brussels Museum, No. 1597.

Ruckers number: 6/27

Case dimensions: Length: 1712 mm

Width: 492 mm

Height: 241 mm with, 227 mm without the  
baseboard

Width of keywell: now 695.5 mm, originally 647 mm.

Present compass: C to  $c^3$

Present scalings: C = 1528 mm,  $c^2$  = 360 mm,  $c^3$  = 175 mm

Original scalings: C/E = 1463 mm,  $c^2$  = 360 mm,  $c^3$  = 175 mm

Ruckers papers: all of the present papers are not original.

General description:

This is a normal 6-voet muselar virginal which has a keywell widened to convert the original short-octave bass into a chromatic bass octave down to C. The bass keywell brace was moved to the left and four new keys were added to a bass extension of the keyframe. The treble notes were left unaltered, and thus the scalings and plucking points of the notes from E to  $c^3$  are original.

Although the instrument has an impressive appearance most of the decoration is not original. The outer paint of the case and lid is not original, and all of the printed

paper decorations are modern (almost certainly the papers which Closson had printed for the museum instruments). Some of the soundboard painting is visible but its general condition is not very good.

Literature:

Boalch #86; No. 1597, Mahillon (1893-1922); Plate XXV, p. 105, James (1930); p. 133, 136, van der Meer (1971c); p. 84-85, O'Brien (1974a); p. 462, *ibid* (1979).

Previous owner: V. & J. Mahillon, Brussels.

Andreas Ruckers, 1620, ravalé aligned double harpsichord.

Location: Berlin Musikinstrumentenmuseum, No. 2230.

Ruckers number: St/68. Rose diameter: 65 mm.

Case dimensions: Length: 2248 mm

Height: 254 mm without the baseboard

Present compass:  $G_1/B_1$  to  $f^3$ .

Present disposition: (uncertain).

Present scalings:

$$8': G_1/B_1 = 1675 \text{ mm}, c^2 = 361 \text{ mm}, f^3 = 138 \text{ mm}$$

$$4': G_1/B_1 = 948 \text{ mm}, c^2 = 168 \text{ mm}, f^3 = 70 \text{ mm}$$

Original scalings:

$$8': G_1/B_1 = 1663 \text{ mm}, c^2 = 343 \text{ mm}, c^3 = 167 \text{ mm}$$

$$4': G_1/B_1 = 948 \text{ mm}, c^2 = 168 \text{ mm}, c^3 = 79 \text{ mm}$$

General description:

The alignment and ravalement were carried out in a manner similar to that of the 1646 IC. The original keyboards and string spacing were retained, but a second set

set of 8' strings was added (perhaps when the alignment occurred and before the widening of the case). The case, soundboard, bridges, registers and keyboards were extended to increase the treble compass to  $f^3$ . The 8' nut was not moved to shorten the scalings which were effectively lengthened when the second 8' string was added. The wrestplank is not original, but the veneer was used from the old wrestplank to cover the new one.

The bridges and 4' hitchpin rail show the doubled  $e^b/g^\#$  pins. Also the wrestplank veneer shows the plugged double tuning pin holes for these notes.

The decoration in the keywell is very similar to that found on the 1613b AR and may date from the time in which both instruments were in the Snoeck Collection. The outer case and lid are painted in a rather naive grisaille. The stand, although painted grey to match the case is an original turned and carved oak stand.

Literature:

Boalch #84; No. 2330, Sachs (1922); p. 239-243, Berner (1950); p. 27 & Plate p. 135, Otto (1965); p. 63-75 & Plate 12, Ernst (1967); p. 56-60, Berner (1971); p. 49, van der Meer (1971b); p. 120, 141, *ibid* (1971c).

Former owners: C. Snoeck, Ghent.

Andreas Ruckers, 1620, 6-voet muselar virginal.

Location: Private, Gif-sur-Yvette, France.

Rose diameter: 66 mm.



Case dimensions: Length: 1706 mm

Width: 492 mm

Height: 244 mm with, 228 mm without the  
baseboard

Width of keywell: now 781 mm, originally 652 mm

Present compass: C to g<sup>3</sup>

Ruckers papers: type 2 - soundwell behind faceboard

type 17 - soundwell on spine and sides

type 1 - lid background

type 10 - lid border

type 3 (n/o) - keywell and faceboard

type 14 and type 2 (both n/o) - flap

type 8 (n/o) - soundwell behind the name-  
board

Ruckers motto: lid - ARS NON HABET INIMICVM NISI IGNORANTEM

General description:

This is a ravalé 6-voet muselar virginal. The original keys and touchplates were left with their original octave span and additions were made to the bass and treble sides of the keys and keyframe. Both keywell braces were moved to make space for the additional notes. It is not clear whether the present bridges date from the original alteration or from a more recent repair. They are at any rate longer than the original bridges would have been, in order to carry the added strings of the ravalement.

The soundboard painting is somewhat re-touched, but in basically good condition and typical of the style of other Andreas instruments of this period. The date on the

soundboard has, typically, the usual red arabesque flourishes on either side of it.

Literature:

Boalch #88.

Former owner: Henri Prunières.

## 1621 AR

Andreas Ruckers, 1621, a single-manual harpsichord converted into a grand ravalement double-manual harpsichord.

Location: Private, France.

Present compass:  $F_1$  to  $f^3$ .

General description:

This harpsichord represents a full-scale ravalement of a small single-manual Ruckers harpsichord into a large French double. The soundboard is a composite structure consisting of planks of Ruckers soundboard wood intermixed with new planks of wood. The Ruckers soundboard wood is painted in the style of the Andreas painter of 1621, whereas the new wood is painted more in the style of the Andreas painter working after about 1626.

Literature:

(There is no reference to this instrument in the literature.)

## 1623 AR

Andreas Ruckers, 1623, ravalé double-manual harpsichord.

Location: Private, England.

Rose diameter: 65 mm

Present compass:  $F_1, G_1$  to  $f^3$

## Present disposition:

← 4'

→ 8'

← 8' dogleg

## Present scalings:

$$8': F_1 = 1743 \text{ mm}, c^2 = 328 \text{ mm}, f^3 = 135 \text{ mm}$$

$$4': F_1 = 1008 \text{ mm}, c^2 = 172 \text{ mm}, f^3 = 63 \text{ mm}.$$

## General description:

This is another good example of an English grand ravalement of a normal Ruckers double-manual harpsichord. The case has been widened, the soundboard, bridges and nuts have been extended. The keyboards, registers and jacks are all in the style of typical English instruments of the 18th century. The inside and outside of the case have been veneered and the ornate brass strap hinges complete the illusion of an English 18th century harpsichord.

The soundboard and painting are very dark but in basically good condition. Remarkably, about a third of the 18th century strings survive and are in regular use on this instrument and tuned to modern pitch! Unfortunately the original bird quills have been replaced by hard leather plectra.

## Literature:

Boalch #91; p. 110; van der Meer (1971c).

Former owners: John Hullah, London; Mrs. J. Cyriax, London; Capt. J. Lane, Wanstead; Messrs. Morley, London; E.W. Clark, Rickmansworth; Mrs. Grace Clark.

Andreas Ruckers, 1624, normal double-manual harpsichord converted into a ravalé single-manual harpsichord.

Location: Gruuthuse Museum, Bruges, No. 2297.

Rose diameter: 65 mm

Case dimensions: Length: now 2136 mm

Width: now 941 mm

Height: 256 without, 269 mm with the  
baseboard

Width of keywell: now 910 mm, originally about 767 mm

Present compass:  $F_1$  to  $f^3$

Present disposition:

← 4'

← 8'

→ 8'

Present scalings:

8':  $F_1$  (not measured),  $c^2 = 261$  mm,  $f^3 = 133$  mm

Ruckers papers: type 1 - lid background

type 10 - lid border

type 17 - jackrail

Ruckers motto: lid - 1624 / MVSICA LAETITIAE / COMES

MEDICINA DOLORVM

General description:

From the join in the case-sides it is clear that this instrument was enlarged in width from a smaller harpsichord. The existence of 3 doubled  $e^b/g^\#$  4' hitchpins, the original inside case width of 767 mm, and the case depth and original 50 note compass are all characteristic of the usual Ruckers double-manual transposing harpsichord. The extension of

the compass was carried out using the original string spacing and keyboard octave span. The extra notes in the bass were added without widening the bass side of the case. the notes from B to c<sup>3</sup> were moved upwards towards the treble, utilizing shorter strings to give scalings which (except for the top few notes) are suitable for brass stringing. There is a buff stop in the style of J.P. Bull; a roll of cloth on a bar operated by a knee lever, and carried out in the 18th century in Flanders.

The jackrail retains its original cloths; 2 layers of black woollen cloth tacked in place with 8 tacks. This is thus probably the only double-manual jackrail with its original cloth. Many of the jacks and tongues are original. The stand is original and like that of the 1620c AR in Berlin, but has unfortunately been cut down and has lost its turned pillars in the process. The papers of the keywell and soundwell still exist, but are invisible under the present reddish-brown paint.

The decoration of the inside of the lid is in good condition, and even with much staining, the colours of the painting of the flowers, fruit and birds are extremely bright and transparent.

Literature:

Boalch #92; p. 49, van der Meer (1971b); p. 121, 123, 125, 141, 145, *ibid*, (1971c); p. 72, Germann (1978); p. 38, Footnote 5, Ripin (1968).

Andreas Ruckers, undated, child virginal.

Location: Sterckshof Museum, Deurne, No. S2623.

Ruckers number: k/36. Rose diameter: 63 mm.

Case dimensions: Length: 814 mm

Width: 301 mm

Height: 136 mm without the baseboard

Width of keywell: now 680 mm

Present compass: C,D to  $c^3$

Present scalings: C = 685 mm,  $c^2$  = 165 mm,  $c^3$  = 76 mm

Original scalings: C/E = 672 mm,  $c^2$  = 176 mm,  $c^3$  = 86.5 mm

Ruckers papers: type 9 - soundwell

type 12 - outside of case

General description:

This is a typical 'motherless' child. The compass was extended by widening the keywell on the bass side by roughly one natural width, and by reducing the octave span of the keys to squeeze the larger compass into the remaining enlarged space. The tails of the keylevers are splayed out to use the original jackslots, but add one note in the treble and 3 notes in the bass.

The style of the soundboard painting, with a circle around the rose, and of the arabesques, indicates a date between about 1615 to 1628, and the date 1626 has been estimated from the Ruckers number.

Literature:

(Not in Boalch); p. 83, O'Brien (1974a).

Andreas Ruckers, 1627, single-manual harpsichord at quint pitch.

Location: Gemeentemuseum, The Hague

Ruckers number: 4St. Rose diameter: 62 mm.

Case dimensions: Length: 1232 mm

Width: 694 mm

Height: 190 mm including the baseboard

Width of keywell: 669 mm

Scalings:

8': C/E = 886 mm,  $c^2 = 238$  mm,  $c^3 = 121$  mm

4': C/E = 543 mm,  $c^2 = 117$  mm,  $c^3 = 60$  mm

Ruckers papers: type 1 - lid background

type 27 - lid border

type 28 - soundwell

type 12 - painted in the keywell

Ruckers motto: lid - SIC TRANSIT GLORIA MVNDI

General description:

This is the only extant Ruckers harpsichord at a pitch of R + 5. Like the 4-voet virginals at this pitch it was also referred to by its length as a 4-voet staartstuk, since it is labelled 4 St. It is however almost 4 duimen longer than 4 voeten. Probably at some time in the eighteenth century the compass was changed to A to  $f^3$  by re-arranging the keys, but still using the original registers and string spacing. The disposition was also changed to 2 x 8' leaving the 4' bridge unused. Adding the extra (long) 8' string and re-arranging the keys had the effect of lowering the pitch to the semitone between R and R + 1,

and probably for practical reasons so that it would play with other instruments, it may have been tuned to the contemporary 18th century pitch. A restoration of 1964 returned the instrument to its original compass, disposition and pitch.

The soundboard decoration and the paper patterns are in very good condition. The balance rail cloth appears to be original. The belly rail was used as a backing piece during the cutting of the lower guide and reveals many clues about the method of cutting the leather and wood of Ruckers lower registers.

The instrument has a very fine original turned and arcaded oak stand.

Literature:

Boalch #94; p. 45 & Plate 37, Russell (1959); p. 61, Hubbard (1965); p. 117-121, van der Meer (1965); p. 209, *ibid.* (1968b); p. 114, 115, *ibid.* (1971c); p. 37, Ripin (1970a); p. 55, Rhodes and Thomas (1967); p. 85,87, O'Brien (1974a); p. 42, *ibid.* (1977a).

Former owner: D.F. Scheurleer, The Hague.

Andreas Ruckers, 1628, aligned double-manual harpsichord.

Location: Mr. Vere Pilkington, Colares, Portugal.

Present compass:  $A_1$  to  $d^3$ .

Present disposition:

← 4'

→ 8'

← 8' dogleg



Ruckers papers: type 29 - keywell

General description:

Although the rose in this harpsichord has the initials IR (put in by Raymond Russell), the instrument is undoubtedly by Andreas Ruckers. The soundboard painting style is similar to other instruments by Andreas Ruckers of this period (eg. 1627 AR). Also the rose hole is too small for the large double-manual rose that Ioannes was using in 1627 (ie from 1616 onwards). At some time the date has been altered to 1727, but the altered '6' is still faintly visible.

From the style of the black keyboards and the Louis XV stand it appears that the petit ravalement was carried out in France. New aligned keyboards were made with the compass  $A_1$  to  $c^3$  by using an octave span narrower than that used by Ruckers. The bridges and nuts were re-pinned and new registers and jacks were made.

The keywell is decorated with baroque vine-work. The outside of the case is lacquered and ornamented with narrow gold bands surrounding garlands of flowers. The inside of the lid has a fine painting of a pastoral scene.

The extension of the treble compass was carried out by the present owner by adding the notes  $c^{\#3}$  and  $d^3$ .

Literature:

Boalch #46 and #47a (listed as Ioannes Ruckers); p. 109, van der Meer (1971c).

Former owners: Raymond Russell, London.

Andreas Ruckers, 1632, 4-voet virginal with altered scalings.

Location: Brussels Museum, No. 1593.

Ruckers number: 4/38. Rose diameter: 65 mm.

Case dimensions: Length: 1136 mm

Width: 448 mm

Height: 203 mm with, 184 mm without the  
baseboard

Width of keywell: now 750 mm, originally 648 mm

Present compass: C to  $f^3$

Present scalings: C = 1034 mm,  $c^2$  = 361 mm,  $f^3$  = 130 mm

Ruckers papers: type 1 - lid background

type 10 - lid border

type 27 - soundwell

Ruckers motto: lid- SIC TRANSIT GLORIA MVNDI.

General description:

This is an unusual example of a small 4-voet virginal originally at quint pitch, whose compass has been extended and bridges moved apart to lower the pitch to roughly reference pitch. To do so the keys were squeezed together and both keywell cheeks and both keybed sides moved to extend the compass. In moving the bridges apart the scalings have become very non-Pythagorean in the treble, and obviously the bass scalings are far too short in proportion to the treble scalings.

The soundboard decoration has disappeared entirely, but the instrument retains some of its original Ruckers papers. Also traces of the original porphyry marbling are visible underneath a later paint.

The keylevers are marked with (18th century?) gauge numbers and include the notes of the ravalement.

Literature:

Boalch #98; No. 1593, Vol. 2, Mahillon (1893-1922); p. 132, van der Meer (1971c).

1633a AR

Andreas Ruckers, 1633, 6-voet msuelar virginal.

Location: Brussels Museum, No. 4600.

Ruckers number: 6/70. Rose diameter: 65 mm.

Case dimensions: Length: 1706 mm

Width: 495 mm

Height: 245 mm without the baseboard

Width of keywell: now 767 mm, originally 652 mm

Present compass: C,D to  $f^3$

Present scalings: C = 1502 mm,  $c^2$  = 357 mm,  $f^3$  = 115 mm

Original scalings: C/E = 1485 mm,  $c^2$  = 357 mm,  $c^3$  = 173 mm

Ruckers papers: type 1 - lid background

type 7 - lid border

type 3 (n/o) - keywell

type 7 (n/o) - soundwell

Ruckers motto: lid - MUSICA MAGNORVM SOLAMEN DVLCCE LABORVM.

General description:

The outer case is painted in imitation red wood-grain. But underneath the red wood-grain is the original green porphyry marbling. The soundboard painting is in very bad condition with much re-touching, but the date 1633 is clearly legible. Although the rose is a crude replacement of the original, the soundboard and lid decoration are

clearly in the style of Andreas Ruckers. The compass was extended by adding keys from another Ruckers virginal which was numbered 6/36. Some of the jacks, also with this number, were used in this instrument so that about 80% of the jacks are by Ruckers. This is one of the few 6-voet virginals to retain its original harpichordium stop. It has its original lead hooks, and its original guide blocks and hand-stop. Originally the harpichordium worked on the notes C/E to  $f^1$  inclusive. The decoration on the inside of the lid is original and in very good condition.

Literature:

Boalch #97 (and 99?).

Former owners: A Régibo, Renaix; Wanda Landowska.

1633b AR

Andreas Ruckers, 1633, conversion of a normal double-manual harpsichord into a single-manual harpsichord.

Location: Musikinstrumentenmuseum der Karl Marx Universität,  
Leipzig, No. 71.

Ruckers number: St/41. Rose diameter: 64-65 mm.

Case dimensions: Length: now 2112 mm

Width: 788 mm

Height: 254 mm without, 268 mm with the  
baseboard

Width of keywell: 762 mm

Present compass: C/E to  $f^3$  at a pitch of R - 4.

Present disposition:

→ 8'

← 4'

## Present scalings:

8': C/E = 1699 mm,  $c^2 = 446$  mm,  $f^3 = 138$  mm

4': C/E = 989 mm,  $c^2 = 213$  mm,  $f^3 = 58$  mm

Ruckers papers: type 13 - soundwell

type 3 (n/o) - keywell

## General description:

This is one of a small number of Ruckers instruments which were made smaller instead of larger. It was originally a normal double-manual harpsichord which was cut down and the upper manual discarded. The lower manual was given the compass C,D to  $d^3$ , and this was altered in about 1912 to C/E to  $f^3$ . It seems likely that the instrument was altered to its single-manual state with the C,D to  $d^3$  compass and a 2 x 8' disposition in Italy.

The case and lid have been painted light blue with bands inside the panels formed by the cheek, tail, bent-side, etc. The soundboard painting is in quite good condition, and has some amusing scenes of courting couples along with the usual flowers, birds, insects, etc.

## Literature:

Boalch #100; No. 71 & Plate, Kinsky (1910); p. 69, 90, Ruth-Sommer (1916); Paul Rubart (1964); p. 49, van der Meer (1971b); p. 120, *ibid* (1971c); p. 101f, Henkel (1979a); p. 61, *ibid* (1979b).

## Former owners:

Paul de Wit, Leipzig.

Andreas Ruckers, 1634, child virginal.

Location: Paris Conservatoire.

Case dimensions: Length: 812 mm

Width: 327 mm (keyboard projects 106 mm)

Height: 136 mm without the baseboard

Width of keywell: 651 mm

Present compass: C to  $a^2$

Present scalings: C = 678 mm,  $c^2 = 121$  mm,  $a^2 = 66$  mm

Original scalings: C/E = 678 mm,  $c^2 = 164$  mm,  $c^3 = 71$  mm

Ruckers papers: type 19 - soundwell.

General description:

The compass and pitch of this virginal have been changed by replacing the keyboard with a new one which filled out the original bass short-octave. The original spacing of the tails of the keylevers and strings was maintained with one note added at the top (C/E to  $c^3 = 45$  notes with 27 naturals; C to  $a^2 = 46$  notes with 28 naturals). In order to accommodate the extra natural the 3-octave span was decreased from 500 mm to 473 mm. Because the keys above C were moved toward the treble in the process of filling out the bass-octave, the effective pitch was raised by a major third. The ravalement is dated 1763.

Literature:

Boalch #102a.

Andreas Ruckers, 1635, single-manual harpsichord.

Location: Mr. Michael Thomas, Norfolk.

Case dimensions: Length: 1814 mm

Width: 720 mm

Height: 231 mm without, 248 mm including  
the baseboard

Width of keywell: 694 mm

Present compass: C,D to  $c^3$

Present disposition: 2 x 8'

Ruckers papers: type 1 - lid background

type 10 - lid border

type 22 - keywell

type 13 - soundwell

Ruckers motto: lid - SIC TRANSIT GLORIA MVNDI.

General description:

The namebatten with the signature and date is not original, and the rose is missing, but there is nothing to suggest that this instrument is not by Andreas Ruckers, nor that the date 1635 is not correct. Unfortunately the whole of the 4' area of the soundboard (plus the part with the rose and wreath behind the cutoff bar) from the 4' hitchpin rail to the spine has been cut out, so that the only original part of the soundboard is that under the 8' bridge. Much of the internal framing is not original, but is in the same position as the original framing.

In addition to the usual flowers the soundboard painting shows a peacock, a group of monkeys smoking pipes, a dwarf holding a hoop through which a dog is jumping, another dwarf playing the bagpipes, etc. The 8' bridge and nut, and parts of the lid and case, the tuning pins, etc.

are painted in gold paint.

Literature:

(There is no reference to this instrument in the literature.)

Former owners: The front flap is inscribed: "From Madame la Comtesse E. de Pas, Chateau de Ramitz to Campbell M<sup>ac</sup>Kellar of Lerags"; Lady Kaye, London.

1636 AR

Andreas Ruckers, 1636, extended compass single-manual harpsichord ravalé into a double-manual harpsichord.

Location: Mr. Michael Thomas, Norfolk.

Case dimensions: Length: originally about 1965 mm

Width: now 821, originally about 775 mm

Height: 265 mm without the baseboard

Width of keywell: now 793 mm, originally about 734 mm

Present compass:  $F_1$  to  $f^3$

Original compass: C to  $c^3$

Present disposition:

← 8'

← 4'

→ 8' shove coupler

Ruckers papers: type 13 - soundwell

General description:

This is a very interesting harpsichord, originally of a type quite different from the usual late single-manual harpsichord from the Andreas Ruckers workshop. It is the only known Andreas single which had the compass C to  $c^3$  with a chromatic bass octave, and it also had a very deep



case; about 10.5 duimen instead of the usual 9 duimen. This suggests that it may originally have had a strap-work outer case decoration instead of the usual plain marbling. The plan of the instrument, including the 8' c and f<sup>#</sup> strings, is scribed on the baseboard. This confirms the compass as C to c<sup>3</sup>, and the disposition as 1 x 8', 1 x 4' since there are two registers marked out in the gap.

Most of the present framing is not original, although the soundboard bridges (extended in the treble and bass), the 4' hitchpin rail, and the soundboard barring all appear to be by Ruckers (unusually the 8' bridge is of beech instead of the usual cherry). The spine was moved towards the tail, the cheek was moved forward in the ravalement, so the case additions in the keywell are not of the same length. On the basis of the wrestplank layout, the stop-levers, the keyboards and keyframes, the jackrail and hook, and the soundboard mouldings, Phillipe Fritsch has identified the ravalement as the work of Hemsch.

The soundboard has been completely repainted with a 17th century painting which in turn has been extended by the Hemsch painter. The interior of the lid has been painted with a pastoral scene, and this has been extended at the time of the ravalement. The outside of the case has also been painted with various mythological scenes which must date from the time of the ravalement.

#### Literature:

(not listed in Boalch); p. 41 O'Brien (1977a); p. 196, Germann (1981).

Andreas Ruckers, 1637, single-manual harpsichord.

Location: Germanisches Nationalmuseum, Nuremberg, No.

MLR 1073.

Ruckers number: St/23&24. Rose hole diameter: 64 mm.

Case dimensions: Length: 1829 mm

Width: 715 mm

Height: 242 not including the baseboard

Width of keywell: 688 mm

Scalings:

Note	8'	4'
c <sup>3</sup>	171 mm	83 mm
f <sup>2</sup>	258	129
c <sup>2</sup>	348	173
f <sup>1</sup>	531	258
c <sup>1</sup>	698	338
f	963	474
c	1165	580
F	1351	717
C/E	1366	736

Ruckers papers: type 1 - lid and front flap background

type 8 - lid border

type 13 - front flap border

type 10 - soundwell

type 3 (late) - keywell

type 6 - keyblocks and jackrail

Ruckers mottoes: lid flap - ACTA VIRUM PROBANT

main lid - SIC TRANSIT GLORIA MVNDI

keywell flap - SOLI DEO GLORIA / ET SANCTVM NOMEN  
EIVS.

General description:

This is one of the few single-manual Ruckers harpsichords in almost original condition. The only alteration it has suffered is that the top corners of the cheek have unfortunately been cut off in the style of the 18th century Viennese fortepianos. Other than this it retains most of its original musical and decorative features. Only the jacks are replacements. The outside of the case is painted in imitation strapwork holding large simulated jewels. The decoration of the exterior and interior is basically in very good condition. The keys retain their original arcades.

This instrument is unique in having two different Ruckers numbers. The keyframe and keys are marked St/23, but the registers and the case slot underneath the left-hand end of the jackrail are marked with the number 24. Thus it seems that the parts for single-manual harpsichords numbers 23 and 24 somehow managed to get interchanged in the workshop.

Literature:

Boalch #105; p. 12, van der Meer (n.d.); p. 63/64, *ibid* (1971a), p. 51, *ibid* (1971b); p. 111, 115, 142-146, *ibid* (1971c); p. 85, O'Brien (1974a).

Former owners:

Dr. Ulrich Rück, Nuremberg.

**PAGE  
MISSING  
IN  
ORIGINAL**

Andreas Ruckers, 1639, single-manual harpsichord.

Location: Gemeentemuseum, The Hague.

Rose diameter: 64 mm

Case dimensions: Length: 1812 mm

Width: 718 mm (n/o)

Height: 227 mm without the baseboard

Width of keywell: 686 mm (n/o)

Present disposition:

→ 8'

← 4'

← 8'

General description:

Although this harpsichord has its original compass, its conversion in the 18th century to a double has left its mark indelibly on the instrument. As it stands the instrument represents no historical state: the compass is that of the 17th century, but the disposition with 2 sets of 8' strings and one 4' set belongs to the 18th century, although the scalings are representative of neither. In giving it its original compass it retains its 18th century keys, jackslides (cut down), jacks, keyframe, balance rail and key guide system. The wrestplank, wrestplank veneer, nuts and 8' bridge are all not original: only the 4' bridge is original. The painting on the soundboard near the gap shows that part of the soundboard has been cut away to make room for the extra 8" register. The pinning of the 4' bridge and 4' hitchpin-rail show that the string spacing of this harpsichord was the same as that of the 1644a AR single

in Antwerp. The space for the discarded upper manual has been rather crudely filled in with a wide "namebatten". None of the decoration, except for that of the soundboard which is covered with a thick layer of brown varnish, is original.

Literature: Boalch #108; No. 12A Boddington Catalogue; p. 5-16, van der Meer (1964); p. 48, *ibid* (1971b); p. 111, 115, *ibid* (1971c); p. 36f, Scheurwater/van Acht (1977).

Former owners: J.K. Pyne, Boddington; Howard Head; E. Dodd Cramp, Byfield, Northants; J. Morley, London; D.F. Scheurleer, The Hague.

1640a AR

Andreas Ruckers, 1640, single-manual harp sichord.

Location: Yale University, New Haven, Conn., No. 250.

Rose diameter: 63 mm

Case dimensions: Length: 1813 mm

Width: 708 mm

Height: 229 mm without, 245 mm with the baseboard

Present compass: C to  $d^3$

Present scalings:

$$8': C = 1400 \text{ mm}, c^2 = 332 \text{ mm}, d^3 = 148 \text{ mm}$$

$$4': C = 787 \text{ mm}, c^2 = 165 \text{ mm}, d^3 = 56 \text{ mm}$$

Original  $c^2$  scaling estimated to be about 355 mm.

Ruckers papers: type 1 - lid background

type 8 - lid border

type 3 (early!) - keywell

type 18 - soundwell and jackrail

Ruckers mottoes: main lid - 1640 / MVSICA LETITIAE / COMES  
MEDICINA DOLORVM

## lid flap - CONCORDIA MVSIS AMICA

## General description:

Decoratively this instrument is a good example of a typical single-manual Ruckers harpsichord. It still retains its original marbled exterior and papered interior. The soundboard, although slightly re-touched here and there is in an excellent state.

This harpsichord is also a good example of a conservative petit ravalement. Its original compass of C/E to  $c^3$  was increased to C to  $d^3$  by making a new keyboard with a narrower octave span and by reducing the width of the keyblocks. This involved extending and re-pinning the bridges, re-spacing the tuning pins and the making of new registers, lower guides, nuts and jacks. Somewhat unusually it was not given 2 sets of 8' strings.

The Flemish stand does not belong to this instrument, but was formerly under the 1648 AR in Copenhagen. Using a lid cord instead of a stick, it would be a fine example of a Ruckers instrument in its original decorative order.

## Literature:

Boalch #109; p. 59f & Photo, Skinner (1933); p. 12-13 & Plate, Hirt (1955); p. 11, Harich-Schneider (1958); p. 30 (No. 250), Rephann (1968); p. 51, van der Meer (1971b); p. 112, 115, 144, van der Meer (1971c); p. 60, Germann (1978).

Former owners: Charles Burney; Rev'd Thomas, Twining, Colchester (died 1804); Miss Twining, Twickenham; Mrs. A.B. Donaldson, Hampstead; Sir Algernon Oliphant; Miss Belle Skinner.



Photo C-3 Plan view of the 1640a AR single-manual harpsichord.

Scale 1:10



Andreas Ruckers, 1640, normal double-manual harpsichord.

Location: Hôtel de Croix, Namur.

Ruckers number: St/2. Rose diameter: 65 mm.

Case dimensions: Length: 2236 mm

Width: 802 mm

Height: 271 mm including the baseboard

Width of keywell: 772 mm

Present compass:  $G_1/B_1$  to  $c^3$

Scalings:

8':  $G_1/B_1 = 1658$  mm,  $c^2 = 352$  mm,  $c^3 = 174$  mm

4':  $G_1/B_1 = 958$  mm,  $c^2 = 177$  mm,  $c^3 = 88$  mm

Ruckers papers: type 3 (early!) - keywell

type 13 - soundwell

General description:

Although the outer decoration has been altered considerably, the instrument itself has been altered musically very little. It retains its original disposition with 1 x 8', 1 x 4', and has its original registers, jacks, buff, keyframes, etc. The nuts still have the original plates for separating the doubled  $e^b/g^\sharp$  strings, and there are doubled bridge and hitchpins for these notes. Except for fragments, the keys have all been lost, and the lower manual keyframe has been re-pinned to align it with the upper manual, although the bass block in the upper manual has not been removed.

The soundboard painting is in very good condition, and even the note-names near the tuning pins are clearly visible. The outside of the case, the keywell, and the

soundwell have been heavily gessoed over and then painted blue with a heavy gilt leaf-and-vine-work decoration. The stand consists of 4 heavy caryatid figures connected together at the base by a lower stretcher. The lid is missing

Literature:

Boalch #109a; p. 83, O'Brien (1974a).

Former owners: Comte Vizard de Bocarmé.

1643a AR

Andreas Ruckers, 1643, 5-voet muselar virginal at a pitch of R + 1.

Location: The Gemeentemuseum, The Hague.

Ruckers number: 5/37. Rose diameter: 65 mm.

Case dimensions: Length: 1500 mm

Width: 477 mm

Height: 217 mm with, 204 mm without the baseboard

Width of keywell: originally 650 mm

Present compass: C to  $c^3$

Original scalings: C/E = 1282 mm,  $c^2$  = 324 mm,  $c^3$  = 156 mm

Ruckers papers: type 12 - keywell

type 12 - front flap (only tiny fragments remain)

type 6 - soundwell (fragments)

Ruckers motto: lid - ONMIS SPIRITVS LAVDET DOMINVM (n/o)

General description:

Although the rose and jackrail are both missing this virginal is certainly by Andreas Ruckers. The soundboard painting style is the same as the single-and double-manual harpsichords of 1640, and other instruments of this period

by Andreas Ruckers. Also all aspects of the construction of the instrument itself are typical of the late work of Andreas Ruckers.

The bass octave was made chromatic by widening the keywell on the bass side and adding the extra C, C<sup>#</sup> D and E<sup>b</sup> keys to an extension of the keyframe. The keyboard was not shifted so that the scalings and plucking points of the notes from E upwards are still the same as originally. One of the strings of the 4 extra added notes is pinned on the left-hand bridge, but the three others are hitched directly to the elevated bass-section of the hitchpin rail, and therefore these notes sound only on the right-hand bridge.

The lid is of pine and it and its decoration probably dates from the 18th century and the time of the ravalement. It has its original harpichordium but is lacking the guide blocks and the hold-down pins going into the side of the bridge. This is one of the few Flemish virginals to retain its original lock on the front flap.

It has a simple arcaded oak stand, which if it is not original is at least very old as indicated by the large amount of wear from the foot of the player on the lower stretcher.

Literature:

Boalch #111; p. 134, 135, 144, van der Meer<sup>(1971c)</sup>; p. 84/85, O'Brien (1974a).

Former owners: Formerly in the Rijksmuseum, Amsterdam.

Andreas Ruckers, 1643, ravalé normal double-manual harpsichord.

Location: Mrs. Sheridan Germann, Boston, Mass.

Case dimensions: Length: 2265 mm

Width: now 845 mm, originally about 795 mm

Height: 265 mm (n/o) including the baseboard

Width of keywell: now 815 mm, originally about 765 mm

Present compass:  $G_1$  to  $e^3$

Present scalings:

8' (short strings):  $G_1 = 1692$  mm,  $c^2 = 338$  mm,  
 $e^3 = 137$  mm

4':  $G_1 = 980$  mm,  $c^2 = 148$  mm,  $e^3 = 72$  mm

General description:

This is a conservative ravalement (probably from the first part of the 18th century) of a normal Ruckers double. The rose is missing, but the (non-original) namebatten is signed by Andreas Ruckers. The authorship of the instrument is confirmed by the style of the soundboard painting which is identical to other instruments by Andreas Ruckers of this period. The construction marks on the original parts of the baseboard and on the soundboard also corroborate the attribution to one of the members of the Ruckers family.

The style of the ravalement keyboards, and of the internal framing is clearly French, and details of the latter are very similar to those of Vater. The present jacks and registers are modern so that the 18th century disposition is uncertain.

Former owners: sold in 1936 by the owners of the Château de Chenonceaux.

Andreas Ruckers, 1644, single-manual harpsichord.

Location: Vleeshuis Museum, Antwerp, No. VH 2137.

Ruckers number: St/16. Rose diameter: 65 mm.

Case dimensions: Length: 1814 mm

Width: 723 mm

Height: 228 mm without, 231 mm with the  
baseboard

Width of keywell: 693 mm

Present compass: C to  $c^3$

Present scalings:

8': C = 1390 mm,  $c^2$  = 337 mm,  $c^3$  = 165 mm

Original scalings:

8': C/E = 1365 mm,  $c^2$  = 358 mm,  $c^3$  = 178 mm

4': C/E = (~745) mm,  $c^2$  = 179 mm,  $c^3$  = 88 mm

Ruckers papers: type 1 - lid background

type 6 - lid border, and soundwell

type 4 - keywell

Ruckers motto: lid - SIC TRANSIT GLORIA MVNDI

General description:

Since this harpsichord is signed "ANDREAS RVCKERS  
DEN OV DEN ME FECIT ANTVERPIAE", it is one of the few late  
Andreas instruments which can definitely be ascribed to  
Andreas the Elder. The compass has been extended by adding  
two notes in the treble and two in the bass to the bridges  
and registers and a long 8' string has been substituted  
for the original 4'. The keyboard has been moved toward  
the treble (by the width of one natural), and the 4 extra  
keys to convert the short-octave to a chromatic bass

octave have been added on the left. Shifting the keyboard to the right has shortened the scalings by two semitones, and adding the extra set of 8' strings has lengthened the scalings by one semitone; the new scalings are therefore about one semitone shorter than originally.

The harpsichord still retains its original buff stop and many of the jacks are also original (some with original dampers!). One of the tuning pins (preserved separately from the instrument) may have the remnants of a bit of original string rusted to it (see Photo 4-1).

The papers and outer case marbling are in good condition, although the soundboard painting has almost disappeared.

**Literature:**

Boalch #112, p. 195 & Plate 27, Génard (1892); p. 48, Lunsingh Scheuleer (1939); p. 43, Russell (1959); p. 62, Hubbard (1965); p. 246, Lambrechts-Douiliez (1968), p. 18 & Plate 9, *ibid* (1970a); p. 51, van der Meer (1971b); p. 104, 112, 115, *ibid* (1971c); p. 83, O'Brien (1974a); p. 61, *ibid* (1977b); p. 109-118, Bedard (1977); p. 153 & Plate 422, Lambrechts-Douiliez (1981a); No. 34, *Catalogus* (11) (n.d.).

**Former owners:** formerly exhibited in the Steen Museum, Antwerp.

Andreas Ruckers, 1644, 6-voet muselar mother and child virginals.

Location: Musikinstrumentenmuseum der Karl Marx Universität, Leipzig, No. 1093.

Ruckers number: M/28. Rose diameter: 64-66 mm.

Case dimensions (of the original mother instrument only):

Length: 1734 mm

Width: 515 mm

Height: 253 mm without, 268 with the baseboard

Width of keywell: now 701 mm, originally 652 mm

Present compass: C,D to  $c^3$

Present scalings (bridges not original):

$C = 1544$  mm,  $c^2 = 364$  mm,  $c^3 = 185$  mm

Ruckers papers: type 12 - on the flap of the recess for the child. All other papers are not original.

Ruckers motto: lid (n/o) - OMNIS SPIRITVS LAVDET DOMINVM

General description:

Originally this was the usual mother and child muselar double virginals. The compass was widened to fill out the bass octave, and in doing so the left keywell brace was moved to the left to allow space for the extra keys. Thereby the space for the child was decreased, so that the child could not fit in its normal space to the left of the keyboard. Probably for this reason the child was discarded or lost. In about 1910 a new child was made to fit into the reduced space beside the keyboard. Also probably at this time and in Heyer's workshops, the jacks were renewed, and the new papers were added. Perhaps

also at this time the bridges may have been renewed. There are also numerous stifle bars (8 in all) across the whole of the area underneath the left-hand bridge.

Most of the soundboard painting has disappeared, but the outlines of it, and some colour, remains. The black outside case paint is not original.

Literature:

Boalch #113; Plate 9, Pols (1942); p. 19 & Plate 3, Rubart (1955); p. 149, Russell (1959); p. 138, van der Meer (1971c); p. 77, 101, 134, Henkel (1979a); p. 108, *ibid*, (1979b).

Former owners: Prince de Caramen Chimay; Heyer Collection, Cologne.

1646a AR

Andreas Ruckers, 1646, ravalé single-manual harpsichord.

Location: Vleeshuis Museum, Antwerp, No. 76.4.

Rose diameter: 62-64 mm.

Case dimensions: Length: 2007 mm

Width: now 882 mm

Height: 225 mm without the baseboard

Width of keywell: now 852 mm, originally about  
680-690 mm

Present compass: C to f<sup>3</sup>

Present disposition:

← 4'

→ 8'

← 8'

Present scalings:



8': C = 1535 mm, c<sup>2</sup> = 363 mm, f<sup>3</sup> = 130 mm

4': C = 873 mm, c<sup>2</sup> = 175 mm, f<sup>3</sup> = 54 mm

Ruckers papers: type 3 (early) - keywell (n/o)

type 13 - soundwell (n/o)

General description:

This was originally a normal short-octave bass single-manual harpsichord. The case was widened in both the treble and bass to extend the compass to C to f<sup>3</sup>. The bridges were replaced and re-pinned and an extra set of 8' strings was added. New jacks, registers, keyboards and a new jackrail were made. During the course of the restoration of the instrument when it was owned by William Post Ross, it was discovered that the internal framing had been altered (probably in the 18th century) to resemble that shown in Plate XXXV of Hubbard's book.

The interior of the lid is decorated with a painted engraving of a concert by C. van Loo, which has been glued in place. The block-printed papers and exterior paint are modern. Although heavily retouched and extended, much of the soundboard painting is original.

Literature:

Boalch #115a; Footnote p. 52, Plate XXXV, Hubbard (1965); p. 273, Lambrechts-Douillez (1977); p. 153 & Plate 424, *ibid* (1981a).

Former owners: Alphonse van Neste, Brussels; William Post Ross, Boston, Mass.

Andreas Ruckers, 1646, a grand ravalement of an extended-compass 'French' double-manual harpsichord.

Location: Paris Conservatoire, No. E.979.2.1.

Rose diameter: 65-66 mm

Case dimensions: Length: 2250 mm

Width: now 904 mm, originally about 835 mm

Height: 255 mm without the baseboard

Width of keywell: now 853 mm, originally about 805 mm

Present compass:  $F_1$  to  $f^3$

Present disposition:

← 8' peau de buffle

← 8'

← 4'

— — — —  
→ 8' shove coupler

Present scalings:

8':  $F_1 = 1718$  mm,  $c^2 = 362$  mm,  $f^3 = 141$  mm

4':  $F_1 = 1063$  mm,  $c^2 = 162$  mm,  $f^3 = 66$  mm

General description:

This is a particularly fine example of a large 'French' Ruckers double, altered in the 18th century to make it capable of playing the later contemporary repertoire. The keyboards are dated 1756 and may be by Blanchet. It seems likely therefore that in 1756 the instrument was widened, the bridges were re-pinned and new jacks, registers and keyboards were made. Then in 1780, Taskin thickened the case sides and added the rear peau de buffle register and genouillère. Also at this time the present stand was made and the instrument given its present splendid vernis-

martin decoration.

The inside of the main lid and lid flap are painted with mythological scenes, and seem to be by the same painter who painted the lid of the 1640b IR (Artus Wolfort (1581-1641)). If so the lid must have been painted some years before it was incorporated into this instrument as Wolfort died 5 years before the date of this harpsichord.

Literature:

Boalch #115; p. 113f, Thibault-de Chambure (1969); p. 80, *ibid* (1971); p. 120, van der Meer (1971c); p. 74, Germann (1978); p. 109f, Dowd (1978).

Former owners: Mme. Adrien Allez; Mme. de Chambure.

1648 AR

Andreas Ruckers, 1648, single-manual harpsichord.

Location: Musikhistorisk Museum, Copenhagen.

Ruckers number: St/69.

Case dimensions: Length: 1826 mm

Width: 711 mm

Height: 241 mm without the baseboard

Width of keywell: 684 mm

Present compass: C/E to  $c^3$  after several alterations

Present disposition:

← 4'

← 8'

→ 8'

Ruckers papers: type 1 - lid background

type 17 - lid border

type 12 - keywell

type 6 - jackrail and (n/o) soundwell

Ruckers mottoes: main lid - SIC TRANSIT GLORIA MVNDI

lid flap - ACTA VIRVM PROBANT

General description:

This is one of the few extant Ruckers instruments decorated with strapwork holding large jewels against a marbled background. Most of the interior decoration is original and in reasonably good condition.

Like the 1627 AR quint harpsichord in the Hague, the upper belly-rail shows chisel marks from the cutting of the Ruckers lower guides.

The instrument was altered in the 18th century by adding an extra set of 8' strings and increasing the compass to C to d<sup>3</sup>. This was done by decreasing the octave span of the keys and strings, by narrowing the keyblocks, and by extending the bridges and nuts. This also required new registers and lower guides. The instrument was restored in 1965 by Frank Hubbard and a number of major alterations were introduced. The compass was altered to C/E to c<sup>3</sup> using the 18th century string spacing and leaving it with 2 sets of 8' strings. The soundboard was removed (and planed to half its original thickness?) and a new spruce soundboard glued underneath the remains of the original soundboard and the composite soundboard reinstalled. The (18th century?) ivory keyplates were removed and replaced with bone. A new 4' hitchpin rail was made which is far too wide and comes very close to the 4' and 8' bridges in the treble. The soundboard is now very thick in the treble, a feature which is not characteristic

of Ruckers harpsichords. The 8' bridge is modern and is of beech and not of cherry.

Like some other modern restorations this has left the instrument in neither its 18th century nor its original state. It has its 17th century compass, but its 18th century disposition and string spacing. The 18th century keyboards have bone touchplates, ebony sharps (instead of bog oak) and modern arcades. And the acoustical function of the soundboard, 4' hitchpin rail, and bridges has been drastically altered.

Literature:

Boalch #117; p. 51, van der Meer (1971b); p. 112, 115, 142, Plate 1, *ibid* (1971c); p. 133, Henkel (1979a).

Former owners: Otto van Copenhagen, Providence, R.I.;  
Gustav Leonhardt, Amsterdam.

(1651)a AR

Andreas Ruckers, 1651, single-manual harpsichord.

Location: Mr. Peter Maxwell-Stuart, Innerleithen, Scotland

Ruckers number: St/2.

Case dimensions: Length: 1864 mm

Width: 732 mm

Width of keywell: 700 mm

Present compass: C to d<sup>3</sup>

Ruckers papers: type 1 - lid background

type 9 - lid border

type 3 (late) - keywell

type 13 - soundwell

Ruckers mottoes: main lid - SIC TRANSIT GLORIA MVNDI

lid flap - SOLI DEO GLORIA

keywell flap - LAVS DEO (n/o)

General description:

The instrument is signed "ANDREAS RVCKERS AND.(REAS) F.(ILIVS) FECIT ANTVERPIÆ ", and is therefore one of the few instruments which can definitely be ascribed to Andreas the Younger. The date is written on the soundboard and has been re-touched in a recent restoration so that it is now impossible to tell if the third numeral was originally a "5" or a "4". There is a subtraction on the back of the namebatten suggesting that in the 18th century the age of the instrument was calculated, and that the date of the instrument was then read to be 1651. However, the "5" is made in a very uncharacteristic way, the bottom curved sweep of the "5" usually being very bold on other instruments, whereas on this one it is tight and constrained. The whole numeral is much more like an altered "4". Unfortunately there aren't enough numbered instruments in this period to help to make a decision on the date. This is most unfortunate as it might shed some light on the possible death date of Andreas the Elder. Since the 1644a AR harpsichord is signed "ANDREAS RVCKERS DEN OVDEN - - -" it is clear that he was alive in 1644, and that he signed himself "DEN OVDEN" to avoid confusion with his son. If the Traquair harpsichord was actually made in 1641, then it is reasonable that the son should sign himself "AND.(REAS) F.(ILIVS)" to avoid confusion with his

father in a similar way. If the Traquair harpsichord was made in 1651, then this implies that Andreas, the father, was still alive (aged 72) and perhaps still making instruments. Without more information the problem seems incapable of a solution. The difficulty of finding an answer is further complicated by the fact that both the 1644a AR and the (1651)a AR, by Andreas the Elder and Andreas the Younger respectively were decorated by the same workshop painter!

The instrument suffered at least two compass and disposition alterations. It was first altered to 2 x 8', 1 x 4' with a compass of C/E to d<sup>3</sup>. The keyblocks were narrowed on both sides to make room for the extra natural. One note was added in the treble and one in the bass and the keyboard shifted down a semitone towards the bass. The old pinning and string spacing were used, with a new set of pins for the added 8' set of strings. This would mean that the original strings were played by keys a tone higher, with the added strings having a scaling about a semitone longer, than in the original state.

In the present state the compass is C to d<sup>3</sup>, again with a 2 x 8', 1 x 4' disposition. In this state the 3-octave span was reduced to enable the extra natural notes to be fitted in, and the bridges and nuts were repinned. New jacks, in a style similar to the old Ruckers jacks with oval damper holes, were made for this state.

Decoratively the instrument is in very good order. The papers are in good condition and the outside of the

case has its original marbling, also in good condition. The soundboard painting has been extensively re-touched, but the overall impression of the instrument gives a good idea of how a Ruckers harpsichord must have looked originally. The keywell flap and painted stand are modern.

Literature:

Boalch #118a; p. 50, van der Meer (1971b); p. 113, *ibid* (1971c); p. 83, O'Brien (1974a); p. 63, Mactaggart (1979).

Former owners: it seems likely that the instrument has always been at Traquair House, Innerleithen, and was probably brought directly from Antwerp to Scotland for the Stuart family.

1651b AR

Andreas Ruckers, 1651, ravalé double-manual harpsichord of a normal single-manual harpsichord.

Location: Victoria and Albert Museum, London, No. 1079-1868.

Present compass:  $G_1, A_1$  to  $f^3$

Ruckers mottoes: main lid - SIC TRANSIT GLORIA MVNDI

lid flap - MUSICA DONVM DEI

keywell flap (now lost) - ACTA VIRVM PROBANT

These mottoes are all not original, but were probably copied from the originals at the time of the ravalement.

General description:

This is an English ravalement of a small single-manual Ruckers harpsichord. The case was widened in the treble and bass, and new keyboards, jacks, registers, bridges, nuts, jackrail and wrestplank were made for the



instrument in the English style, probably around 1715-1720. The case was also lengthened to give sufficient space for the addition of a second keyboard. In fact the bass strings are far too short for the new bottom note ( $G_1$ ).

The added sections of new soundboard wood in the bass and treble, and the new wrestplank veneer have been painted over in the style of the original. The border scallop and arabesque designs have been removed and the position of the arabesques painted over with leaf designs. The spine still has its original red marble decoration, but the rest of the case and lid have all been re-painted.

This is one of the harpsichords which is claimed to have belonged to Handel.

Literature:

Boalch #118; p. 334, van der Straeten (1875); Plate XLII, James (1930); Plate II, Pöls (1942); p. 40, Juramie (1948); Plate opposite p. 209, Kenyon (1949); p. 14-15, Hirt (1955); p. 9, Harich-Schneider (1958); Plate 14, Russell (1959); p. 43f, *ibid* (1968); p. 38, Ripin (1968); p. 48, van der Meer (1971b); p. 105, 112, 115, *ibid* (1971c), p. 41, O'Brien (1977a).

Former owners: Christopher Smith; Lady Rivers; Mr. Wickham; Canon Hawtry; Dr. Chard; Mr. Hooper; Messrs. Broadwood.

1654 AR

Andreas Ruckers, 1654, ravalé double-manual harpsichord of a normal single-manual harpsichord.

Location: Germanisches Nationalmuseum, Nuremberg, No. MINE 85.

Rose diameter: 64 mm (the present rose is an HR (Ioannes) rose made into an AR rose).

Present compass:  $G_1/B_1$  to  $f^3$

Present disposition:

← 4'

← 8'

→ 8'

Present  $c^2$  scaling: 330 mm

Ruckers papers: type 1 - lid background

type 10 - lid border

type 6 - soundwell

Ruckers mottoes: main lid - SIC TRANSIT GLORIA MVNDI

keywell flap - ACTA VIRVM PROBANT (n/o)

General description:

The grand ravalement carried out on this harpsichord to convert it from a normal single-manual instrument into a double was done by moving out the cheek to extend the treble compass, lengthening the spine and cheek sides at the front to accommodate the second manual, and by making new keyboards, jacks, registers, jackrail, bridges, nuts and wrestplank. The ravalement seems to have been carried out in Flanders as is indicated by Flemish writing on the present jacks and keylevers. The case has been re-painted in imitation marble like <sup>it</sup> would have had originally.

Although the rose is not original the style of the workmanship and decoration confirm that the instrument is indeed by Andreas Ruckers.

## Literature:

Boalch #119; No. 133 Führer (1938); p. 12, van der Meer (n.d.); p. 65-67, *ibid*, (1971a); p. 48, 52, *ibid* (1971b); p. 112, 115, *ibid* (1971c); p. 41, O'Brien (1977a).

Former owners: Dr. Hanns Neupert, Bamberg.

Ioannes Couchet

1645 IC

Ioannes Couchet, 1645, single-manual harpsichord.

Location: Russell Collection, Edinburgh, No. 7.

Rose diameter: 74-75 mm

Case dimensions: Length: 1813 mm

Width: originally about 710 mm

Height: 231 mm without the baseboard

Width of keywell: originally about 682 mm

## Original scalings:

8': C/E = 1383 mm,  $c^2 = 355$  mm,  $c^3 = 178$  mm

4' (estimated): C/E = 743 mm,  $c^2 = 174$  mm,  $c^3 = 88$  mm

Ruckers papers: type 4 - keywell

type 27 - soundwell

## General description:

This harpsichord was originally a normal short-octave single-manual instrument. It was ravalé by extending the treble side of the case and repinning the bridges according to a smaller 3-octave spacing to give a compass of  $A_1, B_1$  to  $f^3$ . A second set of 8' strings was added and a new action made. From the style of the outer decoration and from the style of the new action the ravalement must

have been done in England in the early part of the 18th century.

A second change was made to the instrument probably not very long before it was bought by Russell. The ravalement addition to the case was removed and the cheek was moved back to its original position (actually the case is now about 8 mm narrower than originally). The keyboards were re-made to give it a compass of C to c<sup>3</sup>, and like many unenlightened modern restorations, this has left the instrument in a state of organological purgatory, awaiting a purification and return either to its original or to its 18th century state.

The existence of the hold-down pins in the 8' bridge for the buff batten, and of the plugged hole in the cheek for the buff batten extension, prove that this harpsichord originally had a buff register. However, there is no V-shaped nick in the back of the 8' bridge for the stop-block between the two sections of the split buff. This must indicate that the original buff was not split, a feature not found on any earlier Ruckers/Couchet harpsichord.

Literature:

Boalch #1; No. 7, p. 17, Williams and Newman (1968); p. 35/36, Barnes (1971a); p. 46, O'Brien (1977a).

Former owners: Messrs. Legg, Cirencester; Raymond Russell.

1646 IC

Ioannes Couchet, 1646, aligned and ravalé double-manual harpsichord.

Location: Brussels Museum, No. 276.

Ruckers number: St/17. Rose diameter: 88 mm.

Case dimensions: Length: 2226 mm

Width: now 856, originally about 785 mm

Height: 264 mm including the baseboard

Width of keywell: now 830 mm, originally about 759 mm

Present compass:  $G_1/B_1$  to  $f^3$

Present disposition:

← 8'  
 → 4'  
 ← 8' dogleg  
 → 8'

Present scalings:

8':  $G_1/B_1 = 1674$  mm,  $c^2 = 359$  mm,  $f^3 = 139$  mm

4':  $G_1/B_1 = 957$  mm,  $c^2 = 168$  mm,  $f^3 = 69$  mm

Original scalings:

8':  $G_1/B_1 = 1656$  mm,  $c^2 = 338$  mm,  $c^3 = 173$  mm

4':  $G_1/B_1 = 957$  mm,  $c^2 = 168$  mm,  $c^3 = 81$  mm

General description:

Like virtually all Couchet harpsichords this one is unusual in a number of respects. Firstly it originally had an upper manual with a filled-out bass compass to  $G_1/B_1$ , instead of stopping at C/E and filling out the bass with a wooden block as is usual. It is thus the first known Ruckers/Couchet instrument to have had a  $G_1/B_1$  short-octave. It is also unusual in having had an original scaling of 338 mm, that is, between those instruments at R ( $c^2 = 358$  mm) and those at R + 1 ( $c^2 = 320$  mm). The implied pitch would seem to be about a semitone above R.

Also unusual is the fact that the original buff stop was not split, but was continuous from treble to bass. In addition, the soundboard painting lacks the usual scalloped borders and arabesques.

This harpsichord is now a good example of an aligned transposing double with a conservative ravalement carried out very competently. The lower-manual keys were aligned to match those of the upper manual and both keyboards were extended to  $f^3$  in the treble by adding about 70 mm to the cheek side. The bridges and soundboard were extended and filled out, and new upper and lower guides and a new set of jacks were made. An extra set of 8' strings was added without changing the spacing of the existing strings. The disposition gives 2 x 8' on the upper manual, but does not allow a single lower-manual 8' to dialogue with a single 8' on the upper. This is a feature of many 18th century Flemish harpsichords, and this, plus the workmanship of the jacks, points to Flanders as the country in which the ravalement was carried out.

The 4' bridge is a replacement. The soundboard painting is in excellent condition and is almost un-retouched.

This instrument shares, with the 1646b AR in Paris, the distinction of being the latest transposing harpsichord.

It is restored to playing condition.

#### Literature:

Boalch #2; No. 276, Mahillon, Vol. 2 (1893-1922); p. 69, Ernst (1955); p. 45, Russell (1959); p. 33 (No. 12), de Maeyer (1969); p. 19, Ripin (1971a); p. 15-29, Meeus (1970);

p. 49 van der Meer (1971b); p. 121, *ibid* (1971c); p. 81, O'Brien (1974a); p. 38, 46, *ibid* (1977a).

Former owner: de Sorlus.

## 1650a IC

Ioannes Couchet, 1650, 6-voet muselar virginal.

Location: Vleeshuis Museum, Antwerp, No VH 67.6.

Rose diameter: 71 mm

Case dimensions: Length: 1708 mm

Width: 498 mm

Height: 242 mm including the baseboard

Width of keywell: 650 mm

Scalings: C/E = 1474 mm,  $c^2 = 362$  mm,  $c^3 = 177$  mm

Ruckers papers: type 2 - keywell/faceboard	} both not original
type 8 - soundwell	

General description:

This is the last surviving Ruckers/Couchet virginal. It is a very little altered 6-voet muselar virginal. The decoration of the outer case, and of the front flap, is not original and the papers are recent, but the rest of the decoration is in its original state. The soundboard painting is very well preserved and the instrument even has almost all of its key arcades. The soundboard painting, and the holes for the wires in the side of the bass-section of the bridge show that there was originally a harpichordium.

The case mouldings are not the usual Ruckers/Couchet mouldings, and there is a red painted stripe down the mid-

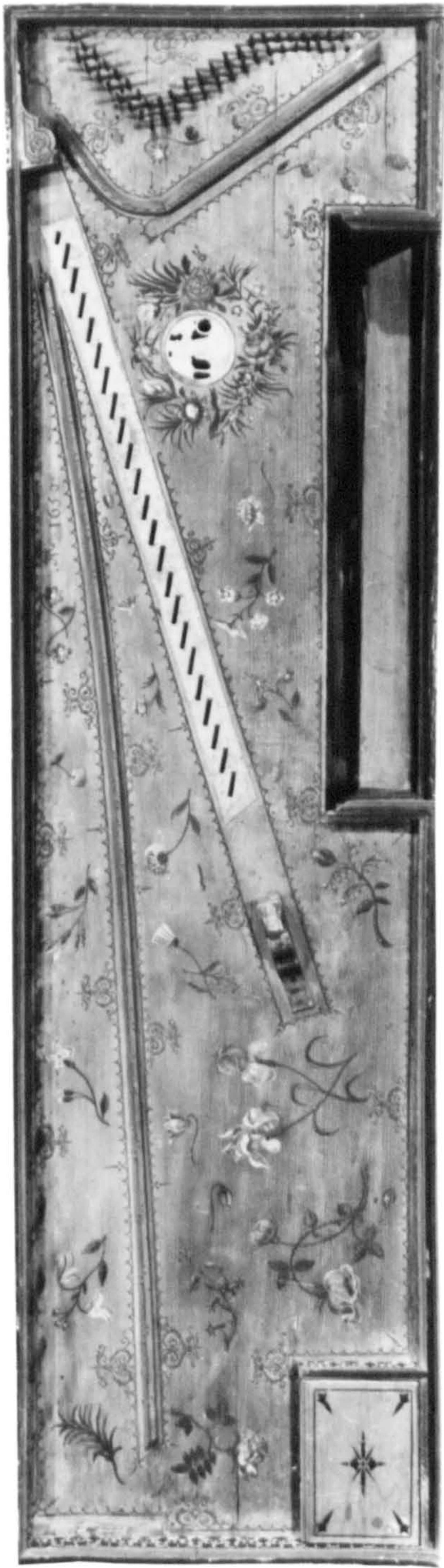


Photo C-4 Plan view of the 1650a IC 6-voet muselar virginal

Scale 1:10



dle of the moulding instead of being left in plain varnished wood.

The lid painting shows a group of skittles players with a view of Antwerp in the background across the Scheldt. The coats of arms of the Marquesses of Antwerp and of the Rockox family indicate that this instrument must have been owned by the descendants of Nicolaas Rockox, Burgermaster of Antwerp, who died in 1640.

The nicely carved and turned stand is probably original. The instrument was restored in 1969/70 by H. Bédard to playing condition.

Literature:

Boalch #9; p. 100, Lambrechts-Douillez (1967); p. 19 & Plate, p. 17, *ibid* (1970a); p. 2, 6 & Plates, *ibid* (1970b); p. 133, van der Meer (1971c); p. 41, Bédard (1971); p. 271, Lambrechts-Douillez (1977); p. 144, 149 & Plate 419, *ibid* (1981a).

Former owners: A. Régibo, Renaix.

(c1650)b IC

Ioannes Couchet, undated, large single-manual harpsichord with an extended bass-octave, converted into a double-manual harpsichord.

Location: Metropolitan Museum of Art, New York, No. 89.4.2363.

Ruckers number: St/34. Rose diameter: 84 mm.

Case dimensions: Length: now 2290 mm, originally about

2168 mm

Width: 859 mm

Height: 253 mm without, 267 mm with the baseboard

Width of keywell: 831 mm, 795 mm between the keyblocks

Original compass:  $F_1, G_1, A_1$  to  $c^3$

Present compass:  $F_1, G_1$  to  $c^3$

Present disposition:

← 8' (split)  
 ← 4'  
 → 8' dogleg  
 ← 8' lute (split)

Original scalings:

8':  $F_1 = 1687$  mm,  $c^2 = 314$  mm,  $c^3 = 159$  mm

4':  $F_1 = 920$  mm,  $c^2 = 153$  mm,  $c^3 = 77$  mm

Present scalings:

8':  $F_1 = 1693$  mm,  $c^2 = 331$  mm,  $c^3 = 168$  mm

4':  $F_1 = 928$  mm,  $c^2 = 153$  mm,  $c^3 = 77$  mm

General description:

The case, lid and stand are decorated lavishly in the style of Louis XIV. However, the instrument has been totally re-decorated during the conversion from a single- to a double-manual instrument, and the few traces of the original decoration (on the original keyblocks, etc.) are totally out of keeping with the present elegant decoration and suggest that none of this is original.

The scribed lines on the baseboard under the gap indicate that there were originally only 2 registers so that the original disposition must have been 1 x 8', 1 x 4'. The original tuning pins are marked f, g, a, b, h, c ... c, indicating that the original compass was  $F_1, G_1, A_1$  to  $c^3$  and

this is consistent with the width of the space between the keyblocks having room for 33 naturals. Also the pitch c string (whose 8' bridge pin is 49 cm from the nameboard) was originally played by the  $b^{\flat 1}$  key, and the string played by  $c^2$  was 314 mm long. This note confirms that  $c^3$  was the top note, and  $F_1$  was the bottom note providing that  $F^{\sharp}_1$  and  $G^{\sharp}_1$  are missing, and also confirms that the pitch of the instrument was at R + 1.

Both keyboards date from the conversion from a single- to a double-manual instrument. The present disposition is very interesting and is authentic to the alteration and can be confirmed on the basis of the construction and numbering of the registers. There are holes in the 8' nut for the pins which originally helped to position the buff batten. Thus there was originally a buffbut, like the 1645 IC and 1646 IC, it was not split since there is no wedge nicked out of the middle of the rear surface of the 8' bridge for the stop-block which is characteristic of the earlier split-buff stops.

The present jacks, which date from the conversion, are in the style of Ruckers/Couchet with blind damper holes instead of slots, but are thinner than was usual Ruckers practice. The soundboard/<sup>is</sup>unpainted except for gold-painted scallops and arabesques along the bridges and case-sides, and a gold "wreath" of arabesques and vine-work.

Literature:

Boalch #8; No. 2363, Catalogue (2), (1904); p. 118, Plate, No. 37, Winternitz (1966); p. 69, Hubbard (1968); p. 21,

Wolters (1969); p. 169-178, Ripin (1969); p. 37, *ibid* (1970a); p. 48, van der Meer (1971b); p. 114, 115, *ibid* (1971c); p. 121, Thomas and Rhodes (1973).

## 1652 IC

Ioannes Couchet, 1652, double-manual harpsichord made from a single-manual harpsichord.

Location: Private, France.

Case dimensions: Length: now 2180 mm, originally about  
2087 mm

Width: 789 mm

Height: 260 mm with, 247 mm without the  
baseboard

Width of keywell: 760 mm

Present compass:  $G_1/B_1$  to  $c^3$  (split  $E^b$ ).

Original compass:  $G_1/B_1$  to  $c^3$ .

Present disposition:

← 8'  
← 4'  
- - - -  
→ 8' shove coupler

Present scalings:

$$8' : G_1/B_1 = 1644 \text{ mm}, c^2 = 352 \text{ mm}, c^3 = 176 \text{ mm}$$

$$4' : G_1/B_1 = 928 \text{ mm}, c^2 = 155 \text{ mm}, c^3 = 82 \text{ mm}$$

Original scalings: (long 8')

$$8' : G_1/B_1 = 1630 \text{ mm}, c^2 = 352 \text{ mm}, c^3 = 176 \text{ mm}$$

General description:

This is the last extant instrument by Ioannes Couchet. Like all of the instruments bearing the name Couchet, it is

interesting and unusual, and indicates both the way the change in musical taste was moving, and the inventiveness of Ioannes Couchet.

It is now a double-manual harpsichord. But the cheek, spine and baseboard all show that the instrument was converted to a double from an instrument which was originally a single-manual harpsichord. The present disposition with 2 x 8' and 1 x 4' is that usual for 18th century French harpsichords. However, the 4' hitchpins are driven into a thin strip of fruitwood glued to the top of the soundboard, and both this and the 4' bridge lie on top of the original soundboard painting. This indicates that the instrument did not originally have a 4' bridge or register. It thus must have been disposed with only 2 x 8', and is therefore the first instrument built in the Ruckers/Couchet tradition with this disposition. Also the gap has never been widened and the lines scribing the plan of the instrument on the baseboard show that the gap originally contained 3 registers! By analogy with the 1679 IC single, the most likely disposition is probably therefore:

→ 8'

← 8'

→ 8'

with two rows of jacks

both plucking the short 8' set of strings.

Unlike the earlier Couchet and Ruckers instruments the upper jackslides did not project through the cheek in the usual way to enable the registration to be changed. But

there is a plugged hole on the spine side which apparently served for this purpose, probably in conjunction with some type of trapwork mechanism. The evidence for this is that the spine, except for a large rectangular area near the registers and wrestplank, has its original marbling. The rectangular area is clear unpainted poplar which, from the appearance of the marbling at its edge, was apparently covered by a box which would itself originally have been marbled. This box probably contained some type of trapwork which alternated the two registers controlling the jacks plucking the same set of strings, and may, in addition, have added or withdrawn the register for the jacks plucking the second set of 8' strings. This may then be the earliest example of the use of a machine stop, and certainly predates the mention of a pedal in Mace (p. 235-6 (1676))(see James p. 120 and Boalch p. 65) by more than 20 years.

The present compass is  $G_1/B_1$  to  $c^3$  with a split  $E^b$  accidental for either  $B_1/E^b$  or  $B^b_1/E^b$  giving 51 notes. The 8' bridge has not been re-pinned, but extra strings have been added to achieve this compass. The case has not been widened but, although the original spacing of the strings has not been altered, the octave span of the keys has been decreased so that the key touchplates are bordered by wide keyblocks, and the key tails splay out to match the original wide spacing of the strings and jacks. The width of the inside of the case is 760 mm and this indicates (see Table 8-1) that the original compass had 30 naturals. Musically

and historically there are three likely compasses with 30 naturals:

C/E to  $f^3$  - 50 notes  
 $G_1/B_1$  to  $c^3$  - 50 notes  
 C to  $d^3$  - 51 notes

Measuring out 49 cm from the back of the nameboard to find the position of the original pitch c string locates a position on the 8' bridge midway between the present two 8' strings playing the note  $c^2$ . Thus the present c strings are playing at their original pitch so that the original compass was also  $G_1/B_1$  to  $c^3$ , 50 notes and the extra note for the split  $E^b$  was later added in the bass.

The 1646 IC double in Brussels also had an original compass on the upper manual of  $G_1/B_1$  to  $c^3$ , but this compass was imposed by the lower-manual compass at transposed pitch of C/E to  $f^3$ . For this instrument the  $G_1/B_1$  lower compass was obviously a result of design and not of the fact that it is equivalent to the C/E to  $f^3$  compass transposed up a fourth. The usefulness of the  $G_1/B_1$  compass would however have been suggested by the 1646 IC upper-manual compass. The extension of the compass downwards from C/E to  $G_1/B_1$  gives the same downward extension of compass found in the large 'French' doubles, except that the lowest four accidentals ( $G^{\#}_1$ ,  $B^b_1$ ,  $C^{\#}$  and  $E^b$ ) are missing. Since mean-tone tuning was still the common temperament in 1652 however, the lack of these accidentals in the bass (except perhaps for  $B^b_1$  to which the  $E^b$  may have been tuned instead of to  $B_1$ ) would not have been found a great limitation.

The 1652 IC harpsichord is thus the earliest instrument originally designed to have the  $G_1/B_1$  compass.

The soundboard is decorated in the style usual for Ioannes Couchet instruments except that, like the 1646 IC in Brussels, it does not have any blue scalloped borders or arabesques. Also like the 1646 IC there are two brightly coloured parrots painted on the soundboard. The date is painted in a rather unusual position between the spine side of the soundboard and the 8' bridge.

The rose used in this instrument is the usual Couchet double-manual harpsichord rose, despite the fact that it was originally designed as a single-manual instrument. Thus at this point the tradition, begun by Ioannes Ruckers in about 1616, of using a different type of rose for virginals, single-manual harpsichords and double-manual harpsichords, was no longer followed. This tradition was also not followed by Joseph Ioannes Couchet who put the double-manual rose in what were originally single-manual harpsichords.

Because the instrument originally lacked a 4' bridge the soundboard is barred differently from the usual Ruckers/Couchet barring. There is one large single cut-off bar in roughly the position occupied by the 4' hitchpin rail, with long soundbars running from this to the spine liner, and placed as usual perpendicular to the spine. The rose is also placed in a position further from the gap and spine than usual in order that it be placed in a location more balanced relative to the isolated 8' bridge. When the 4'



bridge was added, the rebuilder apparently did not realize that the new bridge was directly on top of the cutoff bar and soundbars. Also, it covered much of the soundboard painting, and comes so close to the rose that it also crosses over the wreath painting.

The keyboards are dated 1701, and this would seem to be the date of the addition of the 4' register, the addition of the extra pair of strings for the split E<sup>b</sup> key, and the extension of the case and the addition of the second manual. The stand, in the style of Louis XIV, would also seem to date from this period, and cannot at any rate be original since it fits the lengthened case. However the lid, lengthened at both the keyboard end and at the tail, is probably original. It was modified to fit the lengthened case with the added sections painted to match the original painting, and this work probably also dates from 1701.

The outer case, except for the spine which has its original marbling, is decorated in a particularly elegant and beautiful vernis martin. This decoration is almost certainly, from its style and the way it is executed, much later than 1701 and more probably from about 1780. With the namebatten removed, a decoration which predates the vernis martin is visible underneath the position normally occupied by the namebatten on the nameboard. This earlier decoration of flowers painted on a gold ground is either original or at least predates the addition of the second manual. Many of the flowers and stems are either missing or were cut through when the nameboard was narrowed to allow

additional space for the second manual, and thus this decoration must date from the period when there was only one manual. Although it seems likely that, like the other instruments of Ioannes Couchet, this one originally had papered decorations in the keywell and soundwell, it is possible that the painted decoration is original and this along with the compass, disposition, and trapwork mechanism were new innovations by Couchet in keeping with recent developments in artistic and musical taste.

Literature: (Not in Boalch).

Joseph Ioannes Couchet (or attributable to him)

1671/3 IC

Joseph Ioannes? Couchet, 1671/3, grand ravalement double-manual harpsichord from a small single-manual harpsichord.

Location: Kenneth Gilbert, Chartres, France.

Rose diameter: 85-87 mm.

Present compass:  $F_1$  to  $f^3$

Present disposition:

← 8' peau de buffle  
 ← 8'  
 ← 4'  
 - - - -  
 → 8' shove coupler

Present scalings:

8':  $F_1 = 1755$  mm,  $c^2 = 369$  mm,  $f^3 = 140$  mm

4':  $F_1 = 1066$  mm,  $c^2 = 172$  mm,  $f^3 = 74$  mm

General description:

This is a "collage" instrument, with a soundboard

from an old Couchet harpsichord placed in a case made in France in the 18th century. The keyboards are dated 1757, and William Dowd feels that they, and the essential part of the re-building of the harpsichord, can be attributed to Blanchet. In re-using the old soundboard, the idea seems to have been to place parts of the Couchet soundboard wood under the new extended bridges. The normally inactive "dead" wood to the left of the present cutoff bar has been skillfully sliced away and re-used under the bass ends of the 8' and 4' bridges. New wood was attached to the old soundboard to fill in the area of wood removed from the left of the cutoff bar out to the spine edge of the soundboard and the original rose hole was filled in and the rose re-located in this new wood. The sounding part of the soundboard is thus composed almost entirely of old Couchet wood, and only the inactive area of soundboard behind the cutoff bar is new wood.

The holes used to position the original 8' bridge are visible in the original part of the soundboard, and from the location of these near the original notes c and f<sup>#</sup>, it is clear that the original top note was  $c^3$ , and that the compass probably went down to C/E, or to C chromatically. There is no sign of any positioning holes for the 4' bridge nor of any plugged 4' hitchpins. Traces of the original rose garland arabesques remain, and these leave no space for a 4' bridge between them and the original position of the 8' bridge. Thus the original instrument did not have a 4' and was disposed 2 x 8'.

There are a number of traces of the usual bronze powder arabesques and scallops which were not totally erased from the soundboard when it was re-used and repainted. Among these is visible the original date inscription between the 8' bridge and bentside, and <sup>this</sup> is 1673, and not 1671, which appears in the repainted 18th century part of the soundboard in an Andreas style white ribbon between the new location of the rose and the spine.

The instrument was again re-worked in 1778 by Taskin who probably added the peau de buffle register and the genouillère.

Literature:

p. 476, Germann (1979).

1679 IC

Joseph Ioannes Couchet, 1679, chromatic bass single-manual harpsichord with 3 registers.

Location: Smithsonian Institution, Washington, D. C.

Ruckers number: St/1.

Case dimensions: Length: 1929 mm

Width: 761 mm

Height: 219 mm without the baseboard

Width of keywell: 732 mm

Present and original compass: C to c<sup>3</sup>.

Disposition:

→ 8'

← 4'

→ 8'

## Scalings:

$$8': C = 1485 \text{ mm}, c^2 = 356 \text{ mm}, c^3 = 175 \text{ mm}$$

$$4': C = 866 \text{ mm}, c^2 = 177 \text{ mm}, c^3 = 86 \text{ mm}$$

## General description:

Although it has a number of new and individual characteristics, this harpsichord is clearly built in the earlier Ruckers tradition. At the same time it represents the evolution of this tradition.

It is the only extant Ruckers/Couchet single-manual harpsichord with its original chromatic bass-octave keys and compass. It is about 100 mm longer than the usual short-octave singles or indeed the late chromatic bass-octave singles. It is also the only extant Ruckers/Couchet instrument with its original three registers. There are a number of features that indicate that this disposition is original. Firstly, there is no evidence that the gap has been widened to accommodate an extra register. Both the upper and lower guides are made in the usual Ruckers style, and the three upper registers are marked with one, two and three punch-mark depressions at their bass ends to indicate in which order they should be placed (as were the jack-slides in the normal 2- and 4-register instruments). Also the ends of the keylevers, marked in the usual way by a marking tool passing through the registers, have three depressions on their upper surface instead of the usual two, indicating that there were three registers when Couchet marked out the keyboard prior to cutting it out.

The three registers are so placed that the 4' jack is

situated between the two sets of 8' jacks. There is (and always was) only one set of 8' strings so that both sets of 8' jacks pluck the same string. Separating the two 8' rows of jacks with the 4' row produces the maximum tonal difference between the two 8' registers. Clearly this is an indication of the then current desire for tonal variety.

The materials used and the methods and style of construction follow very closely those used in the usual Ruckers tradition. But a few interesting differences should be noted. The wrestplank is of oak, but it is not tapered in thickness from front to rear, and is not cut on the quarter. It was thus clearly not split from the log as is usual. The edge of the 4' hitchrail has been scribed along the underside of the soundboard, but there are no holes punched up through the soundboard, nor any short scribed lines on the top surface of the soundboard corresponding to the position of the near edge of the 4' hitchpin rail. All of the bridges and nuts are made of cherry instead of the usual 8' bridge of cherry with the 4' bridge, the 8' nut and 4' nut all of beech. The belly rail is let into the liners, but is not sloped as in the earlier instruments. Also there is no spine toolbox in this harpsichord. There are the normal two toolbox braces, but they are parallel to one another, so that the rear brace is let into the treble part of the bentside rather than into the cheek-piece as is usual. The keys, unusually, are lead weighted at the fronts, a feature which is probably also original. This would have been necessary to lighten the touch, since

there has been virtually no compensation to the balance pin position for the extra third row of jacks. The key-blocks, instead of having the usual simple mouldings along their upper edge, are carved like those of the usual upper-manual keyblocks in Ruckers doubles.

The jacks are original and made of quartered beech with the usual oval damper holes. And the usual octave of strings (13 notes C to c) are backpinned on the 8' bridge. The bridge positioning holes follow the notes c and f<sup>#</sup> very closely especially in the treble. Also very much in the Ruckers tradition, the 'pitch c' c<sup>2</sup> string is pinned on the 8' bridge at a point that is exactly 49 cm (19 duimen) from the nameboard. Both rows of tuning pins are labelled in ink with their Flemish note-names, and these confirm the chromatic bass-octave.

The rose is the usual IC double-manual rose, even though the instrument only has one keyboard. It is hollowed out on the back surface and glued and held in place with the usual linen tapes. The soundboard is unpainted except for gold (bronze powder?) scallops around the bridges and case-sides, and vine-work arabesques around the rose. The case exterior has a coat of more recent green paint, but underneath this the original bright red marbling is visible. It is mottled slightly with a weak scumble to give a marbled effect, and is panelled on each case-side surface, and not continuous around the outside of the case as is usual. The interior of the lid is painted with a scene attributed to van Kessel.

## Literature:

Boalch #5; No. 24, p. 14, Steinert (1892); p. 80, Koster (1977).

Former owners: Morris Steinert; Mrs. Norman Learned, Washington; Ethelbert Neven II.

## 1680 IC

Joseph Ioannes Couchet, 1680, ravalé double-manual harpsichord of an extended bass-compass single-manual harpsichord.

Location: Museum of Fine Arts, Boston.

Rose diameter: 86 mm.

## Case dimensions:

Width of keywell: now 877 mm, originally about 863 mm.

Present compass:  $F_1$  to  $f^3$

Original compass: probably  $F_1, G_1, A_1$  to  $d^3$ .

## Present disposition:

← 8' peau de buffle  
 ← 8'  
 ← 4'  
 - - - - -  
 → 8' shove coupler

## Present scalings:

8':  $F_1 = 1714$  mm,  $c^2 = 351$  mm,  $f^3 = 160$  mm

4':  $F_1 = 1018$  mm,  $c^2 = 161$  mm,  $f^3 = 85$  mm

## General description:

This is the last dated instrument from the Ruckers/Couchet tradition. It has suffered numerous alterations to the extent that its original state can now only be guessed at. It was at any rate originally a single-manual harpsichord. The cheek has been extended by a lap joint in the



process of converting it to a double, and the nameboard has been moved slightly and sloped. The original spine is contained inside the instrument and the original width can be estimated as follows. The bentside is one solid piece without a ravalement join so that the original inside width is just the present width less the width of the original spine. Thus the width given it by Couchet is about  $877 \text{ mm} - 14 \text{ mm} = 863 \text{ mm}$ . Assuming that the keyblocks occupied about 47 mm as usual, the width of the keyboards would have been about 816 mm. This suggests that the original keyboard had 34 naturals (810 mm wide - see Table 8-1). Using the 49 cm rule to locate the position of the original pitch  $c^2$  string, and locating the original plugged tuning pin hole in the wrestplank for this note, gives  $d^2$  as the top note. This in turn suggests that the original compass was from  $F_1$  to  $d^3$ , and was probably chromatic in the bass. But because of the large number of alterations to the instrument, the exact number of the original bridge pins and tuning pins cannot be determined. (The somewhat unlikely  $E_1$  ( $C_1/E_1$ ?) to  $c^3$  possibility at a pitch of  $R + 1$  is not entirely to be excluded.) A harpsichord by the elder Ioannes Couchet with the  $F_1$  to  $d^3$  compass is mentioned in the correspondence of July 19th, 1648 from Duarte to Huyghens (see Appendix 17).

The initial conversion to a double-manual harpsichord may have been done by Blanchet who signed the keys in 1758. It was then later modified by Taskin in 1781 who added a fourth row of jacks (the peau de buffle) and the genouillère.

Taskin also stamped the wrestplank with the gauges of the strings that should be used to string the instrument, and these and the scalings suggest that it was originally designed to sound a semitone above Taskin's usual pitch of  $a^1 = 409$  Hz.

Literature:

Boalch #8; Plate XIII, Hubbard (1965); p. 70, Ripin (1970b).

Former owners: E.M. Ripin, New York.

n.d. IC

Joseph Ioannes Couchet, undated, grand ravalement double-manual harpsichord made from an extended-bass single-manual harpsichord.

Location: Nydahl Collection, Stockholm.

Rose diameter: 84 mm.

Case dimensions: Length: now 2725 mm, originally about  
2630 mm

Width: now 925 mm, originally about  
918 mm

Height: 254 mm without the baseboard

Width of keywell: 887 mm (unaltered)

Present compass:  $F_1$  to  $f^3$ .

Original compass:  $F_1$  to  $d^3, e^3$ .

Present disposition:

← 8'

← 4'

→ 8'

## Present scalings:

$$8': F_1 = 2144 \text{ mm}, c^2 = 360 \text{ mm}, f^3 = 136 \text{ mm}$$

$$4': F_1 = 1109 \text{ mm}, c^2 = 164 \text{ mm}, f^3 = 66 \text{ mm}$$

Original scalings: Although both the bass and treble ends of the 8' and 4' bridges are not original, and the nuts have been replaced and re-positioned, the original scalings can be estimated:

Note	8'	4'
e <sup>3</sup>	135 mm	66 mm
c <sup>3</sup>	161	78
f <sup>2</sup>	246	117
c <sup>2</sup>	327	159
f <sup>1</sup>	499	244
c <sup>1</sup>	635	314
f	858	455
c	1077	573
F	1512	746
C	1879	913
F <sub>1</sub>	2170	1125

Ruckers motto: in keywell - NON NISI MOTA CANO

## General description:

This is probably the latest of the instruments produced by the Ruckers/Couchet family, and is certainly one of the most interesting. It was originally a single-manual harpsichord with the usual 1 x 8', 1 x 4' disposition. It was both very long and very wide compared to the usual Ruckers/Couchet instrument; so long that even the lowest

bass notes down to  $F_1$  would have been too long to use red brass strings. Its original scalings are such that it would have used iron in the treble down to about G, and only yellow brass for the remaining bass strings. The instrument is 887 mm wide inside, which gives room for 35 naturals, plus keyblocks each about 25 mm wide. The original compass was thus 5 octaves less one note!

The original hole for the registers is visible in the cheek and this is wide enough for only 2 slides, so that the original disposition must have been 1 x 8', 1 x 4'. There are 60 plugged tuning pin holes for both the 8' and 4' original sets of strings. This suggests a compass of  $F_1$  to  $e^3$ . Although the bass end of the 8' bridge is not original from the original first to fourth notes, the string band strip made for this instrument implies that 13 notes were originally backpinned on the 8' bridge. This in turn implies a completely chromatic bass-octave, since the usual practice was to backpin a complete octave of bass 8' strings including the top and bottom notes. Assuming that the top backpinned note is F means that the note  $c^2$  is located by the 49 cm rule. However, using this would put the top  $e^3$  string of the 8' very close to the cheek. Close examination of the top two tuning pin holes shows that they are not as accurately positioned as the remaining 59 in each row, so that they must not be original. This is confirmed by inspection of the upper-manual lower guide which is one of the original Couchet upper registers, and which has 59 original slots, and two added slots. Thus the original compass must

have been  $F_1$  to  $d^3, e^3$ .

Although the 49 cm rule locates the original 8' note  $c^2$ , it is clear from the position of the nut that the scaling for this note (and the other treble notes of both the 4' and 8' strings) is a whole tone higher than R. This instrument is therefore an exception to the usual tradition where the 49 cm rule locates the pitch c note with a scaling typically of about 356 mm. Here the 49 cm rule locates the bridge pin of the played note  $c^2$  even though the pitch of this note is at  $R + 1$ , and pitch c is therefore played by the  $b^{b1}$  key.

The first alteration seems to have converted this harpsichord to a 2 x 8', 1 x 4' disposition with a compass of  $F_1$  to  $e^3$ . The original rows of 4' and 8' tuning pins were used, adding one note in the treble, and the second set of tuning pins was staggered in the French way. The space for the extra register was gained from both the bellyrail and wrestplank sides of the gap.

The next alteration seems to have been made by Taskin, whose typical label is found on the inside of the instrument glued to the bentside. He added about 95 mm to the keyboard end of the spine and cheek to make room for the second manual. He also increased the thickness of the spine by adding new wood to the outside of the original spine side and re-made the internal framing in a way typical of many of Taskin's ravalements. He re-positioned the tuning pins, staggering all three rows, and stamped the gauge numbers of the strings to be used for each note on the

wrestplank. He re-pinned the bridges and moved the nuts to give the present scalings. The Taskin compass was still  $F_1$  to  $e^3$ , and the 60th jack has Taskin's usual mark and the date 1768, thus making this Taskin's earliest dated work.

The last alteration was to add an extra set of keys, jacks and register holes for a top  $f^3$  note. But although this was done by a competent workman it seems not to have been done by Taskin.

The exterior has one of the most lavish decorations of any harpsichord I have seen. It is painted in red lacquer with brilliant polychrome lacquer decorations. The stand is an elaborately carved rococo creation. The lid is in one piece without lid flap, and the interior painting is in the style of David Teniers - the quality of the painting is that of the best of Teniers' work. In its decoration it is a breathtakingly beautiful instrument.

Literature:

Boalch #12.

Former owners: Rudolph Nydahl, Stockholm.

Appendix 1 - The Duim

At the time the Ruckers lived and worked in Antwerp there was no standardization of the unit of length from country to country or even from city to city. In most European centres the unit of measure was the foot (pied, Fuss, piede or voet) and this was usually divided into 12 units.<sup>A1-1)</sup> However in many parts of Northern Europe, the foot was divided into 11 units instead of 12. Antwerp was one such place, and there each unit dividing the voet or foot was called a duim or thumb. Edwin Ripin<sup>A1-2)</sup> was the first to record that the voet used by the Ruckers would have been divided into 11 duimen and he suggested that the duim would have either 25.7 mm or 26.6 mm. Thomas and Rhodes<sup>A1-3)</sup> confirm that the Antwerp voet had 11 duimen but suggest that one duim was equal to 25.8 mm. More recently Dr. Lambrechts-Douillez has given the value of one duim as 26.07 mm.<sup>A1-4)</sup>

However, although it seems clear that the Antwerp voet did contain 11 duimen, the application of any of the above values of the duim to the instruments built by the Ruckers family does not give good agreement with the actual lengths of the instruments. For example the average length of the single 6-voet muselar virginals is about 1708 mm. This should be equal to 66 duimen, and straightforward division gives  $\frac{1708}{66} = 25.879$  mm.

Because there are a number of virginals whose length has never been altered, I have decided to derive the value of the duim from the lengths of the instruments themselves

in order to discover the actual length of the voet and duim being used in the Ruckers workshops. Table A1-1 shows the unaltered lengths of Ruckers virginals classified according to the type and length of each instrument.

Table A1-1 The large duim calculated from the length of unaltered Ruckers virginals

<u>6-voet muselar virginals:</u>		<u>5-voet muselar virginals:</u>	
(1592)b HR	$-\frac{1711}{66} = 25.924$ mm	1604 HR	$-\frac{1424}{55} = 25.891$ mm
1611 HR	$-\frac{1712}{66} = 25.939$ mm	1640a IR	$-\frac{1470}{57} = 25.789$ mm
1620 IR	$-\frac{1704}{66} = 25.818$ mm	1642a IR	$-\frac{1474}{57} = 25.860$ mm
1622 IR	$-\frac{1708}{66} = 25.879$ mm	1643a AR	$-\frac{1500}{58} = 25.862$ mm
1627a IR	$-\frac{1708}{66} = 25.879$ mm	<u>4½-voet spinett virginal:</u>	
1638a IR	$-\frac{1709}{66} = 25.894$ mm	1629 IR	$-\frac{1282}{49.5} = 25.899$ mm
1650 IC	$-\frac{1708}{66} = 25.879$ mm	<u>4½-voet muselar virginal:</u>	
1620d AR	$-\frac{1705}{66} = 25.833$ mm	1610b AR	$-\frac{1304}{50.5} = 25.822$ mm
1633a AR	$-\frac{1706}{66} = 25.848$ mm	<u>4-voet spinett virginals:</u>	
<u>6-voet spinett virginals:</u>		1583 HR	$-\frac{1143}{44} = 25.977$ mm
1598 HR	$-\frac{1660}{64} = 25.938$ mm	1613a AR	$-\frac{1139}{44} = 25.886$ mm
1617 AR	$-\frac{1658}{64} = 25.906$ mm	1613b AR	$-\frac{1138}{44} = 25.864$ mm
<u>6-voet mother and child virginals:</u>		1620a AR	$-\frac{1143}{44} = 25.977$ mm
1581 HR	$-\frac{1786}{69} = 25.884$ mm	1632 AR	$-\frac{1136}{44} = 25.818$ mm
(1591)b HR	$-\frac{1711}{66} = 25.924$ mm	<u>2½-voet spinett virginal:</u>	
(1600) HR	$-\frac{1708}{66} = 25.879$ mm	(c1610)a AR	$-\frac{711}{27.5} = 25.855$ mm
1623 IR	$-\frac{1708}{66} = 25.879$ mm		

From Table A1-1 it can be seen that, for example, for the 4-voet virginals, and for the 6-voet muselar virginals, the lengths were simply divided by the number of duimen in the nominal length of the instrument. However



for some types of instrument such as the mother-and-child virginals, the 6-voet spinett virginals, etc., the actual lengths of the instruments differed from their nominal lengths by an integral number of duimen units, and each of these was corrected accordingly.

The average value of the duim calculated from Table A1-1 is 25.881 mm and this has been rounded off to 25.88 mm used throughout this work. The corresponding value of the Antwerp voet is thus 284.7 mm.

As has been shown in Chapters 5 and 6 this value of the duim gives virginal widths and other large dimensions (such as the length and width of virginal lids) which are integral or half-integral multiples of this 25.88 mm duim unit. However, it is equally clear that many of the otherwise arbitrary distances in Ruckers virginals and harpsichords are not integral multiples of this unit, but of a slightly smaller unit. A careful analysis of the case heights, the width of the interior braces and framing, and the distances separating scribed lines on the baseboards of both virginals and harpsichords shows that measurements smaller than 1 voet seem to have been measured with a rule divided into duimen which were, on average, 25.477 mm long. Therefore the value of the duim used for short measurements throughout this work has been taken to have a value of 25.48 mm and the voet a value of 280.3 mm. The 25.88 mm duim I have called the long duim, the 25.48 mm duim I have called the short duim.<sup>A1-5)</sup>

Thomas and Rhodes (see footnote A1-3) have suggested

that Douwes, when writing about the scalings and case-lengths of Flemish and Dutch clavecimbels, was using the Frieshoutvoet which was divided into 12 units instead of 11. In fact Douwes (see Appendix 8) says, 'But I should also say that such clavecimbels as are called 6-voet are not fully 6 voeten long, but are about a third of a voet shorter.' Thus for Douwes an Antwerp 6-voet virginal was about  $5\frac{2}{3}$  Frieshoutvoeten long. Assuming he was speaking of the 6-voet muselar virginals which were most common, then their length would be about 1708 mm. One Frieshoutvoet would then be about  $\frac{1708}{5\frac{2}{3}} = 301.4$  mm and the duim used by Douwes would be  $1/12$  of this or 25.12 mm. Douwes also speaks of 'a little clavecimbel of 2 voet and 4 duimen'. Using a Frieshoutvoet of 12 duimen each with a length of 25.12 mm gives a length of 703 mm. By way of comparison the (c1610)a AR virginal has a length of 711 mm. This seems to confirm Thomas and Rhodes contention that Douwes was using the 12 duimen Frieshoutvoet, and explains why an instrument which is  $2\frac{1}{2}$  (i.e. 2 voet  $5\frac{1}{2}$  duimen) Antwerp voet long should be described by Douwes as 2 voet 4 duimen in length.

Footnotes:

- A1-1) The English word 'inch' derives from the Old French word of Latin origin uncia meaning a twelfth part. Thus we get also 'ounce' where one Troy ounce is one twelfth of a Troy pound.
- A1-2) Edwin M. Ripin, 'The 'Three Foot' Flemish Harpsichord', Galpin Society Journal, 23 (1970) 35-39.
- A1-3) W.R.Thomas and J.J.K.Rhodes, 'Harpsichord Strings, Organ Pipes and the Dutch Foot', The Organ Yearbook, 3 (1973) 112-121.

- A1-4) Jeannine Lambrechts-Douillez, 'Aperçu historique sur la facture de clavecin à Anvers aux XVI<sup>e</sup> et XVIII<sup>e</sup> siècles', La facture de clavecin du XV<sup>e</sup> au XVIII<sup>e</sup> siècle (1980) 62.
- A1-5) Many cities used a large and small unit of the same measure simultaneously. Usually this variation manifested itself in the ell used to measure cloth. For example in Trieste the ell used to measure woollen material measured 676.75 mm whereas that used to measure silk was 642.14 mm. But many other cities such as Augsburg, Cologne, Cracow, and Brussels had a large and a small foot. See Aide-Mémoire a l'usage des officiers d'artillerie de France Vol. 2 (Paris 1819) 896f.

Appendix 2 - The Hagaerts 5-voet spinett virginal

No 5-voet spinett virginal exists which was built by a member of the Ruckers family. In fact very few 5-voet muselar Ruckers virginals exist: there are three instruments by Ioannes (1604 HR, 1640a IR 1642a IR) and only one by Andreas (1643a AR). It seems fairly certain that the Ruckers would have made 5-voet spinett virginals but, considering that 6-voet spinett virginals were much less popular (only one in five of the surviving 6-voet virginals is of the spinett type), it is not surprising that no Ruckers 5-voet spinett virginals has survived. However, a 5-voet spinett virginal exists which was made by Cornelius Hagaerts in 1636, and which is now in the Rockox House in Antwerp.<sup>A2-1)</sup>

Like the Ruckers, Hagaerts was an Antwerp clavecimbel builder, and he lived and worked in a period contemporary with Ioannes and Andreas I and II. He entered the Guild of St Luke in 1626/27 and he died on June 17, 1642.<sup>A2-2)</sup> Although few instruments exist made by Cornelius Hagaerts or his son Simon, it seems likely that they would have made a range of instrument models similar to those made by the Ruckers.

In fact the 5-voet virginal is very similar in style to the Ruckers instruments, with papered decorations, a painted soundboard and a gilded lead rose. Like the Ruckers instruments, the Hagaerts virginal is numbered and bears the cipher 5/14. The upper part of this number indicates that we are dealing here with a 5-voet instru-

ment (see Chapter 3). The lower part of the number indicates that this was the fourteenth 5-voet virginal made by Hagaerts. Assuming that Hagaerts began numbering his 5-voet instruments in 1626 when he joined the Guild, this amounts to a production rate of about 1.4 5-voet virginals a year. Because of the scarcity of Ruckers 5-voet instruments it is almost impossible to compare this with the production rate of either Ioannes or Andreas.

Using the average value of the large duim obtained from the lengths of Ruckers instruments ( $1d = 25.88$  mm - see Appendix 1) then 5-voeten would have a length of  $5 \times 11 \times 25.88$  mm = 1423.4 mm. By way of comparison the length of the Hagaerts 5-voet spinett virginal is 1423 mm and the length of the 1604 HR muselar virginal is 1424 mm, showing clearly that both Hagaerts and Ruckers were using the same standard of length. The Hagaerts virginal is 481 mm wide, the Ruckers virginal is 479 mm wide, and both of these are very close to 18.5 duimen ( $18.5 d = 478.8$  mm).

The string lengths and plucking points of the Hagaerts and 1604 HR 5-voet virginals are compared in the table A2-1 below.

The treble scalings of the Hagaerts virginal are slightly shorter than those of the Ruckers, the bass scalings are slightly longer. It seems clear however that the two instruments were intended to be tuned to the same pitch, namely  $R + 1$ . The plucking points of the Ruckers muselar virginal vary from about 45% of the string length in the

treble to about 35% in the bass. The plucking points of the Hagaerts spinett virginal vary from about 45% in the treble to only 10% in the bass, and these figures are very similar to the Ruckers 6-voet spinett virginals, (see Catalogue entry for (c1600) HR). Had a Ruckers 5-voet spinett virginal survived, it therefore seems likely that it would have had scalings, plucking points, and case dimensions which were similar to those of the Hagaerts virginal.

Table A2-1 - Hagaerts and Ruckers 5-voet virginal scalings and plucking points in mm

Note	1636 Hagaerts Spinett virginal		1604 HR Muselar virginal	
	String length	Plucking point	String length	Plucking point
c <sup>3</sup>	154	69	163	76
f <sup>2</sup>	234	70	243	102
c <sup>2</sup>	318	83	330	148
f <sup>1</sup>	443	83	464	187
c <sup>1</sup>	605	96	621	240
f	812	99	803	286
c	990	114	969	350
F	1169	110	1156	397
C	1212	120	1204	425

Footnotes:

- A2-1) C.A. Bom, 'Restauratie en beschrijving van het Hagaerts virginaal; Antwerpen, 1636', Mededelingen van het Ruckers Genootschap, 2 (1982) 29-49.
- A2-2) J. Lambrechts-Douillez, 'Dokumenten betreffende de familie Hagaerts', Mededelingen van het Ruckers Genootschap, 2 (1982) 11-24.

Appendix 3 - The 2½-voet virginal

Douwes (see Appendix 8) refers in his stringing lists to clavecimbel of length 2 voeten 4 duimen. I have recently discovered two instruments of this type, and measurement of their scalings has enabled a definitive determination of their pitch (see p. 150). Both of these instruments are virginals; one is by Andreas Ruckers (see catalogue entry for (c1610) AR),<sup>A3-1)</sup> and the other is by George Britsen and is dated 1686 (Brussels Museum of Musical Instruments number 631).<sup>A3-2)</sup>

Douwes says that these instruments should have a length of 2 voeten and 4 duimen. The Ruckers virginal has a length of 711 mm, and this is almost exactly 27.5 duimen (27.5 duimen = 711.7 mm). The instrument is therefore 2 voeten and 5½ duimen or 2½ Antwerp voeten in length, and not 2 voeten 4 duimen. It is therefore exactly one-half the length of the 5-voet virginals, and as will be shown below, has string lengths which were designed to be half as long as the 5-voet instruments. The reason for the length assignment given by Douwes almost certainly arises because of the unit of measure being used by him. As Thomas and Rhodes have shown,<sup>A3-3)</sup> Douwes appears to have been using the Frieshoutvoet with 12 duimen to the voet. If each duim was 25.1 mm long (see Appendix 1) 2 voeten and 4 duimen in the Friesland measure then equal 703 mm which is very close to the length of the Ruckers instrument. The length of the Britsen virginal is 753 mm or very close to 29 Flemish duimen (= 2 voeten 7 duimen). Because the Ruckers virginal is almost exactly 27.5



Photo A3-1 The 2 $\frac{1}{2}$ -voet virginal by Andreas Ruckers, c1610.





Photo A3-2 The 2 $\frac{1}{2}$ -voet virginal by George Britsen, 1686.

duimen long I will always refer to these instruments according to this length as  $2\frac{1}{2}$ -voet virginals.

The Ruckers and Britsen instruments have a great deal in common. Unlike the Ruckers '3-voet' instruments which are always child virginals associated with a large mother virginal, both of these virginals are completely independent instruments and were never a part of another larger instrument. Neither has a slot in the baseboard to allow the jacks of a putative mother to operate its keys. Both show traces of the original faux green porphyry marble exterior decoration under a layer of more recent paint - whereas the child instruments always had a papered exterior decoration which was protected inside the mother instrument. Both virginals have sloping case-sides with the spine about twice as high as the front of the instrument. They both have an original lid (which the child virginals did not) and the closed instrument resembles a small writing desk with the lid, supported by the sloping sides, providing the writing surface.

The scalings of the two virginals are compared in Table A3-1 below.

The right-hand bridge of the Britsen virginal consists of two sections - a curved treble section is mitred to a straight bass section. The left-hand bridge is straight. The scalings produced by the resulting combination are quite accurately Pythagorean and give an average treble scaling about  $c^1$  of 156 mm.

Because the right-hand bridge of the Ruckers virginal

(like the 3-voet child virginals) consists only of two straight segments, its scalings are not accurately Pythagorean. Plotted logarithmically, the scalings of this virginal produce a graph with two curved sections each of which corresponds to one of the straight sections of the bridge. Because the bridge mitre occurs between  $b^{\flat 1}$  and  $b^1$ , very near to  $c^2$  and because the scalings here deviate most markedly from their theoretical Pythagorean values, the string length of  $c^2$  does not give a good representation of the scalings as a whole.

The scalings near  $d^1$ , and around  $f^{\sharp 2}$  to  $g^{\sharp 2}$  are longest, and therefore the strings near these notes are closest to their breaking point. Using the scalings of these notes and converting them to the equivalent length for  $c^2$  gives 157.5 mm.

In Chapter 4 (p. 148) it was assumed that the pitch of this type of instrument was  $R + 9$ . If this is true then converting the above scalings to a pitch  $R$  should give values which compare with the average Ruckers scalings found in Chapter 4. Correcting for their pitch a ninth higher than  $R$  is accomplished by multiplying these scalings by  $\frac{9}{4}$ . This gives  $c^2 = 354$  mm for the Ruckers. These compare with an average treble scaling of 354.8 found for Ruckers virginals in Chapter 4, and confirm the assumed pitch assignment of  $R + 9$ .

Because of the high pitch of these instruments the scalings are necessarily very short. In particular the scaling of C/E of the Ruckers instrument is shorter than

the width of the keyboard from C/E to  $c^3$  (650 mm). Therefore there is not enough space between the bridges for the normal width of registers and jacks. The jacks and jack-slots have therefore been narrowed to fit between the bridges and the bass and treble keys are cranked in towards the middle of the instrument to line up with the jacks - see Photo A3-1 and A3-2. The resulting narrow spacing of the jacks corresponds to a 3-octave width of only 456 mm for the Ruckers virginal compared with the usual 3-octave keyboard span of 500 mm. Clearly it is because of the narrow spacing of the jacks that these  $2\frac{1}{2}$ -voet instruments are not used as the child instruments of the 5-voet instruments an octave lower. Because the putative 5-voet mother instruments have jacks with the same spacing as the keys, its jacks cannot be used to operate the tails of the small  $2\frac{1}{2}$ -voet child virginals in the same way as the usual 6-voet/3-voet mother and child virginals.

Table A3-1 - Scalings of the two  $2\frac{1}{2}$ -voet virginals.

Note	Andreas Ruckers c1610	George Britsen 1686
$c^3$	75 mm	73 mm
$f^2$	114	112
$c^2$	147	154
$f^1$	226	232
$c^1$	320	332
f	418	442
c	507	548
F	599	662
C/E	606	681

Footnotes:

A3-1) I would like to express my thanks to the owners of



Photo A3-3 The keyboards of the 1686 George Britsen 2 $\frac{1}{2}$ -voet virginal. The bass and treble key tails are cranked in toward the centre of the keyboard to match the narrow spacing of the jack slots.

this instrument, Jeanette and Bryan Aberly, and to William Bright for their generous help in supplying me with information and photographs of this instrument.

- A3-2) V.C. Mahillon, Catalogue descriptif et analytique du Musée Instrumental du Conservatoire Royal de Bruxelles, 5 vols, (Ghent -Brussels, 1893-1922) (Facs. reprint, 1978) Number 631, Vol. 2, p. 44.
- P. Collear and A. van der Linden, Historische atlas van de muziek (Amsterdam 1961)
- J.H. van der Meer, 'Beiträge zum Cembalobau der Familie Ruckers', Jahrbuch des Instituts für Musikforschung Preussischer Kulturbesitz (1971) 135.
- A3-3) W.R. Thomas and J.J.K.Rhodes, 'Harpsichord Strings, Organ Pipes and the Dutch Foot', The Organ Yearbook, 4 (1973) 114.

Appendix 4 - The Stringing of instrument types not in  
Douwes

Claas Douwes lists the gauges and stringing materials for 5 different types of Flemish clavecimbel (see Appendix 8). The instruments listed are all short-octave instruments and from the close correspondence between the case lengths of the instruments listed and the actual lengths of Ruckers virginals, it appears that Douwes had virginals specifically in mind here. However from the similarity in the length of the strings between say, the normal short-octave single-manual harpsichord and the 6-voet virginals, it would seem that Douwes lists could be applied to harpsichords as well. Therefore to string a short-octave single harpsichord, Douwes' list for the 6-voet clavecimbels could be used for the 8' choir and the list for the the 3-voet clavecimbels used for the 4' choir. Similarly Douwes' list for the 4-voet clavecimbels could be used to string the unison choir of the small 4-voet harpsichords (e.g. the 1627 AR) and the octave choir of the normal short-octave double-manual harpsichords.

Notably absent from Douwes list is the stringing list for the  $4\frac{1}{2}$ -voet virginals, the unison choir of the normal double harpsichord, the octave choir of the 4-voet harpsichord, and both the large double and large single chromatic bass harpsichords. However, as was noted in Chapter 4 and illustrated in Table 4-8, the gauges used for the treble notes of the different sizes

of instrument are essentially the same after correcting for the pitches of the various different types of instrument. This fact can be used to predict the gauges of the treble notes of the instrument types not listed by Douwes, and comparison with the other instruments as close in size as possible allows the gauges of the bass notes to be estimated.

#### Stringing of the bass-short-octave instruments

From Douwes' lists it is clear that the three lowest notes C, D and E of the bass-short-octave instruments are always strung with red strings (red brass), the subsequent notes from F to  $c^\sharp$  are strung with yellow strings (yellow brass) and the remainder from d to  $c^3$  with white strings (iron). Using this and making the comparisons just mentioned above it is possible to estimate the following stringing lists:

To string the unison of a short-octave double-manual harpsichord:

C	}	No.	0	} Red
D E			1	
F G			2	} Yellow
A B <sup>b</sup>			3	
B c c <sup>#</sup>			4	
d e <sup>b</sup> e f			5	} White
f <sup>#</sup> g g <sup>#</sup> a b <sup>b</sup>			6	
b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup>			7	
f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup> b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup>			8	
d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup>			9	
b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup> c <sup>#3</sup> d <sup>3</sup> e <sup>b3</sup> e <sup>3</sup> f <sup>3</sup>	10			



To string a  $4\frac{1}{2}$ -voet virginal:

C	}	No.	2	} Red
D			3	
E			4	
F G			5	
A B <sup>b</sup> B			6	} Yellow
c c <sup>#</sup>			7	
d e <sup>b</sup> e			7	} White
f f <sup>#</sup> g g <sup>#</sup> a b <sup>b</sup>			8	
b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup>			9	
f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup> b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup>			10	
d <sup>2</sup> e <sup>#2</sup> e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup>			11	
b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup> c <sup>#3</sup> d <sup>3</sup>			12	

To string the octave of a 4-voet harpsichord:

C	}	No.	5	} Red
D			6	
E			7	
F G A			8	} Yellow
B <sup>b</sup> B c c <sup>#</sup>			9	
d e <sup>b</sup> e f f <sup>#</sup> g g <sup>#</sup> a b <sup>b</sup> b			10	} White
c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup>			11	
b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup> d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup>			12	
g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>			13	

### Stringing the chromatic bass harpsichords

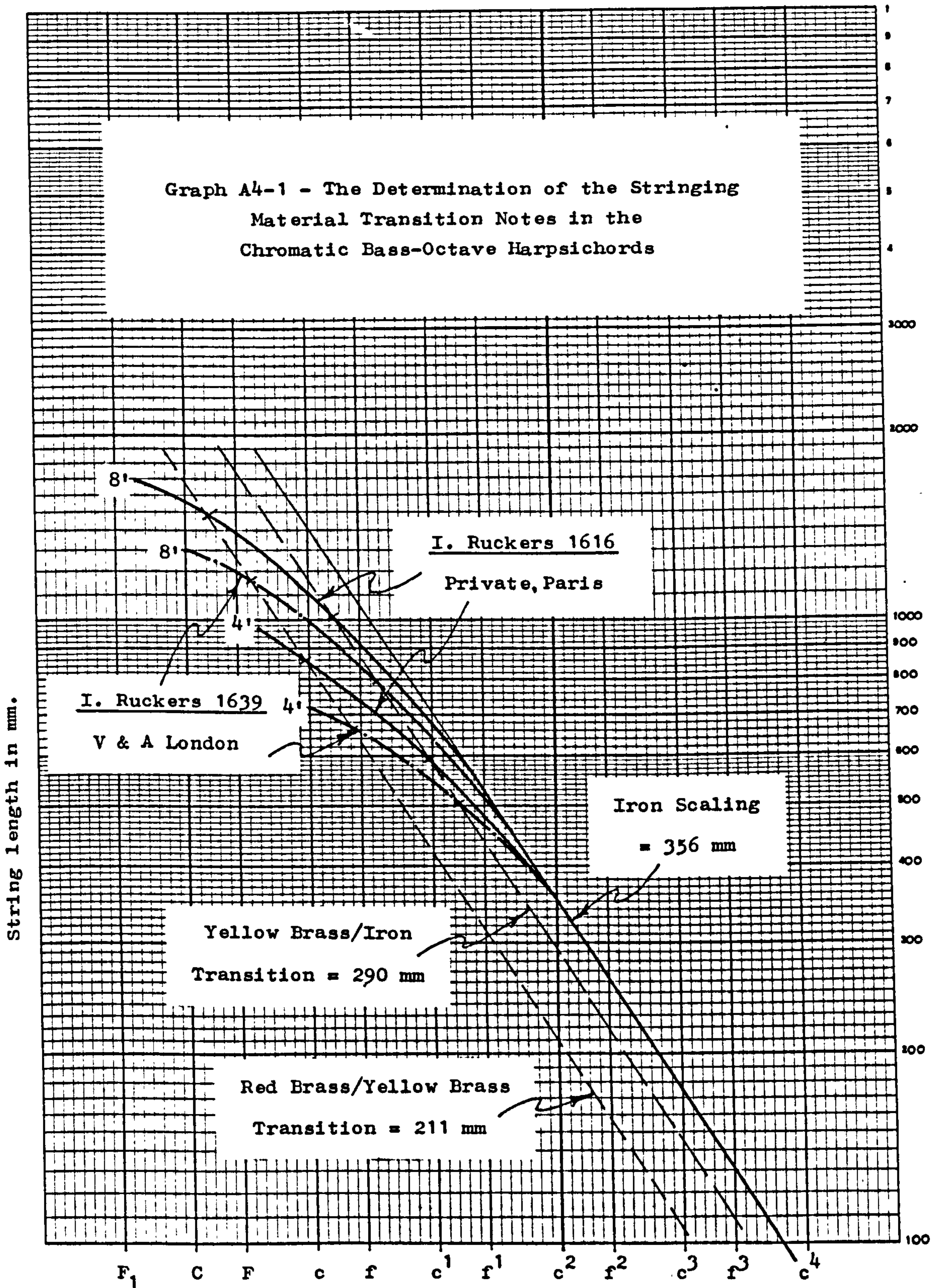
The stringing of the large 'French' doubles and the large 'English' singles with a chromatic bass octave poses a special problem since Douwes lists only short-octave instruments. The gauges of the strings used must have been

similar for the short-octave and the chromatic bass instruments since the lengths of the instruments and the scalings of the two were almost identical. The problem is to decide where the transition from red to yellow brass, and from yellow brass to iron should occur.

In Chapter 4 (p. 159) the transition scalings for the changes from red to yellow brass, and from yellow brass to iron were calculated and found to be 211 mm and 290 mm respectively. Graph A4-1 plots the original scalings of the 1616 HR double-manual and the 1639 IR single-manual harpsichords, each of which also originally had a chromatic bass-octave. The intersection of the 211 mm red/yellow brass transition line, and the 290 mm yellow brass/iron transition line with the scaling curves gives the stringing material transition notes for these two instruments. These are listed in the table below:

		Transition Note	
		Red brass to yellow brass	Yellow brass to iron
Ruckers chromatic bass-octave single- manual harpsichord	4' 8'	E/F F <sup>#</sup> /G	d/e <sup>b</sup> c <sup>#</sup> /d
Ruckers chromatic bass-octave double- manual harpsichord	4' 8'	B <sub>1</sub> /C D/E <sup>b</sup>	B/c d/e <sup>b</sup>

Graph A4-1 - The Determination of the Stringing Material Transition Notes in the Chromatic Bass-Octave Harpsichords



## Appendix 5 - Douwes Scalings and Ruckers Instruments

The string gauge lists of Douwes (see Appendix 8) seem to apply to Ruckers instruments. In these lists the bottom three short-octave notes of all sizes of instrument are strung in red brass. The next notes up to  $c^\sharp$  are strung in yellow brass and the notes from  $d$  to  $c^3$  are strung in iron. This type of stringing plan is valid only if the scalings of a high-pitched model of instrument are derived from those of a low-pitched model by multiplying the lengths of the strings for each note by a constant factor less than unity. For example an instrument at a pitch  $R + 5$  would have scalings which are  $\frac{2}{3}$  of those of another at  $R$ . This would be true in the treble and, if the red to yellow brass and the yellow brass to iron transitions occur at the same played notes, then the scalings in the bass must also be different by a factor of  $\frac{2}{3}$ . As was shown in Chapter 4, Ruckers instrument scalings are derived from one another by multiplying by a constant factor for each note throughout the entire compass.

In addition, the pitches of the instruments being spoken of by Douwes seem to be the same as those of Ruckers. Table 4-8 shows that if the stringing lists of Douwes are arranged according to the pitch differences found for Ruckers instruments, the the treble notes are, in most cases, strung with strings of the same gauge, as would be expected.

The Douwes string gauge lists therefore seem definitely to apply to Ruckers instruments; but how do the Douwes

scaling lists apply to Ruckers clavecimbel? A number of features of the scalings listed by Douwes must be noted (see Table A5-1). Firstly the lengths Douwes gives are never listed to an accuracy greater than a half a duim. Thus it is unlikely that any of the measurements are very accurate. Secondly many of the scalings are inconsistent. The scalings of only the 6-voet clavecimbel are Pythagorean between  $c^1$  and  $c^3$ ; for all of the other sizes, the length of  $c^1$  is less than twice the length of  $c^2$  (the  $c^1$  scaling of the 4-voet clavecimbel is particularly short). Thirdly, the ratio of the scalings of the higher pitched instruments to the 6-voet clavecimbel scalings are usually not those one would expect (see column headed 'Ratio'). For example, the ratio of the scalings of the 6-voet to the 3-voet clavecimbel would be expected to be 2:1, since the two are an octave apart. In Table A5-1 we see that the scaling ratio is 2.00 for  $c^2$  and  $c^3$  (14:7 and 7:3½ respectively). But the scaling ratio is 2.15 for  $c^1$ , 2.05 for  $c$ , and only 1.90 for  $C$ . If Douwes 5-voet and 4-voet clavecimbel have the same pitch as those of Ruckers, then the scaling ratios should be  $\frac{9}{8} = 1.125$  for the 5-voet virginals at  $R + 1$ , and  $\frac{3}{2} = 1.50$  for the 4-voet virginals at  $R + 5$ . The ratios of the Douwes scalings shown in Table A5-1 are near these, but vary erratically on either side of the expected values.

In order to compare the scalings listed by Douwes with those of actual Ruckers instruments we must first of all know what the length of Douwes duim unit was. In Appendix 1 an approximate value of 25.12 mm has been found.

Using this the lengths of Douwes strings can be calculated, and these are listed in Table A5-1. Also listed for comparison are the  $\underline{c}$  scalings of a 6-voet, 5-voet, 4-voet and child (3-voet) virginal made by one of the members of the Ruckers family. Here and there one finds fairly good agreement between the Ruckers string measurements and Douwes scalings converted into mm. But it is clear that even if the length of the duim used here is not accurate, no other value is going to give better agreement between the calculated scalings and those found on Ruckers instruments. One consistent feature of the Douwes scalings is that the C scalings are always much longer than those of Ruckers. The Ruckers C scalings are longer than their tenor c scalings by a factor of 1.23 to 1.24. The Douwes C scalings are 1.28 to 1.41 longer than his tenor c scalings. To me this suggests that the greater 'distance' separating C and c was a result of the fact that the instruments Douwes was dealing with had a chromatic bass octave, rather than the short-octave bass of the Ruckers instruments.

Considering how systematic and orderly the Douwes string gauge lists are, the lack of internal consistency of the scaling lists is surprising. Douwes lists for the 4-voet and 3-voet clavecimbel were copied by Reynvaan (see Appendix 9). But Reynvaan's lists are also very confused; he introduces some new models of clavecimbel which, from their treble scalings at least, clearly correspond to Douwes models of a different length. What is clear is that, because of the lack of internal consistency of Douwes

Table A5-1 - Comparison of Douwes scalings with those of Ruckers Instruments.

Note	6-voet clavecimbel				5-voet clavecimbel			
	Douwes		(c1600) HR in mm	Ratio	Douwes		1604 HR in mm	Ratio
	duimen	mm			duimen	mm		
c <sup>3</sup>	7	176	183	1.00	6½	163	163	1.08
c <sup>2</sup>	14	352	367	1.00	13	327	330	1.08
c <sup>1</sup>	28	703	708	1.00	25	628	621	1.12
c	45	1130	1131	1.00	39	980	969	1.15
C	59	1482	1397	1.00	50	1256	1204	1.18

Note	4-voet clavecimbel				3-voet clavecimbel			
	Douwes		1613a AR in mm	Ratio	Douwes		(c1600) HR in mm	Ratio
	duimen	mm			duimen	mm		
c <sup>3</sup>	5	126	117	1.40	3½	88	89	2.00
c <sup>2</sup>	10	251	244	1.40	7	176	178	2.00
c <sup>1</sup>	18	452	472	1.56	13	327	354	2.15
c	31	779	748	1.45	22	553	562	2.05
C	41	1030	921	1.44	31	779	689	1.90

The column headed 'Ratio' gives the ratio of Douwes 6-voet clavecimbel scalings to Douwes scalings for the instrument in question.

scaling lists, they do not help in understanding the string plan of Ruckers instruments or of Flemish instruments in general, and should not be applied to them. It is tempting, for example, to use the short duim (= 25.48 mm) to calculate the length of the 6-voet  $c^2$  string length (14 duimen). This gives 356.7 mm which is very close to the average Ruckers scalings (355.0 mm) found in Chapter 4. Unfortunately this apparent agreement does not then extend to the other sizes of Ruckers instruments, or even to the bass notes of the 6-voet clavecimbel: the Douwes scaling lists simply cannot be applied to the Ruckers instruments.



Appendix 6 - Classification of Ruckers instruments according to their original state.

Virginals

6-voet spinett mother and child  
(c1600) HR

6-voet muselar mother and child  
1581 HR, (1591)b HR, 1610 HR, 1623 IR  
1628a IR, 1638a IR, 1644b AR

6-voet spinett virginal  
1591a HR, 1598 HR, 1617 AR

6-voet muselar virginal  
1611 HR, (1614) HR, 1620 IR, 1622 IR  
1636 IR, 1620b AR, 1620d AR, 1633a AR  
1650a IC

5-voet spinett virginal  
(no extant example known)

5-voet muselar virginal  
1604 HR, 1640a IR, 1642a IR, 1643a AR

4½-voet spinett virginal  
1629 IR

4½-voet muselar virginal  
1610b AR

4-voet spinett virginal  
1583 HR, 1613a AR, 1613b AR, 1620a AR,  
1632 AR

child (3-voet) spinett virginal  
1595 HR, 1618a IR, 1613c AR, (1626) AR,  
1634 AR, 1639a AR

2½-voet spinett virginal  
(c1610)a AR

Harpsichords

Standard single-manual harpsichords  
1627a IR, 1632 IR, (1605) AR,  
1609 AR, 1618 AR, 1621 AR, 1635 AR,  
1637 AR, 1639b AR, 1640a AR, 1644a AR,  
1646a AR, 1648 AR, (1651)a AR,  
1651b AR, 1654 AR, 1645 IR, 1671 IC?

Standard double-manual harpsichords  
1599 HR, 1612b HR, (1612) IR, 1617 IR,  
1618b IR, 1618c IR, 1624 IR, 1627b IR,  
1637b IR, 1638b IR, 1640b IR, 1642b IR,  
1608 AR, 1614 AR, 1615 AR, 1620c AR,  
1623 AR, 1624 AR, 1628 AR, 1633b AR,  
1640b AR, 1643b AR, 1646 IC

Chromatic bass-octave singles  
1637a IR, 1639 IR, 1636 AR

Chromatic bass-octave doubles  
1616 HR, 1627c IR, 1628b IR, 1646b AR

Quint single-manual harpsichord  
1627 AR

Sub-quart double-manual harpsichord  
1612a HR

Standard single/virginal combination  
1594 HR, n.d. IR

Standard double/virginal combination  
1619 IR

Special single-manual harpsichords  
(c1650)b IC, 1652 IC, 1679 IC,  
1680 IC, n.d. IC

Appendix 7 - Transposition by a tone in meantone tuning

The tuning system in most common use during the Ruckers period was the ordinary quarter-comma meantone tuning. This system uses pure major thirds in the 'home' keys, and the comma is divided among four fifths - usually between the circle of fifths between c and e, f and a or g and b. In this system the common intervals have the sizes listed below in cents, and these are compared with the corresponding interval sizes in equal temperament and also for the pure intervals.

Interval sizes in cents

	Fifth	Fourth	Major third
Equal temperament	700.00	500.00	400.00
Pure interval	701.96	498.04	386.31
Meantone interval	696.58	503.42	386.31

Using the sizes of the meantone intervals above, the size of all of the other intervals can be calculated, and these are listed in Table A7-1. From this it can be seen that in meantone a whole tone has a value of 193.16 cents. Transposing by a tone is equivalent to adding this interval to all of the other notes to find their new pitches, and this has also been done in Table A7-1. This gives new notes a tone higher, most of which have the same value as the untransposed notes, except for  $e^b/c^\#$  and  $b^b/g^\#$ .

For a double-manual harpsichord of the type discussed in Chapter 8, p. 509, with two keyboards a tone apart, there would be a conflict in the tuning of the notes  $e^b/c^\#$



and  $b^b/g^\#$  in each octave. In moving from one manual to the other to effect a transposition of one tone one would therefore have either to re-tune the strings for these notes, or the instrument would have to be provided with doubled strings for these notes with two sets of doubled strings, transposing plates, etc in each octave.

## V.

## Van Klavecimbels.

**D**ese Klavecimbels sijn Musijk instrumenten-  
ten die seer aangenaam van geluidt sijn/  
ende worden daarom meest tot plaaisier en ver-  
maak gebruikt; sy sijn best om daar op alder-  
hande deuntjes en musijk stukken veerdig te  
speelen: daar sijn verscheiden soorten; sommig-  
ge staan op tangenten omtrent midden tusschen  
de

## 105.

de kammen / en dat sijn de gemeenste / dese  
worden Musclars genaamt; sommige staan de  
tangenten dicht aan de kam / aan de sinckers  
handt; en dese worden Spinetten genaamt; de  
kleine worden Scherpen genaamt / om datse  
hoog en scherp van geluidt sijn; daar sijn ook  
noch andere soorten / daar de klautieren in  
het een einde sijn / en het ander einde scherp uit  
loopt / ende dese worden Steert-stukken genaamt;  
alle sijnse van veelderhande grootte / sommige  
Steert-stukken sijn acht voeten lang / sommig-  
ge Klavecimbels sijn ses voeten lang / sommige  
vijf voeten / sommige vier voeten / sommige  
drie voeten / ende sommige noch kleinder. De  
aangenaamheit van 't geluidt bestaat daar in/  
dat de sangbodem behoorlijck dun is / ende dat  
de spassien onder de sangbodem op de reg-  
te plaats leggen: de veerdigheid van aanspraak  
bestaat daar in / dat de snaaren behoorlijck dicht  
aan de tangenten leggen / ende dat de tangenten  
en tongen wel gemaakt sijn: om een goede toon  
te hebben / soo moeten de beide kammen sodanig  
geleidt worden dat de bovenste octaven de helft  
in de lengte verschillen; maar de onderste octa-  
ven moeten de helft niet langer sijn; om dat de  
lange snaaren / die veel dikker sijn als de korte/  
naar advenant soo hoog niet kunnen in toon  
staan; ende de alder onderste octaaf, dat kope-  
ren snaaren sijn / nergens na soo hoog niet kon-  
nen staan: ook souden de Klavecimbels alse  
lang moeten sijn / indien alle de octaven de helft  
souden langer sijn.

Daarom sal ik noch iets van de langte der  
snaaren seggen:

## 106.

Een zes voets Klavecimbel dan behoort de bovenste snaare /

dat is de hoogste C, lang te sijn	7	} duimen:
de tweede C van booven	14	
de derde C	28	
de vierde C	45	
de vijfde C	59	

Deese langte moet begrepen worden tusschen de hammen / want wat buiten de ham is en doet tot de toon niet.

Een vijf voets Klavecimbel behoort

de bovenste C lang te sijn	$6\frac{1}{2}$	} duimen:
de tweede C	13	
de derde C	25	
de vierde C	39	
de vijfde C	50	

Een vier voets Klavecimbel:

de eerste of bovenste C	5	} duimen:
de tweede C	10	
de derde C	18	
de vierde C	31	
de vijfde C	41	

Een drie voets Klavecimbel:

de eerste of bovenste C	$3\frac{1}{2}$	} duimen:
de tweede C	7	
de derde C	13	
de vierde C	22	
de vijfde C	31	

Als

## 107.

Als alle dese octaven op sulken langte gestelt sijn / soo sullen de andere snaaren of toonen / hier tusschen begrepen / haar behoorzijke langte ook hebben / want op een weinigje komt het niet aan / alsoo de ene snaare wel wat stijber kan opgetrokken worden als de ander / het welke in het stemmen licht goet te maaken is.

Dog dit sal ik noch seggen / dat sulke Klavecimbels, die zes voets genaamt worden / niet geheel zes voet vol uit lang sijn / maar wel ontrent een derdedeel van een voet korter:

Dan gelijken soo hebben de vijf / vier / en drie voets ook juist die volle langte niet / maar sijn ordinair al wat korter / waar na ik dese langte der snaaren ook gestelt hebbe. 1

De toonen of klautwieren van Klavecimbels komen met de meeste orgels ober een / namelijk van C tot C vier octaven; maar eenige groote Steertstukken gaan onder dieper tot G of F, gelijk sommige groote Orgels, en begrijpen vier octaven en een Quint.

## X V.

Ordre en maniere om Klavecimbels en  
Klavecordiums te besnaaren.

**D**aar toe worden gemaakt d'iederhande  
snaaren / als Roode / Geele / en Witte ; de  
Roode worden gemaakt van rood koper / dat  
alderweekst of sachst is / en worden gebruikt  
tot de laagste of diepste Bassen ; de Geele wor-  
den gemaakt van geel koper / en deese sijn wat  
harder als de roode / en worden op de Klave-  
cimbels tot de volgende Bassen gebruikt ; de  
Witte worden gemaakt van Iser / en sijn alder-  
hardst / en ook sijn en helder van geluidt : si  
worden alle op kleine houten colletjes ge-  
wonden / elk op sijn Numer , vervolgens van  
Numer 1 tot Numer 12 ; daar van de eerste de  
grosste is / en soo vervolgens / soo dat de twaalf-  
ste de fijnste is. De

## 110.

**De Klavecimbels / die om haer aangenaam  
geluid meest tot lust en vermaakelijckheit wor-  
den gebruikt / worden niet alleen met roode en  
geele / maar meest met witte snaaren besnaard /  
om dat de witte sijn en helder van geluidt sijn ;  
maar de Klavecordiums / die meest tot oeffe-  
ninge in de konst worden gebruikt / daar wor-  
den alleen roode en geele snaaren op gelegd /  
want die roesten soo niet / gelijk de witte / en  
konnen daarom veel langer dueren : De gros-  
ste worden onder in de Bas gelegd / daar de  
snaaren langst sijn / ende soo vervolgens / soo  
dat de fijnste boven in de Discant komen ; ge-  
lykt alhier sal aangeweesen worden.**

Om een ses voets Klavecimbel te besnaaren :

C	}	No.	}	1	}	Roode
DE				2		
FG				3	}	Geele
AB				4		
HC s C				5	}	Witte
DEBE F s FG				6		
sG ABHC s CD				7		
EBEF s FG s GA				8		
BHC s CD EBE				9		
F s FG sG ABHC				10		

## 121.

Om een vijf voets Klavecimbel te besnaaren:

C	}	No.	1	} Hoode
D			2	
E			3	
FG			4	} Geele
AB			5	
HC:C			6	
D.EBEF:FG			7	} Witte
:GABHC:CD			8	
EB'EF:FG:GA			9	
BHC:CDEBE			10	
F:FG:GABHC			11	

Om een vier voets Klavecimbel te besnaaren:

C	}	No.	2	} Hoode
D			3	
E			4	
FG			5	} Geele
AB			6	
HC:C			7	
DEBEF:FG			8	} Witte
:GABHC:CDEB			9	
EF:FG:GABH			10	
C:CDEBEF:FG			11	
:GABHC			12	

## 122.

Om een drie voets Klavecimbel te besnaaren:

C	}	No.	3	} Hoode
D			4	
E			5	
FG			6	} Geele
AB			7	
HC:C			8	
DEBEF:FG:GA			9	} Witte
BHC:CDEBEF:F			10	
G:GABHC:CDEB			11	
EF:FG:GABHC			12	

Om een Klavecimbeltje van twee voeten en vier duimen te besnaaren:

C	}	No.	4	} Hoode
D			5	
E			6	
FGA			7	} Geele
BHC:C			8	
DEBEF:FG			9	
:GABHC:CDEB			10	} Witte
EF:FG:GABHC:C			11	
DEBEF:FG:GABHC			12	



Hier by dient aangemerkt te worden / dat het  
 op een klauwler of twee soo effen niet aan en  
 komt of een snaare al een Du: grober of fijnder  
 is; gelijk de Instrumenten van sommige wel wat  
 grober / en van sommige wat fijnder besnaard  
 worden; indien nochtans de snaaren kort en  
 grof sijn / en stijf opgetrokken / soo sullense een  
 dof of duisig geluidt geeven / ende soose lang  
 en sijn sijn / soo sullense een rank en ratelach-  
 tig geluidt geeven; daarom is de middelmati-  
 ge maniere de beste; insgelijks soo verschilt het  
 ook niet veel of het roode of geele snaaren sijn;  
 maar de roode konnen wat laager in toon staan  
 als de geele: Indienmen grober snaaren be-  
 geert als Du: 1. soo kanmen daar toe kopen  
 gegloeid Pottebakkers draad / soo dik als men-  
 se begeert / ende schuiren de vuilgheit daar  
 wat af / het welke seer bequaam is om enige  
 klauwieren onder in't Pedal mede te bestaa-  
 ren / en is seer goet van geluidt.

Part 2. Chapter 5, page 104 Of Clavecimbels

Clavecimbels<sup>A8-1)</sup> are musical instruments which have a very agreeable tone and are therefore usually used for pleasure and entertainment. They are best suited to play all sorts of melodies and musical pieces. There are different kinds. In some the jacks stand roughly midway between (p. 105) the bridges. These are the most common and are called muselars. In some, the jacks stand near the bridge on the left-hand side and these are called spinetten. The little ones are called scherpen because they have a high and sharp sound. There are still other kinds which have the keyboards at one end and run to a point at the other end, and these are called Steertstukken.<sup>A8-2)</sup> They come in many sizes; some Steertstukken are 8 voeten long, some clavecimbels are 6 voeten long, some 5 voeten, some 4 voeten, some 3 voeten and some yet smaller. The pleasantness of the sound depends upon the soundboard being of the correct thinness and upon the bars under the soundboard being in the right places. The readiness of speech depends upon the strings being the correct distance from the jacks, and upon the jacks and tongues being well made. In order to have a good tone, both bridges must be positioned so that the upper octaves differ in length by half. But the lower octaves must not differ in length by half because the long strings, which are much thicker than the shorter cannot by nature be made to stand so high in tone. And the lowest octave, where copper strings are used, could in any case not stand so high in tone. Also, the clavecimbels would

have to be too long, in which all octaves doubled in length.

Therefore I shall now say the following about the length of the strings: (p. 106)

A six-voet clavecimbel then requires the upper string that is the highest C ( $c^3$ ), should have a length of 7	} duimen	
the second C from the top ( $c^2$ )		14
the third C ( $c^1$ )		28
the fourth C (c)		45
the fifth C (C)		59

These lengths must be taken between the bridges, since what is beyond the bridge does not affect the sound.

A five-voet clavecimbel requires that the upper C ( $c^3$ ) should have a length of	} duimen	
the second C ( $c^2$ )		$6\frac{1}{2}$
the third C ( $c^1$ )		13
the fourth C (c)		25
the fifth C (C)		39
	50	

A four-voet clavecimbel:

the first or top C ( $c^3$ )	} duimen	
the second C ( $c^2$ )		5
the third C ( $c^1$ )		10
the fourth C (c)		18
the fifth C (C)		31
	41	

A three-voet clavecimbel:

the first or top C ( $c^3$ )	} duimen	
the second C ( $c^2$ )		$3\frac{1}{2}$
the third C ( $c^1$ )		7
the fourth C (c)		13
the fifth C (C)		22
	31	

p. 107 When all these octaves have been given the above lengths, then the other strings or notes located in between will also have the correct lengths. For a small difference (in the string lengths) is not important, since one string can be pulled a little tighter than another. This can be done easily in the tuning.

But I should also say that such clavecimbels as are called six-voet are not fully six voeten long, but are about a third of a voet shorter.

Then similarly, the 5-, 4-, and 3-voet also have not the full length, but are normally a bit shorter, which is why I have also given the length of the strings.

The notes or keyboards of clavecimbels compare with those of most organs, namely from C to C four octaves (i.e. from C to  $c^3$ ). But a few large harpsichords go lower to G or F (i.e.  $G_1$  or  $F_1$ ) similar to some large organs, and encompass 4 octaves and a fifth.

Chapter 15, page 119. Ways and Means to string Clavecimbels and Clavichords<sup>A8-3)</sup>

For this three kinds of strings are made: red, yellow and white. The red are made from red copper, which is the weakest and softest, and are used for the lowest or deepest basses. The yellow are made of yellow copper and these are a bit harder than the red ones, and are used on clavecimbels for the bass strings which follow. The white are made of iron and are the hardest and also have a clearer sound. They are all wound upon little wooden spools, each with its number, consecutively from number 1 to number 12

- of which the first is the thickest, carrying on to the twelfth which is the finest.

(p. 120) The clavecimbel which, because of their pleasant sound, are used mostly for enjoyment and entertainment, are strung not just with red and yellow, but mostly with white strings, since the white are clearer in tone. But the clavichords, which are mostly used for instruction in the art, have only red and yellow strings, since these do not rust as easily as the white and will therefore last much longer. The thickest are placed at the bottom in the bass where the strings are the longest, and continuing on, so that the finest come at the top in the descant as will be shown here:

To string a six-voet clavecimbel:

C	}	No.	}	1	} Red
D E				2	
F G				3	} Yellow
A B <sup>b</sup>				4	
B c c <sup>#</sup>				5	
d e <sup>b</sup> e f f <sup>#</sup> g				6	} White
g <sup>#</sup> a b <sup>b</sup> b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup>				7	
e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup>				8	
b <sup>b1</sup> b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup> d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup>				9	
f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>				10	

(p. 121) To string a five-voet clavecimbel:

C	}	No.	1	} Red
D			2	
E			3	
F G			} Yellow	4
A B <sup>b</sup>				5
B c c <sup>#</sup>			6	
d e <sup>b</sup> e f f <sup>#</sup> g			} White	7
g <sup>#</sup> a b <sup>b</sup> b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup>				8
e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup>				9
b <sup>b1</sup> b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup> d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup>			10	
f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>			11	

To string a four-voet clavecimbel:

C	}	No.	2	} Red
D			3	
E			4	
F G			} Yellow	5
A B <sup>b</sup>				6
B c c <sup>#</sup>			7	
d e <sup>b</sup> e f f <sup>#</sup> g			} White	8
g <sup>#</sup> a b <sup>b</sup> b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup>				9
e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup> b <sup>1</sup>				10
c <sup>2</sup> c <sup>#2</sup> d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup>			11	
g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>			12	

(p. 122) To string a three-voet clavecimbel:

C	}	No.	3	}	Red	
D			4			
E			5			
F G			6			
A B <sup>b</sup>			7			Yellow
B c c <sup>#</sup>			8			
d e <sup>b</sup> e f f <sup>#</sup> g g <sup>#</sup> a			9			White
b <sup>b</sup> b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup> e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup>			10			
g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup> b <sup>1</sup> c <sup>2</sup> c <sup>#2</sup> d <sup>2</sup> e <sup>b2</sup>			11			
e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>			12			

To string a little clavecimbel of two voeten and four duimen:

C	}	No.	4	}	Red	
D			5			
E			6			
F G A			7			Yellow
B <sup>b</sup> B c c <sup>#</sup>			8			
d e <sup>b</sup> e f f <sup>#</sup> g			9			White
g <sup>#</sup> a b <sup>b</sup> b c <sup>1</sup> c <sup>#1</sup> d <sup>1</sup> e <sup>b1</sup>			10			
e <sup>1</sup> f <sup>1</sup> f <sup>#1</sup> g <sup>1</sup> g <sup>#1</sup> a <sup>1</sup> b <sup>b1</sup> c <sup>2</sup> c <sup>#2</sup>			11			
d <sup>2</sup> e <sup>b2</sup> e <sup>2</sup> f <sup>2</sup> f <sup>#2</sup> g <sup>2</sup> g <sup>#2</sup> a <sup>2</sup> b <sup>b2</sup> b <sup>2</sup> c <sup>3</sup>			12			

(p.124) Here it should be noted that it is not important within a note or two whether a string is a number too coarse or too fine. Likewise the instruments of some are strung a bit more heavily, and of others more finely. If, nonetheless, the strings are short and coarse and pulled tight, they will give a dull or dark sound. And if they

are long and fine, they will give a cranky and rattling sound. Therefore the middle way is the best. Similarly, it makes very little difference if red or yellow strings are used. But the red ones can stand lower in pitch than the yellow ones. Should one require thicker strings than No. 1, one can buy annealed potter's wire as thick as one needs, ensuring that the dirt has been removed. These are very well fitted to string the lowest notes in the Pedal (i.e. the lowest register), and they have a very good sound.

Footnotes:

- A8-1) Klavecimbiels - Hubbard translates this as harpsichord. It is because the Flemish word klavecimbel or klavecimbel has a generic meaning - plucked keyboard instrument - that I have used it throughout this work. It is usually clear when Douwes means virginal and when he means harpsichord. Probably because Hubbard translated 'harpsichord' here it has led some researchers, notably Edwin Ripin, to search for harpsichords specifically of the lengths listed by Douwes.
- A8-2) Steertstukken - tail pieces. Here it is clear that Douwes is speaking of harpsichords and not virginals.
- A8-3) The stringing lists of the clavichords have not been given since they are not relevant here.



Appendix 9 - 'Harpsichord' from the Muzijkaal Kunst-woorden-  
book, Amsterdam, 1795, by Joos Verschuere  
Reynvaan.

C E M:

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**CEMBALISTA**, of **CEMBALIERE**. (*Italiaansch.*) Een; die op de Klavecimbel speelt; een *Klavierist*.

**CEMBALO**, of **CIMBALO**. (*Italiaansch.*) Eene Klavecimbel; Cimbaal; ook eene bel, of schel, waarvan de Klavecimbel in het Italiaansch haaren naam schijnt ontleend te hebben: zijnde geen *Cymbel* met klavieren, zo als de naam *Clave-cymbel* wel eens geschreven, door sommigen verkeerdlijk zoude kunnen worden opgenomen; maar het is een soort van liggende *Harp*, wier snaaren door *Tangenten*, aanrakers of springers geroerd worden: waarom dan ook de Engelschen dit speeltuig bestempelen met den term van *Harpsichord*; hebbende de *Harp* denkelijk *Guido Aretinus*, die men voor den uitvinder der Klavecimbel te boek stelt, aanleidinge gegeven, om de staande *Harp* in een liggende te veranderen, en in plaats van door de vingers anteroeren, de snaaren door *Tangenten* ter spraak te brengen; men vindt verscheidene soorten van Klavecimbels: als, *staartstukken*, welken de besten zijn; *vierkanten*, die het Klavier aan de rechterzijde hebben, en welken in de Bas een gerommel maaken, dat onaangenaam is; het geen kwalijk kan belet worden; om dat de *Tangenten* in het neêrvallen de snaar in twee deelen scheidt, die zo groot zijn, dat ze tegen elkander kunnen geluid geeven: en, *Spinetten*, welken het Klavier naar de linkerzijde staat; zijnde deezee daaraan niet onderhevig: dan, deezee twee laatste soorten, raaken meestal uit het gebruik: de eersten worden *Staartstukken* genaamd, om dat zij van achter spits, en als met een staart toeloopende zijn; en de tweeden *Vierkanten*, om dat zij langwerpig vierkant van gedaante zijn: de *Vierkanten* hebben op iedere *Toets* maar éene snaar, daar de *Staartstukken* op iedere *Toets* drie snaaren hebben; welken door *Registers*, waarin de *Tangenten*, in een roosterwerk staande, geregeerd worden: twee van deezee snaaren worden *Unison* gesteld; en de derde, welke het *Oÿaafjen* is, een *Oÿaaf* hooger dan de *Unisons*: men heeft er ook van deezee soort, welken drie *Unisoonen* hebben en één *Oÿaafjen*, en des, vier *Registers*: zo heeft men er ook welken maar enkelijk bestaan uit twee *Unisoonen*; doch de meesten hebben drie *Registers*. Men heeft *Klavecimbels* welken bestaan uit vier *Oÿaaven*, van groot C tot  $\overset{=}{c}$  driegestreept; van vijf *Oÿaaven*, van *Contra F*, tot  $\overset{=}{f}$  driegestreept; ja, welken men ook wel eens tot  $\overset{=}{a}$  driegestreept begint te brengen: ook, welken tuschen deezee

beiden inkomen; van bijzondere hoogte en laagte: sommige *Staartstukken* zijn agt voeten of meerder lang, sommigen zes voeten lang, sommigen vijf voeten, sommigen vier voeten, sommigen drie voeten: en sommigen nog kleiner; in het begin der voorledene eeuw had de beste Klavecimbel maar vijf-en-veertig *Toetsen*; waarvan het onderste *OktAAF* bestond uit de agt letteren C, E, F, G, A, B-*mol*, B, en C.; die, tot verkorting waren door elkander gevlochten; als C, F, D, G, E, A, B-*mol*: het geen men nu een kort Klavier noemt; maar certijds had het den naam van een Klavecimbel met de nieuwe vergrooing, door dien men die in de voorgaande Eeuw maar

onder tot F en boven tot  $\bar{a}$  plagt te maaken: zo als ook certijds sommige Orgels waren vervaardigd; welken men naderhand ook als boven inrichtte met en zonder de B-*mol*: in dien tijd was men in de *Transpositie* zo onervaren, dat men om eenig spel een *Quart* laager te kunnen *Transponneeren*, daarvoor voorbedacht een bijzonder tweede Klavier in de Klavecimbels maakte: hebbende men, tot die twee Klavieren echter maar twee rekensnaaren, en nogthans vier Registers; naamlijk, één *Unison*, en het *OktAAFjen*; zijnde toen de twee reien snaaren welke eigenlijk de *Unisonen* uitmaaken, nog niet ingevoerd, moctende het eene Klavier stom blijven, als het andere gebruikt werd; staande het onderste *Klavier* een *Quart* lager dan *Kamer- of Opera Toon*, en had om hoog vijf *Toetsen* te veel; zo als ook het bovenste *Klavier* dezelfde overvloed om laag had kunnen hebben; maar in de plaats van de *Basfen* uit het onderste *Klavier*, tot gebruik daaraan te hechten, liet men die niet alleenlijk zonder *Toetsen*, maar men maakte in derzelve plaats een houten blok, en daar nevens een kort *Klavier*; en zulks met groote moeite; dewijl de *Toetsen*, door de gemelde verwarde letteren, kruisgewijs over elkander moesten reiken; het welk een blijk is, hoe onnodig de vervulling van toonen in de *Bas* in dien tijd werd geacht: omtrent vijftig jaaren daarna, heeft men echter dit begonnen te verbeteren, het welke met zeer weinige moeite geschiedde, also men in het onderste *Klavier* maar de

*Toetsen* had te verplaatsen, het zij tot  $\bar{c}$ , of  $\bar{d}$ ; en onder, aan het bovenste Klavier, in plaats van het houten blok, zo veel *Toetsen* als er plaats voor was, daar bijtevoegen: waarmede dan het *Klavier*, na dat die groot of klein waren, zo veel doenlijk, voltallig was: dit gedaan zijnde,

de, maakte men, dat de derde rei *Tangenten*, door een kleine verlenging der *Tangenten*, en door die op zekere maat, overéenkomsig het bovenste *Klavier*, intefnijden, zo wel door het bovenste als door het onderste *Klavier*, bewogen wierd; zijnde hierdoor van beter gebruik: als kunnende nu op het bovenste het *Piano* speelen, en op het onderste het *Forie*: daarna heeft men ondernomen, een derde snaar daarop te leggen: waardoor wel eens een nadcel begaan werd, in plaats van een voordeel te genieten; zijnde de kammen op den zangbodem zo wijd vanéén gelegd als het de snaaren immers lijden kunnen, om den vereischten toon te hebben:

stel dat de bovenste  $\bar{c}$  is 6½ duim, zo zal de daarbij ge-

voegde  $\bar{c}$ , zo men hem aan de linkerzijde daar naast zet, door de schuinsheid van de kam, 7 duim lang zijn; het welke de maat is van de naastgelegene snaar, die een halve toon

laager is dan  $\bar{c}$ ,: waardoor zodanige Klavecimbels veel behaield worden; als kunnende den vereischten toon niet haalen, en des zijn de snaaren meerder onderhevig aan het breeken: dan, om dat voortekomen, moet men de nieuw bijgevoegde snaar niet verlangen, maar aan de andere zijde

van de oude  $\bar{c}$  leggen, en des nevens zijn daar aan hoorende *Unison*; waardoor die zullen verbeterd; en op zijn toon kunnen gebragt worden. De aangenaamheid van 't geluid bestaat daarin; dat de zangbodem behoorelijk dun is, en dat de spalken onder den zangbodem op de rechte plaats liggen: de vaardigheid van aanspraak, bestaat daarin; dat de snaaren behoorelijk aan de *Tangenten* liggen; niet al te dicht, ook daarvan niet te ver af: want te dicht, alsdan moet het kraajepennetjen dat in de *Tangenten* is te kort zijn, en doet die op de snaaren blijven hangen; te lang, doet de kracht der pen, door haare langte verliezen: vooral moeten de *Tangenten* en *Tongetjens* wél gemaakt zijn: om een goeden toon te hebben, zo moeten de beide kammen zodanig gelegd worden, dat de bovenste *Ostaaven* de helft in de langte verschillen; maar de onderste *Ostaaven* moeten niet de helft langer zijn; om dat de lange snaaren, die veel dikker zijn dan de korten, naar *advenant* zo hoog niet kunnen in toon staan; en het alleronderste *Ostaaf*, dat koperen snaaren zijn, nergens na zo hoog niet kan staan; ook zouden de *Klavecimbels* al te lang moeten zijn, indien alle de *Ostaaven* de

helst langer zouden zijn: daarom zullen wij nog iet van de langte der snaaren zeggen.

*Een agtvoets Klavecimbel* behoort de bovenste of hoogste,

$\overset{|||}{c}$ , lang te zijn, 7 duimen; de tweede  $\overset{|||}{c}$  van boven, 14 duimen; de derde  $\overset{|||}{c}$  van boven, 28 duimen; de vierde  $\overset{|||}{c}$  van boven, 45 duimen; de vijfde  $\overset{|||}{C}$  van boven, of de alleronderste, 62 duimen; deeze langte moet begreepen worden, tusfchen de kammen; want wát buiten de kam is, doet tot de toon niet.

*Een zervoets Klavecimbel* behoort de bovenste of hoogste  $\overset{|||}{c}$

lang te zijn, 6½ duimen; de tweede  $\overset{|||}{c}$ , 13 duimen; de derde  $\overset{|||}{c}$ , 25 duimen; de vierde  $\overset{|||}{c}$ , 43 duimen; en de vijfde  $\overset{|||}{C}$ , 60 duimen.

*Een vijfvoets Klavecimbel* behoort de bovenste of hoog-

ste  $\overset{|||}{c}$  lang te zijn, 6 duimen; de tweede  $\overset{|||}{c}$ , 12 duimen; de derde  $\overset{|||}{c}$ , 24 duimen; de vierde  $\overset{|||}{c}$ , 40 duimen, en de vijfde  $\overset{|||}{C}$ , 58 duimen.

*Een viervoets Klavecimbel* behoort de bovenste of hoog-

ste  $\overset{|||}{c}$  lang te zijn, 5 duimen; de tweede  $\overset{|||}{c}$ , 10 duimen; de derde  $\overset{|||}{c}$ , 18 duimen; de vierde  $\overset{|||}{c}$ , 31 duimen, en de vijfde  $\overset{|||}{C}$ , 41 duimen.

*Een drievoets Klavecimbel* behoort de bovenste of hoogste

$\overset{|||}{c}$  lang te zijn, 5½ duimen; de tweede  $\overset{|||}{c}$ , 7 duimen; de derde  $\overset{|||}{c}$ , 13 duimen; de vierde  $\overset{|||}{c}$ , 22 duimen, en de vijfde  $\overset{|||}{C}$ , 31 duimen.

De *snaaren voor het Ozaaffjen* worden naar rato van deezert gerekend; bij voorbeeld, voor een vijfvoets Klavecimbel, als het midden hier tusfchen zijnde, de bovenste of hoog-

ste  $\overset{|||}{c}$ , 3½ duimen; de tweede  $\overset{|||}{c}$ , 6½ duimen; de derde  $\overset{|||}{c}$ , 12 duimen; de vierde  $\overset{|||}{c}$ , 23 duimen, en de vijfde  $\overset{|||}{C}$ , 33 duimen.

Als alle deeze *Ozaaven* op zulke langten gesteld zijn, zo zullen de andere snaaren of toonen, hier tusfchen begreepen, haare behoorelijke langte ook hebben: want op een weinigje komt het niet aan, alzo de eene snaar wel

wat stijver kan opgetrokken worden dan de anders, het welke in 't stemmen ligt goed te maaken is.

Doch dit diende men in aanmerking te neemen; dat zulke Klavecimbels, die zesvoets genaamd worden, niet geheel zes voet vol uit lang zijn; maar wel omtrent een derde deel van een voet korter: even zodanig is het met de vijf- vier- en drie-voets, welken ook de volle langte niet hebben; maar zijn ordinair wat korter: de *Klavecimbels* wel-

ke grooter zijn dan de zesvoetige, *hooger* loopen dan *c* drie gestreept, en lager dan groot C, kunnen naar rato hiervan afgeleid en berekend worden.

Het geluid der *Rasfen* hangt voortaanlijk af van de ruimte die zij op de kam hebben: daarom moeten dezelve liever te ruim dan te nauw gelegd worden; gelijk ieder kan begrijpen, dat het geen geëvenredigde *Proportie* zoude zijn; als men de groote snaaren geen meer ruimte gáve dan de kleine.

Het *Klaverimbel* wordt genoegzaam bespeeld als het Orgel; zijnde de *Saartstukken*, sommigen voorzien van één; en sommigen van twee *Klavieren*: men heeft echter ook *Vierkasten* welken twee *Klavieren* hebben; doch dit tweede *Klavier* is eigenlijk een bijzonder, klein *Klavecimbeltjen*, een *Spinetjen*, welke op het vierkante *Klavecimbel* geplaatst wordt, daartoe ingericht zijnde; wordende deeze soorten genoemd, de moeder met het kind.

De *Tetsen* der *Klavieren* aangeslagen zijnde, beweegen de *Tangenten*, die de snaaren, door middel van kraajepennetjens; welken hiervoor de besten zijn, aanroeren; bestaande de ondersten of laagsten uit koperen, en de overigen; uit ijzeren snaaren; welke snaaren op kammen liggende, over den zangbodem van het speeltuig gespannen zijn, en door middel van stelpennen, waaraan de snaaren vast zijn; van onderen, aan kleine koperen pennerjens vast gemaakt zijnde; op hunnen toon gesteld worden:

P. 111, Harpsichord

CEMBALO or CIMBALO. (Italian) A clavecimbel; cymbals; also a bell or handbell, from which in Italian, the clavecimbel would seem to have derived its name. It is not a cymbal with a keyboard, as it would seem from the way the name is written, or as it could mistakenly be taken to mean. But it is a kind of reclining harp, whose strings are set in motion by jacks, touchers or springers, which is why the English call this instrument with the term Harpsichord. Probably Guido Aretino, who is assumed to be the inventor of the clavecimbel, gave rise to the change in the position of the harp from vertical to horizontal, and instead of moving the strings with the fingers, they were made to speak with jacks. There are several kinds of clavecimbels, such as staartstukken,<sup>A9-1)</sup> which are the best; vierkanten,<sup>A9-2)</sup> which have the keyboard on the right-hand side and which produce a rumbling in the bass which is unpleasant and which cannot easily be prevented, since the jacks in descending divide the strings into two parts which are of such a length as to sound against one another. Spinett virginals, in which the keyboard is on the left-hand side, do not have this problem. The last two kinds are falling out of use. The first is called staartstukken because at the back it ends in a point, like a tail. The second is called vierkant because of its oblong rectangular shape. The virginal has only one string to each key, whereas the harpsichord has three, which are controlled by registers in which the jacks stand in a grating. Two of these strings are tuned

in unison and the third, or octave, is one octave higher than the unison. There are some of this type which have three unisons with an octave, and therefore four registers. There are also those with two unisons and in fact most have three registers. There are clavecimbels which encompass four octaves, from great C to  $c^3$ ; five octaves from contra  $F_1$  to  $f^3$ , which are even sometimes extended to  $a^3$ . Also some in between these (p. 112) two, with special high and low notes. Some of the harpsichords are eight voeten long or more, some 6 voeten, some 5 voeten, some 4 voeten, some 3 voeten, and some even smaller. At the beginning of the last century, the best clavecimbels had only 45 keys, in which the lowest octave consisted of the eight notes C, E, F, G, A,  $B^b$ , B and  $c^{\overset{A9-3}{}}$  which were shortened by weaving into one another to C, F, D, G, E, A,  $B^b$ . This is now called a short-octave, but at the time, it had the name 'a clavecimbel with the new enlargement' because, in the last century, they were made only down to F and up to  $a^2$ , in the same way that organs were once made, which were sometimes arranged as above both with and without  $B^b$ . At this time people had so little experience in transposition that, in order to enable them to play a piece transposed a fourth lower, a special second keyboard was made for the clavecimbel. The two keyboards had only two choirs of strings, and yet four registers. There were namely one unison and the octave, the double row of strings making the true unison not having yet been introduced. One of the keyboards had to remain mute when the other was being used. The

lower keyboard stood a fourth lower than the chamber or opera pitch, and had five keys too many at the top.

Similarly, the upper keyboard might have had the same superfluity of notes at the bottom, but in place of the lower keyboard bass notes, which might have been used, not only was (the upper) left without keys, but in their place a wooden block was made, and beside this a short-octave.

This was achieved with great difficulty since the keys, because of the previously mentioned entangled order, had to reach over one another cross-wise. This is evidence of how unnecessary it was felt that the bass notes should be filled out at that time. About fifty years later, however, improvements began to be made, which happened with very little difficulty. All that had to be done was to rearrange the keys of the lower keyboard, either to  $c^3$  or  $d^3$ . And at the lower end of the upper keyboard, in place of the wooden block, as many keys were added as there was space for. As a result the keyboard, depending on how large or small it was, was as complete as practicable. This having been done (p. 113) the third row of jacks was lengthened slightly and cut according to the position of the topmost keyboard. This row of jacks could then be moved both by the top and by the bottom keyboard, being therefore of much better use.<sup>A9-4)</sup> For then one could play piano on the upper keyboard and forte on the lower one. After this, an attempt was made to add a third string, which at first turned out to be a drawback instead of an advantage. For the bridges on the soundboard were placed



as far from one another as the strings could bear in order to produce the required note. Say that the top  $c^3$  was  $6\frac{1}{2}$  duimen, then the additional  $c^3$ , if it were placed on the left side, would have to be 7 duimen long, because of the slope of the bridge. This is the measure of the next string, which is a semitone lower than  $c^3$ . This is a serious disadvantage for such harpsichords, since they could then not reach the required pitch, and the strings would be much more likely to break. In order to prevent this, the new added string must not be lengthened, but placed at the other side of the old  $c^3$ , or near its own unison. Thereby it can be improved and brought up to pitch. The beauty of the sound depends upon the soundboard being properly thin, and the bars under the soundboard being in the right place. The readiness of speech depends upon the strings being properly placed relative to the jacks, not too close and not too far. For if too near, the crowquill of the jack must be too short and will remain hanging upon the strings; if too long, the quill loses its strength because of its length. And particularly, the jacks and tongues must be well made. In order to produce a good tone, both bridges must be so positioned that the upper octaves differ in length by one-half. But the lower octaves must not be longer by one-half, since the long strings, which are much thicker than the short ones, can inherently not be tuned so high. And the very lowest octave, which has copper strings, can in any case not stand so high. Anyway clavecimbels would have to be too long, if all octaves (p. 114) were to be longer by half. Therefore we should

now say something about the length of the strings.

The top or highest  $c^4$  (sic) of an 8-voet clavecimbel should be 7 duimen long; the second  $c^2$  from the top 14 duimen; the third  $c^1$  from the top 28 duimen; the fourth  $c$  from the top 45 duimen; the fifth  $C$  from the top, or the lowest 62 duimen. These lengths must be reckoned between the bridges since what is beyond the bridge has no effect on the pitch.

In a 6-voet clavecimbel, the upper or highest  $c^3$  should be  $6\frac{1}{2}$  duimen; the second  $c^2$  13 duimen, the third  $c^1$  25 duimen, the fourth  $c$  43 duimen, and the fifth  $C$  60 duimen.

In a 5-voet clavecimbel, the upper or highest  $c^3$  should be 6 duimen; the second  $c^2$  12 duimen; the third  $c^1$  24 duimen; the fourth  $c$  40 duimen, and the fifth  $C$  58 duimen.

In a 4-voet clavecimbel, the upper or highest  $c^3$  should be 5 duimen; the second  $c^2$  10 duimen; the third  $c^1$  18 duimen; the fourth  $c$  31 duimen and the fifth  $c$  41 duimen.

In a 3-voet clavecimbel, the upper or highest  $c^3$  should be  $3\frac{1}{2}$  duimen; the second  $c^2$  7 duimen; the third  $c^1$  13 duimen; the fourth  $c$  22 duimen, and the fifth  $C$  31 duimen.

The strings of the octave are calculated in proportion to these measurements. For example taking a 5-voet clavecimbel since it is of medium size, the upper or highest  $c^3$  is  $3\frac{1}{2}$  duimen, the second  $c^2$   $6\frac{1}{2}$  duimen; the third  $c^1$  12 duimen; the fourth  $c$  23 duimen, and the fifth  $C$  33 duimen.

If all these octaves are given these lengths, the other strings or notes which lie in between will also have their proper length, for a slight difference does not matter,

since one string (p. 115) can be pulled up a bit tighter than another, which can be made good in the tuning.

But one must also take into account, that such clavescimbels are called 6-voet are not wholly 6 voet in length, but about a third of a voet shorter. The same applies to the 5-, 4- and 3-voet, which also do not all have the full length, but are ordinarily somewhat shorter. The clavescimbels that are longer than the 6-voet run higher than  $c^3$  and lower than C, and can be calculated in proportion to the data given above.

The sound of the basses depends mainly on the space which they have on the bridges. Therefore it is preferable that they be placed with more space than with less. Similarly everyone will understand why the space should be in direct proportion since large strings need more room than smaller ones.

The clavescimbel is played in essentially the same way as the organ. There are harpsichords equipped with one, and some with two keyboards. There are however also virginals which have two keyboards, but this second keyboard is in fact a special, small clavescimbel, a small spinett, which has been placed on the (large) virginal which has been constructed to accept it. Such types are called de moeder met het kind (the mother with the child).

The keys of the keyboard are played and move the jacks which pluck the strings by means of crowquills, the best (material) for this purpose. The lower strings are made of copper (alloy) and the upper ones of iron. These

strings lie upon the bridges, and are stretched across the soundboard and held in place by means of small copper (alloy) pins and at the bottom by tuning pegs which can be moved for tuning.

#### Footnotes

A9-1) Staatstukken - tail pieces. It is clear that Reynvaan, like Douwes and van Blankenburg, always uses staartstuk to mean harpsichord and never virginal. I have therefore always translated it as harpsichord.

A9-2) Vierkanten - rectangles. Likewise here Reynvaan always intends virginals.

A9-3) Reynvaan omits the note D. But this seems to have been a simple omission since he included it in the short-octave which follows immediately in the same sentence

A9-4) Reynvaan is clearly describing a dog-leg register in which, by being 'cut', the jacks could be operated by either keyboard.

## XXVI. H O O F D S T U K.

### Van de CLAVICYMBEL.

1. **D**IT Speeltuig is geen Cymbel met clavieren (zo als de naam schynt meê te brengen) maar een leggende Harp, welkers snaren door *Tangenten*, dat 's te zeggen aanrakers, die men in Vrankryk springers noemt, worden geroert. Dit stuk, dat schuins en aan 't end smal is, word by ons een staartstuk maar in Vrankryk Clavessin genoemd.

2. Het is van dit alleen dat wy hier zullen handelen. Van de vierkante zullen we maar in 't verby gaan zeggen dat de gene welkers clavier naar de linkerzy staat regelmatig en bespeelbaar zyn, deze worden Spinetten, genoemd; maar, die 't klavier aan de regterzy hebben zyn in de regterhand goed, maar knorren in de bas als jonge varkens; 't geen men niet kan beletten om dat de tangent in 't neervallen de snaar in twee deelen scheid, die zo groot zyn dat ze tegen elkander kunnen geluid geven.

3. In 't begin der voorlede eew had de beste Clavicimbel maar 45 toetsen; waar van 't onderste octaaf bestond uit de 8 letteren van Guido C D E F G A B H c; die, tot verkorting waren door elkanderen gevlogten, als, C F D G E A B: 't geen men nu een kort clavier noemt, maar eertyds had het de naam van een clavicimbel met de nieuwe vergrooting, door dien men die in de voorgaande eew maar onder tot F en boven tot A plag te maken; zo als ik in myn jeugd ook orgelen gezien heb.

4. In die tyd was men in de Transpositie zo onërvaren dat men om eenig spel een quartlager te kunnen transponeren expres een byzonder tweede clavier in de clavicimbel maakte. Het schynt ongehooflyk, maar 't bewys 't welk zeer aanmerkensweerdig is, zal 't zelve bewaarheiden, dat de vermaarde Ruckerssen van 't begin der voorlede eew af tot meer als 30 jaren daar na niet anders hebben gemaakt als, Eerstelyk, tot die 2 clavieren maar 2 snaren en nogtans 4 registers (want men wist toen nog van geen anisonen) waar van 't eene clavier most stom zyn als 't andere gebruikt wierd: Ten anderen

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zo stond het onderste clavier een quart lager als orgeltoon en had om hoog vyftoetsen te veel; zo als ook het bovenste clavier dezelfde overvloed om laag had kunnen hebben: maar in de plaats van die schoone bassen uit het onderste clavier tot gebruik daar aan te hegten, zo liet men die niet alleen zonder toetsen maar men maakte in derzelve plaats een houtte blok, en daar nevens een kort clavier; en zulks met groote moeite, wyl de toetsen, door de laatstgemelde verwarde letteren kruisgewys over elkanderen moesten reiken; 't welk bewyft hoe onnoodig de vervulling van tonen in de bas in die tyd wierd geacht.

5. Omtrent 50 jaren daar na heeft begonnen deze twee fouten te verbeteren, 't welk met zeer weinig moeite geschiede alzo men in 't onderste clavier maar vyftoetsen had te verplaatsen om *f* in *c* te veranderen; en onder aan 't bovenste clavier een octaaf nieuwe by te voegen: hier mede was dan de clavicimbel onder en boven lang clavier van 32 toetsen, te weten van vier octaven, en een *b* onder de laagste *c* boven 't getal. Van deze verandering kunnen wy, als men by 't clavier van voren een plankje opent, het bewys zien, door 't nieuw hout aan 't bovenste en de verwarring der getallen, daar Rukkers de toetsen mee had genombert op 't onderste clavier.

6. Daar naa heeft men ondernomen een derde snaar daar op te leggen. Hier op valt N. B. te berigten dat men aan d'een zy kan een fout begaan, in plaats van aan d'ander zy een voordeel te genieten. Het staat te weten dat Rukkers de kammen op de zangbodem heeft zo wyd van een gelegd als 't de snaren immers lyden kunnen om den vereisten toon te halen. Stelt nu dat de bovenste *c* van Rukkers is zeven d'halven duim, zo zal nieuwe *c*, zo men hem aan de linkerzy daar naast zet, door de schuinsheid van de kam 7 duim lang zyn: 't welk de maat is van de naastgelege snaar die een halve toon lager is als *c*. Ik heb verscheide clavicimbelen gevonden die door deze verlenging benadeeld waren, een's deels door 't breken der snaren, om dat het instrument niet wel zo hoog kan staan, en ander's deels door 't zwaar gewigt der snaren die de klankbodem te veel drukken, 't welk aan 't geluid nadeelig is, zo als men met de *sourdines* of 't leggen van een weinig lood op de kam kan bewyzen. Darenhoven kan 't ook zomtyds gebeuren dat de kam naar de bas toe zo laag inzinkt dat de snaren aan 't octaafje raken. Myn advys is dat men Ruckers maat niet tot 7 duim mag verlengen, maar dat men de nieuwe snaar aan d'ander' zy  
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van de gemelde *c* zal byvoegen, nevens zyn daar aan hoorende unifoon. Dit kan geschieden zonder dat de klankbodem daar door in 't minste word gedrukt. Dan zal men daar toe in ieder register nog een tangent maken, die dan de bovenste *c* zal zyn, waar toe men 't heele clavier een halve toon hooger zal verschuiven, en tot de openstaande snaar in de bas nog een toets onder aan maken, die dan *A* zal zyn. Hier door zal de clavicimbel beter van geluid worden en op zyn toon kunnen staan, en met de gemelde *A*, die d' 51ste toets en zeer nut is, verrykt zyn, in de plaats dat anders de vyftigste zoo veel als onnut is. Dit gedaan zynde maakt men dat de derde tangent door een kleine verlenging zo wel van 't onderste als van 't bovenste clavier word bewogen, en dan is 't laatstgemelde niet meer stom, want men speelt met eene snaar *piano* boven, en met drie snaren *forte* onder. Maar het vierde register dat voor aan staat is niet alleen onnut maar zelfs hinderlyk.

7. Alle Staartstukken met twee clavieren hebben tegenwoordig drie snaren, waar door dan dit speeltuig schynt t' eenemaal voltooid te zyn: Hier op zou men mogen vragen wat ons bewogen heeft dit zo omstandig te beschryven? Drie redenen, waar van de minste gewigtig genoeg is om ons daar toe te verpligten, zyn hier d'oorzaak van. De eerste is, dat de hooge prys waar toe die Clavicymbelen (die by 't leven van de maker voor 20, en de kleine staartstukken voor 12, en de vierkante voor 6 ponden vlaams zyn verkocht) tegenwoordig tot zo hoge prys zyn geklommen dat dit zekere ondernemers heeft aangezet om de menschen te abuseren met aan een klein staartstuk, 't geen maar een clavier, twee registers en 45 toetsen had, Twee clavieren met het volle getal en vier registers waar van 't vierde hier boven gemelt onnut is; te maken: 't welk men dan noemt een clavicimbel van Ruckers met 2 clavieren: maar het tegendeel is waar, want het is als dan een geforceerd instrument dat misschien lieffelyk klinkt maar zekerlyk zacht van geluid is. Men kan ze kennen aan de breedte, welke moet zyn van 50 vollage toetsen en een blok aan ieder end tusschen de zyplanken. De twee reden raakt de groote clavicymbelen, die zommige hebben ondernomen nog verder te vergrooten: dit heb ik altyd zeer kwalyk zien uitvallen: want, als men, om op de kam een grooter getal van snaren te brengen, elke wydte met de passer een klein haartje vermindert, zo zal de clavicimbel door 't gewigt der bygevoegde snaren, de kracht die hy van Ruckers had,

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had ontfangen , kwyt zyn : Het geluid der bassen hangt voornamentlyk af van de ruimte die zy op de kam hebben : daarom moeten de Clavicimbelmakers gewaarschouwd zyn die liever te ruim als te naaw te maken. Die de oogen des verstands wil openen kan terstond zien dat het geen proportie is, de grootē snaren geen meer ruimte te geven als de kleine.

8. Nu komen wy tot de derde Reden , welke is een beschryving van het groot voordeel dat men door 't wel gebruiken van de bovengemelde overtollige tangent kan genieten. 't Zal iemand onverwagt voorkomen als wy zullen zeggen dat wy daar by uitnemendheid zulke heerlyke en aangename uitwerkingen door kunnen te weeg brengen datze aan d'onkundige zo wel als aan de geleerde het uiterste genoegen zullen geven.

9. Al dat wy daar toe van nooden hebben is dat wy die vierde tangent, die tot nog toe een verschoveling is geweest, onder de drie andere de voornaamste bediening geven. Dit zal geschieden door hem met zyn register te zetten in de bas anderhalf of 2 duim van de kam maar omhoog zo dicht daar aan als doenlyk is. Wil iemand weten wat d'uitwerking daar van zal zyn, die neme een schryfsen en toetsē een snaar dicht aan de kam en verr' daar van af, dan zal hy hooren het onderscheid tusschen een spinet en een rond geluid. Dit is een zaak die van ouds bekend is: Maar dat men door 't maken van zo een spinet in een clavicimbel van Ruckers met twee clavieren kan meer als een dozyn voorname veranderingen van spel (zo als door vele registers in een orgel geschied) voortbrengen dat is tot onzen tyd toe onbekend geweest.

10. Ik heb deze vond in 't jaar 1708. in een clavicimbel van Joannes Ruckers met twee clavieren van 't jaar 1625 werkstellig gemaakt en de vier registers genoemt *Spinetta Unifonus*, *Cymbalum*, *Oclava*, of om Orgelsgewys te spreken *Trompet*, *Bourdon*, *Prestant*, *Oclaaaf*, en om een toehoorder met te meer snelheid door onverwagte veranderingen te kunnen verrassen hebben wy de registers voor aan gebrogt om die met een slag van de hand al spelende te kunnen verzetten: waar door wy bey de clavieren over en weer, en ook te gelyk kunnen gebruiken.

11. Dit Instrument heeft in die tyd zo veel gerucht gemaakt dat vele Heeren, Ministers en Princen zelfs my hebben d'eer gedaan

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van my daar op te komen hooren, en, niet konnende begrypen hoe 't mogelyk was dat een clavicimbel zo velerhande uitwerkingen konde voortbrengen, my gevraagt of'er niet nog eenig ander speeltuig heimelyk in verborgen was? waar op ik dan de brug (die de tangen ten dekt) afsnam en toonde dat alles eenvoudig alleen in die 4 registers bestond; daar men des begerende, nog wel een Luit en een Harp van een nieuwe vinding die de snaren niet drukt, zoude kunnen byvoegen: zonder te spreken van een verbetering in 't geluid die wy aan de beste clavicimbel, zonder aan de zangbodem te raken nog zouden kunnen te weeg brengen.

12. Om van zo een Kunstclavicimbel de vrugt te genieten is een goed Meester in staat om op al die veranderingen en mengelingen van verschillende geluiden fraye stoffen te doen hooren: Maar een leerling die niet anders kan spelen als 't geen hem voorgeschreven is, kan daar toe eenige stukjes laten maken; behalven dat deze clavicimbel ook tot het gewoonlyk gebruik niet alleen bekwaam maar zelfs beter is. Maar, zal iemand zeggen, waar is 't Instrument, en waar zyn de stukjes? 't eerste kunnen wy t'aller ure vertoon en d'andere al spelende maken; Zo dat hier alle zwaarigheid is weggenomen: want de leerling is terstond geholpen en kan ondertussen, zo hy *wel* onderwezen word, diergelyke stoffen uit eige gedachten leeren voortbrengen, 't geen hy daar na dan ook zal kunnen doen op een veel schoonder Instrument, en op den Orgel zelfs, waar in alle bedenkelyke veranderingen zyn te vinden.

11. Voorts zo willen wy den leerling ook vermanen dat hy, om een goed oordeel van 't geluid te krygen, zyn clavicimbel altyd net gesteld houde, en ook zelve leere stellen: 't welk het beste middel is om 't gehoor te oefnen. Men moet gewaarschoud zyn dat dit instrument een soort van een *Thermometer* is, dat met kouw en wärme klimt en daalt, zo dat iemand, die fyn van gehoor is, daar aan zal kunnen zeggen of d'eene kamer warmer is als d'andere. Wyders zo dalen de kopere snaren door de wärme veel meer als d'yzere; zo dat, by verandering van weer de kopere en d'yzere malkander ontkomen. 't Waar te wenschen dat zy eenparig mogten ryzen en dalen. Hier toe zou veel helpen dat zy alle van koper waren; maar  
wyl

### De Music en de Bas-Continuo.

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wyl die om hoog niet zo helder als d'yzere klinken, zo worden de clavicimbelen zelden hier toe gemaakt. Daar is onderscheid in de maat der snaren: de bovenste C van yzer is 7, maar de kopere zesd'halven duim; een octaaf lager is de maat van d'yzere 14 en van de kopere 11 duim. Maar de derde C is geen tweemaal 14 maar ontrent 25 of 26 duim: want hier moet de maat der yzere verminderen, om in 't begin van 't onderste octaaf koper en yzer naast malkander te kunnen zetten. De kleine vierkante clavicimbelen, die men 5 voet noemt, zyn tot de kopere besnaring bekwaam; waar van men de maat kan onderzoeken. Voorts, Naar de meerder of minder wydte tusschen de kammen kan men de snaren fynder of grover verkiezen.

P. 142, Of the Clavecimbel

1. This instrument is not a cymbal with keyboard (as the name seems more to imply), but a reclining harp, whose strings are set in motion by means of jacks, that is to say touchers, which are called springers<sup>A10-1)</sup> in France. The instrument which tapers and becomes narrow at the end, is called by us staartstuck,<sup>A10-2)</sup> but in France Clavessin.
2. It is only of this that we shall deal here. Of the virginals we will say in passing only that the type whose keyboard stands toward the left is regular and playable. These are called Spinetten. But those which have the keyboard on the right-hand side are good in the right hand, but grunt in the bass like young pigs. One cannot prevent this because the jack in falling divides the string in two parts which are of such a length that they can sound against each other.
3. At the beginning of the previous century the best clavecimbels had only 45 keys of which the lowest octave consisted of the eight notes of Guido, C D E F G A B<sup>b</sup> B c, which were shortened by weaving through one another thus: C D E F G A B<sup>b</sup>. This is now called a short-octave, although formerly it had the name of a clavecimbel with the new enlargement because in the preceding century they were made only down to F and up to a<sup>2</sup> such as I have seen also on organs in my youth.
4. At that time they were so inexperienced in transposing that, in order to be able to transpose a piece a fourth lower, they made expressly a special second keyboard in the

clavecimbel. This seems unbelievable, but the proof, which is very remarkable, will itself be confirmed since the renowned Ruckers from the beginning of the previous century until more than thirty years after made only instruments in which, firstly, there were, for the two keyboards, only two strings, but nevertheless four registers (for the unison was then unknown), whereby one keyboard had to be dumb when the other was played. Secondly, (p. 143) the lower keyboard stood a fourth lower than organ pitch and had at the top five keys too many so that as well the upper keyboard could have had the same overflow at the bottom. But instead of making the beautiful basses of the lower keyboard play, they left it not only without keys but they made in their place a wooden block and next to it a short-octave - and this with great difficulty since the keys, because of the recently mentioned entangled notes had to cross over one another. This proves how unnecessary it was to fill in the notes of the bass at that time.

5. About fifty years later these two faults began to be corrected, which took place with very little difficulty since they only had to displace five keys in order to change f into c and to add a new octave at the bottom of the upper keyboard. Thereby the clavecimbel was given both <sup>above</sup> and <sup>below</sup> a long keyboard of 50 keys, that is, four octaves and a b<sup>b</sup> (sic) below the lowest c above this total. We can see the proof of this alteration by removing a wooden batten from the front of the keyboard, for we can see the new wood on the upper (keyboard), and the confusion of the numbers where Ruckers

had numbered the keys on the lower keyboard.

6. Later on they undertook to add a third string. N.B.: here it must be reported that one can make a mistake instead of enjoying an advantage. For it is known that Ruckers placed the bridges on the soundboard as far from one another as ever the strings could bear if they were to attain the required pitch. Supposing that Ruckers top c is  $6\frac{1}{2}$  duimen long, the the new c which one has placed on its left side next to it will, because of the slant of the bridge, be seven duimen long, which is the measure of the nearby string a half tone lower than c. I have found various harpsichords which have been harmed by this lengthening, on the one hand through the breaking of strings because the instrument cannot well stand so high, and on the other hand through the heavy weight of the strings which press too hard on the soundboard, which is harmful to the tone, as one can prove with mutes or by laying some lead on the bridge. Added to the above it can sometimes happen that the bridge sinks in so low in the bass that the strings touch the octave. My advice is that one should not lengthen the Ruckers measure to seven duimen, but that one should add the new string on the other side (p. 144) of the above-mentioned c, near its own unison. This can be done without the least pressure on the soundboard. Then one should add a jack to each register, displace the whole keyboard a half-tone higher, and make a key for the string left open down in the bass which will then be  $A_1$ . Thus the harpsichord will be improved in tone and can stay in tune

and is enriched by the above-mentioned  $A_1$  which is very useful as a fifty-first key in the place where otherwise the fiftieth is as good as useless.<sup>A10-3)</sup> This being done, one arranges that, by a little lengthening, the third jack is moved both by the lower and by the upper keyboard, and then the latter is no longer mute, since one can play on the upper piano with one string, and on the lower forte with three strings. But the fourth register, which stands in front, is not only useless but even a hindrance.

7. All harpsichords with two keyboards at present have three strings so that the instrument seems now to be complete. At this point one might have asked what moved us to describe it in such detail. There are three reasons of which the smallest is important enough to oblige us to do it. The first is that the clavecimbels (which were sold during the maker's lifetime for twenty, the small harpsichords for twelve and the virginals for six pounds Flemish) at present have reached so high a price that certain entrepreneurs have set out to abuse people by fitting to a small harpsichord - which had only one keyboard, two registers, and forty-five keys - two keyboards with the full number (of keys), and four registers of which the fourth, as was mentioned above, is useless. This one then calls a clavecimbel by Ruckers with two keyboards. But the opposite is true, for it is then a forced instrument which perhaps sounds lovely but is certainly soft in tone. One can recognise them by their breadth which must be of fifty complete keys and a block at each end between the side-boards. The

second reason concerns the large clavecimbel which some have undertaken to enlarge still further. This I have always seen to succeed very poorly. For if one, in order to place a greater number of strings on the bridge, reduces each space slightly with compasses, the clavecimbel will lose the power it had from the Ruckers (p. 145) because of the weight of the added strings. The tone of the basses depends particularly on the space which they have on the bridge. Therefore the clavecimbel makers should be careful to allow them too much space rather than too little. Those who will open the eyes of their understanding can see forthwith that there is no proportion in giving the large strings no more room than small ones.

8. Now we come to the third reason, which is a description of the great advantage one can enjoy from the good use of the above-mentioned superfluous jack. This will come as unexpected when we say that we can bring about by this exceptional method such wonderful and pleasant results as will give the ignorant as well as the learned the very greatest pleasure.

9. All that is necessary for this is that we give the fourth jack, which up to now has been an outcast, a more important function than the other three. This may be done by positioning it with its register one-and-a-half or two duimen from the bridge in the bass and as close to it as possible at the top. If someone wants to know what the result of this will be, let him take a writing pen and touch a string close to the bridge and then far off, and then he

will hear the difference between a spinett and a round tone. This is a thing which was well known to us for years. But that one, by making such a spinett in a two manual Ruckers clavecimbel, could generate more than a dozen fine variations of tone (such as happens by many registers in an organ), this has been unknown until our time.

10. In 1708 I made a two-manual harpsichord of Ioannes Ruckers of the year 1625 function according to this discovery, and named the four registers Spinetta, Unisonus, Cymbalum, Octava, or to use the language of organs, Trompet, Bourdon, Prestant, Octaaf. And in order to be able to take the listener by surprise more quickly through unexpected changes, we brought the stops to the front in order to be able to move them with a stroke of the hand while playing, whereby we were able to use the keyboards alternately and also together.

11. This instrument made such an impression at that time that many Nobles, Ministers, and even Princes did me the honour (p. 146) of coming to hear me play on it, and being unable to understand how it was that a clavecimbel could produce such a variety of effects, asked me whether or not there was another instrument secretly hidden inside it? Whereupon I removed the bar (which covers the jacks) and showed them that it simply all consisted of the four registers, and that one could as desired add a lute and a harp of new discovery which does not press the strings, without mentioning an improvement in tone which we could incorporate into the best harpsichords without affecting



the soundboard.

12. In order to enjoy the fruit of a refined clavecimbel such as this, a good master would be needed to bring out the beautiful effects of all the changes and combinations of different tones. But a student who can play only what has been required of him can have some pieces specially made for him considering that this clavecimbel is not only convenient for ordinary use, but even better for such pieces. But, should someone say, where is the instrument and where are the pieces? The first we can show him at any time, and the second we can make while playing. So that here all difficulty is removed, for the student is helped at once, and meanwhile, if he is well taught, he can learn to produce similar effects from his own ideas which he can then afterwards do also on a much more beautiful instrument and even on an organ on which all imaginable changes can be found.

Part 2, Chapter 7, p. 174.

11. Further, we will also warn the student that he, in order to acquire a good judgement of the sound, should always keep his harpsichord well tuned, and also should learn to tune it himself, which is the best means of training his ear. One should be warned that this instrument is a kind of thermometer which rises and falls with the cold and warmth, so that someone who has a keen ear will be able to use it to tell if one room is warmer than another. Moreover, copper (alloy) strings drop much more through warmth than iron ones, so that when there is a change in

the weather the copper (alloy) and iron strings differ with one another. One would wish that they would rise and fall uniformly. Therefore it would greatly help if they were all of copper (alloy), but (p. 175) since they do not sound as clear as iron in the treble, clavecimbels are seldom made in this way. There is a difference in the string lengths; a top c of iron is seven duimen long, but of copper (alloy) five and one-half duimen; an octave lower, the length of the iron string is fourteen, of the copper (alloy) eleven duimen. But the third c is not two times fourteen, but about twenty-five or twenty-six duimen. For here the length of the iron strings must be reduced in order to be able to place (strings of) copper (alloy) and iron next to one another at the beginning of the lowest octave. The little rectangular virginals, which are called 5-voet, are capable of being strung in copper (alloy) (strings), the lengths of which may be investigated. Furthermore, according to the greater or lesser distance between the bridges one can choose finer or coarser strings.

#### Footnotes

- A10-1) A jack is called a Springer in German, not in French.
- A10-2) staartstuck - tail piece. As in Appendices 8 and 9.
- A10-3) Seemingly van Blankenburg was unaware of the  $G_1/B_1$  short-octave!

Appendix 11 - Contract between Joos and Goosen Karest

Source: Antwerp City Archives, Notaris S. Hertogen s.  
(Zeger Hertoghen, senior), Prot. 1534-1539, No.  
N2070, folio 10 recto and verso and folio 11  
recto. A11-1)

'Veneris . 8 februarij . 1538

M(eeste)r<sup>A11-2)</sup> Joos Karreest, instrumentmaker van clavisimbalen ter eenre ende Goosen Karreest schildere, syn(en) broedere ter andere zyden alle ingeseten(en) der Stadt van Antwerpen, bekenden en(de) verlyden vut heuren vryen erghenen wille ende welwetensheyt ooc als zy seyden onbedwonghen ende onverleydt zyn(de) van yemande met malcanderen aengegaen te hebbene een contract van bestedingen ofte hueringhen, inder vueghen ende manieren hier naevolgen(de). Te wetene als dat die voirn(oemde) Goossen hem besteedt heeft, ende bestelt by desen, by den voirnoemde m(eeste)ren Joose zynen broedere, denselven aennemen(de) ende aenveerdende om by hem te wercken, bynnen desselfs Meester Joos huysse ende nerghens el, tsy van instrumenten te schilderen, stofferen, ofte anderssins, van tghene des in zynder macht is, voor ende tot behoefve van den selven meesteren Joose zynen broedere ende nyet voor hemselven oft yemande anders wie dattet zij in gheenre manieren, ende om dwelcke werck also als voirss(eit) es te doene/<sup>ende</sup>te volbrengene die voersseit meester Joos, gehouden ende verbonden sal wesen, tot zynen coste ende laste te ghevene ende te betalene Goossen synen broedere, alle de stoffe van verwe end goût, die hy totten selven wercke oirboren ende besighen sal. Maer die gereeschap van wapenen ende

andere instrumenten, daer hy mede wercken sal, die moet hy Goossen selve becostighen met oock syn nootürft ende mont-coste ende dit al sonder cost oft last meester Joos syns broeders. Ende dit den tijt ende termjyn van drie iaeren lanck geduerende ende malcanderen eenpaerlyck vervolgende, innegegaen zynde te Liechtmesse lestleden ende alsoe eynden sal, te liechtmesse alsmer scriven sal a(nno) d(omin)o XV<sup>e</sup> veertich stilo braban(tie). Ende welck werck by den voernoemden Goossen gedaen ende volbracht sal wordden, duerende dese drie iaeren, Tewetene van groot vastelavont af tot paesschen toe altyt des smorghens te wercke te comene soe vroech alst dach es ende des avonts metter keerssen te blyven wercken totten acht uren toe ende van paesschen af tot half oixt toe altyt des smorgens te sesse uren ende des avonts soe langhe alst dach es, end van half oixt af tot groot vastelavont toe, sal hy des smorghens te wercke comen te seven uren ofte eer indient dach es, ende blyven des avonts werckende tot acht uren toe metter keerssen, Item in den winter sal hy wercken des snoenens tot nae de half ure van elfuen. Ende in den somer tot nae den elfue uren, ende altyt wynter ende zomer wedero(m)me voor die clocke een uren opt werck te syne als voirsseit es. Want indien hyt alsoe nyet en volbrachte ende voleynde, ende hy duerende dese drie iaeren eenige uren daghen weken maenden ofte meer tijts versuemde, ende tselve toequa(me) door siecte versuemenisse negligentie ofte onacsaemheyd die en soude hem Meester Joos syn broeder nyet dorven betalen ende nochtans soude hy Goossen die versuemde ofte

geabsenteerde uren daghen weken maenden ofte meer tyts, die hy versuemt ofte geabsenteert soude hebben altijd den selven Meesteren Joosen moeten naedienen ten eynde vanden voirsseit drie jaeren, sonder eenich tegenseggen oft verdrach. Ende voer alle welcken dienst van wercke als voirsseit es by Goossen, gedaen te wordene soe wel vanden voirsseit drie jaeren, als moegelycken vanden naetyt die hy naedienen ende wercken sal Meester Joos zyn broeder hem gheven sal, ende dwelck hy by desen gelooft ende hem verbindt tselve alsoe te doene. Ierst alle werckdaghen als hy wercken sal in maten als voirsseit es elcx sdaechs sesse st(uyver)s op syns selfs cost ende hem alle weken te betalene teynde wercke teynde ghelt. Ende boven dyen in vergeldinghe van desen verbonde ende gestadighen dienst van wercke, die Goossen, synen broedere Meesteren Joosen doen sal, ooc den selven synen broedere te willen voorderen ende helpen, soe sal dieselve meester Joos, duerende dese drie jaeren synen broederen Goessen leeren syne conste van clavicimbalen te stellene, accoustreren, ende daer op spelen, soe vele als in hem is ende de selve Goossen nae syn verstant begrypen ende aennemen sal moeghen ende nyet voirdere, ende dit al sonder desselfs Goossens cost oft last, oft daer voere tot eeniger tijt aen zyn verdient loon oft anderssins yet te moeghen corten oft afslaen. Allet welcke die voirsseit partyen gelooft hebben ende geloven by desen malcanderen ende elck deen den anderen wel ende getrouwelick te volbringhene, tachtervolgene ende te voldoene ende daer tegens nyet te comene seggen oft doene,

by hen selven oft yemande anders van huerent weghen in  
 eeniger manieren. Ende dat opte peine van XII lb. gr(oot)en  
 vleems eens te verbuerene by den ghenen die dit contract,  
 van bestedinghen over al nyet volbrengen ende voldoen en  
 sal. Ende dieselve peine temployere ne ende bekeerne deen  
 derendeel van dyen tot behoefve vanden key(serlycken)  
 ma(jesteyt) ende dander twee derdendeelen tot profyte van  
 den ghenen die dit co(n)tract over al van weerden houden  
 sal. Ende welcke peine verbuert zynde betaelt oft quytge  
 schonden zynde oft nyet die voirsseit p(ar)tyen schuldich  
 sull(en) zyn malcande(ren) alle tghene des voirss(eit) es  
 te volderene, onder verbintnisse van hueren p(er)soonen  
 ende goeden tegenwoirdich ende toecomende ende verthidenisse  
 van allen exceptien ende behulpen van rechte ende feyte  
 daer zy ende elck van hen, hen eenichsins contrarie desen  
 mede oft teghen souden moeghen behulpen. Ende besondere  
 den Rechte seggende etc. Alle dinck sonder argeliste. In  
 kennissen der waerheyte soe hebben partyen begheert ende  
 geconsenteert deen den anderen, hier af gemaect te wordene  
 twee openbaere instrumenten van eenen teneure waeraf zy  
 elck die een des anders met heuren eyghenen handen onder  
 teekent hebben. Aldus gedaen Tantwerpen ten huysse mijns  
 notaris genaemt het Root Cruys etc., p(re)se)nt Niclaes de  
 Voocht lywatier ende Niclaes Van Gheldere coopman beyde  
 ingesetenen der voirsseit stadt getuyghen daer toe geroepen  
 ende gebeden / etc. / S. Hertoghen'

## Contract between Joos and Goosen Karest

Friday, February 8, 1538<sup>A11-3)</sup>

Master Joos Karest builder of clavecimbel on the one (side) and Goosen Karest, painter, his brother on the other side, both residents of the city of Antwerp, have admitted and declared out of their own free will and knowledge, also, as they said, being unrestrained and untempted by anyone, to have concluded with one another a contract of employment or wages in the way and manner that follows. Namely that the forenamed Goosen has undertaken and arranged herewith with the forenamed master Joos his brother and admits and accepts to work with him within the same master Joos' house and nowhere else, either at painting or finishing<sup>A11-4)</sup> instruments, or else at whatever is within his ability, for and to the requirements of the same master Joos his brother, and not for himself nor for anyone else whoever it may be, in any way. And in order to do and fulfil the work as described above, the said master Joos shall be bound and covenanted, at his outlay and burden, to give and to pay to Goosen his brother all materials of paint and gold that for the same work he will require and utilize. But the tools and other instruments that he will use in his work, these Goosen himself must pay for, as well as his livelihood and food and this all without outlay or burden of master Joos his brother. And this for a period and a term of three years following each other consecutively having started at last Candlemas<sup>A11-5)</sup> and so

ending at Candlemas as one shall write anno fifteen hundred and forty in the style of Brabant. And such work by the said Goosen shall be done and fulfilled during these three years: namely from Shrove Tuesday to Easter, always coming to work in the morning as soon as there is daylight, and in the evening remaining to work with candles until eight o'clock, and from Easter until mid-August always in the morning at six o'clock and in the evening as long as there is daylight, and from mid-August until Shrove Tuesday he shall come to work in the morning at seven o'clock or earlier if there is daylight, and remain working in the evening until eight o'clock with candles. In the winter he shall work at noon <sup>and in the summer until after eleven</sup> until after half past eleven, /and always, winter and summer, being back within one hour's time to work as described above. For if he does not fulfil and achieve it thus and if during these three years he loses any hours, days, weeks, months, or more time, whether it occurs from sickness, laziness, negligence or inattention, this master Joos his brother would not dare pay him for, and nevertheless would he Goosen always have to repay to the same Master Joos the lost or absented hours, weeks, months, or more time that he would have lost or have been absent, at the end of the said three years without any objection or entreaty. And for all the service of work as described above to be done by Goosen either during the said three years or possibly in the additional time that he will serve and work, master Joos his brother shall give him and such with this he promises and binds himself to do. First all



workdays that he will work in the way described above, for each day six stuyvers from his own wealth and to be paid to him weekly "work done, payment given". And besides this remuneration of this covenanted and continuous service of work that Goosen shall do for his brother master Joos, also the latter, willing to promote his brother and to help him, so shall the same master Joos during these three years, teach his brother Goosen his art of building clavecimbel, of voicing and of playing them, as much as he can, and as the same Goosen, according to his intelligence, will be able to understand and accept, and no more, and this all without the same Goosen's outlay or burden, or without for this at any time being entitled to retain or diminish anything from his earned wages or anything else. All of which the said parties have promised and promise herewith mutually and each to the other well and truly to fulfil, to pursue and to complete; and against this to say or do nothing, either by themselves or anyone else in their name in any way. And that a penalty of £12 Flemish will be charged at once to the one who will not entirely fulfil and satisfy this contract of employment; and the same penalty to be employed and distributed one-third of it in favour of the Royal Purse, and the other two-thirds to the benefit of the one who will abide by this contract in everything. And which charged penalty being paid or discharged or not, the said parties will remain indebted to each other to fulfil all that which is described above under engagement of their own selves and of their goods present and future, and not-

withstanding all exceptions and legal or factual means of which each of them could make good or bad usage in any way contradicting this (contract). And particularly the word of the law saying, etc.<sup>A11-6)</sup> The whole without treachery. In knowledge of the truth, the parties have demanded and admitted to each other that two public instruments with the same contents should be made of this (contract), of which both have signed with their own hand the one of the other. So done at Antwerp at the house of my notary called the Red Cross, etc. Present Niclaes de Voocht, draper, and Niclaes van Gheldere, merchant, both residents of the said city called and bidden as witnesses thereto, etc.

S. Hertoghen

Footnotes

- A11-1) I would like to thank Dr. van Roey, Dr. N. Meeùs and Mrs. M. van Varenbergh for their generous help with the transcription and translation of this document.
- A11-2) Abbreviations in the text are filled out in the transcription, and shown in parentheses only the first time that they occur.
- A11-3) During this period the New Year began at Easter and not on January 1, so this would now be reckoned as Friday, February 8, 1539.
- A11-4) stofferen - literally to upholster. It seems likely that finishing is what is intended here.
- A11-5) Candlemas - February 2. By modern reckoning the contract would be binding from Feb. 2, 1539 to Feb. 2, 1542.
- A11-6) The consequences and meaning of this incomplete statement would presumably have been understood by the signatories to the document, and also by other notaries.

Appendix 12 - Regulations of the Guild of St. Luke pertaining to the clavecimbel builders.

Source: Léon de Burbure, 'Recherches sur les facteurs de clavecins et les luthiers d'Anvers', Bulletins de l'Académie royale de Belgique, 2<sup>m</sup>e série, XV, No. 2 (1863) 1-32.

p. 10      • Wy JAN VAN IMMERSEELE, ridder, heere van Boudries, etc., schouteth der stadt van Antwerpen, ende maregrave slauts van Ryen, ende wy borgemeesteren, schepenen ende raide der voorschrevene stadt van Antwerpen, doen te wetene ende certificeren voor de gerechte waerheit, alzoo Mr. Joes Carest, Marten Blommesteyn, Jacop Theeuwes, Aelbrecht Van Noeren, Hans d'orgelmakere, Christoffel Blommesteyn, Ghoosen Carest, Jacop Aelbrechts, Marten Van der Bliest, ende Lodewyck Theeuwes (Theeuwes?), alle clavisimbelmakers, residerende binnen deser stadt, eendrachtelicken ons, by supplicatien, te kennen gegeven hadden hoe dat sy onlanex hadden vergadert geweest ende gecommunicert metten dekens, gezworene ende gemeyne ouders van Sinte Lucas gulde alhier, ende zoevele metten selven behandelt ende gesloten dat sy supplianten alsamen gewillich ende bereet syn te comene in der voorschreven gulden, soe verce men hen wilde ghunnen ende toelaten de nabeschreven poincten ende

p. 11      articulen die sy ouderlinge hier oppe geraemt hadden, ten eynde dat onder hen ende heuren nacomers int maken van clavisimbalen ende diergelycke speelinstrumenten ordine ende pollicie gehouden soude mogen worden, gelyck onder andere ambachten ende natien deser stadt; nu waest (*sic*) zoe, dat de voorgenoemde dekens, gezworene ende gemeyne ouders van der voorschreven gulden, aemerckende dat de voorschrevene poincten ende articulen stonden tot ordinancien ende verleeningen van ons voorgenomd, de voorseyden supplianten hier oppe egheenssins en dorsten aennemen, in der gulden te ontfangene ende te vryene sonder voorgaende consent ende ordinancien van ons, midts welken deselve supplianten ende met hen de voorseyde dekens, gezworene ende gemeyne ouders van der voorschreven gulden van Sinte Lucas eendrachtelick in alre ootmoet ende reverencie waren biddende ende begheerende, dat ons (op al ooge ende regard nemende) believen wilde, tot voorderinge ende vermeerderinge van der zelve gulden, int gene de voorschreven ware te consentene, ende dat doende, den remonstranten ende heuren nacommers te ghunnen

p. 12      ende te verleene die nabeschreven poincten ende articulen, ende daer aff te doen hebbene acte in behoorlicker formen.

Welcke voorgaende requeste metten puncten hier naer gernerit oversien wesende, soe hebben wy genegen wesende totter supplianten begheerte, considerende oock de zelve poincten redelycken te wezene, den voorschreven supplianten de selve poincten ende articulen gegunt, gracieordeert ende verheut, ghunnen, arrorderen ende verleenen by desen.

1. In den iersten, dat de voorschreven remonstranten gehouden selen wesen alt zamen, van stonden ane, te comene in de voorseyde gulde van Sinte Lucas, ende elck te doene den behoorlicken eedt, ende oock te betalen de rechten daertoe staende.

2. Item, dat de zelve remonstranten, mids desen, als vrymeesters ende guldebroeders van den voorseyden gulden, binnen deser stadt ende vryheit derzelve, vry ende vranck selen blyven, doende huere voorschrevene meeringe van clavisimbalen ende diergelycke speelinstrumenten te makene ende te vercoopene, gelyk zy te voren geploghen hebben, sonder eenigho proeve daeromme te moeten oft deryen makene.

3. Item, dat de zelve remonstranten, ende oock de ghene die naer hen als clavisimbelmakers in de voorschreven gulde ontfangen ende gevryt selen worden, selen mogen genyeten ende gebrycken alle alsulcke privi-

p. 13

legien ende vryheden, als de zelve gulde nu heeft ende namaels vercrygen sal mogen, in alder vueghen ende manieren als dandere vrymeesters ende guldebroesters van dier vermogen te doene, navolgende den ordinaucien ende privilegien daer af nu ende by tyden wezende.

4. Wel verstaende dat voortane naer de voorschreven remoustranten als clavisimbalmakers in de voorschreven gulde van Sinte Lucas ontfangen noch gevryt ende sal mogen worden, hy en hebbe ierst ende voor al metter hant opgemaect ende voldact de nabeschreven proeve, ende dat ten huysse van eenen van den nabeschreven waerdeermeesters, die hem daer toe sal moeten leveren alle de materialen ende gereetschappen daertoe dienende ende behoorende, dats te wetene een viercante oft gehoecte clavisimbale, lanck vyff voeten oft daer outrent, oft langer indien hy wilde, wel ende werkeick gewrocht op haren gerechten steck ende mate, naer den heysch van den wercke wel luydende ende behoerlicken gepent ende gesnaert.

5. Item, de voorschreven proef gemaect synde, soe sal men die moeten brengen op te camere van der voorseyden gulden, aldaer de voorschreven waerdeermeesters deselve, ter presentien van den dekens ende gezworene van der selver gulden ende van twee oft drie vrye clavisimbalemakers, selen visiteren ende waerdenen, ende op hunnen eedt vercleeren oft die

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navolgende den voorschrevene articule van der proeven gemaect ende voldact is oft nyet; ende oft de ghene die ze gemaect sal hebben alsdan daermede behoort te passeren onne als clavisimbalemakere in de voorseyde gulde ontfangen ende gevryt te wordene oft nyet, sonder eenige simulatie.

6. Item, ingevalle de voorseyde proeve wordt gepasseert, soe sal de waerdeermeestere, ten huysse van den welcken die gemaect sal wezen ende die de materialen ende gereetschap daertoe geleverd zal hebben, dezelve hebben ende behouden voor zyn leveringende ende moeyte, sonder den werkmann die se gemaect zal hebben voor synen arbeyt yet te moeten oft derven gevene oft betalene.

7. Ende ingevalle men, sal de werkmann die te hemwaerdere moeten nemen, ende den voorseyden waerdeermeester zyne geleverde materialen ende gereetschappen oprichten ende betalen, alzoehooren sal.

8. Item, dat men alle jare by den dekens ende gezworene van der voorschreven gulden van Sinte Lucas, uutem clavisimbalemakers sal kiesene ende ordonneren twee waerdeermeesters uut ende bequemen daertoe wesende, dewelcke gehouden sal (sullen) wezen de voorseyde proeve te visiterene ende hen verklaren daeralf te doene, in vueghen ende maten soe

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hier vore verhaelt staet, ende dat op ten eedt dien sy daertoe gedaen selen hebben.

9. Item, dat voortane nyemant binnen deser stadt noch vryheyt derselver en sal mogen doen de neeringe van clavisimbalen oft diergelycke spelinstrumenten te makene ende voorts te vercoopen, hy en zy ierst ontfangen ende gevryt in de voorschreven gulde van Sinte Lucas, hebbende betaelt de rechten daertoe staende ende voldact de proeve als vore, op te pene ende verbeurte, soe wie bevonden sal worden contrarie van desen gedaen te hebbene, tekenmaeke van sesse carolus guldenen, te bekeerene in dryen, te wetene een derderdeel der aff den hoere, tweede der stadt ende tlerde den voorseyden gulden.

10. Item, dat elck vry clavisimbalemakere van deser stadt gehouden ende schuldich sal wezen op alle speelinstrumenten by hem gemaect, te stellene syn eygen merck, tecken oft wapene, ende dat ter openbaerster plaetsen, voor ende afoer by die voorts sal mogen vercoopen ende distribuieren, op te pene van twee carolus guldenen eens, te verbeurene van elcken instrumente dwelck by contrarie van desen vercocht soude hebben, ende te bekerene in dryen als vore.

Behoudelick ons ende onsen nacommers in officien altyts hier inne te

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mogen toevuegen, affnemen, interpreteren, meerderen, minderen ende veranderen sulck als ons ende hen by tyden duncken sal geraten ende oirboirlyck te wesen sonder fraulde oft argelist. Ende des toirvonden hebben wy schoutet ende wy burgemeesteren, schepenen ende raidt voorg. den segel ten saken van den voors. stadt van Antwerpen an dese letteren doen hangen, op ten achtentwintichsten dach van meerte, int jaer ons Heeren vyffstien hondert ende zeventyffich, na styl van Brabant.

Translation of the Guild of St. Luke regulations for the  
clavecimbel builders.

'We, Jan van Immerseele, knight, Lord of Boudries, etc, sheriff of the City of Antwerp, and margrave of the land of Ryen, and we, burgermasters, aldermen and councillors of the abovementioned City of Antwerp, make known and certify as the strict truth, that Masters Joos Carest, Marten Blommesteyn, Jacop Theeuwes, Aelbrecht Van Neeren, Hans the organ maker, Christoffel Blommesteyn, Ghoosen Carest, Jacop Aelbrechts, Marten Van der Biest and Lodewyck Theeuwes, all clavecimbel makers, resident within this City, have unan- imously made known to us by petition that they recently met and communicated with the deans, jurors and elders of the Guild of St. Luke of this place, and having discussed and agreed with the same, that they, the petitioners were all willing and prepared to enter the said Guild, if they were to be granted and permitted the following points and articles which they had jointly drawn up and which are set out be- low, so that, among them and their successors in the making of clavecimbels and similar musical instruments, there should be order and policy, such as exist among the other trades and guilds of this City. This being so, the fore- mentioned deans, jurors and elders of the said Guild, realizing that the said points and articles had a bearing upon the ordinances and franchises of us forementioned, dare not co-opt the forementioned petitioners freely into their guild without the previous consent and ordinances on our part; as a result of which the same petitioners and

along with them the forementioned deans, jurors and elders of the said Guild of St. Luke, unanimously and in all humility and reverence, prayed and desired of us that we, taking everything into account should, to the advancement and gain of the said Guild, consent to the abovementioned course, and in so doing agree to the wishes of the petitioners and those to come after them, and grant them and their successors the following points and articles, and to embody these in the proper form.

'Having considered the above petition and the points it puts forward, and being inclined to grant the petitioners' desire, and considering also that the same points seem reasonable, we have granted, agreed and conferred the following:

(1) In the first place, that the abovementioned petitioners shall be bound to appear together immediately before the said Guild of St. Luke, and each to swear a suitable oath and also to pay the usual fees.

(2) Furthermore, that the same petitioners, as free masters and guild brothers of the said Guild, within this City and its Liberties, shall remain free and unhindered to carry out their abovementioned trade of making and selling clavecimbels and similar musical instruments, as was their wont before, without having to make a test piece.

(3) Furthermore, that these same petitioners and also their successors as clavecimbel makers shall be freely received into the said Guild, shall enjoy and use all such privileges and liberties as the said Guild now enjoys and

later may obtain, in all ways and manners as the other masters and brothers of the Guild are wont to, and shall enjoy, in conformity with the ordinances and privileges now existing and at a later date to be promulgated.

(4) It is to be understood that in future, after the said petitioners have been freely admitted as clavecimbel makers into the said Guild of St. Luke, only such may be admitted as have made by hand and completed the following test piece, and that at the house of one of the aftermentioned assessors, who will have to provide him with all the necessary materials and tools, vis. a virginal or a harpsichord, five feet long or thereabouts, or longer should he so desire, well and truly wrought, in the correct shape and proportions, and in accordance with its nature being sound in tone and properly quilled and strung.

(5) Furthermore, the above prescribed test piece having been completed, it will have to be brought to the chamber of the said Guild, where the prescribed assessors, in the presence of the deans and jurors of the said Guild and of two or three free clavecimbel makers, shall inspect and test the same, and declare upon oath whether or not the test piece has been made in accordance with the prescribed articles, and declare truthfully and without deceit whether he who made it should be accepted as a free clavecimbel maker in the said Guild.

(6) Furthermore, should the abovementioned test piece be passed, then the assessor, in whose house it has been made and who has provided the required materials and tools, shall

have and retain the same (clavecimbel) for his materials and trouble, without having to give or to pay anything to the workman who made it for his labour.

(7) And should (the test piece) not (be passed), the workman who made it shall have to remove it and pay for and make good the materials and tools the assessor has provided.

(8) Furthermore, that every year the deans and jurors of the said Guild of St. Luke shall, from among the clavecimbel makers, choose and ordain two suitable and able assessors, who shall be bound to examine test pieces and testify upon them in a way conforming to the manner above laid down and upon the oath which they shall have sworn to that end.

(9) Furthermore, that in future no one within this City and its Liberties shall be entitled to carry on the trade of making clavecimbels or similar musical instruments and afterwards sell them, unless he be first freely admitted into the said Guild of St. Luke, having paid the usual fees and performed the prescribed test, upon pain of fine and forfeit, and any who will be found to have contravened this ordinance, for each occasion <sup>shall</sup> / be fined the sum of six Guilders Carolus, to be divided in three parts, one third to the sovereign, one third to the City, and one third to the abovementioned Guild.

(10) Furthermore, that each free clavecimbel maker of this City shall be bound and liable to place in each musical instrument made by him his own mark, signature or (coat of) arms, and that in the most obvious place, before he sells it or distributes it, upon pain of a fine of two



Guilders Carolus, to be levied for each instrument he should have sold contrary to this ordinance, and (the fine) to be paid in three parts as aforesaid.

'We reserve the right to ourselves and our successors, in office at any time, to add to, delete from, interpret, increase, diminish or change any point in this ordinance as may be deemed fit and suitable without fraud or ulterior motive. In good faith have we, sheriff and we, burger-masters, jurors and councillors forementioned, appended the seal of business of the forenamed City of Antwerp to this writ, on the 28th day of March, in the year of Our Lord 1557, in the style of Brabant.'

(signed) Van Assiliers

Appendix 13 - Extract from the Encyclopédie

Source: Diderot, D. and d'Alembert, J. le R., 'Clavecin', Encyclopédie ou dictionnaire raisonné des arts, sciences et métiers, Vol. 8 (Lausanne; Berne 1781, 80-82) 231-234.

p. 232 'Les meilleurs clavecins qu'on ait eus jusqu'ici pour le beau son de l'harmonie, sont ceux des trois Ruckers (Hans, Jean & André) ainsi que ceux de Jean Couchet, qui, tous établis à Anvers dans le siècle passé, ont fait une immense quantité de clavecins, dont il y a à Paris un très grand nombre d'originaux, & reconnus pour tels par de vrais connoisseurs. Il s'est trouvé de notre temps des facteurs qui ont copié & contrefait les clavecins des Ruckers à s'y méprendre pour l'extérieur, mais la qualité du son a toujours découvert la supercherie. Cependant ces incomparables clavecins des trois Ruckers & de Couchet, tels qu'ils sont sortis des mains de ces maitres, deviennent absolument inutiles aujourd'hui; car ces grands artistes, qui ont entendu supérieurement bien la partie de l'harmonie, ont très-mal réussi dans la partie du clavier. Outre cela tous ces clavecins Flamands sont si petits que les pieces ou sonates qu'on fait aujourd'hui ne peuvent point y être executées: c'est pourquoi on les met à grand ravalement, en leur donnant soixante et une touches au lieu de cinquante qu'ils avoient autrefois. D'ailleurs, au lieu de cent cordes (car la plupart de ces clavecins des Ruckers n'ont été faits qu'à deux cordes par touche) on les charge de cent quatre-vingt-trois cordes, en y ajoutant un grand unisson,

moyennant lequel l'harmonie devient encore plus mâle et plus majestueuse.

C'est dans cet art d'agrandir les clavecins des Ruckers, que feu Blanchet a réussi incomparablement bien. Il faut pour cet effet les couper du côté des dessus & du côté des basses; ensuite élargir, & même allonger tout le corps du clavecin; enfin ajouter du sapin vieux, sonore, & le plus égal qu'on puisse trouver, à la table de l'harmonie, pour lui donner la nouvelle largeur & longueur. Le grand sommier se fait tout à neuf dans ces sorte (p.233) de clavecins, qui, tout bien considéré, ne conservent de leur premier être que la table & environ deux pieds & demi de leurs éclisses du côté droit. Les parties accessoires, comme claviers, sautereaux, registres, se sont à présent avec beaucoup plus de justesse & de précision que les maitres Flamands ne les ont faites dans le siècle passé. Un clavecin des Ruckers ou de Couchet, artistement coupé & élargi avec des sautereaux, registres & claviers de Blanchet, devient aujourd'hui un instrument très-précieux.

Le prix ordinaire des clavecins ornés d'un simple vernis propre, sortant des mains du facteur, & fait par un artiste de Paris, va aujourd'hui à cinq ou six cens livres: les meilleurs se paient sept cens livres, mais ce n'est que lorsque l'harmonie est si moelleuse qu'elle approche de la bonté de celle des clavecins Flamands dont/ <sup>nous</sup> venons de parler.'

'Harpsichord' from the Encyclopédie

p. 232 'The best harpsichords that have been made up to now for the beauty of their tone are those of the three Ruckers (Hans, Ioannes and Andreas) as well as those of Ioannes Couchet, who, all working in Antwerp in the previous century, made an immense quantity of harpsichords, of which a very large number of originals are found in Paris, and recognized as such by true connoisseurs. One finds makers in our time who have copied and counterfeited the harpsichords of the Ruckers. The exterior can be misleading, but the tone quality always exposes the fraud. Nevertheless the incomparable harpsichords of the three Ruckers and of Couchet, as they have come from the hands of these masters, are absolutely useless today, since these great artists, who understood the tonal part superbly well, have succeeded very badly from the point of view of the keyboard. Besides this all these Flemish harpsichords are so small that the pieces or sonatas which are written today cannot be played on them. This is why they undergo a grand ravalement, by giving them sixty-one keys in place of the fifty which they used to have. Moreover, in place of the 100 strings (because most of the harpsichords of the Ruckers were made with only two strings per key) they have been given 183 strings by adding a grand unisson, by which means the tone becomes even more manly and majestic.

It is in the art of enlarging the harpsichords of Ruckers that the late Blanchet has succeeded incomparably

well. In order to achieve this he had to cut them on the treble side and on the bass side, to enlarge and even lengthen the whole case of the harpsichord, and finally to add some old sonorous fir,<sup>A13-1</sup> the most even-grained that it is possible to find, to the soundboard to give it its new width and length. The wrestplank is completely re-made in these sort s (p. 233) of harpsichords, which, all things considered, retains from its original state only the soundboard and about two and one-half feet of the right case-side. The accessory parts, like the keyboards, jacks, registers, now are much more accurate and precise than they were made by the Flemish masters of the previous century. A harpsichord by the Ruckers or by Couchet, artistically cut and enlarged, with jacks, registers and keyboards by Blanchet, has become today a very precious instrument.

The usual price of harpsichords simply and appropriately painted, coming from the hands of the maker, and made by an artist of Paris, would today be five to six hundred livres. For the best one pays seven hundred livres, but this only if the tone is so velvety that it approaches the beauty of the Flemish harpsichords about which we have just spoken.'

#### Footnotes

A13-1 sapin = fir. It is unclear whether Diderot is using sapin to mean literally fir, or whether he is using the word in a more generic sense to mean softwood, ie fir, spruce or pine. The Ruckers and Couchets used spruce for their soundboards, but many French makers used fir (abies alba). The

woods are notoriously difficult to distinguish except microscopically. Perhaps some French makers did add fir to the already existing spruce sound-board wood in the ravalement process.

Appendix 14 - The preparation of bone for keyboards.

Source: Dom Bedos de Celles, L'art du facteur d'orgues, Vol. 2, Chapter 3 (Paris 1766-1778) 249-250.

700. Toutes ces opérations étant faites, on mettra le placage sur le dessus du devant du panneau. Ce placage se fait en os, ou en ébène noire. Le placage en

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os est préférable pour les Claviers des Orgues ; parce que cette matière étant plus dure, elle résiste plus long-temps. Les os se tirent des jambes des bœufs. On scie ces os, & on en fait des lames de la largeur des Touches. On les vend à Paris toutes faites à trois sols la pièce ; mais dans les Provinces, si l'on n'a pas la commodité de les faire venir de Paris, on est obligé de les faire soi-même ; on les ébauchera à la scie & avec la rape. Avant de les finir, on les blanchira de la manière suivante.

701. On mettra dans un poëlon, un morceau gros comme le poing de chaux vive, que l'on dissoudra avec un peu d'eau. La chaux étant éteinte & réduite en pâte, on y jettera à peu près deux pintes ou trois ou quatre livres d'eau. On y ajoutera un peu d'alun broyé. Tout cela étant bien mêlé, on y jettera les os. On mettra le poëlon sur le feu, & lorsqu'il aura bouilli tout au plus deux ou trois minutes, on ôtera le poëlon du feu. L'eau ayant perdu un peu de sa grande chaleur, on ôtera doucement toute l'écume. On laissera refroidir entièrement le tout, & on ôtera les os, qu'on lavera avec l'eau fraîche. On les laissera sécher bien doucement à l'air qui ne soit pas chaud. Si on les faisoit sécher trop vite, ou au soleil, ils fêdroient. Il faut remarquer que si l'on faisoit bouillir les os plus long-temps que je n'ai dit ci-dessus, ils se brûleroient ou se calcineroient, & on gâteroit tout.

## The preparation of bone for keyboards

700. All these operations having been done, one puts the plates on the upper surface of the front of the (key)board. These plates are made from bone, or of black ebony. Plates of bone are preferable for the keyboards of organs, because this material is harder and lasts much longer. The bone used is from the legs of beef. The bone is sawn up, and one makes the strips the size of the keys. They are sold in Paris ready made at three sols each; but in the provinces if one is not able to get them from Paris, one is obliged to make them oneself. They are roughed out with the saw and with a file. Before they are finished, one whitens them in the following way.

701. One puts into a large pot, a piece the size of the fist of quick lime, which one dissolves with a little water. The lime having become inactive, and reduced to a paste, one adds little by little almost two pints or three or four pounds of water. One adds to this a little ground alum. All this having been well mixed, one adds the bones. The pot is set on the fire and when it has boiled at the most two or three minutes, one removes the pot from the fire. The water having lost a little of its great heat, one gently removes all of the scum. It is allowed to cool entirely, and one removes the bones which one washes with fresh water. One lets them dry very slowly in air that is not too warm. If they are allowed to dry too quickly or in the sun, they will crack. It must be said that if one



lets the bones boil longer than what I have said above,  
they will burn or calcify, and one has then spoiled the  
lot.

Appendix 15 - Ruckers instruments sold in Paris sales during the 18th century.

Source: Eugène de Bricqueville, Les ventes d'instruments de musique au XVIII<sup>e</sup> siècle, Paris (1908) 7-16

(p. 7) Une épinette de Ruckers en forme de table longue, 8 mars (1764).

Grande épinette de Ruckers (André) et une autre plus petit que (p. 8) l'on peut appliquer sur la première pour former deux claviers, 300 liv., 24 juillet, 1771.

Un clavecin de Ruckers avec des peintures de Rubens, 3 juillet 1752.

Un clavecin de Ruckers, orné de peintures des Gobelins, sur un fond doré et de charnières aussi dorées d'or moulu, 10 août 1752.

Très beau clavecin de vrai laque, à ravallement, de Ruckers, en très bon état, 24 août 1752.

Clavecins de Ruckers, 13, 17, 20 juillet 1752.

Clavecin de Ruckers à ravallement en vieux laque, 21 mai 1753.

Un clavecin de Jean Ruckers. Le pied et la caisse sont entièrement dorés, et le dedans est orné de peintures dans le genre de Watteau, 13 août 1753.

Un excellent clavecin de A. Ruckers. Il est extrêmement ancien et en bon état, 12 novembre 1753.

Clavecin de Ruckers, dont le pied est de marqueterie. Il a été fait par Boule, le père, avec des ornements dorés d'or moulu et de belles peintures, 1753.

(p. 9) Un clavecin d'Antoine Ruckers à deux claviers et à

grand ravallement. Il est bien peint et bien conditionné.

Le prix est 50 louis 3 octobre 1754

Un clavecin de Rukers verni à neuf, 7 octobre, 1754.

Un beau clavecin de Rukers dont les claviers son de Blanchet. Il est à grand ravallement. La table est de 1588. Le parnasse est peint au dedans par un bon maître. Le pied est sculpté et doré, 17 avril 1755.

Un clavecin de Rukers peint par Oudry, 26 mars 1755.

Un clavecin de Rukers verni par Martin; deux autres vernis par le même et faits par Rukers sont en vente, 5 novembre, 20 novembre, 15 avril 1755.

Clavecin de Couchet 25 louis, 24 fevrier 1755.

Très beau clavecin de Rukers peint par Watteau, 11 mars 1756.

(p. 10) Clavecin de Jean Rukers peint par Rubens, 3 mai 1756.

Un petit clavecin excellent de 3 pieds  $\frac{1}{2}$  de long, à 2 claviers, fait par H. Rukers en 1620. Il est propre à porter à la campagne ou à placer dans un cabinet. Le prix est de 150 livres, 27 août 1759.

Très beau clavecin d'André Rukers sur un pied de marqueterie de Boule extrêmement riche. Les peintures sont de Patel, 18 octobre 1759.

Un clavecin de Rukers verni par Martin. Prix: 300 livres, 31 décembre 1759.

(p. 11) Un excellent clavecin de 7 pieds 3 pouces de long, fait par André Rukers en 1601, peint en noir et or avec des ornements dans le goût de la (p. 12) Chine. Le dedans

représente des bacchanales peintes par Coypel. Les connaisseurs l'estiment 3,000 livres. On le donnera pour 2000. 29 décembre 1760.

Clavecin de Rukers, 400 livres, 4 mars 1761.

Clavecin d'André Rukers, fond noir à filets d'or et pieds dorés, 350 livres, 15 juillet 1762.

Clavecin de J. Rukers, verni par Martin. Au juste 1,800 livres. 5 septembre 1763.

(p. 13) Excellent clavecin de Rukers André, de 1608; grand rav. et claviers de Blanchet, orné de très belles peintures en dehors et en dedans, avec pieds sculptés et dorés, 2,400 livres, 23 mai 1765.

Clavecin de Rukers, 25 louis, 1780.

Très bon clavecin de Rukers, 600 livres, 19 octobre 1780.

Clavecin d'André Rukers, carré, à deux cordes (duch. de Lorges), 28 mai 1767.

Un excellent clavecin, chef-d'oeuvre de Rukers, renfermant une épinette richement ornée et décorée d'un tableau de Wateau, représentant un concert d'animaux, 30 décembre 1767.

1 clavecin de Rukers, 30 louis, 27 avril. (1775).

Clavecin de Rukers avec pied d'ébène doré, 1<sup>er</sup> mars 1766.

Excellent clavecin de Rukers à deux côtés, formant un carré long et 4 claviers joliment peint, 1000 livres, 2 mai (1768).

Clavecin de Rukers, 400 livres, 10 mars (1768).

(p. 14) Clavecin de Rukers à 600 livres.

Clavecin de Jean Couchet, d'Anvers, ayant 5 tons de plus que les clav. à grands rav. et dont toutes les cordes basses sont en argent doré, 1,000 livres. Il en a coûté 3,000. 10 septembre 1772.

Clavecin de Rukers dont les claviers sont de Blanchet et peint en aventurine, 15 fevrier 1773.

Très beau clavecin de Rukers doré en plein et peint en mignatures avec tableau dedans, 24 juin (1773).

Clavecin de Rukers, 30 louis, 24 juin (1773).

Clavecin à grand rav. fait en 1612 par Rukers, supérieurement peint par Van der Meulen, orné de bronzes. Il a été mis en état par le sieur Pascal Taskin, artiste célèbre. Il contient 4 registres, dont un est le jeu de buffle inventé par ce facteur. It est composé de six mouvements que l'on change avec le genou sans retirer les mains de dessus le clavier; ce qui donne le piano, le forte, et le crescendo de la manière la plus nette et la plus sensible. Prix: 260 louis comptant, chez le sieur de la Chevardière, maître de musique, rue du Roule, 23 janv. 1777.

(p. 15) Excellent clavecin de Rukers avec une épinette sur la même table, 12 mai (1777).

Clavecin de Rukers d'un genre nouveau faisant la flûte, le haut-bois et la voix humaine. Le tout par un flamand nouvellement arrivé à Paris. Chez le sieur Goërmans, marchand de clavecins et de harpes, rue de Limoges, 5 février, 1778.

Clavecin d'André Rukers fait en 1606 avec une bonne épinette du même auteur qui y tient; peintures de Watteau et superbes dorures. Le pied doré en plein, prix, 100 louis. Il en a coûté plus de 4,000, il y a deux ans. Il n'y a aucune réparation à faire. S'adresser Hotel de Novioa, rue de la Planche, 20 décembre 1778.

Clavecin d'André Rukers (1630), 4,000 livres, 1<sup>er</sup> janvier 1778.

Clavecin d'André Rukers à 25 louis, 1<sup>er</sup> janvier 1778.

Clavecin d'André Rukers a 1,000 louis, en a coûté 2,000, 12 novembre (1778).

Clavecin de Rukers verni par Martin, 24 octobre (1779).

Clavecin de Rukers, fond en or, avec des figures d'Audran, 24 novembre (1779).

(p. 16) Clavecin de Couchet refait à neuf et mis à grand rav. par P. Taskin, avec des peintures précieuses et mécaniques au pied pour varier le jeu de 10 à 12 manières (décès de M. Demarville, receveur général des finances, rue du Sentier).

Clavier(sic) de Rukers à grand rav. avec 4 registres, jeu de buffles et mécanique pour les crescendo et les diminuendo chez le sieur Schneller, facteur de clavecin, Marché des Enfants Rouges, 10 janv.

Excellent clavecin de Rukers à grands rav. avec claviers de Blanchet, nouvellement peint en vert à filets d'or, 1,500 livres chez M. le Normant d'Etioles, rue du Sentier, 14 juin.

Ancien clavecin de Ruckers, 50 louis, 19 novembre.

Ruckers instruments sold in Paris sales during the 18th century.<sup>A15-1)</sup>

(p. 7) A virginal by Ruckers, in the form of a long table.

Large virginal by Andreas Ruckers, and another smaller one which (p. 8) can be placed on the first to give two keyboards, 300 livres, 24 July, 1771.

A harpsichord by Ruckers with paintings by Rubens, 3 July, 1752.

A harpsichord by Ruckers, decorated with paintings by the Gobelins, on a gilt ground and with hinges also of gilt ormolu, 10 August, 1752.

Very beautiful harpsichord in true lacquer à rav-  
alement, in a very good state, 24 August, 1752.

Harpsichords by Ruckers, 13, 17, 20 July 1752.

Harpsichord by Ruckers à ravale-  
ment in old lacquer, 21 May, 1753.

A harpsichord by Ioannes Ruckers. The stand and the case are completely gilt, and the inside is decorated with paintings in the style of Watteau, 13 August, 1753.

An excellent harpsichord by A(ndreas) Ruckers. It is very old and in a good state, 12 November, 1753.

Harpsichord by Ruckers with a marquetry stand. It has been made by Boule the father, with gilt ormolu ornaments and with beautiful paintings, 1753.

(p. 9) A harpsichord by Antoine<sup>A15-3)</sup> Ruckers with two

keyboards and à grand ravalement. It is well painted and in a good condition. The price is 50 louis<sup>A15-4</sup>). 3 October, 1754.

A harpsichord by Ruckers newly painted, 7 October, 1754.

A beautiful harpsichord by Ruckers with keyboards by Blanchet. It is à grand ravalement. The soundboard is from 1588. Parnassus is painted on the inside by a good master. The stand is carved and gilt. 17 April, 1755.

A harpsichord by Ruckers painted by Oudry, 26 March, 1755.

A harpsichord by Ruckers decorated by Martin;<sup>A15-5</sup>) two others also decorated by him and made by Ruckers are also on sale, 5 November, 20 November, 15 April, 1755.

Harpsichord by Couchet, 25 louis, 24 February, 1755.

Very beautiful harpsichord by Ruckers, painted by Watteau, 11 March, 1756.

(p. 10) Harpsichord by Ioannes Ruckers, painted by Rubens, 3 May, 1756.

An excellent small harpsichord  $3\frac{1}{2}$  feet long with two keyboards, made by H. Ruckers in 1620.<sup>A15-6</sup>) It is ideal for carrying into the country, or for storing in a closet. The price is 150 livres. 27 August, 1759.

Very beautiful harpsichord by Andreas Ruckers on an extremely rich stand of Boule marquetry. The paintings are by Patel. 18 October, 1759.

A harpsichord by Ruckers decorated by Martin. Price: 300 livres. 31 December, 1759.



(p. 11) An excellent harpsichord 7 feet 3 inches long made by Andreas Ruckers in 1601,<sup>A15-7)</sup> painted black and gold with decorations in the Chinese taste. A Bacchanalia is painted on the interior by Coypel. Those knowledgeable have valued it at 3,000 livres. It is being offered for 2000. 29 December, 1760.

Harpsichord by Ruckers, 400 livres, 4 March, 1761.

Harpsichord by Andreas Ruckers, painted black with gold bands, and a gilt stand. 350 livres. 15 July, 1762.

Harpsichord by Ioannes Ruckers, decorated by Martin. Exactly 1,800 livres. 5 September, 1763.

(p. 13) Excellent harpsichord by Andreas Ruckers of 1608; à grand ravalement and keyboards by Blanchet. Decorated with very fine paintings inside and out, with a carved and gilt stand. 2,400 livres. 23 May, 1765.

Harpsichord by Ruckers, 25 louis, 1780.

Very good harpsichord by Ruckers, 600 livres. 19 October, 1780.

Harpsichord by Andreas Ruckers, rectangular, with two (choirs of) strings (Duchess of Lorges), 28 May, 1767.

An excellent harpsichord, a masterpiece of Ruckers, containing a virginal richly ornamented, and decorated with a scene by Watteau representing a concert of animals. 30 December, 1767.

One harpsichord by Ruckers, 30 louis, 27 April, (1775).

Harpsichord by Ruckers with a stand of gilt ebony. 1 March, 1766.

Excellent double-ended harpsichord by Ruckers, rectangular in shape with 4 keyboards, nicely painted. 1,000 livres. 2 May, (1768).

Harpsichord by Ruckers, 400 Livres. 10 March, (1768).

(p. 14) Harpsichord by Ruckers at 600 livres.

Harpsichord by Ioannes Couchet of Antwerp, having 5 notes more than the keyboards à grand ravalement<sup>A15-8)</sup> and with all of its bass strings in gilt silver, 1000 livres. It has been valued at 3,000. 10 September, 1772.

Harpsichord by Ruckers with keyboards by Blanchet, and painted in aventurine.<sup>A15-9)</sup> 15 February, 1773.

Very fine harpsichord by Ruckers, completely gilt and painted in miniatures with a scene inside, 24 June, (1773).

Harpsichord by Ruckers, 30 louis, 24 June, (1773).

Harpsichord à grand ravalement made in 1612 by Ruckers, superbly painted by van der Meulen, decorated with bronzes. It has been put in order by the celebrated artist Pascal Taskin. It contains 4 registers, of which one is a peau de buffle invented by this maker. It comprises 6 movements which one changes with the knees without the need to lift the hands from the keys, to give a piano, a forte and a crescendo in the cleanest, most sensitive manner.<sup>A15-10)</sup> Price: 260 louis in cash, from M. de la Chevardiére, music master, rue du Roule. 23 January, 1777.

(p. 15) Excellent harpsichord by Ruckers with a virginal in the same soundboard, 12 May, (1777).

Harpsichord by Ruckers of a new type producing (the effect of) the flute, the oboe and the vox humana. All by a Fleming newly arrived in Paris. From M. Goermans, harpsichord and harp merchant, rue de Limoges. 5 February, 1778.

Harpsichord by Andreas Ruckers made in 1606 with a fine virginal by the same maker which it contains; paintings by Watteau and superb gilding. The stand is completely gilt, price, 100 louis. It has been valued at 4,000 two years ago. There are no repairs necessary. Inquiries at the Hotel de Novioa, rue de la Planche, 20 December, 1778.

Harpsichord by Andreas Ruckers (1630), 4,000 livres. 1 January, 1778.

Harpsichord by Andreas Ruckers at 25 louis. 1 January, 1778.

Harpsichord by Andreas Ruckers at 1,000 louis,<sup>A15-11)</sup> valued at 2,000. 12 November, (1778).

Harpsichord by Ruckers decorated by Martin. 24 October, (1779).

Harpsichord by Ruckers, decorated in gold with figures by Audran. 24 November, (1779).

(p. 16) Harpsichord by Couchet, newly remade and given a grand ravalement compass by P. Taskin, with precious paintings and a foot mechanism to change the registration in from 10 to 12 ways (death of M. Demarville, receiver general of finances, rue du Sentier).

Harpsichord by Ruckers à grand ravalement with 4 registers, a peau de buffle, and a mechanism which produces

a crescendo and diminuendo. From M. Schneller, harpsichord maker, Marché des Enfants Rouges. 10 January.

Excellent harpsichord by Ruckers à grand ravalement with keyboards by Blanchet, newly painted in green with gold bands, 1,500 livres from M. le Normant d'Etoiles, rue du Sentier. 14 June.

Old harpsichord by Ruckers, 50 louis, 19 November.

#### Footnotes

- A15-1) Only the instruments by or attributed to Ruckers are listed here.
- A15-2) à ravalement - that is, with a compass greater than 4 octaves C to c<sup>3</sup>. A five-octave compass, F<sub>1</sub> to f<sup>3</sup>, is called à grand ravalement.
- A15-3) Presumably Andreas is meant here since no Antoine (Antoon in Flemish) is known among the members of the Ruckers clavecimbel builders.
- A15-4) One louis = 20 livres.
- A15-5) Vernis martin - a type of rich furniture decoration in which the object is gilt over its whole surface and then flowers, animals, grotesques, strapwork, etc. are painted onto the gilt background.
- A15-6) No double-manual harpsichord by the Ruckers exists which is 3½ pieds (= 1137 mm) in length and it seems likely that this is a fake. This seems to be confirmed by the date, 1620. Hans Ruckers could not have made this instrument since he died in 1598. And since Ioannes Rucker never used the HR rose after 1616, it seems likely that this harpsichord was given an HR rose, and dated 1620 by some disreputable person who did not realize this fact.
- A15-7) This instrument was also probably a fake. Its length (7 pieds, 3 pouces = 2355 mm) is about 10 cm longer than the average Ruckers double. Also we know that Andreas Ruckers was working with his brother Ioannes as late as 1604 (see catalogue entry for 1604 HR) when they used an HR rose. Therefore an instrument dated 1601, and bearing an Andreas signature and Andreas rose is immediately liable to suspicion.

- A15-8) Literally, with 5 notes more than an  $F_1$  to  $f^3$  compass - perhaps  $C_1$  to  $f^3$ ? Or was this perhaps one of the large extended-compass harpsichords of Ioseph Ioannes Couchet?
- A15-9) aventurine - a kind of lacquer decoration where the paint is strewn with flakes of gold.
- A15-10) This seems to be a contemporary description of the '1612 IR' 5-octave double-manual harpsichord, rebuilt by Taskin in 1774 (Brussels Museum of Musical Instruments, No. 3848, Boalch No. 17). It has paintings by van der Meulen applied to its case, and seems once to have been equipped with a genouillère.
- A15-11) 1,000 louis = 20,000 livres! This is the highest price asked for a harpsichord, or for any other type of instrument, in these lists.

Appendix 16 - Gerhier-Windebank correspondence concerning  
a Ruckers harpsichord.

Source: W. Noël Sainsbury, Original Unpublished Papers  
Illustrative of the Life of Sir Peter Paul Rubens,  
London (1859) 208-210.

CCIII. B. GERBIER TO SEC. SIR F. WINDEBANK.

*Brussels, Jan. <sup>20</sup>/<sub>30</sub>, 1637-8.*

RIGHT HONORABLE:

The Virginal<sup>m</sup> I do pitch upon is an excellent peece, made by

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Johannes Rickarts att Antwerp. Its a dobbel staert stick as called, hath foure registers, the place to play on att the inde. The Virginal was made for the latte Infante, hath a faire picture on the inne side of the Covering, representing the Infantas parke, and on the opening, att the part were played, a picture of Rubens, representing Cupid and Psiche,<sup>m</sup> the partie asks £30 starling. Those Virginals w<sup>ch</sup> have noe pictures cost £15 :—Y<sup>r</sup> hon<sup>r</sup> will have time enuf to consider on the sum, cause I can keepe the Virginal long enuf att my house.

I take my leave & rest

Yo<sup>r</sup> hon<sup>r</sup>, &c.,

B. GERBIER.

CCIV. SIR F. WINDEBANK TO B. GERBIER.

SIR:

*Westminster, February 2, 1637-8.*

In a lre a part yo<sup>a</sup> are pleased to give me a testimony of yo<sup>r</sup> care of my privat little businesse concerning the Virginal, for w<sup>ch</sup> I retourne y<sup>a</sup> my most affectionat thankes.

If the Instrument, for sounde & goodnesse, be right, I do not much respect the accessories of ornament or paintings, & therefore if y<sup>a</sup> can incte w<sup>th</sup> a very good one plaine & w<sup>th</sup>out these curiosities, I shold rather make choice of such a one. But I will advise w<sup>th</sup> y<sup>r</sup> good frende & myue Mr. Norgat, whose skill in these businesses is excellent, & then I will take the liberty to acquaint y<sup>a</sup> w<sup>th</sup> my further desires. Presenting my true love to yo<sup>a</sup> & making it my suite to y<sup>a</sup> to use me as freely, as by yo<sup>r</sup> many civilities you have obliged me to be (S)

Y<sup>r</sup> most faithful true servant

FRAN. WINDEBANK.

On the 2nd of March Sec. Sir F. Windebank writes to B.

Gerbier to send the Virginall mentioned in his former letter, if as good for use and music as he represented it to be for show, and he will give satisfaction for it whensoever he shall appoint.

CCV. SEC. SIR F. WINDEBANK TO B. GERBIER. (*Extract.*)S<sup>r</sup>:*Westminster, July 20, 1638.*

The Virginall, w<sup>ch</sup> yo<sup>r</sup> sent me, is com safe, and I wish it were as usefull as I know yo<sup>r</sup> intended it. But the workman, that made it, was much mistaken in it, and it wantes 6 or 7 Keyes, so that it is utterly unservicable. If either he could alter it, or wolde change it for another that may have more Keyes, it were well: but as it is, our musick is marr'd. Neverthelesse, I am exceedingly behoulding to y<sup>e</sup> for it and do acknowledge as many thankes to be due to y<sup>e</sup>, as if it had bene the most exquisit peece in the worlde. In that quality I beseeche yo<sup>r</sup> (S<sup>r</sup>) comāunde

Yo<sup>r</sup> most faithfull and obligedtrue frende to serve yo<sup>r</sup>,

FRAN. WINDEBANK.

CCVI. B. GERBIER TO SEC. SIR F. WINDEBANK. (*Extract.*)*Brussels, July 23  
Aug. 7, 1638.*

RIGHT HONORABLE:

I have y<sup>r</sup> honors letter to me of 3<sup>o</sup> July, to which I have no more to say but that I must take patience, the Virginall proves not according expectation; If y<sup>r</sup> honor causeth the same sent to me agayne well conditioned and a just measure of the keyes desired annother Virginall to be; I will cause this to be sould as itt can, and annother made forthw<sup>th</sup> by Mr. Rickaerts, the same and the best master here, who saith this Virginall cannot be altered, and none elce made here on saille.

Humbly take my leave and rest yo<sup>r</sup> hon<sup>rs</sup>, &c.,

B. GERBIER.

On 3 August, 1638, Sec. Windebank writes to Gerbier from Haines Hill. "For the Virginall I desire yo<sup>r</sup> not to trouble y<sup>r</sup>self, seeing the fault was myne that did not give better instruction."

Appendix 17 - Correspondance between G.F. Duarte and Constantijn Huyghens.

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IX.

p. CXCI

Myn Heere, U E aengenamen vanden 27 febr. hebbe ontfanghen tot antwoorde sal seggen rakende het discours van de groote clavesinglen met een volle clavier tot de octave van G sol re ut onder. UE gelieft te weten als dat den neve van Joannis Rukarts saler by name Couchet denwelken by desen synen oom seshien jaren gevrocht heeft ende bevonden hebbe veel studieuser van geest daer myne instructien veel toegedaen hebben met ondersoekinghen waer naer synen vorschreven oom noot naer en trachte want de snelle handelinghen van toucheren moeten dat ondersoeken om de groote instrumenten te doen luystren om prontelyken te obedieren waer door de subtylheden ende delicatessen ontdeckt werden soo om de mate van de lengde van de pennen clawir ende teniente als soeticheyt van de Armonie, dicte ende lengde van snaren dwelck te lange soude vallen te verhaelen. Duyterste groote van de lengde vande groote clavesingels syn 8 voet wat min oft meer; den thoon Corista met 3 registers; dat syn dry diferente snaren te weten 2 snaren van unison ende een in octave die alle dry ook te samen connen gespelt worden als mede elke snare besonder met de octave, ende sonder octave gelykerwys dordinarisse clavesingelen die U E mentioneert, maer heeft beter armonie door dien als dan de stilstaende snare die niet en spelt haer evenwel van selfs moveert mackende altyts een soete stille armonie doort vorgaende geluyt van haerschelyke dwelck niet en geschiet als alle dry de snaren seffens gespeelt worden. De 2 snaren unison is deen wat scherper als dander luydende, dwelck ook een aengenaem soeticheyt causeert door dien deene een groot stroybreec langer als dander is, de deucht vande instrumenten geschiet ook dat de snaren luier (*sic*) dunder ende langer als dick te wesen, soo datmen met deze 3 snaeren op vyf a ses diversche manieren spelen mach, ende seer naer so sacht in toucheren moeten syn als een cleyne clavesingel waerin noch daldermeeste conste consisteert dat weynighe meesters weten, dit is soo ve(el) als aengaet de grdote instrumenten vande welke tot heden toe maer vier gemackt en syn geweest de leste de beste werden vercocht omtrent 300 ende daer naer 20 a 30 guls min, soo dat men diergelyke expresselyk soude moeten doen maeken. Nu wat aengaet de cleyne steertstukxkens van unison oft met een octave dat is elck naer syn schont-  
 heyt (?) syn gemeynclyk eenen thoon hooger ende is myne inventie eertyts geweest over eenighe jaren dienende in cleyne camers voor Couranten Alemanden ende Sarabanden te spelen. Soo U E soo hier in als in eenighe andre dinghen my gelieft te comanderen sal altyts thoonen dat ick ben, Myn Heere,

In Antwerpen den 5 meert  
 1648.

UE ootmoedighen Dinaer  
 G. F. DUARTE.



## X.

*Aen Myn Heere**Myn Heere C. HUYGENS*

Heere van Sulichom

*In SchravenHage.*

Myn Heere, UE. seer aengenaemen van den 27<sup>en</sup> der voorleden maent aprilis hebbe ontfanghen, ende UE. intentie wel verstaen, desiderende een steert stuck in unison met een volle clawier, gelyck dat van Mevrouw Swan, maer vande lenghde gelyck desen Mr. Couchot aldaer een enen genocmpt Pater gesonden heeft, waer over aen ditto Couchot gesproken hebbe door dien dickwils tot sijnen huysse gaen, gelyck hij van gelijken tot mynent compt. Nu wat aengaet de selve twee thoonen leeger soude moeten luyden dan die van Mevrouw Swan, dat can qualyck wesen ende gans geen mode noch bequaem tot eenich concert van voisen, maer wel vanden naturelycken thoon van dit lant datmen heet Chorista, ende dat is just eenen thoon leeger als die van Mevrouw Swan, dienende voor gemeyn stemmen, ende die van dita Mevrowe voor extraord<sup>r</sup> goede stemmen die hoogh singhen, ende om Allemanden en Courranten te spelen. Van dien selven thoon hebbe ick tot myn gebruyck vier oft vijf, wtgenomen myn clavesingel van 't orgel die Chorista vanden rechten thoon is, ende soo sal die voor UE. moeten luyden, ende moet oyck wat langer wesen als die van Pater, hebbende oyck corts bevonden dat wy elcke voorste snaer vande twee, die scherp luyt door

de tweede tanient behoort gespelt te worden ende dander snaer die wat meer meehelt met de voorste tanient, want het geeft een ander harmonie, door dien dit corts met een Clavesingel geprobeert hebbe. Gelieft de brugge vande clavesingel van Pater op te heffen, ende tselve te considereren met eenen sterk te racken, U.E. sal datelycke mijne meyninge verstaen, diergelycke dinghen als mede meer andere subtylheden te lanck te schrijven en hebben noyt by andere meesters ondersooght geweest, door dien de selve wt oorsacke van seer snelle handeling i gevoelt worden aende welcke de gemeyne instrumenten qualyck willen obedieren. UE. gelieft my volgens sijn geliefte altyts liberlycken te commanderen sonder ceremonien ende sal my altyts bereyt vinden te wesen

Myn Heere

UE. ootmoedighen dinaer

G. F. DUARTE.

*In Antwerpen den 3 mayo 1648.*

## XI.

Myn Heer, Ick hebbe ontfanghen UE. seer aengenamen vanden 13 deser waer mede my syt bedankende van de fraicheden die myn Heere UE. sone by ons al hier soude gehoort hebben dewelke niet en syn conforme UE. groote meriten en obligatie die ick hebbe om UE. te dienen. De Clavesingel sal dese wecke gedaen wesen in unisono vanden leegsten ordinarisen thoon Chorista diemen mackt met een vollen clavier beneden tot de octave van cf fa ut toe ende boven tot de cadentie van de la sol re, niet twyfelende oft sal UE. behaghen het decsel van binnen wit als mede den bodem onder de snaren en van voren boven het clawir om alles te laten schilderen naer UE. geliefte, den rant vant tgeel stuck

p. CXCIV

ronsom vergult als mede de Brugge sal dese wecke gedaen syn. Verhope aldaer by UE. noch sal connen wesen voor syn vertreck naer Cleve alwaer UE. myne ootmoedighe groetenisse sal gelieven te doen aen Mevrouw de Princesse van Oranien voor de eere die ick van Haere Hoocheyt ontfanghen hebbe ende sal altyts blyven Myn Heere

UE. ootmoedighen dinaer

*In Antwerpen den 19<sup>en</sup> jullio 1648.*

G. F. DUARTE.

P.D. Het is my seer acngenaem te verstaen de Eere sal hebben UE. desen somer noch hier te sien, dwelk grootelyckx sal extimeren.

## XII.

Myn Heere, Desen sal allcenelyck dienen om aan U.E. te lacten weten als dat de clavesingel nu gemaect is, seer soet ende liefelyck van harmonie wort van alle de liefhebbers seer gepresen. Mr. Couchet heeft syn wtterste debvoir daer inne gedaen, principalyck het clawier seer soet voor twee groote snaren. Hy zal het U.E. morghen oft overmorghen seynden. Seyt het selve niet minder geven en can als dertich pont Vlems. Sy is van acht voet, Ick hadde hem gescyt van 28 £ Vl. dan men sal hem moeten contenteren. U.E. advis vanden ontfanck, als syn gevoelen over 't selve sal geren vernemen; blyvende altyt Myn Heer

*In Antwerpen den 30 july*  
1648.

UE ootmoedigen dinaer

G. F. DUARTE.

Source: W.J.A. Jonckbloet and J.P.N. Land, *Musique et musiciens au XVII<sup>e</sup> siècle*, Leiden (1882) CXC-CXCIV.  
(Pagination followed here.)

J. A. Worp, *De Briefwisseling van Constantijn Huygens (1608 - 1687)*, Part 4, The Hague (1915)  
465, 477, 486, 488.

Correspondence between G.F. Duarte and Constantijn Huyghens.

(p. CXC) IX.

Sir, I have received your honour's pleasant (communication) of the 27th of February, to which I should like to reply concerning the discourse of the large clavecimbel<sup>A17-1</sup> with one full keyboard from G sol re ut ( $G_1$ ). Your honour will be pleased to know that the nephew of the late Joannis Rukarts, one Couchet by name, who worked with his uncle for sixteen years and whom I have found to be of a much more studious spirit, which my instruction has greatly helped, with investigations unheeded by the abovementioned uncle, such as rapid playing of the keys. One should investigate even the large instruments to make them obey promptly so that the subtleties and delicacies are discovered, and as well as these the length of the quills, keyboards and jacks as well as the sweetness of the tone, the thickness and length of the strings, all of which would take too long to explain. The extreme length (p. CXCI) of the large clavecimbel is 8 voet more or less, the pitch Chorista, with 3 registers - that is three different strings of which 2 strings are at unison and one at the octave and all three of which can be played together or each string separately, with or without the octave, like the ordinary clavecimbel that your honour mentions. But they have a better tone because the unused string which is not played moves of its own accord, producing such a sweet quiet tone through the principal sound, which does not occur when all three strings are played together. The second unison string is

then somewhat sharper in sound than the other, which also causes a pleasant sweetness because of its being a large strawbreadth longer than the other. The virtue of the instruments arises also from the strings being slacker, thinner and longer rather than being thick, so that with these 3 strings one may play in five or six different ways, and yet these may be so soft in touch as a small clavecimbel, wherein lies the greatest art which very few masters know. So much concerning the large instruments, of which so far four have been made, the last being the best. They were sold for about 300 gulden and afterwards 20 or 30 less, so that one should have them made expressly. Now concerning the small harpsichords with unison or with an octave, each of which has its own beauty. They are usually one tone higher, and are of my invention of some years ago. They are used in small chambers for playing courants, allemands and sarabandes. If your honour should desire to command of me in this or in any other things, I will prove that I am, Sir, your honour's humble servant,

In Antwerp, the 5th of May

G. F. Duarte.

1648

(p. CXCLII) X.

Sir, I have received your honour's very pleasant (communication) of the 27th of the previous month of April, and I have understood well your honour's desire for a harpsichord with a unison and a full keyboard, like that of Mrs. Swan, but of a length of that which Mr. Couchet has sent to a certain Pater, by name, and about which I have often

spoken with the same Couchet by often calling at his house, as he likewise often comes to mine. Now as regards the same sounding two tones lower than that of Mrs. Swan, this can hardly be and it is neither the fashion, nor is it fit for any concert of voices. But there is the natural pitch of this land which one calls Chorista, and this is just one tone lower than that of Mrs. Swan, serving for normal voices, while that of the same lady serving for extraordinarily good voices singing very high, and to play allemandes and courantes. At this same pitch I have tried four or five as well as my own clavecimbel like an organ at Chorista, which is of the correct pitch. And that is how your honour's must be, and it must also be somewhat longer than that of Pater. I have also recently discovered that each of the first strings of the two (unisons), which sounds sharp (p. CXCLIII) should be played by the second jack, and the other string which is somewhat more inclined by the front jack, which gives a quite different quality, which we have only recently tried out with a harpsichord. Lift the jackrail of Pater's harpsichord, and consider for yourself when a note is plucked and your honour shall clearly understand my meaning, such things and others more subtle taking too long to write out, and having not been studied by other masters. This must be by reason of very rapid playing to which the ordinary instruments will hardly respond. Your honour may always freely command me, without ceremony, and you will always find me ready to be, Sir,

In Antwerp, the 3rd of May                      Your honour's humble servant

XI.

Sir, I have received your honour's very pleasant (communication) of the 13th in which you express your thanks for the favours your honour's son is supposed to have heard here from us, which anyway does not conform to your honour's great merits and the obligation that I have to serve your honour. The clavecimbel will be ready this week with a unison and of the lowest ordinary Chorista pitch which one makes, a full keyboard extending down to ef fa ut ( $F_1$ ) and up to the cadence of la sol re ( $d^3$ ). I don't doubt that your honour will be pleased with the lid which is left white inside, as is the part under the strings, and the front above the keys, which all can be painted according to your honour's wishes. The yellow border piece (p. CXCV) all around and the jackrail will be gilt this week. I hope that I shall be able to get to your honour's before your departure for Cleves, where I would ask your honour to deliver my humble greetings to My Lady the Princess of Orange, for the honour which I received from Her Majesty. And I will always remain, Sir,

In Antwerp the 19th of July      Your honour's humble servant

1648

G. F. Duarte.

P.S. It is a great pleasure to me to understand that I will have the distinction to see your honour here this summer, which I should greatly esteem.

XII.

Sir, This shall serve only to let your honour know that

the clavecimbel is now made, has a very sweet and lovely harmony, and has been much praised by all the music lovers. Mr. Couchet has put his utmost ability into it, principally in the keyboards which are very delicate for two large strings. It should be sent to your honour tomorrow or the day after. It cannot be given for less than 30 pounds Flemish. It's length is 8 voet. I <sup>would have</sup> / said 28 pounds Flemish, but one must keep him satisfied. Your honour's acknowledgement of receipt, as well as your opinions about it will be eagerly received. I remain as always, Sir,

In Antwerp the 30th of July                      Your honour's humble servant

1648

G.F. Duarte.

Footnotes

A17-1) clavesinglen - from the remaining part of the correspondence it is clear that a harpsichord is meant here.

Appendix 18 - Correspondence from Ioannes Couchet to Constantijn Huyghens.

Source: J.A. Worp, De Briefwisseling van Constantijn Huygens, Part 4, The Hague (1915) 489.

Edwin M. Ripin, 'Antwerp harpsichord-building: the current state of research', Colloquium. Restauratieproblemen van Antwerpse klavecimbels, Antwerp (1971) 12-23.

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4851. J. COUCHET <sup>1</sup>). (L. B.)

Discreten Menheer, my onbekent, soo laete U E weten, als dat ick U E dees claversingel gemaect hebbe naer U E orden, te weten een unison den reghten toon ende het clauwier tot effaut (?), de octaef leeger is met menheer Duartens sin oock soo doen maecten. T is d'eerste, die ick soo gemneckt hebbe; U E magh wel peijsen, al betaelden U E 100 pattekons, dat U E niet een stuyver te veel sout betaelen van kunst wegen ende resonantie, die het heeft, soo sal U E believe te sorgen, die se sal stellen, welck ick verstaen S.<sup>r</sup> Pater <sup>2</sup>) U E vrindt is, die just nu tot Brussel is, ende heeft se noch niet gehoort; verwacht hem alle daegen wederom tot mijnen huijse, dat als hij se sal stellen altijd op den rechten toon stelt, waervan U E een fluytien, sijnde om gisolreut (?) daer op te stellen, soo sal U E altijd de resonantie volcomen hooren, want staet se te leegh oft te hoogh, soo corompeert de resonantie ende niet coreckt, dan en spreckt als se gemaect woort; dit doende sal mij eer geschieden van mijn werck; niet eens en twijfel oft se sal U E te vollen contenteren, waervan een letter sullen antwort verwachten, ende U E belieft of t alles oock naer U E sin is gemaect. Voorts soo d occasie noch eens quam, om voor een ander liefhebber noch een te moeten maeken, sou hem raeden, om deselve sorte met een octaefken te laeten maeken, dat sou mijnen sin sijn; die gaen snolder ende scherper dan den unison, is suet ende liefelijck van clanck, dan sou U E eens de defferentie hooren. Heb een met een octaefken gemaect als dese is van clauwier, maer is een toon hooger, ende met een octaefken niet unison is in Antwerpen noch; menheer Duart is noot weke (?) bijnaer oft gaet dien liefhebber besoeken om sijn claversingel te hooren, ende cost hij se wt sijn hande crijgen, hij sou niet lanck mede toeven; moet voor hem nu soo een gaen maeken. Hiermede van herten seer gegroeijt ende godt bevolen <sup>2</sup>).



Correspondence from Ioannes Couchet to Constantijn Huyghens.

Considerate Sir, whom I have not met, this is to let your honour know that I have made your honour this clavecimbel according to your honour's order, that is with a unison at the proper pitch and a keyboard to ef fa ut ( $F_1$ ). The lower octave has also been made according to Mr. Duarte's wish. This is the first that I have made in this way. Your honour should be aware that if your honour had paid 100 Pattekons, your honour would not have paid a stijver too much as regards the skill placed in it and the resonance it has. Your honour should take care over the person who will tune it, whom I understand to be Mr. Pater your honour's friend and who is just now in Brussels and has not yet heard it. I expect him back to my house any day now. (Tell him) that he should always tune it to the correct pitch, wherefore your honour has a little flute, to which the gi sol re ut (probably  $g^1$ ) should be tuned. In this way your honour will always hear the resonance perfectly, because if it stands too low or too high, then the resonance is impaired and is not correct, as it was intended. If this is done honour will result from my work. I don't have any doubt that your honour will not be completely satisfied with it, of which I await a letter giving your reply, and your honour's pleasure and also (to know) if everything is according to your honour's wish. Moreover, if the occasion should ever arise again, that I should have to make another for a music lover, I

would advise him to have the same type made with an octave; that would be my wish. This goes quicker and sharper than the unison, it is sweet and lovely in sound, then your honour would hear the difference. I have made one with the octave, and the same keyboard (compass) but a tone higher, and with an octave instead of a unison. It is still in Antwerp; Mr. Duarte goes almost every week to visit the music lover and to hear his clavecimbel. And if he could get it out of his hands, he would not linger about long. I now have to make one for him.

Herewith, (I send) hearty greetings and command you to God.

Your servant

Jan Couchet, clavecimbel maker.

Condensed Catalogue of Authentic Ruckers Instruments

Hans Ruckers

1581 HR Double mus. virg. Met. Museum, N.Y.  
 1583 HR 4-voet spin. virg. F. Meyer, Paris  
 1591a HR Polyg. 6-v. sp. vg. Gruuthuuse, Bruges  
 (1591)b HR Double mus. virg. Yale Univ.  
 1594 HR Sing. harps. & virg. Schl. Köpenick

Ioannes Ruckers

1595 HR Child virginal Cincinnati Mus.  
 1598 HR 6-voet spin. virg. Paris Conserv.  
 1599 HR Double harpsichord Handelhaus  
 (c1600) HR Double spin. virg. Milan  
 1604 HR 5-voet mus. virg. Brussels Museum  
 1610 HR Double mus. virg. Brussels Museum  
 1611 HR 6-voet mus. virg. Vleeshuis  
 1612a HR Double harpsichord Fenton House  
 1612b HR Double harpsichord Amiens  
 (1614) HR 6-voet mus. virg. Brussels Museum  
 1616 HR Large double harps. Nirouet, Paris  
  
 n.d. IR Sing. harps. & virg. Berlin  
 (1612) IR Double harpsichord Paris Conserv.  
 1617 IR Double harpsichord R. Johnson, L.A.  
 1618a IR Child virginal Paris Conserv.  
 1618b IR Double harpsichord Schl. Capenberg  
 1618c IR Double harpsichord Lund, Sweden  
 1619 IR Doub. harps. & virg. Brussels Museum  
 1620 IR 6-voet mus. virg. Boston  
 1622 IR 6-voet mus. virg. Met. Museum, N.Y.  
 1623 IR Double mus. virg. Stuttgart  
 1624 IR Double harpsichord Colmar, France  
 1627a IR Single harpsichord Berlin  
 1627b IR Double harpsichord Villebon  
 1627c IR Large double harps. Private, Switzer.  
 1628a IR Mother mus. virg. Brussels Museum  
 1628b IR Large double harps. Versailles  
 1629 IR 4½-voet spin. virg. Brussels Museum  
 1632 IR Double harpsichord Neuchatel  
 1636 IR 6-voet mus. virg. Harvard  
 1637a IR Single harpsichord Edinburgh  
 1637b IR Double harpsichord Rome  
 1638a IR 6-voet mus. virg. Brussels Museum  
 1638b IR Double harpsichord Edinburgh  
 1639 IR Single harpsichord V. & A., London  
 1640a IR 5-voet mus. virg. Gemeentemuseum  
 1640b IR Double harpsichord Münster  
 1642a IR 5-voet mus. virg. Stockholm  
 1642b IR Double harpsichord H. Gough, N.Y.

Ioannes Couchet

1645 IC Single harpsichord Edinburgh  
 1646 IC Double harpsichord Brussels Museum  
 1650a IC 6-voet mus. virg. Vleeshuis  
 (c1650)b IC Double harpsichord Met. Museum, N.Y.  
 1652 IC Double harpsichord Private, France

Andreas Ruckers

(1605) AR Single harpsichord Vleeshuis  
 1608 AR Double harpsichord Edinburgh  
 1609 AR Single harpsichord P. Williams  
 (c1610)a AR 2½-voet virginal Australia  
 1610b AR 4½-voet mus. virg. Boston  
 1613a AR 4-voet spin. virg. Brussels 2274  
 1613b AR 4-voet spin. virg. Brussels 22928  
 1613c AR Child virginal Cincinnati Mus.  
 1614 AR Double harpsichord Elmirst, Devon  
 1615 AR Double harpsichord Vleeshuis  
 1617 AR 6-voet spin. virg. Munich  
 1618 AR Single harpsichord Berlin  
 1620a AR 4-voet spin. virg. Washington  
 1620b AR 6-voet mus. virg. Brussels Museum  
 1620c AR Double harpsichord Berlin  
 1620d AR 6-voet mus. virg. Labeyrie, Gif  
 1621 AR Double harpsichord St. Etienne  
 1623 AR Double harpsichord Private, England  
 1624 AR Single harpsichord Gruuthuuse, Bruges  
 (1626) AR Child virginal Sterckshof, Dourne  
 1627 AR Quint single harps. Gemeentemuseum  
 1628 AR Double harpsichord Pilkington, Port.  
 1632 AR 4-voet spin. virg. Brussels Museum  
 1633a AR 6-voet mus. virg. Brussels Museum  
 1633b AR Single harpsichord Leipzig  
 1634 AR Child virginal Paris Conserv.  
 1635 AR Single harpsichord M. Thomas  
 1636 AR Double harpsichord M. Thomas  
 1637 AR Single harpsichord Nuremberg  
 1639a AR Child virginal Gemeentemuseum  
 1639b AR Single harpsichord Gemeentemuseum  
 1640a AR Single harpsichord Yale Univ.  
 1640b AR Double harpsichord Namur, Belgium  
 1643a AR 5-voet mus. virg. Gemeentemuseum  
 1643b AR Double harpsichord Germann, Boston  
 1644a AR Single harpsichord Vleeshuis  
 1644b AR Double mus. virg. Leipzig  
 1646a AR Single harpsichord Vleeshuis  
 1646b AR Large double harps. Paris Conserv.  
 1648 AR Single harpsichord Copenhagen  
 (1651)a AR Single harpsichord Traquair House  
 1651b AR Double harpsichord V. & A., London  
 1654 AR Double harpsichord Nuremberg

Joseph Ioannes Couchet

n.d. IC Double harpsichord Stockholm  
 1671 IC Double harpsichord K. Gilbert  
 1679 IC Single harpsichord Washington  
 1680 IC Double harpsichord Boston

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