

# The Claviorganum in England

by Stephen Wessel

*Stephen Wessel has been instrumental in helping Michael Thomas in his research into the early English harpsichord. Although in theory opposed to slavish copies, these instruments are incomplete and cannot be completed for various reasons. Therefore copies are the best we can have. Stephen Wessel has been the key figure, or assisted in making copies of the Theeuwes, the 1623 from East Coker, and is working on the Izzard and the 1634 Ham House English instrument. He is also making copies of the large Hass instruments. This article is based on this work and discussions on the claviorganum with Michael Thomas.*

In recent articles in this magazine, Michael Thomas has discussed at length various types of early harpsichord, pointing out how differences in soundboard design, bridge weight and barring affect the style of playing for which an instrument is suitable. The harpsichord player has less control over tone, volume and sustaining power than a player of any other musical instrument; therefore his speed and degree of staccato or legato depend closely on the sonority or percussive quality of his instrument. Thus for each

piece there is an ideal instrument, and vice versa. This fact must have been known to the early makers as much as it is increasingly lying heavy on the minds of present-day first-time buyers of harpsichords, who search for an ideal general-purpose instrument and usually end up with a copy from one of the popularized makers of the late eighteenth century, like Taskin or Kirkman. The more one goes round looking at the old instruments, however, the more one becomes aware of successful attempts to surmount this problem.

Large instruments are being discovered in almost every country from the mid-sixteenth century, which give both good attack and sustaining power, combining something of the sonority of the Venetian harpsichord with the clarity and percussiveness of the cross-barred Florentine instruments. The anonymous English 1623 (E.H.M. No.1) is a good example of such an instrument. The heavy bridge causes an immediate attack of high harmonics, while the fundamental develops more slowly, on a sustained note. The rather short-lived treble tone means it may be necessary to play the melodies of, for instance

Couperin a little faster than on say the Garnier 1747, to give the effect of continuity. Other instruments which will do this existed in Italy from the time of Baffo and Pesaro, in France from the claviorganum discussed below, and in England from the Theeuwes 1579 claviorganum and the Izzard 1622.

One advantage the old maker had over us was that he did not have to try to be 'authentic' and could occasionally indulge in flights of fancy. Many people would deny the existence of such impropriness, until perhaps they are confronted with the Theeuwes staring them in the face from 1579. The claviorganum (the Theeuwes being the earliest survivor) represents a search for a multiplicity of tone colours and control over sustaining power, combined with a sophistication of craftsmanship rarely emulated today.

The claviorganum seems to have been particularly popular in England during the reign of Henry VIII who apparently owned several, catalogued by van Wilder in 1553. His seem to have been small instruments, combining the Italian virginal with a single or double regal. Although no pieces have yet been found which specifically call for a claviorganum for their performance, there are many examples of Elizabethan liturgical music in which fast brilliant passages in one hand are used to ornament a sustained *cantus firmus* in the other. The short-scaled harpsichords and virginals were not very good at doing this, but a claviorganum with divided stops would allow the *cantus* to be sounded on the pipes and harpsichord together, and the ornamentation by the harpsichord alone. In fact the idea of combining organ and harpsichord is a very logical one, because each can do what the other cannot. The exact length of notes and the way they are articulated are of paramount

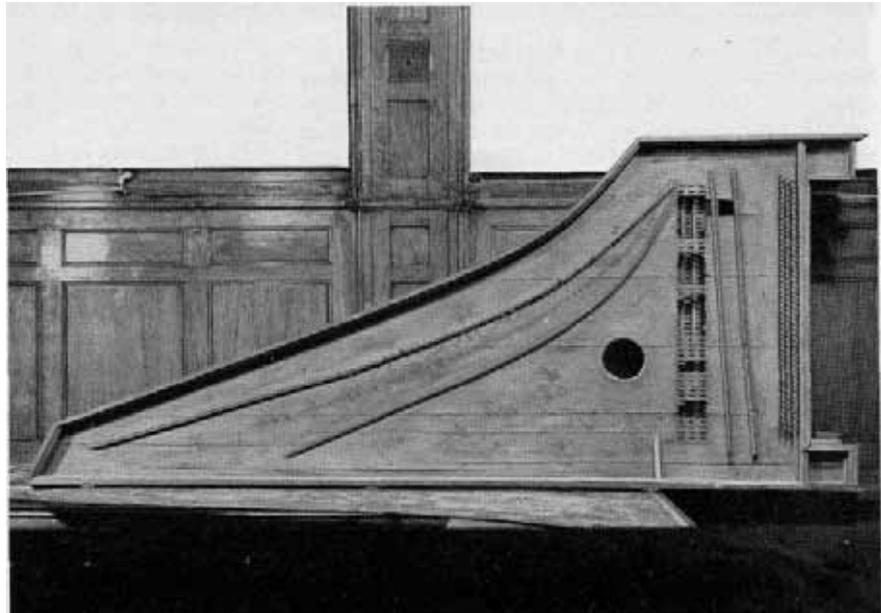
importance in early music, and whereas the organ with its infinite sustaining power is well suited to showing the duration of a note, it is not nearly so good as the harpsichord at giving the precise beginning. Thus in one sense at least the claviorganum may have been regarded as the ideal tool for the expression of keyboard music; although by being also the most expensive of all keyboard instruments, its use would presumably have been limited to the wealthy, and no doubt it was acquired as much for its status value as for its musical usefulness. Of the thirty or so known claviorgana listed by Dr. van de Meer<sup>1</sup> in an article written in 1967, five are currently in playing order, two are under restoration, and one, the earliest, lies untouched. In chronological order these are:-

Theeuwes	1579	Victoria & Albert Museum	Unrestored
Bertolotti	1585	Being restored	
Zeiss	1639	Carolino Augusteum Museum, Salzburg	Playable
Zeiss	1646	In private ownership, Austria	Playable
Anon French	17thC.	Michael Thomas	Being restored
Crang	1745	In private ownership	Playable
Kirkman	1745	In private ownership	Playable
Woffington	1785	Dublin Museum	Playable

#### The Theeuwes

For its period this was an extremely complex, and obviously expensive instrument. The harpsichord, which was briefly described by Thomas McGeary in E.H.M. No.1, rests on top of a very large organ case, now empty, which according to Austin Niland would probably have contained the following ranks:-

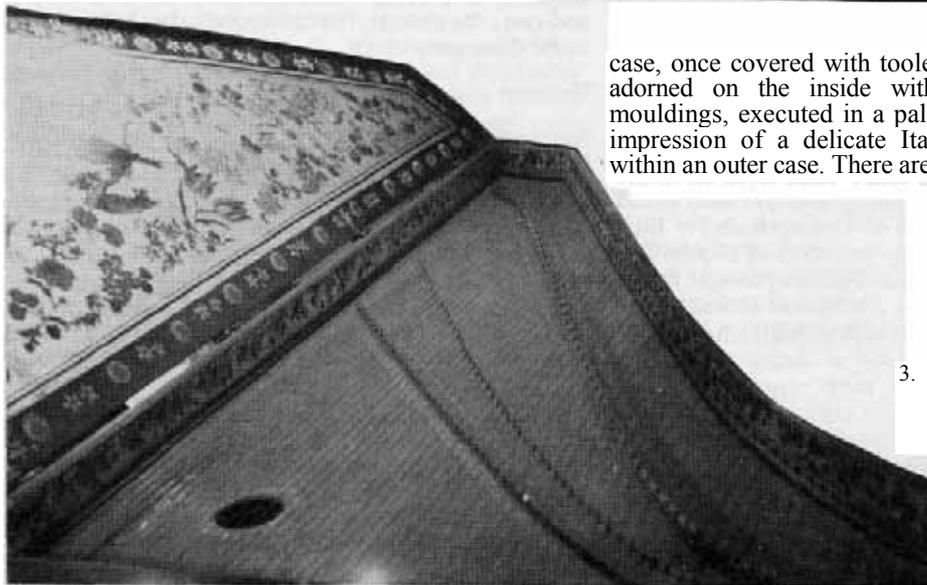
1. The original harpsichord part of the Theeuwes Claviorganum. (Photo: Victoria and Albert Museum).



Stopped diapason	8'	48 notes
Principal	4'	48 notes
Twelfth treble	2'1"	21 notes
Fifteenth	2'	48 notes
Regal	8'	48 notes

There were five handstops on either side of the organ case, indicating that the ranks were probably drawn in halves.

- Copy of the Theeuwes showing the narrow tail. Note that the Baudin is near the 8' bridge as in some early French harpsichords.



case, once covered with tooled and gilded leather, is adorned on the inside with a mass of intricate mouldings, executed in a paler wood giving one the impression of a delicate Italian instrument resting within an outer case. There are three push-pull stops,

- The tail of the 1623 from East Coker. Note the similar shape of the tail to that of the Theeuwes.

Since Mr. McGeary's article was published the harpsichord has been studied independently and more closely by Charles Mould, Michael Thomas, and myself. I have built a copy of it so we can now hear what it sounds like for the first time. The treble end of the 8' bridge has shifted forward from its original position by *W*, but when returned to the obviously correct position on the copy, left enough room for the 4' bridge and hitch pins. The curious brass things which are screwed into the main bridge between each wide pair of strings remain a mystery. Most important there seems no way in which they could have carried a third 8' choir as Mr. McGeary suggests. Several other reasons point, I think conclusively, to the 4' being original. When preparing the drawings for the copy I soon discovered that the geometry demanded that any third set of strings would have to be placed at a lower level than the 8' strings and would therefore have to be shorter. Since the three rows of wrest pins and jack mortises are all obviously original we must presume the 4' to be also. The design of this unique instrument is strikingly individual; the <sup>7</sup>/<sub>4</sub>" oak

presumably to match the action of the organ stops, which operate movable lower guides. This allows the jacks to pass through fixed mortises cut directly into the soundboard which runs unhindered (except by a very light upper header which in any case is cut away in the treble) under both nut-bridges to a narrow wrestplank. This is a feature seen in many Italian instruments, also the Izzard 1622, and partially on the 1623 before it was altered in the eighteenth century. The distance between the front and back rows of 8' jacks is 2", and 4' row lying in between. Thus the two 8' tones are highly contrasted and when used with the organ would have offered many variations of colour.

If the possibility of a third 8' choir is discounted there remain two theories about the flat-headed screws on the bridge; either they were meant to be turned to come into firm contact with their neighbouring strings so providing a means of fine tuning, or they were turned just enough to touch the strings gently to give the beloved jangle known as the Arpichordium stop. Closer examination of these

screws however has revealed that to whatever angle they are turned, they simply will not touch the strings at all. As most of the bridge pins are in place this is easily demonstrated. This leaves the possibility that the flat part of each screw carried a buff pad which would make up the distance between screw and string. A quarter turn anticlockwise would then bring all the pads off. This idea seems to fit in with Theeuwes' persuasion of tonal variations, but does not explain why the screw heads increase steadily in height towards the bass, nor why they are at present all aligned on the *curve* of the bridge.

There is a marked similarity in the size of the 8' bridge and its position on this instrument to that of the 1623 Anonymous mentioned above. If photos 2 & 3 are compared one sees the narrow tails, the comparative straightness of both bridges towards the bass, and their proximity to the 4' hitch pins in the treble. Both instruments have a quick top response although the Theeuwes has the stronger fundamental due to the double soundboard and its large area of freedom, particularly in top octave.

some years. There is a virginal by Bertolotti found by Messrs Thomas and Paul in England, and now in Edinburgh, which it has been thought could help to determine the pitch of the claviorganum; but as the two instruments are so different in conception it is doubtful whether any parallels should be drawn.

#### The French instrument

Next to the Theeuwes this is of most importance as a harpsichord, being apparently the earliest surviving French instrument. Found by Mr. Colt in Paris it is now in the hands of Michael Thomas who is restoring it. It will be on exhibition and played at the Nice Conservatoire next summer. The case is magnificently carved, with elaborate tortoiseshell and ivory keyboards. The soundboard has the Ruckers barring, with an extra bar across the bass to brighten it, which is believed to be original. The header is light as in the Theeuwes and Izzard. The disposition is 2 x 8', 1 x 4', while the organ shows signs of having had three stops. Mr. Thomas tells me he has now fitted a Snetzler organ which he got from a man in

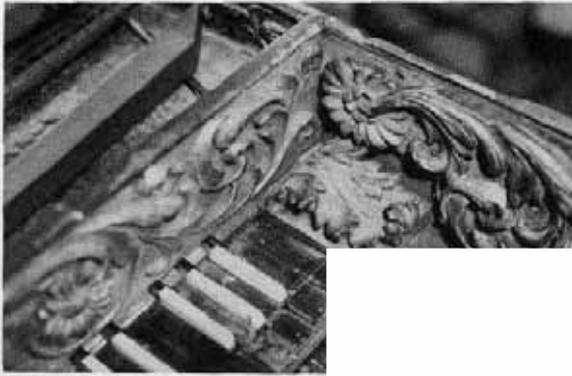
4. Claviorganum by Bertolotti.



#### The Bertolotti

This is typical of Italian instruments going from GG/BB — c<sup>3</sup> (Boalch gives this compass) and is disposed 1 x 8' 1 x 4'. The organ, inscribed THEODORUS WILHELMUS SIGISMUNDUS AGATHE SAXONIENSIS, has three stops, a 4', 21' & 2'. The instrument was examined in 1958 by Michael Thomas who concluded that the keyboard had at one time been altered or substituted as it is difficult to get the room for the big organ pipes sounding below C. Unfortunately it has not been possible to see the instrument as it has been under restoration for

the Midlands who had burnt the bureau in which the organ was housed because it had woodworm! The Crang This is a large instrument such that became common from the early eighteenth century. It is arguable that there was a considerable decline following the light cased instrument of Tisseran of 1710, towards the heavy Tabel of 1721 which has a brittle, insensitive tone. The Crang is the same size as this Tabel and with its heavy mahogany type case and thick soundboard gives the same kind of short-lived tone with high harmonics unrelated to the fundamental, quite



5. Keyboard and moulding of the early French claviorganum.

6. The harpsichord part of the early French claviorganum.

different from the seventeenth-century harpsichord with its mellow singing tone and clear, related harmonics. It is said that there was an organ as recently as 1950, but when Michael Thomas bought it no organ part was visible. Raymond Russell in his book, criticizes the fact that the organ had been destroyed, along with the ornamental exterior of the case, but Thomas found when

restoring the case that the veneer had been covered up with something like thick plasticine and the whole embalmed in a varnish resembling burnt treacle. When this was removed, the stringing and veneer was similar to the Crang spinet he had just restored. Many missing mouldings were remade with the help of Mr. Frank Hudson. The Snetzler organ now added is 8' stopped, 4' metal, 4' wood cornet mixture, 2' flute, and 2' metal, and quint mixture. The 4' and 2' wood were probably originally an octave lower, as the larger one shares a common bass with the 8'. The organ was found incorporated into the steps of a church in Ireland, and I believe he received some very amusing letters when he asked various organ builders to restore it, but eventually Mr. John Bowen consented to try. Most interesting is the fact that an instrument painted in the French style with French inscriptions has turned up at Forcalquier. It is very like the Crang. It has a lute stop and a machine stop, whose parts have a functional resemblance to but are different in detail from those of Shudi. The case is of pine. The Crang spinet referred to above also has a

pine case, under the veneer, while the frame members are shaped like those of a French harpsichord, rather than the knees of the earlier English spinet. It has jacks made out of olive wood. This means that Crang was familiar with southern French woods and building technique, indicating he may have worked there.

The claviorganum is now in the collection of Dr. Mirrey and both Michael Thomas and Colin Tilney have made records on it.



7. The Crang harpsichord.



8. The light header of the early French claviorganum. Note the similarity to the Izzard (1622).

#### **The Kirkman Snetzler**

This is the most complete instrument. The organ has five stops, while the fine double-manual harpsichord which was restored by W. Thomas and J. Rhodes is absolutely first rate. The 16' stop mentioned in the first edition of Russell was found to be a figment of the imagination of the local organ tuner, because the pipes go down below CC. Michael Thomas broadcast on it in 1956 and wrote about it in *The Consort*<sup>2</sup>. Peter Williams wrote about it in *Keyboard Instruments* (edited by Edwin Ripin) p.75. It is in the possession of Lord Wemyss. **The Woffington**

This upright claviorganum was the first to be owned by Michael Thomas. When he found it there was little more than a beautiful chestnut and mahogany



9. The Woffington upright instrument.

case. Unfortunately the organ had been partly ripped out and the harpsichord interior completely ripped out to convert it to a bookcase. Before this some attempt had probably been made to turn it into a piano, for large hitch pins were being put into the existing wrestplank and the tuning pins were evidently destined for the side of the instrument. Also holes had been cut for pedals. When Thomas had left the remains of the organ and replaced the missing parts of the harpsichord he found it had a good tone, although badly underwinded. The keys and levers to the organ were crudely made, and liable to stick while playing.



10. The frets on the bridge of the 1772 Swedish clavichord-organ.

Nevertheless it behaved reasonably well for a broadcast, and a record he made issued about 1960 by Saga. In addition to the claviorgana there is a clavichord by Pehr Lundborg, dated 1772, which has a 4' organ stop added to it. Photo 10 shows the soundboard of this clavichord with its interesting frets across the

bridge, similar to those on the 1750 Broman harpsichord, a huge instrument with 3 x 8', 1 x 4' and nearly twelve feet long.

After years of discussion, Michael Thomas and Stuart Broadwood opened up the old storehouse of Shudi, at Lyne. There were a number of Shudi harpsichords there, two Kirkman singles (now with Derek Adlam) and Shudi's own double manual of 1760 to which he had added the first swell by widening the case. Under piles of the Broadwood papers there was an organized square piano by Merlin, now in the Colt Clavier Collection. Mr. Colt has kindly made available the following description by Peter Wells of the organ part of the instrument, which I quote verbatim:

'The organ part of the instrument consists of a single stop of wooden pipes, a quiet stopped diapason of 8' pitch. It is interesting that the lowest pipe, bottom F, is signed R & W Gray 31st January 1784. W. L. Sumner writes in his book 'The Organ' Gray, Roberts, est. a factory in London in 1774. He was succeeded by William Gray and afterwards by John Gray'.

It is possible that Robert and William Gray supplied only the pipes but in the writer's opinion the complete organ part was built by them for Merlin. The date also suggests that the two parts were made together and that the organ was not a later addition to the instrument. There are signs that the instrument was restored in the early part of this century at which time the wind pressure was raised. Having a single rise reservoir approximately 18" square and only a single feeder operated by a single foot pedal it is difficult to provide a constant supply of wind, a



11. The piano-organ from the Colt Clavier Collection, Bethersden, by S. P. Merlin 1784 with organ by Gray. (Photo: C. F. Colt, copyright).

situation made worse by the increased wind pressure which also puts additional strain on the case when operating the foot pedal.

The tone of the instrument however, is very sweet and the lowest 40 pipes are mounted transversely. The wind is taken to the pipes in channels, grooved on two sides of an oak board covered with leather running from the pallet box below the keyboard. As the channeling has to turn through 90° at the bass end of the instrument, achieved by a second grooved board glued to the first at right angles, this provides a rather weak and vulnerable part to the instrument. The treble pipes are planted in the first groove board on the opposite side to the pallet box in the same plane as the keyboard.

Although this instrument is not suitable for the performance of large scale organ works it is a most

interesting small instrument with a pleasing gentle sound designed for a small room and possibly has the sound Mozart envisaged when writing his music for a small mechanical organ inside a clock'.

Around 1800 the claviorganum gradually became a theatre instrument, and was used by Dibden, with bells and other curious instruments. The piano has been combined with organs with electric actions in many other instances. Perhaps, as in so many instruments, the greatest were the earliest: the Theeuwes, the French one, and those belonging to Henry VIII. (See Galpin Society Journal p.1 13).

**Foot-notes**

1. 'Die Orgalklaviere von Valentin Zeiss, Linz'. Kunstjalrbuch der Stadt Linz, 1967. Verlag Schroll, Vienna and Munich pp. 154-163. 5 illns.
2. 'The Claviorganum' by M. Thomas. The Consort, July 1959.

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