

Harpsichords..with all the different sized wire used in that instrument (1)

, by J.J.K.Rhodes and W.R.Thomas

In the mid-eighteenth century, when Charles Burney was planning his famous tours of France, Italy and Germany, in the hope of enriching the musical life of London, London itself was receiving visitors. A few only were musicians, and most of them had the intention of enriching themselves. Why did they come to London, many of them to stay? A Scots gardener who was one of them remarked that 'although God has not given the English overmuch wit or sense, yet they are braw bodies to live with'. The general atmosphere was no doubt friendly; nevertheless the fine detail of what was happening is hard to grasp. What ideas ran through John Broadwood's head as he walked 350 miles to London? Can he have expected and foreseen what actually happened to him as a pioneer of the piano?

Here our main interest is in Robert Falkener who was one of these visitors to London. His name is variously spelt, and a complete account of him is not yet possible. We do not know where he came from or when he was born or died. Trade directories locate him in Peterborough Court or Salisbury Court, both off Fleet Street, London. He worked in the City rather than in Westminster. Musical bibliographers know of him as a printer and publisher of cheap sheet music, who bought Henric Foug's novel movable music-type, his printing presses and equipment, when Foug left London in about 1770. Falkener continued the music printing business for about ten years. We

know of no catalogue listing his publications. Tentatively we suggest that Falkener became associated with John Simpson who, till he died in 1747, continued the Hare music publishing business. In Simpson's shop he would meet James Oswald who went there in 1741, and through him, Dr. Charles Burney, General Reid, the 6th Earl of Kellie, and other members of the 'Society of the Temple of Apollo'

Robert Falkener also made harpsichords. The earliest mention is of a two-manual of his make imported into Boston, Mass, in June 1763. There are three known survivors, all signed & dated under the soundboard by Falkener, and all with a characteristic 'Falkener Rose'. The Friends of St Cecilia's Hall, Edinburgh (where there is a 1773 Falkener which may have belonged to General Reid) use a drawing of this rose as a logo. It shows Orpheus with his Lyre and the letters IK. It can be imagined as part of a plan to pass off Falkeners as Kirkmans. There is an account that Kirkman brought or contemplated an action for damages. Kirkman's King David, crowned and enthroned with his harp, is however very different. These Falkeners are good harpsichords, all alike, and with many design features of their own. They are not copies of Kirkman. One, dated & signed inside by Falkener in 1773, is ascribed on the nameboard to John & James Simpson. These were nephews of John Simpson and kept his original shop from about 1770.

A main object of this article is to call attention to a remarkable

link which exists between Falkener the printer and Falkener the harpsichord maker. He wrote and published a book of Instruction on playing the Harpsichord. It is a little-known work. No copy survives of the first edition. Most of it relates to the art of playing from or writing a figured bass accompaniment, as it was understood by members of the society of Apollo. These rules can be commented on elsewhere. The final paragraphs however about how to string a harpsichord are worth reproducing here. They contain little that is new, but should help to dispel the idea that has got about that will never find a few No.3 strings on an instrument where the thinnest marked gauge is No.4.

wrestplank bridge markings. Copper is specified for the bass strings. When this stringing list calls for steel wire it is repeating a misconception which is even usual in all writers from Virdung in 1511 onwards. This is a sharp reminder that as well as old books the surviving old materials must be studied. What we find on instruments with original strings (or old ones) is a very high quality of direct extraction wrought iron. This is ductile, so that it can be drawn through the same dies as yellowbrass wire. In the fine sizes it is hard & strong because of work-hardening only. If heated to redness and slowly cooled, it is softened and stays soft even if reheated to redness and quenched in cold water. Modern steel wire

Instructions for playing the harpsichord.....

with all the different siz'd wire used in that instrument

By ROBERT FALKENER

London: MDCCLXX

Of the different-sized wires used in most Harpsichords, it may not be improper to observe, That No.4, of Steel-wire should be used from the top down to the 2nd C, or C in the 3rd space; unless the measures are very long, that is, if the shortest or upper string should be six inches, it will be very difficult to draw it up; therefore No.3 may be used to three or four of the highest notes. No.5 will do from the 2nd C to the middle C of the instrument. No.6 may be used to the next F below. And No.7 from E to the next C. After which no more than four strings of No.8 of Steel-wire are used, and these are put on B \sharp and B \flat . The rest down to G are No.8 of Brass. From F \sharp to E \flat , No.9; from E to C No.10. B \sharp and B \flat , are No.11 of Copper-wire; A \sharp and A \flat , No.12. The rest are No.13 of Copper.

The sizes of wire proper for an Octave are these, viz.

No3 of Steel..5 strings	No.6 of Steel..7 strings	No.8 of Brass 6 strings
No.4 ,, ,, 16	No.7 ,, ,, 4	No.9 ,, ,, 4
No.5 ,, ,, 13	No.8 ,, ,, 3	No.10,, ,, 2

What are we to make of all this? There are a couple of obvious misprints. It should have read (for unison strings): "From F \sharp to E is No.9: From E \flat to C is No.10. There is more reference to No.3 than is usual — on

is made as brittle as glass by such treatment. It is also at least as strong as the old wrought iron & has completely replaced it in use. There are some disadvantages when steel wire is used to string harpsichords.



The Falkener Rose - Logo of the
Friends of Saint Cecilia's Hall
Edinburgh

If damaged, e.g. by permanent set, it is more difficult to straighten. However it is at least as near to being pure iron as the old wrought iron, & has therefore the same elastic properties. The force needed to pull it up to pitch, and the bit extra needed to sound it are the same. Nevertheless and notwithstanding it is understandable that there are those who imagine that 'something softer' might have audible advantage. We have examined samples of wires, produced to this end, which are too weak to pull up to pitch.

An unique feature of Falkener's list is that we can deduce the tensile strength of his No.4 wire. For complete understanding we need also to know the diameter of his No.4 wire, because thinner wires are progressively stronger. At present there is some disagreement; but we are sure that Hugh Gough's measurements of the Shudi strings at Chatsworth are correct and correctly tabulated, i.e. No.4 is close to 0.01" diameter or 0.26mm.

Falkener's note suggests his No. 4 wire had a strength about:

1.35×10^{10} dynes/cm².

Modern music wire is close to:

2.7×10^{10} dynes/cm².