## CRON PUT HIS FINGER (OR A FOOT!) ON AN IMPORTANT POINT

## Crispian Steele-Perkins

atthew Cron's recent article raises the very significant matter of variations in pitch thoughout Europe during the eighteenth century, but unfortunately seeing the subject entirely from Altenburg's viewpoint, his conclusions are misleading, particularly with regard to British military trumpets. Bruce Haynes has mercifully and authoritatively clarified the various pitches employed in specific courts which vary from *Tief-Cammerton* A=396 (French theater pitch) at Cöthen and Berlin in Bach's time, to A=439 in London by the final decade of the century (see correspondence in this issue).

Regrettably, Mr. Cron avoids specific measurements and judges pitch only by the Saxon court standard, which Altenburg himself acknowledges vary since "an exact foot rule has not yet been introduced." The "foot" measurement was not standardized, but was longer in Germany than in France or England. When he writes therefore that "without a doubt, the choir-pitched C trumpet has priority with us Germans.... It must be exactly 4 ells or 8 feet long ... according to Chamber pitch in the key of D" he is telling us a great deal. From this indisputable evidence we know that his own trumpet was a little over eight feet (244 cm) long and sounded a little below C therefore at today's a'=440; this he describes as sounding D in chamber pitch or C at *Chorton*, revealing his perception of pitch to have been slightly over one whole-tone (or more) lower than ours (arguably a minor third).

Altenburg subsequently describes an English trumpet exactly as we would expect from a London maker, built in silver and highly ornamental, shorter than his own, sounding almost a fourth higher. To him it sounds G, but back at home in London it sounds a "Flat E" (Please note, NOT Eb) as it had in Talbot's time (c. 1700), when trumpets measured 7 foot 2/3 inches (215 cm), which shortened with the rise of pitch to 6 foot 6 2/3 inches (200 cm) by 1787, giving a Flat E when the tuning-fork gave a'=439. We have the confusing predicament therefore, when the same note sounds G to the German and E to the Englishman!

Of seventeen "natural" London-made trumpets in my modest collection (spanning 200 years of production), all conform to Talbot's dictum, "Flat of E," the length varying only with the contemporary pitch. Very much the exception to this rule are three trumpets in F known to me:

W. Shaw, 1780, Tower of London, Jewel House

Anon, c. 1800, John Webb Collection

Köhler, c. 1890, The Magistrate's Court, Oxford.

Arnold Myers has one in his collection, c. 1800 by Cramer of London, but this has been conspicuously shortened at a later date. Of course, slide-trumpets and some early valved instruments were in "F," but these are not relevant to our debate. I can find no evidence

of orders being placed with Nuremburg manufacturers in any regimental or municipal archives, or in the extensive account books of the Lord Chamberlain's office. On the contrary, hundreds of receipts attest to supply and repair workshops in London furnishing not only ceremonial trumpets but standard brass instruments also, to local militia and Assize courts. One cannot deny that a foreign trade existed. Guy Oldham gives these examples:

Brass Trumpets, The Dozen...Duty 12 Shillings Fiddles for Children, The Dozen... Duty 4 Shillings Recorders, the Set of Five ... Duty 1 Pound.

These are cheap imports for beginners surely, and I question strongly the logic of importing such an invaluable signaling device from the other side of war-torn, hostile Europe during the 30 Years War, or to entrusting important military duties to such cheap "junk" instruments that raised only 12 pence each in duty.

I know of no surviving G-pitched trumpet in England at all. Five feet of tubing is too short to suspend the conventional Regimental trumpet banner (an important visual appendage on the battlefield) and the standard trumpet-calls would have been extraordinarily high for the average regimental trumpeter to sound either on horseback or "standing in



"Skirmishers—Cease Fire" (from John Hyde, *A New and Compleat Preceptor for the Trumpet and Bugle Horn* [London, 1799], p. 18).



Example 2 "Stable Call" (from Hyde, p. 11).

the mud."

In conclusion, the acknowledged major third or perfect fourth difference in pitch between the standard German and British trumpets was distorted by the perceptions of eighteenth-century commentators and by regional fluctuations of pitch that varied by a minor third (or more). The army museum at Ingolstadt near Munich displays a magnificent eight-foot trumpet by Ehe, one assumes very similar to Altenburg's. It is 1 foot 5 1/2 inches (44 cm) longer than a contemporary British-made trumpet and it is these measurements that give us actual relative pitches.

Incidentally, nearby this Ehe trumpet is one by Michael Saurle (1772-1845) that measures 115 cm and sounds high Db. Are we to claim this was standard Bavarian military issue? One cannot ignore the fact however that Haydn most assuredly would not have written for an instrument that did not exist. My own thoughts regarding his discarded G trumpet parts in his Sympony No. 94 are that he proposed to feature Shaw's 1787 "Harmonic" trumpet (as a "Surprise"!!) to which James Sarjant (who played for him in London) had access. This instrument had four transposing holes, one for each crooking of Eb, D, C, and Bb, raising the harmonics by a fifth respectively to Bb, A, G, and F. Whatever was attempted, the idea was abandoned and parts were rewritten in C. One cannot argue from this that nodal vent-holes were in common usage, but one can say that a specimen exists, which is more than can be said for the mythical British G-trumpet!



Figure 1
(a) an eight-foot German trumpet; (b) a standard English cavalry trumpet in E (or Eb)