

# THE HAYDEN CONCERTINA KEYBOARD SYSTEM

I was very pleased that Concertina Magazine was able to publish my article which gave details of my new 'Hayden' fingering system. As a result of this, and a similar article written in the English Folk Dance and Song Society magazine, a lot of interest has been taken in my Concertina System. Steve Dickinson even had people from Australia asking him about the system! In this present article therefore, I have noted a few of the subsequent developments which have occurred and which have led to the evolution of the production instrument.

I felt that the standardisation of all the spacings of the buttons, angles and distances was very important, and that this should be established immediately before minor variations started to occur. My Crabb concertina, which was made a number of years ago to my initial specification, uses the same spacings and curves as the old Jeffries Duets (similar to Anglos), but I felt certain that this could be improved upon. So, after a lot of work which I shall describe below, we have come up with a keyboard design which I think will be 100% better and even easier to play than the first Crabb model. It does mean however that I will have to learn to play on the slightly different spacing of the keys!

In order to arrive at the final arrangement for the system, I spent three days at Steve Dickinson's workshops and after a lot of work, we came up with some really good feeling keyboards.

We started from the larger size with 78 keys and worked down to the smaller sized models. Thus, the smaller sizes will then follow the same spacings, distances and other keyboard dimensions. Someone who learned on a small size instrument will therefore be able to go to a bigger size and find all the familiar notes in the same places, but surrounded with all the extra higher notes, lower notes and their accidentals and, since a feature of the system is the octave and diatonic pattern repeat, they will be able to play them all immediately. I think that other systems, for example the Crane and the Jeffries Duet systems, started from the smaller sizes and just gradually grew in size with the result that some of the larger sizes have notes which cannot be sensibly reached.

An amusing point about our work on developing the keyboard dimensions relates to the article in Issue #3 of Concertina Magazine on the 'Mayfair' Concertina. Steve had inherited a huge quantity of 'Mayfair' keys from Boosey and Hawkes when he bought the business, and being just a plain plastic button with a hole in it, nothing else, he has had no use for them on the quality concertinas which he makes. However, these 'Mayfair' keys proved most useful to our research and a large number were put to very good use in making dummy keyboards for my system to make sure that

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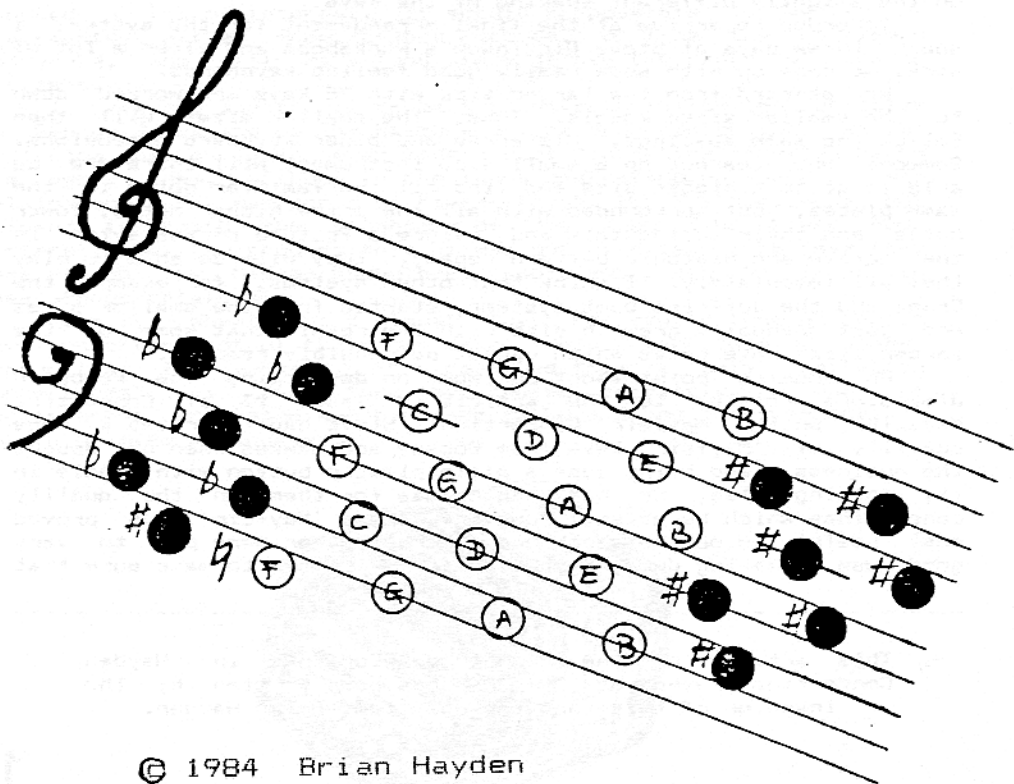
This article on the recent developments in 'Hayden Concertina Keyboards System' has been written by the inventor of this innovative system, Brian Hayden.

we had got all the spacings optimised. Production instruments of course will have proper, quality, buttons.

The new diagrams give a more accurate indication of the keyboard system. In the Patent on the system, the concertina keyboards are shown with the rows of buttons slightly curved. However, in practice this is not necessary and it is better with the rows of notes in straight lines. The initial diagram did illustrate the point that I was making about the notes following paths rather than a strict geometry.

An approximate description of the optimised system is that the centres of the buttons are 16mm apart along the rows and the rows are 9mm apart. The rows of buttons are straight, and both are at an angle of  $12\frac{1}{2}$  to the hand rests, with both sloping down towards the thumbs. The fourths and fifths are at equal distances and the lowest notes of the 78 key model are 30mm from the nearest edge of the hand rest. On the smaller size instruments, the same notes are at the same distances from the hand rests; the only difference is that the lower notes are not there. On the larger size 78 key instruments raised hand rests to suit the individual player may be preferred so that the fingers can comfortably span out over all the buttons; this concept is no different to the way in which an individual violinist will fit a shoulder rest.

A further point is that the lowest note of the 78 key model could be either Eb, preferred by brass band players or buskers, or an F#, preferred by classical music players; details on how such

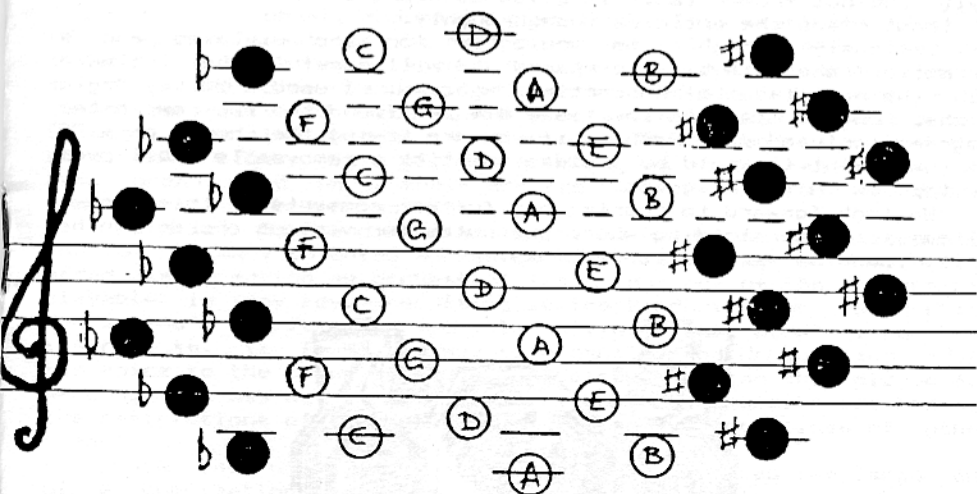


misplaced or 'exceptional' notes are included on instruments are given in the full Patent on the system.

The outcome of all this work is that Steve Dickinson is now making me a batch of 46 key instruments and I have already been able to sell some; Steve also has orders for 78 key Aeola instruments which have a range of nearly 5 octaves. The 46 key model will also be available from Steve, and as all the design and tooling costs will be absorbed into the first batch, in the long run it should make a quite reasonably priced instrument, especially when you consider that you would need three 30 key Anglo concertinas to do the same number of transpositions. We are also planning an intermediate size, about 64 keys with 4 octaves, if there is any demand, and a bass duet model with about 1 1/2 octaves of double bass on the left hand side and a baritone compass on the right hand side. This would make use of Steve's special skills in making the bass note reeds.

As I mentioned earlier, one of the advantages of my system is that the octaves and diatonic patterns repeat as you go to higher octaves, and this makes moving from a small to larger instrument very easy. I have always considered it a pity that more concertina fingering systems don't repeat the octaves at least. Only the Wheatstone-MacCann (Chidley) and the Linton systems do this, and neither of these are very common. It makes it so much easier to play all the various inversions of chords, or for example, the piccolo part on the larger sizes of concertina. It could have been

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done so easily on the Anglo instead of the peculiar system that repeats octaves on the fourth note push and fifth note pull and does all sorts of peculiar things at the extreme ends of the instrument. Also, of course, many would be familiar with this problem in the English Concertina system where, with the standard 48 key instrument, all the notes needed to play the piccolo part are to be found but these notes are thrown to the other side of the instrument and some onto opposite fingers when compared to the lower octaves.

Finally, my system is also applicable to many other instruments, including ones which are not of the free-reed family. For example, the hammer dulcimer on my system works very well and is much simpler than some of the incredibly awkward chromatic instruments that you find. I have made these instruments, both small and medium sized. When I can possibly find the time, I also intend to extend my idea to make a plucked Psaltery and a rote using the same principles.

## CORRECTIONS

Richard L. Ashbrook of Ohio, USA, wrote to Concertina Magazine, that "I have discovered what I take to be a 'typo' in Brian Hayden's article on chords in Issue #12. In the box diagram showing the F Maj./D Minor chords on the English keyboard the letters J, M seem to be one button lower than they should be producing dissonance. Another 'typo' is in Issue #14 in the box diagrams for Anglo on page 9; the F Maj./D Minor diagram has the J and n notes misplaced one button to the left."

Richard was the first to spot and draw our attention to some of the mistakes in the diagrams; these mistakes were entirely our fault and not from Brian. It gives us heart to think that someone at least reads the articles thoroughly.

Seriously though, we apologise for the mistakes and a correction sheet is being prepared and will hopefully be included with the next issue of Concertina Magazine. I used a 20 key Anglo to check on the diagrams for Issue #14 and found the top row in the diagrams confused me! Perhaps if you are trying the chords on a 20 key instrument it would be an idea to stick a removeable label over the top row in the diagrams!

We look forward to hearing any further comments on this novel system for understanding where the notes for various chords can be easily found on various concertinas.

