Use of serial numbers in dating musical instruments

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Apparently a safe and simple means of dating instruments very precisely, the numbers stamped on instruments by makers are often surprisingly difficult to interpret. Some of the data provided on various websites is, on close inspection, inaccurate. Even in cases where makers'workshop records or stock books survive, the differing numbering systems are not always straightforward. Where there is no archival legacy, the corpus of surviving instruments and what is known about them can be used to piece together a chronology. This paper examines some of the systems used and the organological detective work required to decode them. Examples of the various systems and use of archives and surviving instruments will be shown.
(Information on Besson, Boosey, Kohler, Rudall Carte and Sax: www.galpinsociety.org/gwtd.html)

Serial numbers are widely used in dating instruments, in some cases very precisely and accurately but not infrequently the numbers are misunderstood and apparently precise dating given in publications can be wildly inaccurate. For some manufacturers, the firm's production records survive and the serial numbers are then the key to very detailed information about particular instruments. Study of the existing production records and learning how serial numbers were used can help us piece together the evidence for those manufacturers where all we have to go on is the corpus of surviving instruments.

Serial numbers have been used on musical instruments since at least the late sixteenth century, when the Ruckers family numbered their harpsichords. Each model had its own sequence, which apparently returned to 1 after reaching 50 or 100. Peter Mole [1] has shown that the spinet maker Hitchcock used three sequences, from around 400 up to about 700, then 1000 (or 1001) to about 1700, and then from 2000 (or 2001) up - the highest number is 2018.

Makers gave instruments serial numbers for various reasons:

1. To control instruments in stock and organise records of sales

Fig.1 shows one method of keeping stock books in which the unsold stock at 31st December is re-entered on January 1st before the new year's production is entered. Fig.2 shows new items being added to stock, and since the serial numbers were given out when the instruments were ordered, the dates of adding to stock (indicating when they were completed) are only approximately chronological. In some cases the serial numbers were not always permanently marked on the instruments themselves. Fig.3 shows a page from a stock book with serial numbers actually stamped on the instruments added later.

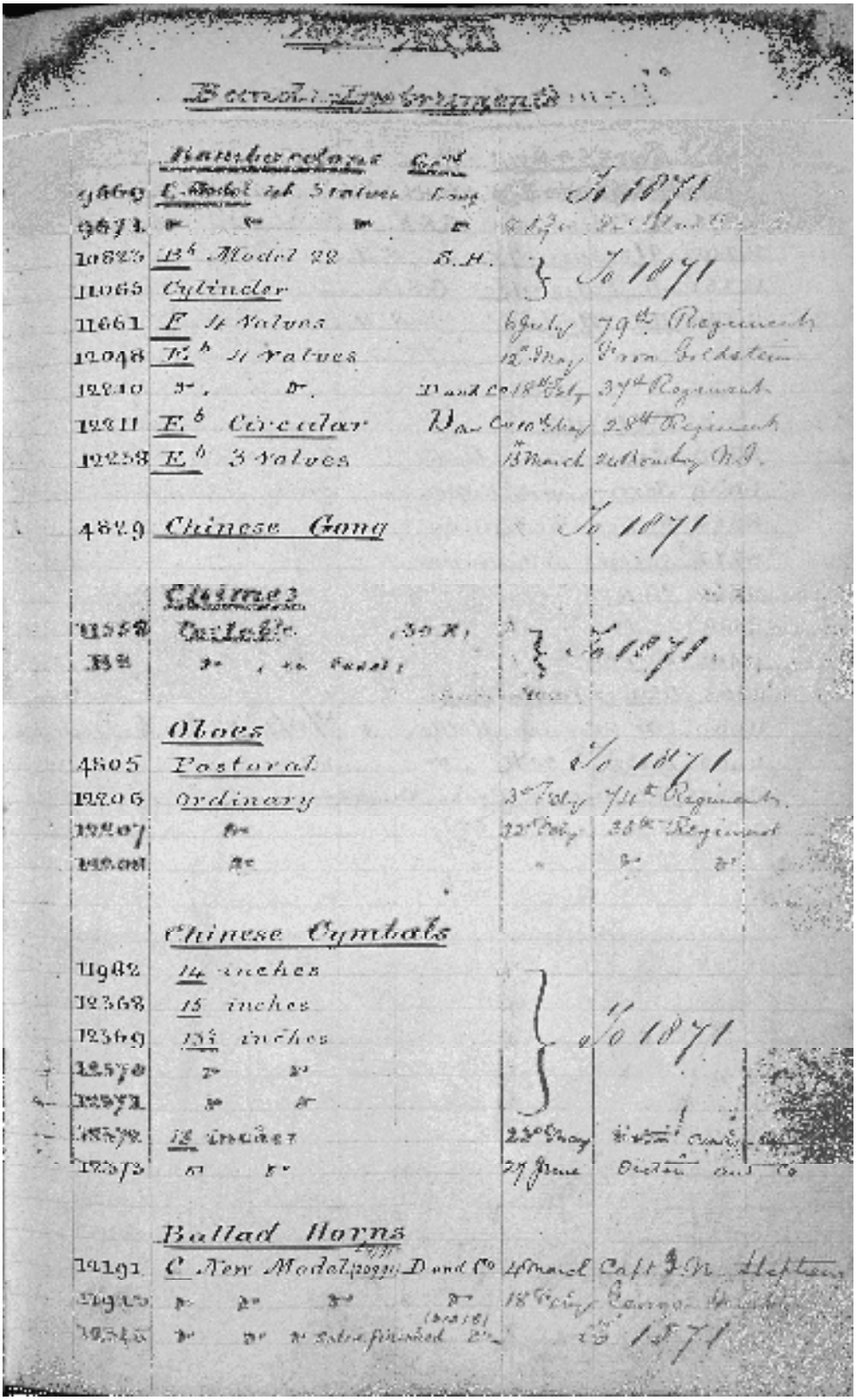

Fig.1 - Boosey & Company stock account book for 1870 showing the stock as of 1st January. Since some items had been in stock for a long time, there is a wide range of serial numbers.

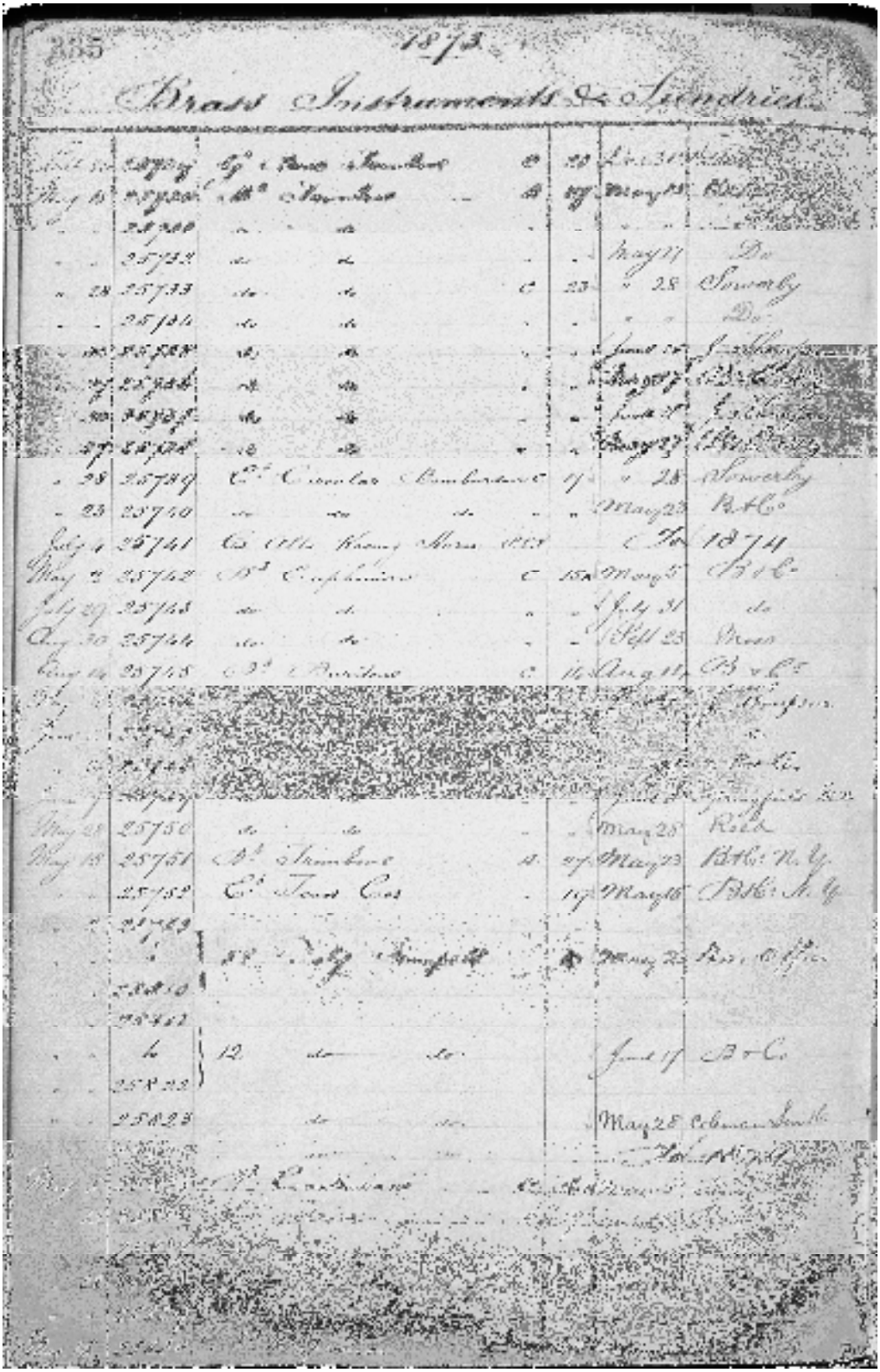

Fig.2 - Distin & Company stock book for 1873 showing new items added to stock. Since the serial numbers were gven out when the instruments were ordered, the dates of adding to stock (indicating when they were completed) are only approximately chronological. Items unsold in 1873 were marked « To 1874 » and re-entered on 1st January 1874. At this date Distin & Co was owned by Boosey and Company, but continued trading independently to a large extent.

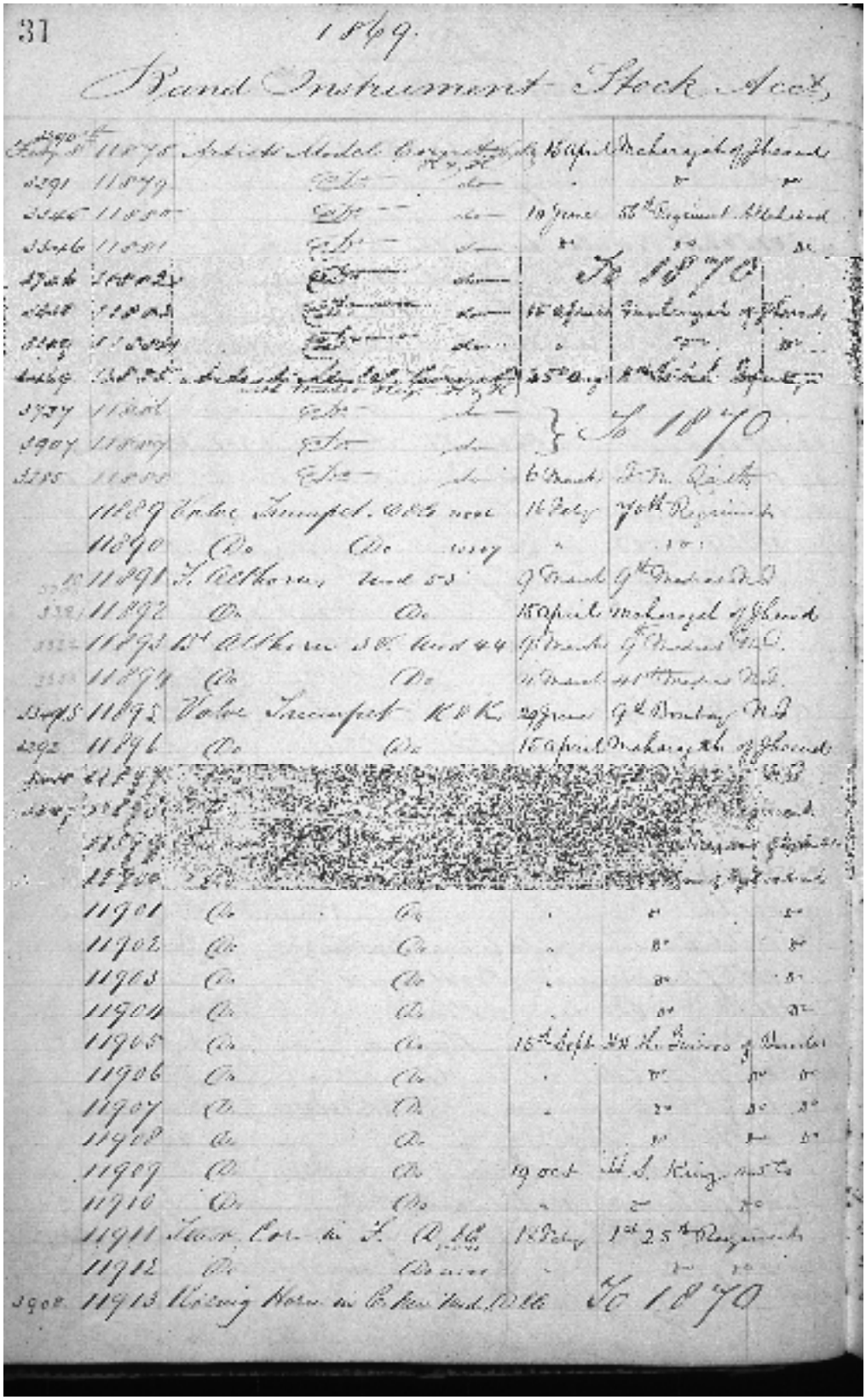

Fig.3 - Boosey & Company stock account book for 1869 showing new items added to stock in February 1869. The Distin and Company serial numbers are shown in small numerals (20546 etc) and it is these numbers which are stamped on the instruments in all known cases.

2. To identify parts of the same instruments while they were being worked on in different areas within a factory

Sometimes parts were stamped with just the last few digits of the serial number. Examples include the numbers associating the slide sections and the bell sections of trombones, and sections and mouthpieces of woodwind instruments from certain makers. Usually the same number was used for all the components of an instrument, but not always: Fig.4 shows a sequence of serial numbers for valves with the corresponding (different) instrument serial numbers also given.

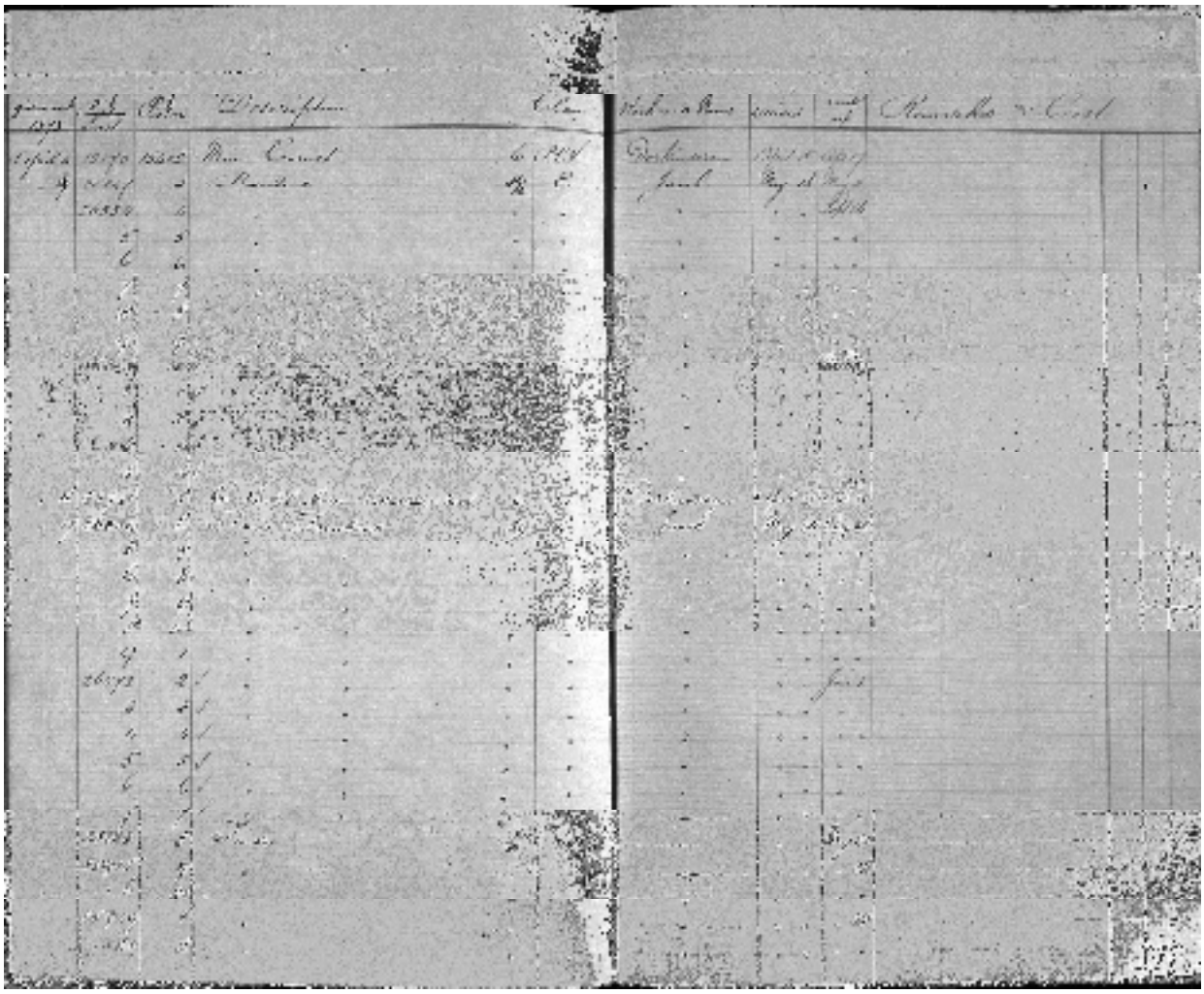

Fig.4 - Distin and Company Workshop order book for 1873 showing valve serial numbers being allocated in chronological order by date of order from April 4 to April 17. Note that the serial numbers of the instruments which eventually incorporated the valves clusters are given in the second column. Dates of receipt, and making up (allocation to an instrument) are also given.

3. To identify instruments for after-sales service and repairs and facilitate the supply of replacement parts

4. In some cases makers seemed to like to show the size of their production by continuing their serial numbers to very high numbers

Up to 1874 the London firm of Boosey used serial numbers mainly for stock control. The instruments they sold were mostly from other makers, often with the actual maker's serial number stamped on. However, from 1874 until 2002 for their brass instruments Boosey and later Boosey & Hawkes continued this sequence from 14345 to 890008 with very few gaps (and for the last years an extra digit was inserted, so the last instrument is recorded as 8090008) [2].

The way serial numbers have been allocated varies widely.

Adolphe Sax appears to have used a single sequence for all his numbered instruments. There is no duplication of numbers between saxophones and brass instruments, and all the evidence of the inscriptions points to his having used a single sequence. I have attempted a statistical analysis to see if he might have started each year with a round number, but examination of the 440 known Ad. Sax serial numbers ranging between 245 and 46207 shows no significant rarity of numbers ending in 90 to 99 or of numbers ending in 900 to 999. The balance of evidence is that Sax used a single sequence starting below 245 and continued without gaps. Some American makers did however start each new year with a round number, with the desired result that people familiar with the system can date them readily [3].

Many makers have used different sequences for different kinds of instrument. Henry Distin latterly had one sequence starting with 10000 for cornets and another starting with 20000 for all other brass instruments whether natural, slide or valve. Someone not knowing this could easily assume that cornet 12518 is older than bombardon 20721, the reverse is true. Fig.5 shows instrument serial numbers being allocated in chronological order by date of order with sequences in use, for cornets and for other brass instruments.

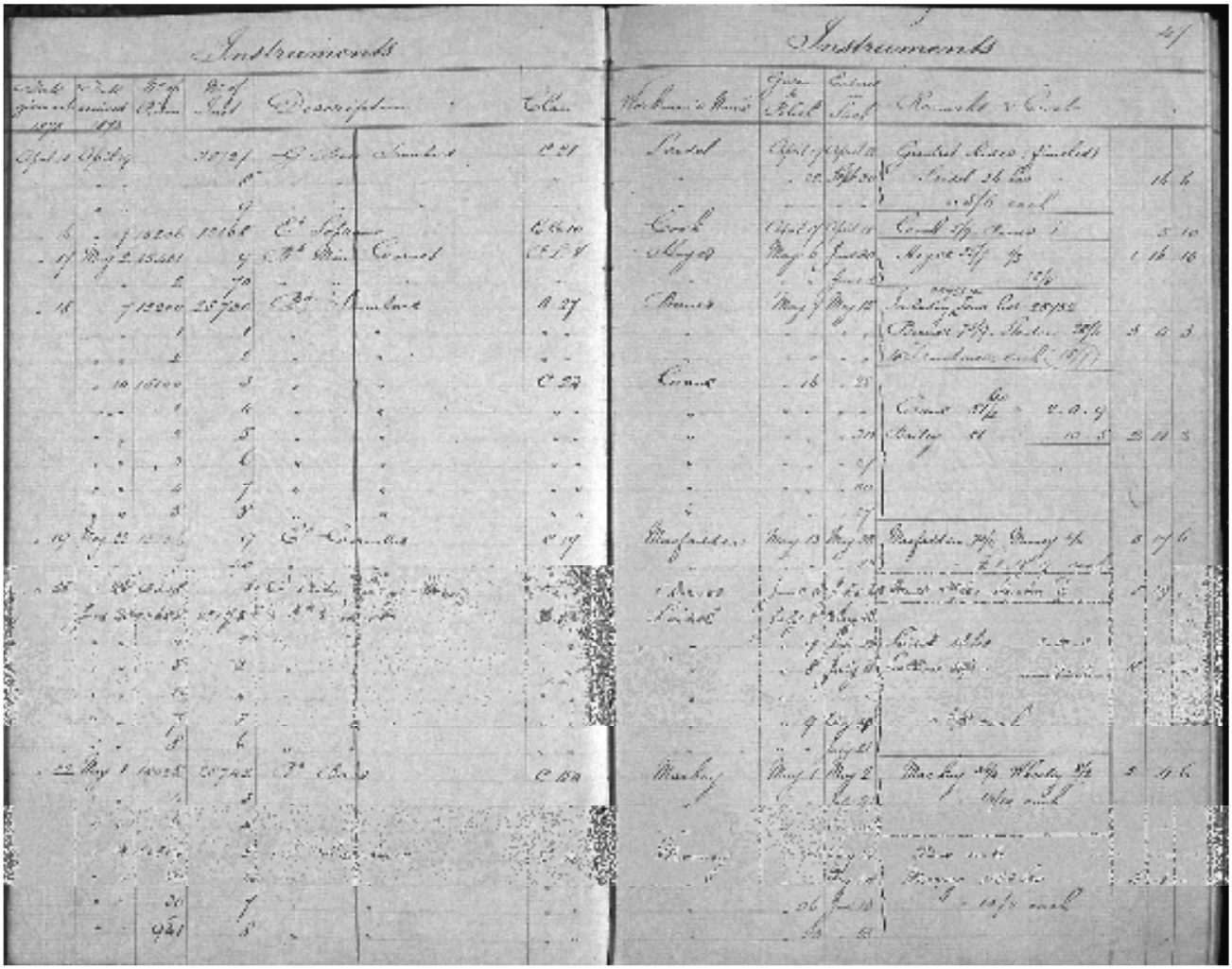

Fig. 5 - Distin and Company Workshop order book for 1873 showing instrument serial numbers being allocated in chronological order by date of order from April 10 to April 22. Note the two sequences in use, 12168 etc for cornets and 25727 etc for other brass instruments and drums. Dates of receipt, polishing and adding to stock are also given.

Its interesting to see that the London maker Kohler used separate sequences for instruments with distinct licence agreements. The document in which the famous trumpet player Thomas Harper allows Kohler to use his name on slide trumpets stipulates that the instruments should be numbered, and that the numbers should start with 28 [4] (perhaps other makers had used the numbers lower than 29 - we have no evidence for that). Kohler used distinct sequences for patent lever (disc valve) instruments, Macfarlane cornopeans, and Bayley's cornets and trumpets. The earliest surviving of the latter is numbered 10.

For makers such as Sax, no records survive. We need to piece together a chronology based on design features and other inscriptions such as the addresses, whether Sax describes himself as « Facteur de la Maison Militaire de l'Empereur », etc. Malou Haine

and Ignace de Keyser first put dates to Sax's serial numbers in 1980 [5], Robert Howe refined them in the light of more recent evidence in 2003 [6] and Eugenia Mitroulia and I have put the most complete list online [7]. Several other chronologies have been put together by various scholars for other makers where no records survive.

Where makers ledgers survive, we can usually use serial numbers to date instrument with great confidence. The brass instruments made by Boosey and later Boosey & Hawkes can be dated in often painful detail from 1870 to 2002. In the middle of this period the production records give the dates of ordering from the factory, receipt of order, when the instrument was polished, when the valves or slides were ground, when the instrument was plated, and when it was considered finished and the head office charged for the work (and there is similar detail for each set of vales, too). The Boosey and Company and Boosey & Hawkes archives are now located at the Horniman Museum, south London: they are in the Library and are available for consultation.

One pitfall with serial number dating is the practice of some firms of re-numbering instruments which had been in stock for some time either in an attempt to make them look newer or to tidy up the stock books. There are several instances of this in the Boosey & Hawkes archive. For example, in 1913 quite a few items were given new numbers when returned from New York, probably marking the closure of the firm's branch there.

A different set of ledgers survive for the London branch of the Besson firm, also at the Horniman museum. This is an incomplete set of stock books. It is immediately clear that this firm had one sequence of serial numbers for slide trombones and another sequence for valved brass instruments. Eight stock books survive, not chronologically consecutive but covering specific kinds of instruments and overlapping in dates: four books for cornets, one for basses, one for contrebasses, and two for slide trombones. The books for all the other kinds of instrument are lost. Fig.6 and Fig.7 show the entries for the same period, demonstrating how the sequence of serial numbers is divided between different stock books.

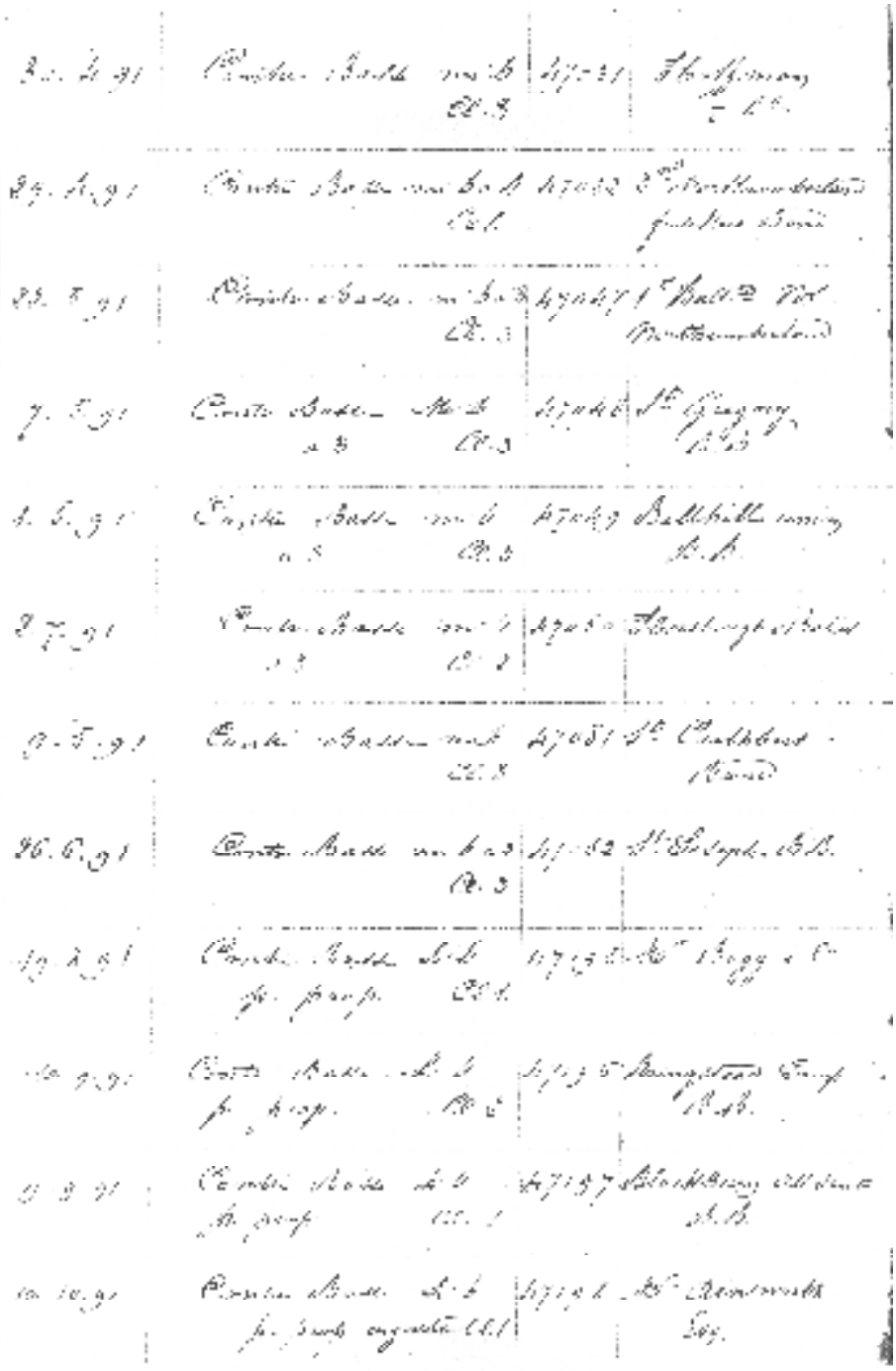

Fig.6 - F. Besson (London) stock book of contrebasses for 1891 showing new items added to stock. Since the serial numbers were gven out when the instruments were ordered, the dates of adding to stock (indicating when they were completed) are only approximately chronological. Note the gaps in the sequence of serial numbers before and after the batch of six contrebasses 47047-52. The 'missing' numbers were those used for other kinds of valved brass instrument.

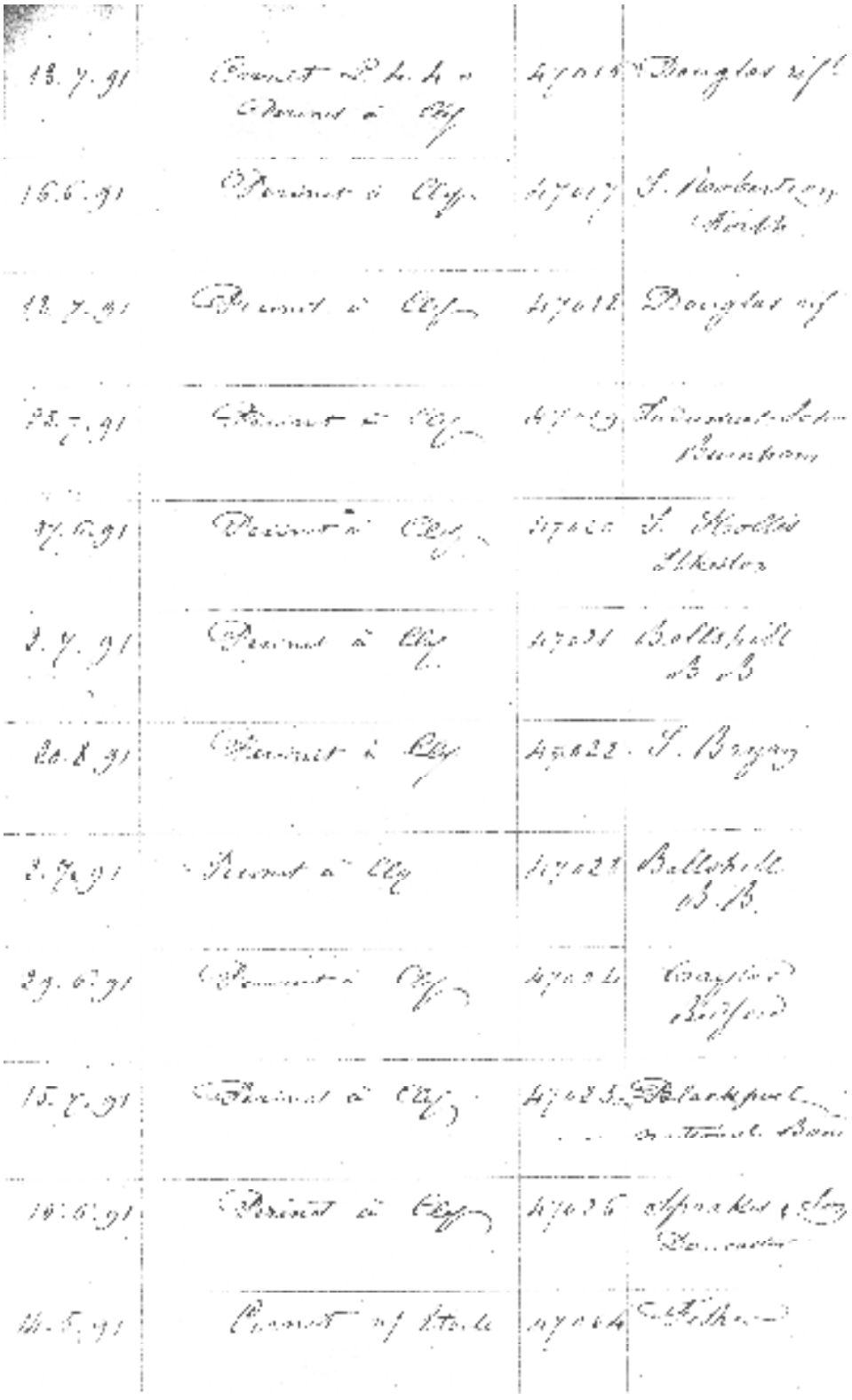

Fig.7 - F. Besson (London) stock book of cornets for 1891 showing new items added to stock. Since the serial numbers were given out when the instruments were ordered, the dates of adding to stock (indicating when they were completed) are only approximately chronological. Note the gap in the sequence of serial numbers between 47026 and 47054, some of the 'missing' numbers were those used for contrebasses.

To piece together a chronology for the valved instruments one has to integrate data from the six surviving relevant books. However, even this is not simple, since the stock books record when each instrument was added to stock and when it was sold. The dates instruments were added to stock do not follow the order of the serial numbers, since even if the numbers were allocated in strict order as instruments were ordered from the factory, some orders to longer to complete than others. The dates instruments were added to stock give the latest possible date at which an instrument was numbered, a *terminus ante quem*.
People interested in dating instruments usually wish to know when an instrument was ordered, this generally giving the date when the design was determined. By going through the serial numbers looking for the latest dates, and repeating this in the different stock books, the highest number in various periods can be established. The detailed chronology of the latest possible dates for the instruments shown in Fig.6 and Fig.7 is:

46863 (from the cornet book)	1891 Apr 08
47029 (from the contrebasse book)	1891 Apr 23
47032 (from the contrebasse book)	1891 Apr 29
47049 (from the contrebasse book)	1891 May 01
47051 (from the contrebasse book)	1891 May 09
47065 (from the cornet book)	1891 May 14
47273 (from the contrebasse book)	1891 May 15

The reconstructed chronology for the whole period covered by these stock books has been published [8]. This is the closest we can come to a chronology of instruments based solely on stock book records, and only gives the latest possible date an instrument with a given serial number could have been numbered.

References

[1] Mole, Peter, personal communication, 2009.

[2] Dixon, Gavin, personal communication, 2009.

[3] Kirmser, Lars, the Music Trader *Proprietary Serial Number Lists* at:
http://www.musictrader.com/serialnos.html

[4] Whitehead, Lance and Myers, Arnold, `The Kohler Family of Brasswind Instrument Makers' *Historic Brass Society Journal*, 2004, Vol. 16, pp.89-123.

[5] Haine, Malou and de Keyser, Ignace, *Catalogue des instruments Sax au Musée Instrumental de Bruxelles*. Brussels: Musée Instrumental de Bruxelles, 1980.

[6] Howe, Robert S., `The Invention and early development of the saxophone, 1840-55'. *Journal of the American Musical Instrument Society*, Vol.XXIX, 2003, pp.97-180.

[7] Myers, Arnold *et al*, lists of surviving instruments ordered by serial number from various makers (Besson, Boosey & Co, Boosey & Hawkes, Brown, Kohler, Rudall Carte and Adolphe Sax) at:
www.galpinsociety.org/gwtd.html

[8] Myers, Arnold and Eldredge, Niles, `The Brasswind Production of Madame Besson's London Factory'. *Galpin Society Journal* LIX, 2006, pp.43-76.

Acknowledgements

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