JOCELYN HOWELL AND ARNOLD MYERS

Hawkes & Son, Instrument Makers

The name of Hawkes is most widely recognised through its association with that of Boosey. Prior to the formation of Boosey & Hawkes in 1930, the firm of Hawkes & Son made a relatively rapid rise to a position of both significant market share and esteem as makers of high quality brass and woodwind instruments. This article traces the history of the firm from its establishment by William Henry Hawkes, through its period as Rivière & Hawkes, up to its merger with Boosey & Co. The production of the firm is described and the firm's innovations are discussed and evaluated.

HAWKES & COMPANY 1858–65, PIMLICO

Hawkes & Co. was founded in 1858 by William Henry Hawkes (1830–1900), who was 'For many years Solo Cornet Player in the Band of H.M. Scots Guards, State Trumpeter, and late Principal Trumpet in the Private Orchestra of Her late Majesty Queen Victoria.'[1] (Figure 1). In an early catalogue (*c*1876), he is described as 'Solo Cornet and Musician in Ordinary to Her Majesty the Queen.'[2] The company, which published military music[3] and imported brass instruments,[4] was located at 34 Cumberland Street, Pimlico.[5]

RIVIÈRE & HAWKES 1865–1875, SOHO SQUARE

On 24 June 1865 Hawkes took on a nine year lease of the first, second and third floors of 33 Soho Square.[6] It was at this time that Hawkes went into partnership with Jules Prudence Rivière (1819–1900), a former French army bandmaster whom he had met in 1860.[7] (Figure 2).

Jules Rivière, a prominent violinist, bassoonist and conductor, had come to London in 1857 as a protégé of Jullien[8] having served in the 12th Regiment of Infantry at Verdun. A year later he was playing at the Cremorne Gardens. In 1860, Rivière became involved in music publishing and retail. On behalf of his old friend René Lafleur, the Parisian music publisher,

[1] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (London: Hawkes & Son, c1908), private collection of Arnold Myers.

[2] Rivière & Hawkes, *Catalogue* (*c*1876), private collection of Thomas Lord, Bacup.

[3] Algernon S. Rose, *Talks with Bandsmen: a Popular Handbook for Brass Instrumentalists* (London: William Rider and Son Ltd., 1895), p.269.

[4] William R. Waterhouse, *The New Langwill Index: A Dictionary of Musical Wind-Instrument Makers and Inventors* (London: Tony Bingham, 1993), p.165.

[5] Counterpart agreement: lease, 13 May 1865; Westminster City Archives, Ms 991/1.

[6] Counterpart agreement: lease, 13 May 1865; Westminster City Archives, Ms 991/1; Rose (1895), p.269 states that relocation occurred in 1862.

[7] J. Boosey, 'Beethoven, Bellini, Ballads and Bands', *Boosey & Hawkes 150th Anniversary* (London: B&H Music Publishing, 1966), pp.2–4, at p.3.

[8] P. A. Scholes, *The Mirror of Music 1844–1944: A Century of Musical Life in Britain as reflected in the pages of the Musical Times* (London: Novello & Co. Ltd., and OUP, 1947), p.193.

Figure 1. *William Henry Hawkes (1830–1900), from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.2 (private collection of Arnold Myers).*

Figure 2. *Jules Prudence Rivière (1819–1900), from Jules Rivière, My Musical Life and Recollections (London: Sampson Low, Marston & Co. Ltd, 1893), frontispiece.*

he took on 'a newly-built shop and house, situated at 15, Green Street, Leicester Square' and managed a London branch of J. R. Lafleur & Co. which was called 'Alliance Musicale'[9] for an agreed period of five years.[10] Meanwhile, he was appointed musical director at the Adelphi Theatre (1862), and subsequently at the Alhambra in Leicester Square (1866) where he had a large orchestra of 50 players.[11] In 1871, he started his very popular Promenade Concerts at Covent Garden in which the programmes included musicians from the Grenadier Guards and the Royal Artillery.[12]

The company of Rivière & Hawkes, which traded from a shop called 'The Musical Progress,'[13] published and sold music, and dealt in musical instruments. In 1869 a wind instrument repair shop was added.[14]

RIVIÈRE & HAWKES 1875–1884, LEICESTER SQUARE

Business at Rivière & Hawkes expanded and in 1875[15] the firm moved to larger premises at 28 Leicester Square.[16] (Figure 3). Rivière stated that 'Our stock of musical instruments had increased to such an extent that the three floors of the roomy premises in Soho Square were no longer enough to hold them, so when I saw that the building adjoining the Alhambra was to let, we were not long in settling about the lease.'[17] The premises, which had been

[9] Jules Rivière, *My Musical Life and Recollections* (London: Sampson Low, Marston & Co. Ltd, 1893), p.115.

[10] Rivière (1893), p.118.

[11] Rivière (1893), p.119 and p.128.

[12] Scholes (1947), p.193.

[13] Rivière (1893), p.129

[14] Rose (1895), p.269.

[15] Rose (1895), p.269.

[16] Rivière (1893), p.190.

[17] Rivière (1893), p.190.

Figure 3. *Leicester Square, 1877. The premises of Rivière & Hawkes at No 28 are immediately to the right of the imposing Alhambra Theatre, a music hall © Mary Evans Picture Library.*

used as an Artillery Volunteers drill hall, fronted onto the Square and backed onto Castle Street. The 'rent was comparatively low, namely 400*l.* a year, including large underground cellars. And events justified our decision, for we soon sublet the upper part of the house to a wine merchant who had access to the cellars in Castle Street.'[18] This tenancy almost covered the rent Hawkes had to pay. From 1876, Rivière & Hawkes started making brass instruments;[19] the manufacturing department was situated at the rear of the premises, at 54 Castle Street.[20] Rivière & Hawkes declared in their catalogue that 'In consequence of the great increase of their trade in the Instrument Department' they 'have taken very extensive premises and at the same time have considerably enlarged their stock, they are now quite ready to supply both Brass and Wooden Instruments to any amount. It is also further announced that a large number of each class of instruments is permanently kept in stock.'[21] Many of the instruments sold were bought in. From 1874, for example, Rivière & Hawkes were sole agents for horns made by J. C. Labbaye, successor to the distinguished maker, Raoux.[22] (Figure 4).

Notable Hawkes publications from this period included 'pianoforte fantasias by M. Dubois and Mlle. Secretain, an air *varié* for the flute by Demaré, another for the clarinette by Waterson, one for the cornet by Hartmann, besides a violin fantasia by Deron.[23] The song *Spring! Gentle Spring!* sold 'two and three thousand copies at a time, and large orders came pouring in from the provinces and America.'[24] The 19-year partnership between Hawkes and Rivière was dissolved 'by mutual consent' on 31 December 1884.[25] Rivière sold his share to Hawkes for £12,000, a sum that demonstrates the success of the firm. He states that 'when Mr. Hawkes and myself commenced business, we did so, practically without capital.'[26]

[18] Rivière (1893), p.190.

[19] Rose (1895), p.269.

[20] Waterhouse (1993), p.330.

[21] Rivière & Hawkes, *Catalogue* (*c*1876), p.58.

[22] Rivière & Hawkes, *Catalogue* (*c*1876), p.63.

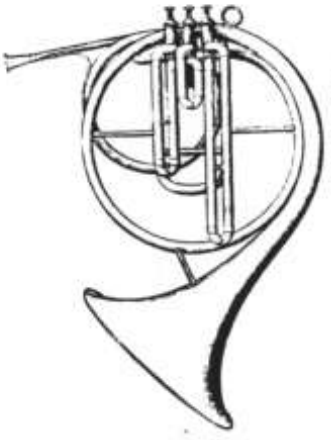
[23] Rivière (1893), p.161.

[24] Rivière (1893), pp.161–162.

[25] See notice in *The London Gazette*, 16 January 1885.

[26] Rivière (1893), p.221.

RAOUX'S
FRENCH HORNS.



PRICES.

		£	s.
Hand Horn	... 5 Crooks	10	0
Hand Horn	... 10 Crooks	12	0
Three Valves Horn	5 Crooks	12	0
Three Valves Horn	10 Crooks	14	0

Attachment with Two Valves, to be put, if required, on Hand Horns, so that the Instruments can be used with or without Valves. **Extra £3.**

RIVIERE AND HAWKES

Have the pleasure to inform their customers, and more particularly Solo **French Horn** Players, that by a treaty signed on February 14th, 1874, they are constituted, for Ten Years, **SOLE AGENTS** in Great Britain for the sale of French Horns manufactured by the celebrated Parisian Maker,

J. C. LABBAYE

(SUCCESSOR TO RAOUX).

The late M. Raoux for many years maintained a pre-eminence for the manufacture of Hand and Valves **French Horns**, his instruments combining in the highest possible degree the essential qualities of pure equal tone, perfect intonation, and high finish of workmanship. His worthy successor, M. Labbaye, has devoted his whole energy to secure and retain the high reputation.

Labbaye-Raoux's Horns are recognised by all the Artists as the only perfect instruments of that description. They are performed upon by all the principal Cornists of the Opera House and Concerts on the Continent, and by the most distinguished Horn players in England.

Figure 4. *Advertisement for Raoux horns, c1880, from a Rivière & Hawkes catalogue, p.63 (private collection of Thomas Lord, Bacup).*

Figure 5. Hawkes & Son staff and factory, Denman Street, in 1900, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.3 (private collection of Arnold Myers).

HAWKES & SON 1885–1895, LEICESTER SQUARE

After the departure of Rivière, William Henry Hawkes continued alone. In 1886 he was joined by his son Oliver,[27] who was made a partner on 5 May 1888.[28] The firm continued to be successful. Besides publishing music for orchestra and for piano, and instrumental tutors including the Otto Langey methods for all orchestral instruments,[29] a major emphasis was on the production of military and brass band music. Pieces and arrangements for bands were published in 'journals' such as the *Military Band Journal*[30] and from 1891, *The Eclipse Band Journal*, one of the most significant publications of its time.[31] As with their rivals Boosey & Co., Hawkes & Son offered a complete service to the military and the brass band market, providing music, instruments and accessories to bands throughout the Empire. Reed instruments were manufactured under John Lewis and brass under Monsieur Linotte.[32] The manufacture of drums was begun under the control of Herbert Weaver.[33] According to Rose, the firm also had a branch workshop at 12 Station Road, Aldershot, under the management of a Mr Adams.[34] Other manufacturers (including Boosey & Co.) at this time also retained retail and repair departments in Aldershot to cater for trade generated by the Army. The company continued to expand with the purchase of the business of L. Schweizer & Son of 7 Broad Court, Long Acre, in 1893. Leonard Schweizer was retained as Manager. The company manufactured plate chests and wooden cases for musical instruments.[35]

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[27] Rose (1825), p.269.

[28] Copy Agreement supplemental to articles of partnership, 7 March 1900; Westminster City Archives, Ms 991/2.

[29] Boosey (1966), p.3.

[30] Boosey (1966), p.3.

[31] Roy Newsome, *Brass Roots: A Hundred Years of Brass Bands and their Music* (Aldershot: Ashgate, 1998), p.106. Newsome discusses in detail the brass band publications of Hawkes.

[32] Boosey (1966), p.3.

[33] 'Boosey & Hawkes: a Century of Instrument Making', *Musical Progress and Mail*, October 1930, pp.27–29, at p.29.

[34] Rose (1895), p.269.

[35] Memorandum of agreement, 16 January 1893, Westminster City Archives, Ms 991/9.

Figure 6. *Valve making shop in the Hawkes & Son factory, Denman Street, from the c1908 Hawkes & Son catalogue, 'Band Instruments and Band Music', p.11 (private collection of Arnold Myers).*

HAWKES & SON 1895–1925, DENMAN STREET

Business prospered. In 1895 Hawkes & Son moved to new a new factory at 8, 9 and 10 Denman Street (Figure 5). Rose related that, 'In June 1895, Messrs. Hawkes' London Headquarters, by reason of expiration of the lease, will be removed to Denman Street, Piccadilly Circus where a site, having a superficial area of 3,500 ft., has been acquired. At the time of writing, convenient workshops, storerooms, and offices are being erected. The plant at present in use at Leicester Square for the making of all kinds of instruments will be supplemented by new lathes and a powerful engine to drive the whole.'[36] There were almost 100 employees at this time.[37]

After William Henry Hawkes died in 1900, Oliver Hawkes continued to trade as 'Hawkes & Son'. In 1902, he bought the tools and patterns of the oboe and bassoon maker A. W. Morton & Sons,[38] and according to the *Orchestral Times* (1902) 'they have since carried on the manufacture of oboes on his principle', but did not buy 'the right to use his name.'[39] By about 1908, Hawkes & Son claimed that they 'now employ directly in their factory in Denman Street, Piccadilly Circus, London, W. an average of 200 men, who are distributed in the various workshops producing the different instruments used in Military and Brass Bands and their kindred organisations'.[40] Figures 6–10 show the rather crowded conditions of the Denman Street workshops.

In August 1911, the company expanded and 'built a new "model factory" at Highgate in North London with electric power', removing their works

[36] Rose (1825), p.269.

[37] Rose (1825), p.269.

[38] Answers to Correspondents, *The Orchestral Times* (1902), p.241.

[39] Waterhouse (1993), p.273.

[40] Hawkes & Son (*c*1908), p.6.

Figure 7. *Brass instrument making and finishing in the Hawkes & Son factory, Denman Street, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.10 (private collection of Arnold Myers).*

from Denman Street when it was completed.[41] This made space for a showroom 'for high class Violins and other Stringed Instruments, Bows, Cases and up-to-date Accessories'. Manufacturing was moved to Highgate, where 'all kinds of instruments' were made – 'all brass including saxophones, all Wood including Oboes and Bassoons, and even Violins and Double Basses, though of course, but few of the last two, as the large demand the firm has satisfied from a factory established abroad, and presided over by a foreman who learned his craft in the employ of Hawkes & Son in London.'[42]

In 1913, Hawkes was sole UK agent for the Paris firm of Antoine Courtois and trading under the name J. R. Lafleur and Son.[43] The Lafleur & Son branch in London had continued at 15 Green Street as 'Music Publishers, Musical-Instrument Manufacturers to the Army and Navy, and Militia and Volunteer Corps, and Musical Societies of England, France and the Colonies.'[44] It appears that at some time before 1917 Hawkes must have purchased Lafleur;[45] in June 1917 completion took place on the 'sale of the business of J. R. Lafleur and Son and its premises, 147 Wardour Street, to a company formed for acquiring it.'[46] It is

[41] Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments (1911), p.2. Musical Instrument Museums Edinburgh* (University of Edinburgh), Langwill Archive.

[42] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912). p.69.

[43] Power of Attorney, 13 March 1913; Westminster City Archives, Ms 991/11.

[44] J. R. Lafleur Catalogue, n.d., private collection of Tony Bingham.

[45] Waterhouse (1993), p.222, states that Lafleur was acquired by Boosey & Co. *c*1917, but there is no evidence to support this.

[46] Power of Attorney: sale of J. R. Lafleur and Son Ltd to company formed for acquiring it, 15 March 1917; Westminster City Archives, Ms 991/3. Counterpart agreement between Oliver Hawkes and J. R. Lafleur & Son Ltd, 7 June 1917; Westminster City Archives, Ms 991/12.

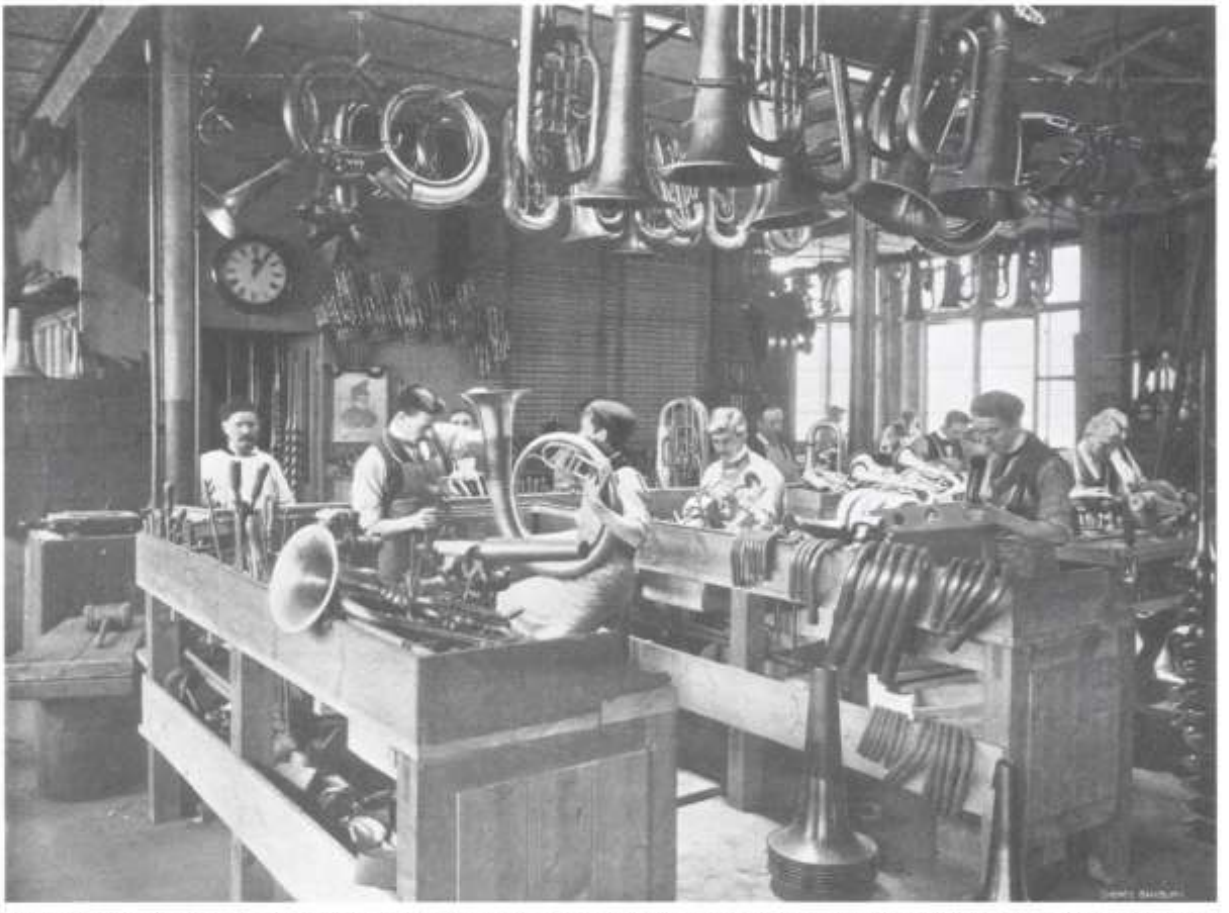

Figure 8. *Bombardon and euphonium making in the Hawkes & Son factory, Denman Street, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.29 (private collection of Arnold Myers).*

likely that the company was set up as a subsidiary of Hawkes & Son as the premises are included in the accounts of the private estate of Oliver Hawkes,[47] and in 1939 the directors of Lafleur were listed as 'A. Hawkes, G. Hawkes, R. Hawkes and J. Couesnon (French).'[48]

As Hawkes continued to expand, they acquired additional premises: 43A Ashbrook Road, Upper Holloway (from *c*1917)[49] and 84A Leighton Road, Kentish Town (from 6 February 1919).[50] In 1919, a few weeks before his death, Oliver Hawkes purchased the leather case manufacturing business of Charles Benck in Manchester,[51] and the 'Compactum Case Company' was consequently established.[52] Oliver Hawkes's sons Geoffrey and Ralph inherited the business,[53] which included the 'business in Denman Street (with two-thirds of freehold premises), stock and plant of factory in Aldershot, factory at Highgate and interests in Hawkes & Harris, Toronto, and J.R. Lafleur & Sons Ltd.'[54] Ralph Hawkes took over responsibility for the publishing side of the business and Geoffrey Hawkes the instrument division.

HAWKES & SON 1925–1930, DENMAN STREET and EDGWARE

All of Hawkes's north London premises were relinquished in 1925 when Hawkes moved manufacture to a vast new factory in Edgware. Built in 1924, the

[47] Accounts of private estate of Oliver Hawkes, deceased (1923); Westminster City Archives, Ms 991/9.

[48] J. R. Lafleur & Son Ltd., *Catalogue of Musical Instruments and Fittings* (1939), private collection of Tony Bingham.

[49] Insurance policies with receipts for Government Aircraft Insurance for buildings, stock and machinery of W. H. Hawkes & Sons at the factory in Ashbrook Road, Holloway, and showrooms and warehouse at 8,9,10 Denman Street, Golden Square, 15 June 1916 to 15 November 1917; Westminster City Archives, Ms 991/6.

[50] Letter and receipt relating to the lease of 84A Leighton Road, 6 February 1919; Westminster City Archives, Ms 991/5.

[51] Agreement between Charles Benck and Oliver Hawkes, 7 May 1918; Westminster City Archives, Ms 991/13.

[52] Letter, 26 May 1919; Westminster City Archives, Ms 991/15.

[53] Friede Rothe and Irving Kolodin, 'Ralph Hawkes', *Tempo* 17 (1950), pp.4–7.

[54] Copy of will of Oliver Hawkes, testator died 14 June 1919. Westminster 991/4.

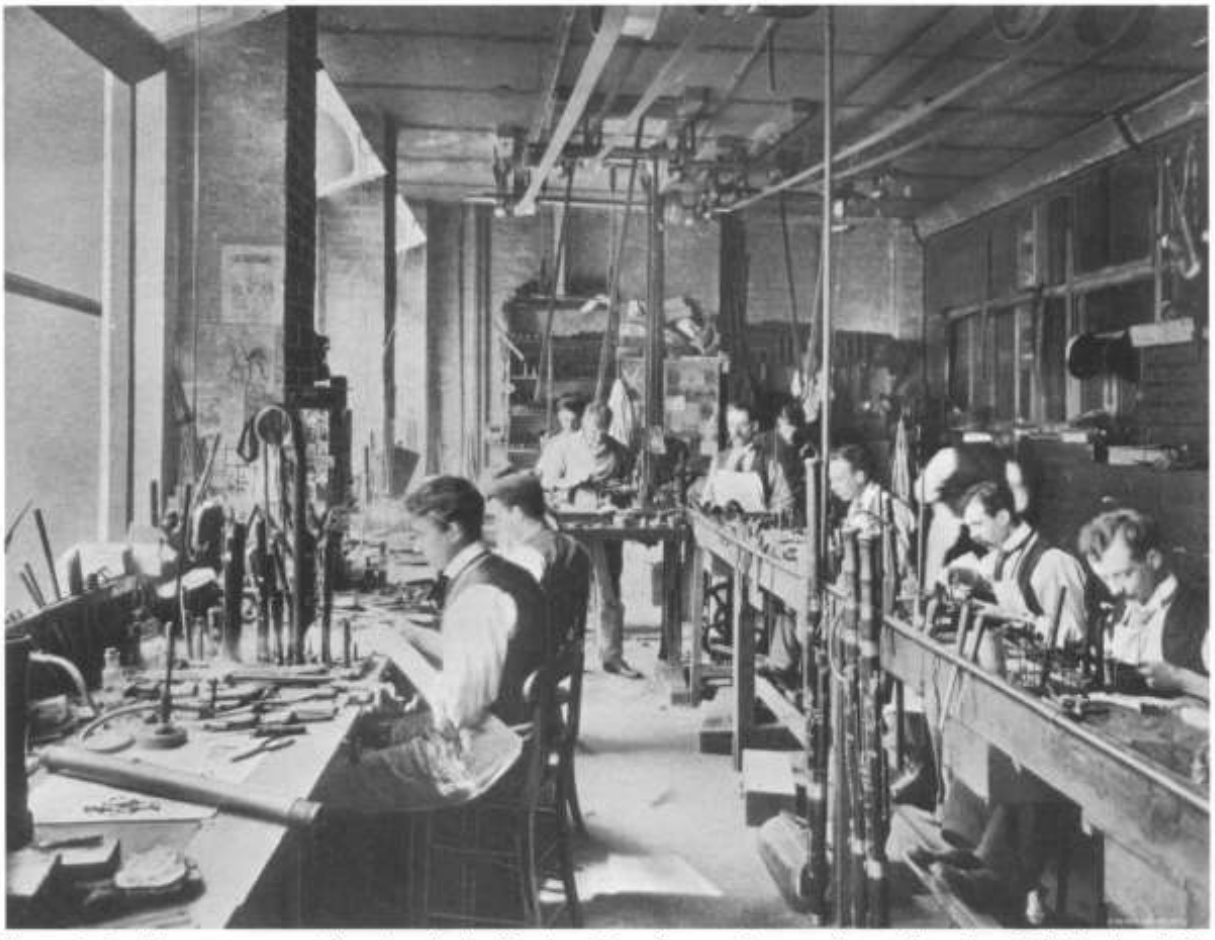

Figure 9. *Reed instrument and flute shop in the Hawkes & Son factory, Denman Street, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.55 (private collection of Arnold Myers).*

factory buildings in Deansbrook Road, Edgware, covered over an acre (Figure 11). In a Hawkes Catalogue from 1926, the 'Sonorous Works' at Edgware were described as 'the largest and most up-to-date of its kind in Great Britain.'[55] By 1927 the workforce numbered between 200 and 250 employees.[56] Retail continued from Denman Street, with a branch in Glasgow at 48 St George's Road.[57]

The Depression and the General Strike during the late 1920s had a great effect on the musical instrument manufacturing industry with many firms, although maintaining professional links and working together to present a united approach, struggling with sales and stockpiling instruments that became almost unsaleable. In 1927, as a result of discussions between Boosey & Co., Hawkes & Son and Besson & Co., a common policy was adopted concerning instrument prices and the reduction of working hours.[58] However, by the end of the decade, with no improvement in the economic situation, competition between Boosey & Co. and Hawkes & Son was particularly intense in the manufacture of instruments, necessitating both firms to use profits from their publishing departments to support this side of the business. In 1930, Leslie Boosey and Ralph Hawkes met whilst sitting on the board of The Performing Rights Society.[59] They realised that by joining forces and ceasing to be competitors, they could cut overheads and survive. In September 1930, Boosey & Co. and Hawkes & Son merged to create one of the largest, most influential and profitable music companies of its time.

[55] Hawkes & Son, *Flutes & Piccolos* (1926); Horniman Museum, Boosey & Hawkes Archive, Ms A227/143, p.2.

[56] Hawkes & Son, *Military Band Instruments* (1927); private collection of Arnold Myers.

[57] Hawkes & Son, *Flutes & Piccolos* (1926).

[58] Besson & Co. Ltd., Directors' Minute Book (1917–1932); Horniman Museum, Boosey & Hawkes Archive, Ms A227/183, pp.244-245.

[59] Boosey (1966), p.4.

Figure 10. *Drum making in the Hawkes & Son factory, Denman Street, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.53 (private collection of Arnold Myers).*

INSTRUMENTS

In the first decades of instrument production, the models offered by Rivière & Hawkes and Hawkes & Son were decidedly commonplace and limited to the standard band instruments of the time. The instrument designs were in the French style (narrow-bore French horns and trombones, Périnet-valved saxhorns), as were those of the leading manufacturers in Britain, Besson and Boosey. Judging by surviving examples, the quality was unexceptional. From around 1900, however, the models became more adventurous, although Hawkes took out no patents. Standards of quality and production volume also rose significantly. By the 1920s Hawkes & Son were no longer also-rans, but serious rivals to the longer-established firms of Besson & Co and Boosey & Co.

Band instruments (when not of a specifically-named model) were produced in three named grades: 'Excelsior' or 'Excelsior Sonorous Class A' (the best); 'Superior Class' (medium quality); and '1st Class' (the cheapest). The Hawkes advertising materials were rich in imagery such as factory photographs, the text laden with hyperbole. Hawkes's approach was direct; they presented themselves in their catalogues with modernity and utter self-confidence. Their description of their new 'Electric Works' in Highgate in 1911 as the 'Largest and certainly the most up-to-date Band Instrument Factory in the world' was hardly accurate, even though their success and expansion from the beginning had been rapid.[60] A year later Hawkes more realistically described their factory as 'the largest in England', but maintained that it was 'unquestionably the most perfect in the world.'[61] Hawkes's arrogance was at its peak in 1923, adding inflated comments, such as 'the Hawkes Horn is not only quite equal,

[60] Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.2.

[61] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912).

EXTERIOR OF HAWKES' NEW WORKS, EDGWARE
WHICH COVER OVER ONE ACRE OF FLOOR SPACE

Figure 11. *Sonorous Works, the Hawkes & Son factory at Deansbrook Road, Edgware, from the 1927 Hawkes & Son catalogue 'Military Band Instruments', p.10 (private collection of Arnold Myers).*

but undoubtedly superior', and the question 'Are you going to try out this Cornet, or do you propose still to plod along in the rut of mediocrity?' With this attitude, Hawkes leaves us in no doubt that 'The famous Hawkes workmanship is the handiwork of the master' and that all their instruments 'can be put into one category – 100% efficiency, – and will stay there.'[62] Hawkes must have got their sales-pitch right as, in 1924, their successful business permitted the construction of their vast new factory in Edgware, which they could realistically describe as 'the largest and most up-to-date of its kind in Great Britain.'[63]

Hawkes & Son manufactured and bought in the full range of woodwind instruments for band and orchestral use. Models were generally similar to those sold by other British firms, and they were clearly presented in their catalogues.

FLUTES

Hawkes supplied many service, fife and flute bands with instruments. Their most popular and widely used range of flutes was the 'Crown AZ' which was introduced during the early twentieth century. These instruments are still much sought after today for use in bands, particularly in Ireland. Hawkes flutes were made in the full range of keys in addition to concert piccolos and flutes: F and E♭ piccolo, B♭, F, E♭ flutes, and B♭ bass, as were other Hawkes band models which included their 'London' and 'Improved Army or Guards' Pattern' Models.

Hawkes, in their *c*1924 catalogue, also promoted their new Boehm flute which they hopefully considered 'in the judgement of the greatest authorities will mark another stage in the evolution of this historic instrument.'[64] During the early 1920s, they developed and extended flute production in their Highgate works where their 'own staff of wood-wind experts' worked in collaboration with, allegedly, 'two or three of the finest Flautists in Great Britain.'[65]

OBOES

From 1902 Hawkes solo and orchestral oboes were based on the models made by the well-respected oboe and bassoon maker, Alfred W. Morton (1826–1898). Hawkes, riding high on Morton's excellent reputation, stated in their catalogues that they wished it to be understood that, on Morton's death, Oliver Hawkes, who was an intimate friend

[62] Hawkes & Son, *Hawkes & Son Band Instruments* (1923), pp.32, 33 and 45; Tony Bingham private collection.

[63] Hawkes & Son, *Flutes & Piccolos* (1926); Horniman Museum, Boosey & Hawkes Archive, Ms A227/143, p.2.

[64] Hawkes &Son, *Flutes & Piccolos (All Systems)* *c*1924, p.1.

[65] Hakes & Son, *Flutes & Piccolos (All Systems)* *c*1924, p.2. Walter Whitaker was the only flautist named as tester. He may have been 'one of the finest flautists in Britain', but there is no record of his career apart from his appointment as a member of the Toronto Symphony Orchestra 1931–7. See the website http://www.johnwion.com/orchestra.html, accessed 22 November 2013.

of Morton, had acquired Morton's tools.[66] The tools and mandrels that manufacturers used were of great importance to the consistent production of instruments. Morton's boring bits were described as being 'of exceptional value' as 'Mr Morton, had in his early life worked under the celebrated maker, Savary, and had acquired a knowledge of his boring and the method of making his own tools [...] The tools now in Hawkes & Sons possession were made some 40 years ago by an expert who produced them under Mr. Morton's own direction.'[67] According to Hawkes, Morton had improved the bore of the oboe and made many improvements to the keys.[68] In 1912, Hawkes conceitedly claimed that they had 'continued to produce his models with equal success, so much so that the demand for them has increased, not only in the British Empire, but also in America and on the Continent of Europe,' and that they had received enquiries for different models which consequently they introduced. In 1912 Hawkes offered three Hawkes-Morton models, claiming 'the No.1 is absolutely the original, without any changes, additions or modifications, and is the instrument that Mr. Morton considered as his highest point in manufacture; it is still the instrument almost exclusively used by the principal professionals in London.' They also produced two top of the range 'Corot' models described as 'Hawkes & Son's latest production' (tested and tuned by Mr Foreman), 'Hawkes New Perfected Bore Oboe' in three models, two simple system designs, and 'The Hawkes Model Military Oboe', besides buying in cheaper models: a 'Good Orchestral or Military Band Oboe' and two of 'good French make.'[69] In 1908, oboes were tested and tuned by George Browne 'Principal Oboe The Palace Orchestra etc.'[70]

BASSOONS

Hawkes modelled their bassoons on those of Savary: in 1908 they declared that 'A true successor to Savary was the late A W Morton, who made the production of the Bassoon and Oboe a life-long study, and who in the course of his life made a set of unique tools for their construction.' Hawkes claimed that they 'carefully carried on the manufacture of Bassoons exactly on the same ideas, and with great success.'[71] Eleven years later they were apparently still 'largely' employing 'the original mandrils and boring bits used by the late A. W. Morton' for manufacture.[72] Hawkes produced two basic models of bassoon until 1923,[73] after which they added the 'H. New Model', a German system instrument, to their production.[74]

CLARINETS

Little is known about clarinet production at Hawkes prior to 1908, but it is probable that most of their instruments were imported from France for resale and stamped with the Hawkes name. Most instruments sold were simple system, but in their 1908 catalogue Hawkes offered their 'newly-perfected Boehm System Clarinet', and a cheaper model of 'French make'.[75] In 1912 they described the Boehm system as 'scarcely adopted in England' but predicted correctly it would be 'one of the clarinets of the future.'[76] It is generally thought that Hawkes imported their top of the range Boehm clarinets,

[66] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), pp.70–71.

[67] Hawkes & Son, *The Hawkes Catalogue* (1912), pp.70–71.

[68] Hawkes & Son, *The Hawkes Catalogue* (1912), p.71. Morton's oboe had 17 keys, 5 rings and single action octave keys, and he made 'additional keys to requirements of special customers.'

[69] Hawkes & Son, *The Hawkes Catalogue* (1912), pp.72.

[70] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.37.

[71] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.44. In 1908, bassoons were tested and tuned by the eminent player Mr E. F. [Edwin] James (1861–1921), p.37. He was brother of the equally renowned bassoonist Wilfred (1872–1941), who was father to the celebrated bassoonist Cecil (1913–1999). Cecil was initially taught on a Hawkes instrument by his father, Obituary http://www.independent.co.uk/arts-entertainment/obituary-cecil-james-1068573.html; accessed 5 June 2014.

[72] Hawkes & Son, *Hawkes & Son Band Instruments* (1923), p.17.

[73] Hawkes & Sons' Artist or Army Solo Model – constructed on the Savary and Morton principles, and an instrument that they describe as the Military Model in 1908 and as the Orchestral Model in 1912. An ebonite wing joint was recommended for military use. In 1908 all ebonite was offered.

[74] The H. New Model was made of wood or with an ebonite lined wing joint and small bore of the double joint. This was executed 'by the new process lately evolved and developed at our Highgate works.' See Hawkes & Son, *Hawkes & Son Band Instruments* (1923), p.19.

[75] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.40.

[76] Hawkes & Son, *The Hawkes Catalogue* (1912), p.70.

THE - -

20th CENTURY CLARINET

Hawkes & Son's Patent. No. 11841

- - INVENTED BY - -

CAVALIÈRE PUPESCHI

This Instrument possesses unique advantages over all other models and inventions

It is fully described in a separate pamphlet (gratis on application), which gives illustrations of its improvements and examples how these are applied

PRICE

IN WOOD - - - -	£15	15	0
IN EBONITE - - -	16	16	0

Figure 12. *Pupeschi system clarinet in B♭, from the c1908 Hawkes & Son catalogue 'Band Instruments and Band Music', p.48 (private collection of Arnold Myers).*

'Excelsior Sonorous Class', from the Parisian makers Martel Frères from 1900.[77] These instruments were played by a number of eminent clarinettists including Charles Draper who in 1908 was the clarinet tester and tuner for Hawkes. Hawkes copied them and commenced their own production in January 1924;[78] the instruments made between the wars were often referred to as 'fake Martels'.[79] It can be seen from the extant woodwind workbook that Hawkes were still buying in Boehm system clarinets and other models until their move to Edgware.[80]

Hawkes, by 1912, claimed to have an 'Extensive Clarinet Department' where 'the models originated and adopted have for many years been under the control of a very competent artist, who has perfect technical and practical knowledge of the instrument.' Companies often promoted manufacturing design features that were peculiar to their own factories. Hawkes made their clarinets with the wood of the ring keys [...] flush with the face of the ring, turned as part of the body, 'and not let in and [...] fixed by shellac, which is the system in common makes.'[81] However, most of Hawkes clarinets at this time continued to be imported. They offered simple system clarinets 'with 13, 14, or 15 keys [...] with or without the C# Key, described in a very lucid way in Berr's celebrated Clarinet School', Boehm system clarinets and 'The 20th Century Clarinet'.[82] Hawkes's promotion of the 20th Century Clarinet was a brave attempt to introduce a new and rather different clarinet model for the new century; it obviously did not gain favour, and no example definitely by Hawkes is known, although one un-named example of this model can be seen in Edinburgh.[83] (Most British clarinettists, reluctant to have to change their fingering, continued to favour the simple system above the Boehm system.) It was presented as a whole page feature in their 1908 and 1912 catalogues (Figure 12) and was described as possessing 'unique advantages over all other models and inventions', and as a system that 'practically embraces all Models'.[84] There is no evidence to support that it was a Hawkes's patent; records show that the Italian maker Pupo Pupeschi actually applied for and obtained the British patent in 1907,[85] although it is possible that Pupeschi might subsequently have assigned the rights to Hawkes & Son for a royalty fee on each instrument sold. The design of the instrument is similar to a simple model offered in Pupeschi's 1906 catalogue, but slightly more developed.[86] It is not known how many were produced or whether Hawkes manufactured or imported them; however, it is clear that the model's 'unique advantages' did not appeal to British players, as there are no records of its adoption.

During the late 1920s, both Hawkes and Boosey started manufacturing metal clarinets which had been re-gaining favour in America.[87] Two designs had evolved: a double-tubed model and the 'skeleton'.

[77] According to Nicholas Shackleton and Keith Puddy, 'Charles Draper and English Clarinet', *The Clarinet* 17/4 (July–August 1990), pp.20–22, these instruments are marked with a cross above and below the Hawkes stamping.

[78] Hawkes workbook records are often unclear; it appears that around 30 Boehm clarinets were noted as 'not makers' in 1922 and 1923. In 1924 possibly only five were 'not makers' and whereas some 27 were marked 'makers'; see Horniman Museum, Boosey & Hawkes Archive, Journal A227/138. Hawkes offered their 'H. & S. New Perfection Excelsior Sonorous Class A' Boehm clarinet in their 1923 catalogue.

[79] Reginald Kell's clarinets, Musical Instrument Museums Edinburgh (University of Edinburgh), inv. nos. 2800 and 2801, made by Hawkes date from this period.

[80] Horniman Museum, Boosey & Hawkes Archive, Journal A227/138 (March 1921–February 1931).

[81] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.70.

[82] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.70.

[83] An extant Pupeschi system clarinet in Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no.122, matches the H. & S. '20th Century Clarinet'. It bears no makers mark, but is stamped HN 875 08. It is possible that the 08 could refer to the year 1908. Mahillon also made Pupeschi system clarinets. See http://www.mimo-db.eu/UEDIN/122

[84] Hawkes state 'The 20th Century Clarinet is fully described in a separate pamphlet (gratis on application), which gives illustrations of its improvements and examples of how these are applied.' Its main feature was the improved facility from G# to B' and C#. See Hawkes & Son, catalogue (1912), p.48.

[85] Improvements in Musical Wind Instruments, G.B. Patent Specification no.11841, application dated 21 May 1907.

[86] Pupo Pupeschi, *Ultime innovazioni L'Ideale degli Artisti. Lavorazione Artistica* (1906), p.6. Musical Instrument Museums Edinburgh (University of Edinburgh), Langwill Archive.

[87] American companies such as Conn, H N White and Cundy-Bettony had started producing professional level metal clarinets in the early 1920s.

Metal clarinets had been first developed by Halary in France in 1817, and were often used in Austrian and Russian bands in the 1840s and 1850s.[88] They had been produced in Britain for many years for use in bands but had not achieved much popularity. Distin advertised 'patent metal clarionets' (skeleton type) in his 1857 catalogue, but production was not continued when Boosey acquired the company in 1868.[89] Hawkes first made the 'XX Century' skeleton design clarinet in 1928. It was part of a new range of metal instruments which continued beyond the merger of Boosey and Hawkes in 1930.[90]

SAXOPHONES

During the 1920s, the rapid increase in the popularity of jazz and dance bands reflected a notable rise in saxophone manufacture. It was a time of great design development, with manufacturers keen to develop models and enlarge the range of saxophones to attract new customers in the expanding market.[91] Competition from abroad was fierce with Buescher altos and Conn tenors generally considered the best at that time. However, although Hawkes made only a fraction of the number of instruments that the large American manufacturers produced, it appears that they captured a major market-share of British manufacture, making more than twice the number of Boosey.[92] Hawkes worked to develop their saxophone department which was managed by John Pausey, promoting new mechanised production methods and an extended range of instruments. In 1926 Hector Sommaruga, an Italian born instrument maker who was working on gold-plating saxophones in Paris, was engaged by Geoffrey Hawkes to train four apprentices.[93] In the late 1920s Hawkes introduced their new 'XXth Century Saxophones' which were highly thought of amongst jazz players. As at Conn, the bodies of the instruments were made in one piece with the holes drawn out (not soldered on) with the edges rolled over to create good seating for the pads; the keys were die-forged and the screws and rods made of rustless steel or nickel silver.[94]

FRENCH HORNS

It is surprising that Hawkes did not apply the Raoux name to any of their models until after 1927.[95] Instead, they focused their sales pitch in their catalogues from 1908 to 1923 on the changes made in the mixture of brass used to recreate the quality of instruments from the past: 'a special mixture of Brass has now been arrived at. It is now absolutely certain that the wonderful tone colour which was the beauty of the Horn made by the makers of the middle of the nineteenth century has been rediscovered, and those manufactured by us are now quite equal (and perhaps even superior, owing to the advanced state of workmanship) to any of the celebrated early makers.'[96] In each catalogue they claimed that a great advance had been made in the construction of their horns since their last catalogue, adding that 'These modern Horns of our make are pronounced superior to any other make by the principal Artists of the London Symphony and Queen's Hall Orchestras, by Mr T Busby, Mr A Borsdorf, Mr A Priegnitz,

[88] Geoffrey Rendall, *The Clarinet: Some Notes on its History and Construction* (London: Ernest Benn, 1971), p.13.

[89] Henry Distin, *Complete Catalogue of Military Instruments* (London, 1857), pp.17 and 18.

[90] According to the Hawkes & Son workbook, Horniman Museum, Boosey & Hawkes Archive, Journal A227/138, Hawkes made 367 'XX Century' metal clarinets, two metal piccolos, 30 metal concert flutes and three metal Morton No 1 oboes.

[91] Some 24 Hawkes blueprints of saxophones from *c*1920 to 1921 survive in the Horniman Museum Boosey & Hawkes archive. The drawings show Hawkes & Son designs, Buffet models by Evette & Schaeffer, and a Boehm system soprano; however, this model was not adopted for manufacture by Hawkes. See Appendix 1.

[92] Although the surviving records of saxophone production at Hawkes are incomplete, it can be estimated from the serial numbers listed that at least 900 saxophones were made between December 1925 and April 1927. There are many gaps in the number sequence indicating that other instruments in the number sequence must have been noted elsewhere.

[93] John Pausey owned 'The Saxophone Shop' at 156 Shaftesbury Avenue, London, after the Second World War; see http://www.yezzband.nl/grafton/sommaruga.htm

[94] Hawkes & Son, *The XXth Century Saxophone* (*c*1926). Jocelyn Howell Collection.

[95] There is no mention of Hawkes producing Raoux style horns in their extant catalogues of 1908, *c*1911, 1912, 1923, or 1927 (Military Band Instruments). However, their Professional French Horn is designated the 'Raoux Model': it is described as being 'built specifically for the finest and most delicate solo work' in their catalogue 'French Horns by Hawkes & Son, London' of *c*1927, p.2. Bate Coll. RMP 2/6/21.

[96] Quoted in Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.18; *Catalogue* (1912), p.90; *Catalogue* (1923), p.39.

and also by Mr Thornton, Professor of the Horn at Kneller Hall.'[97] It is not known whether these players actually played Hawkes horns, but it seems that perhaps Hawkes were struggling to attract custom from the top professional players as in the 1912 catalogue they still included a testimonial given by Busby 14 years previously.[98] Subsequently, in their specific horn catalogue *c*1927, Hawkes listed 'Famous Artists who recommend and approve the excellent qualities of the Hawkes Horns'. They describe their 'Professional' model as 'used by the majority of the leading players, a few of whose photographs are in this book.'[99] At the very end of their independent existence Hawkes experimented with a double horn in F and B♭; one instrument is extant.[100]

CORNETS AND TRUMPETS

Hawkes manufactured a wide variety of cornets for particular uses; their 'Clippertone' models, introduced in July 1907,[101] came to be held in high regard. Hawkes promoted the 'Clippertone' as 'the cornet of the 20th Century'[102] and as 'universally admitted to be the most perfect cornet ever made.'[103] However, all that distinguished this model was the angled windway through the valves and initial section of the bell-pipe, features which looked modern but with no practical advantage. In 1908 Hawkes promoted their cornets as ranging from instruments specifically for army musicians that were 'Extra strongly protected [...] and confidently recommended to Line, Cavalry and Indian Regiments', to the contrasting No.1 Model which was 'a lightly made delicate solo instrument' for artists and soloists that 'most adapts itself for concert use in string orchestras and for similar purposes.'[104] Cornets and trumpets were (in 1908) tested and tuned by the eminent player Frank James.[105] Hawkes continued to produce cornets in many designs until the Depression in the late 1920s when, owing to severely diminished trade, all manufacturers were forced to reduce their lines,[106] although from 1928 a new range of cheap cornets, trumpets and trombones was marketed as 'The Empire' models.

Hawkes considered their 'Clippertone Long Model' cornet, which was made with a fixed mouthpipe, to be 'particularly suitable for dance Bands where variety of tone-colour is essential.' It was described as still retaining 'the soft mellow tone of the standard cornet, yet its reduced bore and longer tubing enables the performer to obtain an amount of "trumpet" tone at will' and as 'capable of a 'brighter and more "lively" tone quality, coupled with wonderful elasticity in intonation throughout its entire register.'[107]

There was a steady increase in the use of the B♭ trumpet through the first decades of the twentieth century, initially in orchestras of all kinds and later for jazz, dance band, swing and bebop. This resulted in a large increase in the number of

[97] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.90.

[98] T. R. Busby – Prof of Fr Horn, Guildhall School of Music, Trinity School of Music, Queen's Hall Orchestra, Royal Italian Opera, etc 'The latest Model French Horn which you have just made for me has [...] proved quite a success. I have been using it now for the last month and cannot find any fault whatever. The Crooks too are particularly good, the F being quite perfect. The last Horn you made for me was in 1892, but I am pleased to say that this one is superior in every respect. I am using the instrument every day at the Queen's Hall, Symphony and other Concerts that I attend, and it is much admired by Horn Players. I shall always be pleased to recommend you.' Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.90. In the 1908 catalogue Busby tested and tuned the French horns for Hawkes.

[99] Hawkes & Son, *French Horns by Hawkes & Son* (London, 1927), p.2.

[100] Serial no. 60668, made 1930, Horniman Museum, inv. no.2004.820; part of the Boosey & Hawkes Collection, and quite possibly remaining in company ownership throughout.

[101] Hawkes & Son, advertisement, *British Bandsman*, 22 July 1907, p.489.

[102] Hawkes & Son, *Cornets by Hawkes & Son* (London, 1927), p.13.

[103] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.86.

[104] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.12.

[105] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908). Frank James played in the Queen's Hall Orchestra.

[106] In their 1927 military catalogue Hawkes offered only three models: the 'Clippertone' (M25) with *Clear Bore*, the Excelsior Cornet (M27) adapted for all-round band use, and the Long Model 'Clippertone' (M26) which was popular at home and abroad.

[107] Hawkes & Son, *Hawkes & Son Band Instruments* (1923), p.36B.

Figure 13. *Trumpet in B♭ with quick-change valve for A by Hawkes & Son, serial number 54501, c1926. Inscribed on bell 'The Clippertone' / hawk-and-globe trademark / 'HAWKES & SON / MAKERS / DENMAN STREET / PICCADILLY CIRCUS / LONDON. W. / 54501'. Collection of Arnold Myers.*

trumpets manufactured. Hawkes introduced their 'Clippertone' B♭ trumpet soon after 1908.[108] (Figure 13) As with the cornet, it had an angled windway through the valves and bell-pipe. For theatre work many of the arrangements were scored for trumpet either in B♭ or in A (as with clarinet parts). The earliest 'Clippertone' trumpets had a shunt (a slide with the extension restrained by a screwed rod) in the large bow near the player's chin which when pulled lowered the pitch from B♭ to A; later models had a 'rapid change' rotary valve.

A speciality of Hawkes & Son was the so-called 'Bach trumpet' which was often the instrument of choice for trumpet solos in oratorio performances.[109] These were offered in two sizes, each with interchangeable middle sections: 3¼-ft E♭ and 3½-ft D (the more common) or 4½-ft B♭ and 5-ft A.[110] It was the Hawkes Bach trumpets which were supplemented by valve trombones of the same overall length to create the modern state fanfare trumpets.[111]

TROMBONES

In 1908 Hawkes tenor trombones were tested and tuned by Mr C. Atherley, and the bass trombones by Mr T. H. Guttridge,[112] both prominent orchestral players. Although trombones were sometimes advertised expressly for military or for orchestral use, these purposes were not strictly adhered to by players. None of these models was aimed specifically at brass band use, yet this was the biggest market for trombones. In 1908 Hawkes made an 'Artists' Perfected' model, designated for army use. It was 'fully embellished with floriated ferrules' like trombones from other British makers. The 'Artists' Perfected' was one of the Hawkes models which continued in production after Boosey & Hawkes consolidated the product range in the mid-1930s. Hawkes & Son offered trombones with a 'Trill Valve Attachment' which may have been unique to Hawkes. This was a single piston valve inserted between the slide section and the bell section, to be operated by the left hand.[113] The company records shows that a number of tenor trombones were made to take them. In 1908 Hawkes considered this feature to be 'an immense advantage to all Soloists', so much so that 'Every Trombone player is invited to try this instrument if he desires to be prominent as a Soloist.'[114] Twenty years later, Hawkes confidently (but with doubtful accuracy) stated that

[108] The earliest so far recorded has serial no.31349 and dates from *c*1912.

[109] Edward H. Tarr, 'The "Bach trumpet" in the nineteenth and twentieth centuries', *Musique Ancienne – Instruments et Imagination: Actres des Recontres Internationales Harmoniques, Lausanne, 2004*, ed. Michael Latcham (Bern: Peter Lang, 2006), pp.17–48.

[110] Occasionally in 3-ft F and 3¼-ft E♭ or in 4-ft C and 4½-ft B♭.

[111] Arnold Myers, 'Brasswind Manufacturing at Boosey & Hawkes 1930–1959', *Historic Brass Society Journal* 15 (2003), pp.55–72.

[112] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908), p.10.

[113] An example from *c*1925 is in Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 5717, see http://www.mimo-db.eu/UEDIN/5717.

[114] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (1908), p.30; and Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.20.

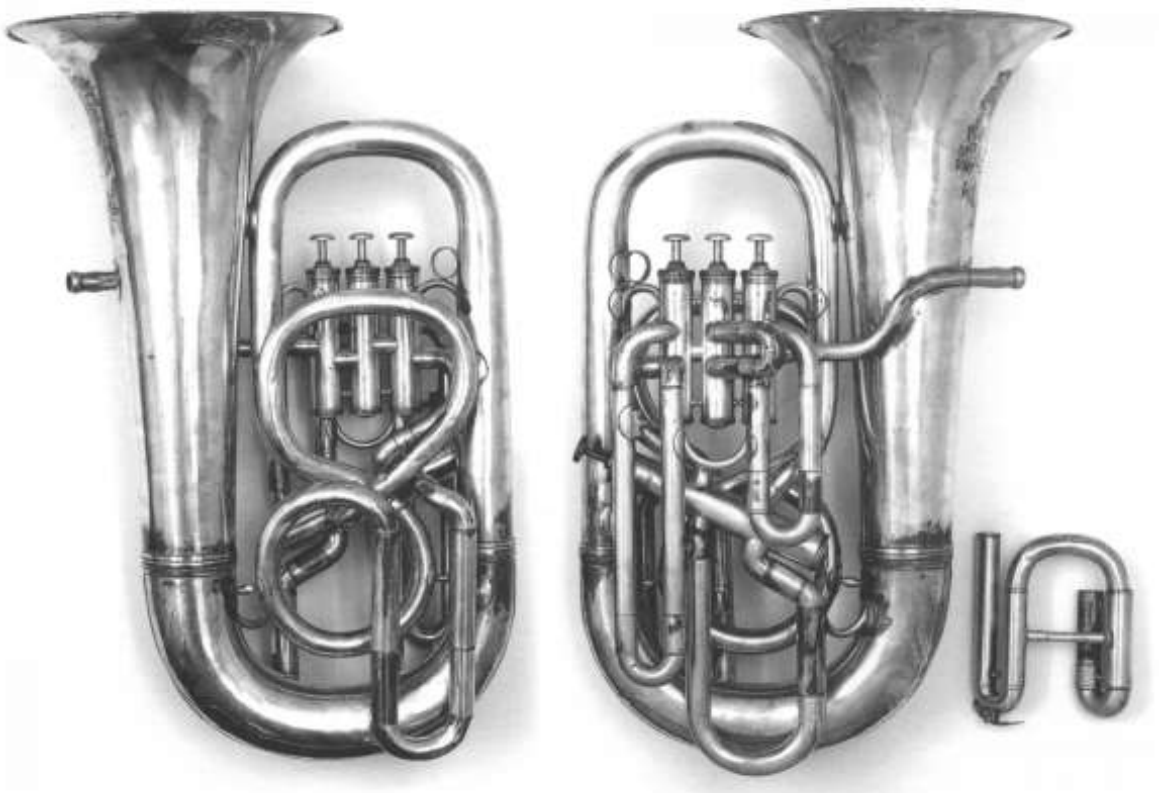

Figure 14. *Front and back views of a euphonium in C by Hawkes & Son, serial number 11177, probably c1900. The 4th valve controls two loops of different lengths, each with expansion of the bore. Inscribed on bell 'EXCELSIOR / CLASS / HAWKES & SON / Denman Street / Piccadilly Circus / LONDON'. Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 3410 (photo: Raymond Parks).*

this model was 'today in universal use amongst the leading professionals, and the Solo performers of all the finest Bands in the British Army.'[115] Relatively few valve trombones were made in the twentieth century: Hawkes stated that the majority of their valve trombones were used by regimental players of the Indian and Egyptian forces, and boys' bands in Britain. They were 'built entirely of the strongest and most durable metals' as they were 'liable to be treated in a somewhat rough and ready method.'[116] Hawkes also offered a combined valve and slide trombone, the 'Duplex', in their 1911 catalogue;[117] no example is known to survive.

Both Boosey & Co. and Hawkes & Son made wide bore trombones to compete with American companies, who by the 1920s were making trombones with larger bores and bells than in Britain. These instruments were seen as desirable for dance bands. In 1908 Hawkes stated that 'British Performers use the small bore 6-inch bell, with very few exceptions' but they included a note to American and German performers explaining that special trombones were made 'to suit their characteristics' with a medium bore and 6½-inch bell, and a large bore 6⅞-inch bell.'[118] Hawkes introduced a wide-bore 'Cabaret' model with art-deco styling *c*1925,[119] but the dimensions of these instruments would not be considered wide today. It seems that only towards the end of their independent existence did Hawkes produce a B♭ trombone with thumb valve for F: only one extant B♭ trombone with thumb valve is recorded.[120] A solitary double-slide contrabass trombone was made.[121]

[115] Hawkes & Son, *Military Band Instruments Made by Hawkes & Son* (1927), p.26.

[116] Hawkes & Son, *Hawkes & Son Band Instruments* (1923), p.45; private collection of Tony Bingham.

[117] Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.20.

[118] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (1908), p.30. These would be regarded as small-bore and medium-bore respectively by present-day standards.

[119] The earliest 'Cabaret' trombone so far recorded is serial no.50620, with 1926 presentation inscription, made *c*1925.

[120] Serial no.60135, dating from 1929, Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 6177, see http://www.mimo-db.eu/UEDIN/6177.

[121] Royal Military School of Music, Kneller Hall, inv. no.184.

EUPHONIUMS

An early (*c*1900) departure from usual euphonium design was the instrument in C (with alternative tuning-slide for B♭) shown in Figure 14. In most euphoniums the tubing introduced by the fourth valve is of cylindrical bore, albeit wider than the bore at the first three valves. In this Hawkes model the fourth valve controls two loops of different lengths, each with expansion of the bore, the windway takes shorter loop with the valve at rest and the longer alternative path when the valve is operated. This gives a smoother bore profile than the 'terraced' bore of the usual system. It cannot be claimed that this was a Hawkes invention: the concept seems to have originated with Alphonse Sax[122] and had been applied to the euphonium by Thibouville-Lamy around 1880.[123]

The 'Dictor' euphonium was the one real innovation that Hawkes brought to brasswind making. Whereas Boosey used Blaikley's patent compensating pistons and Besson their 'Enharmonic Valves'[124] to address the intonation problems of valves used in combination, Hawkes introduced a simplified form of compensation: the tubing brought into play by the third valve passes through the fourth valve – and when the fourth and third valves are operated together, an additional loop of tubing attached to the fourth valve is brought into play. The 'Dictor' euphonium was lighter in weight than the heavy Boosey and Besson instruments but the intonation was compromised. Hawkes claimed, mistakenly, that their 'Dictor' Compensating Euphonium (Figure 15) had 'always held pride of place in the estimation of the leading soloists throughout the world.'[125] The Boosey system survived as the fittest; the last time a Dictor was mentioned in the Hawkes plating book was in July 1923 after which fully compensating euphoniums and basses were produced by Hawkes.

Figure 15. *Euphonium in B♭ by Hawkes & Son, serial number 44368, 1922. The 'Dictor' system: compensating for the 3rd and 4th valves only. Inscribed on bell 'The Dictor / EXCELSIOR SONOROUS / CLASSA / HAWKES & SON / Denman Street / Piccadilly Circus / LONDON / 44368' with two diagrams showing notes obtained with 3rd and 4th valves operated together: D#3 (treble clef) and C#2 (bass clef). Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 2732 (photo: Antonia Reeve).*

BASSES

A wide range of bass models were made to meet the great demand for instruments from the military and brass band markets. Hawkes, in their 1908 and 1911 catalogues,[126] listed upright and circular bombardons in E♭ or F with models specified 'for Army use', short models 'for Cavalry use', a 4-valve model used by many mounted regiments, and the 'Emperor' with its 'special large improved Emperor Bore, extra strengthened and stayed for Military

[122] Alphonse Sax, *Un nouveau système de pistons à tubes coniques pour instruments de cuivre*, Belgian patent 4363 issued 2 May 1848; an example is in the Musical Instrument Museum (Brussels) inv. no.1293.

[123] An example is in the private collection of Bruno Kampmann, Paris, inv. no.160.

[124] Besson patented their 'Enharmonic Valves' which worked on the same principle as double horns to address the intonation problems of valves used in combination in 1904. This was a refinement of their earlier 'Victory' model.

[125] Hawkes & Son, *Hawkes & Son Band Instruments* (1923), p.41.

[126] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (*c*1908); Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (*c*1911), Musical Instrument Museums Edinburgh (University of Edinburgh), Langwill archive.

use' was introduced in 1907.[127] Besides full-sized instruments and circular bombardons of 'Grand Proportions', small E♭ and B♭ bombardons were made in a reduced size for schools and youth' bands. The B♭ bass and the BB♭ monster contra-bass, which was described as having 'power and grandeur of tone', were made in upright and circular models, and a BB♭ circular 'Emperor' model was also available. Hawkes circular basses were manufactured for both right and left shoulders, and marching bands with two or more of these instruments were advised to 'have an equal number for each shoulder [...] as the tone converges to the centre of the band, and a better appearance is presented.'[128] (Figure 16).

In order to meet demand and to compete with imported foreign manufactured instruments, Hawkes introduced the 'Austrian Model', a straight Emperor model with bell up against the left shoulder. They correctly stated that many instruments sold in Britain as 'Austrian make' were in fact cheap models from Saxony.[129] This model was described as 'the most wonderful Brass [sic] Tuba made, monster bore, giving a magnificent sonorous tone, with four valves.'[130] According to Hawkes their new upright Emperor Basses in E♭ and BB♭ had won 'golden opinions', and all bandmasters and regiments who used them expressed themselves 'in terms of high praise, placing their merits far above any other bass made'.[131] However, Boosey's 'Imperial' model basses were generally considered to be the best, resulting in the discontinuation of all Hawkes's basses after they merged with Boosey in 1930.

Figure 16. *Four-valve bombardon in E♭ by Hawkes & Son, serial no.39782, c1920. Cavalry model with front action valves. Inscribed on bell 'THE EMPEROR / BASS / EXCELSIOR SONOROUS / CLASS A / HAWKES & SON / Denman Street / Piccadilly Circus / LONDON / 39782'. Formerly used by the famous Irwell Springs Band; Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 2992 (photo: Dominic Ibbotson).*

MOUTHPIECES

Hawkes & Son appears to have been the first British maker to produce brass instrument mouthpieces in a range of numbered sizes for the more common instruments. These are described in a small catalogue devoted to mouthpieces.[132]

[127] Hawkes & Son, advertisement, *British Bandsman*, 22 July 1907, p.489.

[128] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (c1908), p.22; and Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.14 and 18.

[129] Hawkes & Son, *The Hawkes Band Instruments and Band Music* (c1908), p.26; and Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.18.

[130] Hawkes & Son, *The Hawkes Catalogue of Orchestral and Instrumental Music also Illustrated Price List of Orchestral Instruments* (1912), p.94.

[131] They had been supplied to some of the leading bands, including 'the Royal Military College [sic] of Music, Kneller Hall, the Coldstream and other Guards' Bands, the Royal Artillery Band, Woolwich, and many other staff and line bands.' Hawkes & Son, *The Hawkes Band Instruments and Band Music* (c1908), p.26; and *Catalogue* (1911), p.18.

[132] Hawkes & Son, *Mouthpieces* (c1927); Arnold Myers private collection.

PRODUCTION

The surviving factory records of both Hawkes & Son and Boosey & Co. are preserved in the Boosey & Hawkes archive at the Horniman Museum. However, compared with the almost complete record of the production of their rivals neatly entered in systematic ledgers, the records of Hawkes are vestigial and display a much less orderly approach to workshop records. We are left with just four sources:

- A Woodwind book: production by serial number (1920s only). See Appendix 3.
- One *Journal* (ordered by job numbers, early 1920s only) listing brass instruments made, and altered, listed by batch, but including serial numbers only for altered instruments. See Appendix 2 for an analysis of brasswind production in 1922, for which year the record is apparently complete.
- The Plating book, covering 1928–31 only, which lists with serial numbers, in order of date of electroplating, brasswind instruments (silver plating and gold wash for bells), woodwind (chromium, silver and gold plating).
- A number of technical drawings from Hawkes & Son, many of them blueprints. Most of the drawings bear the 43A Ashbrook Road address and thus date from the period *c*1917 to 1924. The drawings show instrument parts and tools, such as mandrels, for specific instruments. Appendix 1 lists the instruments represented by at least one related drawing.

By piecing together data from this material and some inscriptions on extant instruments it is possible to assemble a guide to dating woodwind and brasswind by serial number for the final years of the firm's existence, given below in Appendix 3. The serial numbers on brass instruments were stamped either directly underneath the main bell inscription, or in small numerals on the opposite side of the bell very close to the rim. Some instruments such as sousaphones were not given serial numbers, and some cheaper instruments (signalling instruments such as bugles and cavalry trumpets), 'Alliance' instruments (probably made to be sold by the Lafleur subsidiary) and the 'Empire' cornets, trumpets and trombones were numbered in separate sequences. From the *Journal* we see that batch sizes were small (rarely more than six even for the smaller instruments) compared with Boosey & Co., where batches of 12, 24 and 36 were common.[133] The plating book shows that instruments were often returned to be 'freshened up', presumably after deteriorating while in stockrooms or retail premises. There is little evidence that Hawkes & Son made custom instruments to special order, although the contrabass trombone mentioned above may be one example. The unusual bell-forward four-valve tenor horn in F (made *c*1913) shown in Figure 17 could be either a special order or a short-lived production model.[134]

Assuming there were no gaps in the sequence other than those left for saxophones, the approximate number of brass instruments produced annually in the mid to late 1920s was 2000 (at Boosey & Co it was 2400, and at Besson around 1600).

CONCLUSION

Hawkes was a relative late-comer to the Victorian brass and woodwind manufacturing scene. British firms had been stimulated by competition from abroad and the presence of foreign companies in London prior to, and at the 1851 Great Exhibition in London. Companies rapidly expanded, with music publishers and instrument dealers starting to make brass and woodwind instruments to obtain lucrative contracts and satisfy the great demand for instruments from the military and brass band markets. Hawkes's main rivals Boosey & Co. and Besson & Co. commenced manufacture at this time, Boosey in *c*1851,[135] and Besson, having established a London branch for the French company in 1850,[136]

[133] Arnold Myers, 'Brasswind Innovation and Output of Boosey & Co in the Blaikley Era', *Historic Brass Society Journal* 14 (2002), pp.391–423.

[134] It is very similar to the much earlier instrument by Antoine Courtois (1872–8), Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 5938, see http://www.mimo-db.eu/UEDIN/5938.

[135] Rose (1895), p.209. Rose stated that instrument making commenced at Boosey in 1851, although there is no existing evidence of this. The earliest extant record of musical instrument production at Boosey is an advertisement in *The Musical Times* of July 1st 1853 by Boosey and Sons, Holles-street, London, for their New Patent Model Cornet-à-Pistons. Boosey & Sons, 1853. *The Musical Times and Singing Class Circular*, 5 (110), p.210.

[136] Waterhouse (1993), pp.30 and 197.

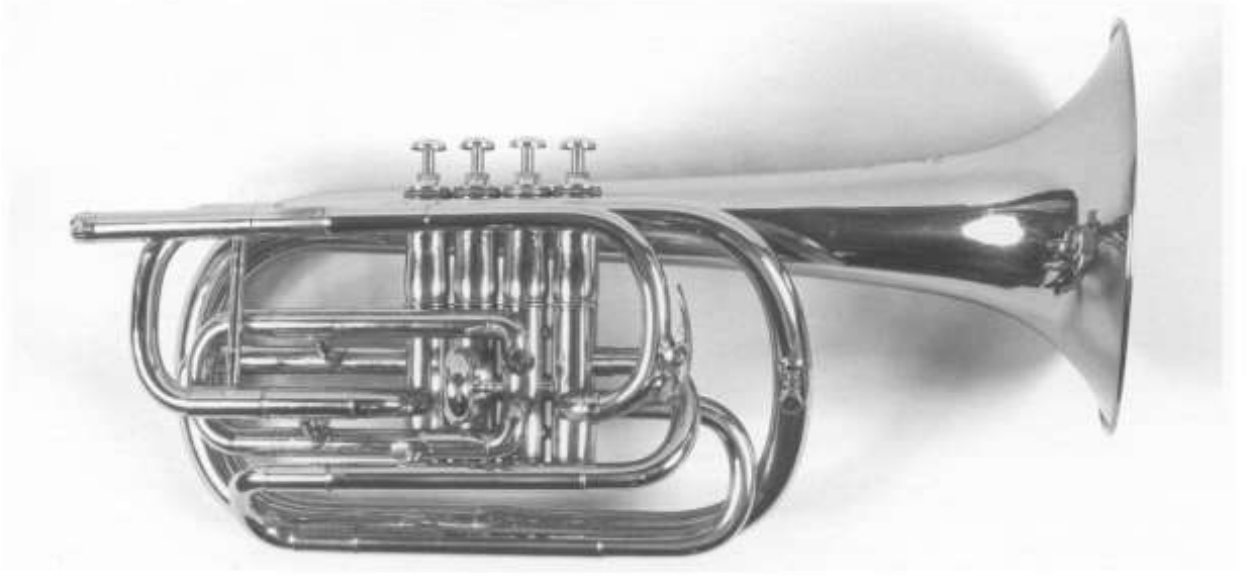

Figure 17. *Bell-forward four-valve tenor horn in F by Hawkes & Son, serial number 30078, c1913. Inscribed on bell 'EXCELSIOR SONOROUS / CLASS A / HAWKES & SON / Denman Street / Piccadilly Circus / LONDON / 30078'. Musical Instrument Museums Edinburgh (University of Edinburgh), inv. no. 3484 (photo: Antonia Reeve).*

started a British business in 1853,[137] opening a brass factory in London in 1858,[138] the year that Hawkes founded their retail and publishing business. Hawkes obviously had good business acumen and many contacts in the world of military music; the company rapidly claimed its share of trade and expanded with instrument manufacture starting in 1876. The move to the new purpose-built factory in Denman Street in 1895 enabled high productivity and in the first decade of the twentieth century Hawkes rose to a position of prominence. Throughout their catalogues Hawkes presented themselves confidently as a strong, successful, and ever-expanding business - a company with pride and aspiration. They realistically described the opening of the Highgate works in 1911 as 'proof positive of the enormous success of the "Hawkes" instruments.'[139] Success and expansion continued, and Hawkes's high profitability enabled the construction of the large, modern Edgware factory in 1924.

The first half of the 1920s was a productive and successful period for wind instrument manufacture in Britain; the competition between companies for customers was keen, with bands often loyal to particular firms. Hawkes instrument models that were held in high esteem amongst players included 'AZ' flutes, 'XX Century' saxophones, 'Clippertone' cornets and trumpets, and 'Artists' Perfected' trombones. However, after the merger in 1930, and relocation of Boosey & Co. to Hawkes's Edgware factory, it was predominantly Boosey's models that were continued in production. By joining forces, Boosey & Hawkes gained near monopoly of the market, supplying instruments to players around the globe. The company became a symbol of the great British Empire, and operated in its final years, the 'Largest and certainly the most up-to-date Band Instrument Factory in the world.'

[137] Besson & Co., (1895). Letter-head of letter to shareholders, B&H Archive, A227/179.

[138] C. E. Timms, 'It started in 1837: The Story of a Brass Wind Instrument Maker', in *Brass Today*, ed. F. Wright (London: Besson & Co. Ltd, 1957), p.121.

[139] Hawkes & Son, *Illustrated Price List of the Hawkes Band Music and Brass Band Instruments* (1911), p.2; Musical Instrument Museums Edinburgh (University of Edinburgh), Langwill Archive.

SURVIVING INSTRUMENTS

A list of surviving instruments is maintained on the Galpin Society website, URL: www.galpinsociety.org/gdhj.html

The authors would be glad to hear of other extant instruments.

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APPENDIX 1

Hawkes and Son instruments with one or more related blueprints in the Boosey & Hawkes archive at the Horniman Museum, dating from the period *c*1917 to 1924. Small instruments and components are drawn full size, large instruments are scaled 6in = 1 Foot; all to fit on approximately A2 size paper.

Oboe, Morton model No.2
Oboe, Corot model No.4
Oboe, military model, high pitch
Bassoon, Morton type, flat pitch

Soprano saxophone, flat pitch
Soprano saxophone, straight model, H&S model
Soprano saxophone, Boehm system
Saxophone (Alto), high pitch, H&S model
E♭ saxophone, flat pitch, H&S model
E♭ alto saxophone, flat pitch, Buffet model by Evette & Schaeffer
F alto saxophone, high pitch
Melody saxophone in C, flat pitch, H&S model
Melody saxophone in C, high pitch, Buffet model by E and S
Tenor Saxophone in B♭, low pitch, H&S model
Baritone saxophone, low pitch, H&S model

Clippertone [cornet] long model
Flugel horn B♭ Excelsior Sonorous, Class A
Flugel horn (Superior Class)

B♭ trumpet, Clippertone Class
Trumpet in F & E♭, Excelsior Sonorous Class A

B♭ slide trumpet, trombone model
B♭ trombone (flat pitch) American model (Holton's)
B♭ trombone, Excelsior Class
G trombone, Superior Class model
Bass slide trombone in F
B♭ Excelsior trombone
BB♭ double slide trombone (high pitch)

B♭ valve trombone
E♭ bass valve trombone

Orchestral type French horn (5 Crooks: A, A♭, G, F, E♭)
French horn in F and E♭ (military type), Excelsior Sonorous Class A
French horn in B♭ Schuster German model with sliding crooks, rotary valves

Tenor cor in F and E♭ (Excel. Sonorous)
Tenor horn in F and E♭ (Excelsior Sonorous Class A)

Euphonium (Dictor)
Euphonium, Excelsior Sonorous, Class A, 4 valve model
Euphonium (Class A) Excelsior Sonorous, high and flat pitch models
Euphonium, Superior Class, 4 valve model
Euphonium, Superior Class, 3 valve model
5 valve euphonium, Excelsior Sonorous Class A
Euphonium, 4 valves all compensating
E♭ circular bass (R. Hand Model)

Bersag cor B♭ soprano
Bersag cor, B♭ alto
Bersag cor, tenor
Bersag cor B♭ baritone

French bugle, B♭ high pitch
B♭ trumpet, HP, cavalry trumpet model
Herald trumpet

Chinese Drum, Tympani, "Fraser" Pedal Castings, Beater, Cymbal fittings, Spur fitting

APPENDIX 2

WOODWIND AND BRASSWIND PRODUCTION IN 1922

The entries in the *Journal* appear to give a complete account of brass instruments made in 1922, which is also one of the years with production recorded in the woodwind book. The table below gives a breakdown by type and model. The 61 woodwind instrumented denoted 'Not makers' were probably bought in but stamped with the Hawkes inscription and serial number. The abbreviations used are as in the *Journal*: Son = Excelsior Sonorous; Sup = Superior Class; XL = 'Excelsior'; Emp = Emperor.

(Appx.2 is on the next 4 pages, followed by Appx.3)

APPENDIX 2

Type	*Material*		*Total*
B♭ clarinet	Wood		38
B♭ clarinet	Ebonite		30
A clarinet	Wood		13
A clarinet	Ebonite		6
B♭ clarinet	Wood	Superior	30
B♭ clarinet	Ebonite	Superior	7
A clarinet	Wood	Superior	11
B♭ clarinet	Wood	Barret action	1
A clarinet	Wood	Barret action	4
B♭ clarinet	Wood	Barret action, 8 rollers	2
B♭ clarinet	Ebonite	Barret action, 8 Rollers	26
B♭ clarinet	Wood	Hawkes model	6
B♭ clarinet	Ebonite	Hawkes model	1
B♭ clarinet	Wood	Hawkes model, 8 rollers	1
A clarinet	Wood	Hawkes model, 8 rollers	6
B♭ clarinet	Wood	13 keys	12
B♭ clarinet	Ebonite	13 keys	24
B♭ clarinet	Ebonite	Superior, 13 keys	1
A clarinet	Ebonite	Superior, 13 keys	3
B♭ clarinet	Wood	14 keys	33
B♭ clarinet	Ebonite	14 keys	35
A clarinet	Ebonite	Superior, 14 keys	3
B♭ clarinet	Ebonite	15 keys	3
B♭ clarinet	Ebonite	15 keys, 4 rollers	2
B♭ clarinet	Ebonite	15 keys, 8 rollers	3
B♭ Boehm clarinet	Wood		1
B♭ Boehm	Wood	18 keys	1
B♭ Boehm clarinet	Wood	19 keys	1

Type	*Material*		*Total*
E♭ clarinet	Wood		7
E♭ clarinet	Ebonite		6
E♭ clarinet	Wood	13 keys	4
E♭ clarinet	Ebonite	13 keys	12
E♭ clarinet	Ebonite	Superior, 13 keys	1
E♭ clarinet	Ebonite	14 keys	3
E♭ clarinet	Ebonite	Hawkes model, 8 rollers	1
C clarinet	Ebonite		8
C clarinet	Ebonite	13 keys	2
Concert flute	Wood		12
Concert flute	Ebonite		12
Concert flute	Ebonite	Siccama	3
Concert flute	Wood	Cyl. bore	3
Concert flute	Ebonite	Superior, 12 keys, Cyl. bore	1
Concert Boehm flute	Wood		11
Concert Boehm flute	Ebonite		4
E♭ Flute	Wood		12
E♭ Flute	Wood	Superior	7
E♭ Flute	Ebonite		1
E♭ Bohm flute	Ebonite		8
B♭ Boehm flute	Ebonite	Cyl. bore	1
Concert Boehm piccolo	Wood		10
Concert Boehm piccolo	Ebonite		5
Boehm piccolo	Wood		1
Boehm piccolo	Wood	Hawkes pattern	1

Type	*Material*		*Total*
Piccolo	Wood	Covered holes	1
Piccolo	Ebonite	Roe	2
E♭ piccolo	Wood		1
E♭ piccolo	Ebonite	Superior	13
E♭ piccolo	Wood	Superior	1
F piccolo	Ebonite		6
D piccolo	Wood		2
D piccolo	Ebonite		3
D piccolo	Ebonite	Superior	12
E♭ Bohm piccolo	Wood		5
E♭ Bohm piccolo	Ebonite		2
Bass flute	Wood		18
Bass flute	Ebonite		5
Oboe	Wood		11
Oboe	Ebonite		11
Oboe	Wood	Model 2	1
Oboe	Wood	Coldstream Guards	1
Oboe	Ebonite	Military Model	1
Bassoon	Wood with ebonite wing		13
Bassoon	Wood		11
Bassoon	Ebonite		2
Bassoon	Wood	MM [?Military Model]	2
Woodwind Total			**566**

Type	*Material*		*Total*
Not makers			
B♭ clarinet	Wood	8 Rollers	5
A clarinet	Wood	8 Rollers	6
B♭ clarinet	Wood	13 keys, extra side key on top joint	1
B♭ Boehm clarinet	Wood		14
B♭ Boehm clarinet	Ebonite		5
A Boehm clarinet	Wood		5
A Boehm clarinet	Ebonite		3
			0
Bass clarinet	Wood		1
Bass clarinet	Ebonite		12
Concert Boehm flute	Wood		1
Concert Boehm flute	Ebonite	Superior	3
E♭ Flute	Wood	Superior	1
Concert Boehm piccolo	Wood		1
E♭ piccolo	Wood	Superior	1
Bassoon	Wood		2
Total			**61**

APPENDIX 2 continues overleaf

Type	*Model*	*Total*
Soprano cornet	Clippertone	24
Soprano cornet	Son	6
Soprano cornet	Sup	6
Soprano cornet	Spec	1
C Cornet	Clippertone	1
Cornet	Clippertone	222
Cornet	(rapid-change)	18
Cornet	long model	14
Cornet	Superior	60
Cornet	1st Class	48
Cornet	No 3	6
Flugel Horn	Son	24
Flugel Horn	Sup	7
Tenor horn	Son	53
Tenor horn, altered to 4v	Son	1
Tenor horn	Sup	12
Tenor horn	1st class	2
Baritone	Son	48
Baritone	Sup	12
Small B♭ slide trombones (cornets)		2
Cornet slide trombone with trill valve		1
Slide trombone in B♭, large bore	Lafleur	1
Slide trombone in B♭, large bore		7
Slide trombone in B♭	XL	7
Slide trombone in B♭	Plain XL	3
Slide trombone in B♭	Son	214
Slide trombone in B♭ with trill valve	Son	14

Type	*Model*	*Total*
Slide trombone in B♭	Sup	12
Slide trombone in B♭	plain Ex	1
Slide trombone in B♭	plain	1
Slide trombone in B♭		12
Slide trombone in B♭ with trill valve		1
B♭ trombone slides only	Son	15
B♭ trombone bell only	Son	1
B♭ trombone bell only		1
Valve trombone in B♭	Son	10
Valve trombone in B♭	Sup	14
Slide trombone in G	Plain XL	2
Slide trombone in G	Son	50
Slide trombone in G	Sup	6
Slide trombone in G	(Lafleur)	2
Slide trombone in G		3
G trombone slides only		3
Valve trombone in G	Son	4
Valve trombone in G, new model	Sup	1
Valve trombone in G	Sup	1
Eupho 3v	Son	27
Eupho 3v	Sup	6
Eupho 3v		0
Eupho, new compensating 4v		8
Eupho	Dictor	36
Eupho 4v	Son	13
Eupho 4v	Sup	12
Eupho 4v		0
Bombardon in E♭, 3v	Profundo	12

Type	*Model*	*Total*
Bombardon in E♭, 3v	Son	41
Bombardon in E♭, 3v	Sup	25
Bombardon in E♭, 3v	Emp	3
E♭ Emp bore	Son	1
Cavalry E♭ Bomb 3v		1
Bombardon in E♭, 4v	Profundo	4
Bombardon in E♭, 4v	Son	3
Bombardon in E♭, 4v	Emp	3
Cavalry E♭ Bomb 4v		1
E♭ Circular bass	Sup	1
E♭ Circular bass	Emp	6
Bombardon in BB♭	Profundo	17
Bombardon in BB♭	Emperor	2
Bombardon in BB♭	Son	27
Bombardon in BB♭	Sup	2
Bombardon in BB♭		2
B♭ medium Bombardon	Son	4
B♭ medium Bombardon	Sup	2
BB♭ Circular bass	Emp	4
BB♭ Circular bass		4
Cavalry trumpet	(silver)	2
Cavalry trumpet		24
Herald's trumpet		15
E♭ Bach trumpet		2
E♭ and D Bach trumpet		6
B♭ trumpet V Bach model (American)		12
B♭ trumpet American		13
B♭ trumpet	(Spec)	1

Type	*Model*	*Total*
B♭ trumpet	(rapid-change)	16
B♭ trumpet, rotary valve	(Alliance)	5
B♭ trumpet, rotary valve	(Lafleur)	2
B♭ trumpet, copper bell		1
B♭ trumpet		12
French horn in F and E♭, long slide	Son	3
French horn, long slide	Sup	1
French horn, long slide		4
French horn in F and E♭	Son	11
French horn in F and E♭, right hand	Son	1
French horn, short slide	Son	6
French horn in F and E♭	Sup	2
French horn, short slide	Sup	1
French horn, short slide	(Lafleur)	1
French horn, short slide		4
Tenor cor	Son	29
Tenor cor	Sup	16
Tenor cor		6
French bugle (brass)		3
Alto Bersag horn		3
Post horn		6
Brasswind Total		**1429**

APPENDIX 3 follows overleaf

APPENDIX 3

Woodwind serial numbers

Numbers recorded in the extant archival documents are in six sequences: those for band and orchestral woodwind instruments (noted in serial number order, which is mostly chronological), for instruments for service fife and flute bands (in number and chronological order), for alto saxophones (in two sequences, but only some numbers were recorded and not always in order), for a small number of 'Alliance' saxophones, and for metal clarinets.

BAND AND ORCHESTRAL INSTRUMENTS

First number recorded each year:

7664	5 March 1921
8385	3 January 1922
9016	2 January 1923
9880	1 January 1924
10681	January 1925 (dates for January are not chronological)
11511	1 January 1926
12055	1 January 1927
12596	10 January 1928
13062	4 January 1929
13929	1 January 1930
15573	9 January 1931
15631	7 February 1931 (last instrument stamped by Hawkes. Note in the book: 'Stamping from here by Frederick Mews'. After the merger, stamping took place at Boosey & Co.'s old factory.)

FLUTES 'ALL AZ NOT NUMBERED PREVIOUSLY'

2000	23 December 1920
2018	January 1921
2796	13 January 1922
3462	16 January 1923
3726	16 January 1924
3916	30 January 1925
4002	4 January 1926
5101	8 January 1927
5292	1 January 1928
5487	7 January 1929
5645	10 February 1930
5768	7 January 1931
5799	2 February 1931 (This was the last instrument stamped by Hawkes. Note in the book: 'Stamping from here by Frederick Mews'.)

'ALL METAL CLARINETS'/ 'XX CENTURY CLARINETS'

14001-14912	25 May 1928 to April 1930 (some numbers are missing, a few are duplicated, and they are not always in serial number order)

ALTO SAXOPHONES

(many numbers are not recorded, numbers are not always in order, and the two number sequences overlap)

50002	December 1925	to	50499	October 1926
52000	September 1926	to	52765	April 1927

ALTO SAXOPHONES 'ALLIANCE' (for Lafleur)

108-110	July 1926
115-117	July 1926
134-6	August 1926

Brasswind serial numbers

At least four sequences were used. Numbers recorded in the extant archival documents are: those for signalling instruments; those for band and orchestral brass instruments; those for 'Alliance' instruments (for Lafleur), and those for the later student models ('Empire' models). Since the *Journal* and the Plating Book record when work was done on instruments, the dates when they were actually made can only be estimated. The serial numbers were apparently allocated when instruments were ordered from the workshop, and no records survive of these dates, which would represent the dates when the design of an instrument was current. The dates given here are the latest possible date (assuming strict chronological numbering) when the serial numbers were allocated. It is assumed that numbers were allocated at a date or dates no later than when work was done on instruments. Estimates for earlier years are given based on inscriptions on extant instruments.

SIGNALLING INSTRUMENTS

Serial number	***Latest date***
24778	16 Aug 1928
24919	12 Sep 1928
24974	11 Oct 1928
25074	16 Nov 1928
25088	20 Dec 1928
25103	8 Feb 1929
25152	24 Apr 1929
25203	26 Aug 1929
25211	13 Sep 1929
25770	29 Oct 1929
27224	17 Jan 1930

BAND AND ORCHESTRAL BRASS INSTRUMENTS

Serial number	***Latest date***
4000	31 Dec 1884 (estimate)
7000	31 Dec 1892 (estimate)
9800	31 Dec 1895 (estimate)
17000	31 Dec 1902 (estimate)
23000	31 Dec 1907 (estimate)
30000	31 Dec 1912 (estimate)
39000	31 Dec 1917 (estimate)
43500	31 Dec 1921 (estimate)

44218	12 May 1922
44453	8 Jul 1922
44507	7 Oct 1922
45165	28 Dec 1922
45229	15 Jan 1923
45290	14 Feb 1923
45361	5 Mar 1923
45878	3 Jun 1923
45894	3 Jul 1923
46211	3 Oct 1923
46353	16 Oct 1923
46380	7 Nov 1923
47130	4 Mar 1924
48007	7 Apr 1924
57652	14 Jun 1928
57684	9 Jul 1928
57868	29 Aug 1928
57920	3 Sep 1928
59903	26 Feb 1929
59975	5 Mar 1929
59976	22 Jul 1929
59986	15 Aug 1929
59998	3 Sep 1929
60233	10 Oct 1929
60270	8 Nov 1929
60375	9 Dec 1929
60428	1 Jan 1930
60441	26 Feb 1930
60488	3 Mar 1930
60603	4 Apr 1930
60665	9 May 1930
60695	20 Jun 1930
60827	14 Jul 1930
60835	11 Aug 1930
62002	1 Sep 1930
62159	3 Oct 1930
62258	14 Nov 1930
62286	1 Dec 1930
62326	26 Jan 1931
62330	5 Feb 1931
62376	10 Mar 1931
62393	26 Jun 1931
62457	5 Oct 1931
62487	15 Dec 1931

ALLIANCE SERIES BRASSWIND

Serial number	***Latest date***
345	22 Nov 1928
346	12 Dec 1928
352	28 Dec 1928
353	28 Dec 1928
372	26 Jun 1929
376	27 Mar 1930
378	8 Apr 1930

EMPIRE SERIES BRASSWIND

Serial number	***Latest date***
100011	22 Aug 1928
100021	5 Sep 1928
100049	11 Oct 1928
100063	2 Nov 1928
100136	4 Dec 1928
100231	4 Jan 1929
100362	11 Feb 1929
100365	5 Mar 1929
100478	11 Apr 1929
100497	1 May 1929
100512	11 Jun 1929
100541	2 Jul 1929
100611	2 Aug 1929
100758	2 Oct 1929
100832	2 Jan 1930
100873	3 Feb 1930
100922	3 Mar 1930
100990	3 Apr 1930
101002	6 Jun 1930
101049	9 Jul 1930
101089	31 Jul 1930
101089	15 Oct 1930
101125	4 Nov 1930
101147	2 Dec 1930
101194	5 Jan 1931
101197	12 Feb 1931
101199	13 Feb 1931
101209	3 Mar 1931
101219	8 May 1931
101224	16 Jun 1931
101226	11 Sep 1931
101286	8 Oct 1931
102207	17 Nov 1931