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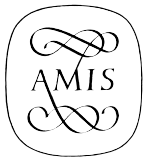


Boosey & Hawkes in Peace and War 1930–45*

Jocelyn Howell

The two names that have dominated British brass and woodwind manufacture for more than 150 years are those of Boosey and of Hawkes. Boosey & Co. and Hawkes & Son rose from humble beginnings—small publishing and retail businesses—to become, in later years, a united and leading global company. From the merger of the two firms in 1930 to the end of the Second World War Boosey & Hawkes underwent many changes, developing from what was essentially a craft-based industry to one with an ever-increasing emphasis on the use of mechanized processes and scientific precision. During this period many external factors affected the instrument manufacturing industry, and changing economic and social conditions resulted in altering markets and fluctuation in demand for instruments. The Depression brought about a substantial reduction in sales, which continued into the early 1930s, however, business then improved until the War.[1] Competition from overseas obliged

*Acknowledgements: Stephen Cottrell, Jeremy Montagu, Arnold Myers, The Horniman Museum and Edinburgh University Collection of Historic Musical Instruments.

Abbreviations

AMPC	Arnold Myers Private Collection
B&Co.	Boosey & Company
B&H	Boosey & Hawkes
EUCHMI	Edinburgh University Collection of Historic Musical Instruments
EUCHMI/L	Edinburgh University Collection of Historic Musical Instruments, Langwill Archive
EUCHMI/R	Edinburgh University Collection of Historic Musical Instruments, Rendall Archive
HM/B&H	Horniman Museum, Boosey & Hawkes Archive
HM/CA	Horniman Museum, Adam Carse Archive
H&S	Hawkes & Son
JHPC	Jocelyn Howell Private Collection
JMPC	Jeremy Montagu Private Collection
sn	serial number
sns	serial numbers

1. Just after the merger of Boosey and Hawkes, staff had to accept a 10% wage reduction as business at Regent Street was not good. J. Macree in *B&H, Edgware Newsletter* (1970): 18.

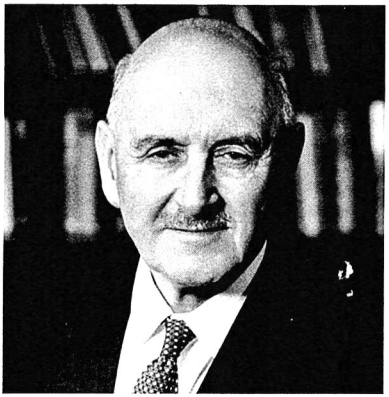
British makers to address both declining and expanding areas of trade and to design instrument models targeted at specific genres. This is reflected in the models that Boosey & Hawkes chose to make and improve, those that were retained in production from the individual companies and the subsequent new developments, thus showing how the company's output reflected the altering market and the influence that the company had on shaping the sound of British music.

Boosey commenced wind instrument manufacture in 1851 and Hawkes twenty-four years later in 1875; they entered a rapidly developing industry. During the nineteenth century, the significant social, musical, economic, and technological changes that took place in Britain provided a fertile environment for instrument makers; businesses grew and new larger companies were established, albeit some time later than on the continent. Firms vied for lucrative contracts for trade at home and abroad, most importantly from the increasing British military forces throughout the Empire as Britain rose as a colonial power. By the second half of the nineteenth century there were thousands of military and civilian bands in Britain and across the Empire, all needing instruments. Business continued to thrive into the twentieth century. However, the Depression and the General Strike during the late 1920s significantly affected the musical instrument manufacturing industry and its trade.

Many firms, which were struggling with sales and stockpiling instruments that became almost unsaleable, maintained professional links and worked together to present a united approach. In 1927, as a result of discussions between Boosey & Co., Hawkes & Son, and wind instrument makers Besson & Co., a common policy was adopted concerning instrument prices and the reduction of working hours.[2] A note in Boosey's workbook *Instruments Brass 13* indicates that workers' wages remained at the 1920 rates until 1927 and then decreased by 17% from the beginning of 1928.[3] There was no improvement in the economic situation by the end of the decade, and competition between Boosey & Co. and Hawkes & Son was particularly intense in relation to instrument manufacture, with both firms using profits from their publishing departments to fund this side of business.

In 1930 Leslie Boosey (fig. 1a) suggested to Ralph Hawkes (fig. 1b), who he had met while on the board of The Performing Rights Society, that they should join forces and cease to be competitors; this marked a

2. Besson, *Limited Directors' Minute Book* (1917–1932): HM/B&H A227/183: 244–245.
3. B&H, *Instruments Brass 13*: HM/B&H A227/057.



(a)

(b)

(c)

FIGURE 1. (a) Leslie Boosey; (b) Ralph Hawkes; (c) Geoffrey Hawkes. © Boosey & Hawkes

pivotal point in the history of British instrument manufacture. The merger was completed on September 30, 1930, with Leslie Boosey appointed Chairman. Leslie Boosey and Ralph Hawkes assumed responsibility for the publishing division, while Geoffrey Hawkes (fig. 1c) and

Evelyn Boosey concentrated on developing the instrument manufacturing business.[4]

Boosey's instrument production was moved to the Hawkes Edgware premises (the Sonorous Works) in 1931 (fig. 2), and manufacture remained there until the closure of the factory in 2001. 295 Regent Street became the firm's head office[5] and main retail department, and a professional department was opened on Denman Street;[6] the latter premises were used for retail and repairs until about 1957.[7] Branches were retained in Aldershot, Manchester and Glasgow, with 'repair service centres' situated at all locations.[8] The old Boosey works at Frederick Mews were leased to Besson & Co. from September 1933.

The decision of Boosey & Co. and Hawkes & Son to amalgamate enabled them to eliminate competition between them and to benefit from a united customer base. Thus they were able to attain a position of strength and dominance in the market. The merger provided Hawkes an opportunity to develop its company and further its ambition and vision.[9] It gave Boosey the chance to move out of its cramped traditional factory to spacious works with contemporary mechanized manufacturing methods. In sum, the consolidation of Boosey and Hawkes created the largest instrument manufacturing company in Britain. The actual number of employees is not known; however, Hawkes in 1927 had stated that its workforce consisted of "200–250 skilled operators,"[10] and Boosey's workers had numbered at least 120 in about 1905.[11] Although the size of the joint workforce was by far the largest in Britain, it was still nowhere near as large as some companies abroad, such as Couesnon in France and Conn in America;[12] Conn claimed in 1925 that the number of employees in its factory engaged in the building and finishing of saxophones alone averaged more than 500.[13]

4. Jeremy Boosey, "Beethoven, Bellini, Ballads and Bands," *Boosey & Hawkes 150th Anniversary* (1966): 4.

5. William Waterhouse, *The New Langwill Index* (London: Tony Bingham, 1993), 40.

6. B&H, Catalog (after December 1936): EUCHMI/R 2677. Foreword.

7. The Denman Street premises were last mentioned in *Instruments Reed 16*: HM/B&H A227/029. Substandard instruments were sent there.

8. B&H, Catalog (after December 1936): EUCHMI/R 2677: page after A62.

9. H&S, 1927 catalog, 3.

10. Ibid.

11. Based on a photograph of the Boosey & Co. workforce. HM/B&H.

12. Couesnon had taken over Gautrot in 1883 and by 1911 employed more than 1,000 employees in eight factories. By 1913 Conn had a workforce of 303 and was technologically far more advanced than any British firm. Waterhouse, *Index*, 72, 73, 59, 70.

13. C. G. Conn Ltd., *New Wonder Saxophones* (1925) EUCHMI/R 2577: 5.

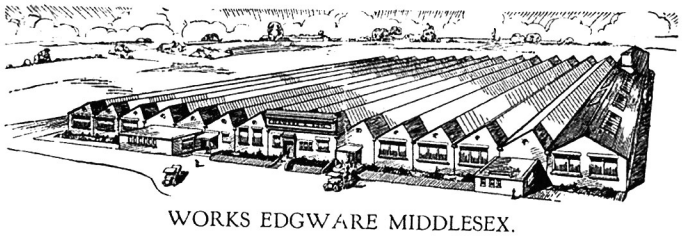


FIGURE 2. Sonorous Works, Edgware. H&S XXth Century Saxophone Catalogue *c.*1929 (JHPC)

Although the official merger date of Boosey & Co. and Hawkes & Son was September 30, 1930, it was some years before Boosey & Hawkes fully integrated its businesses and benefited from being one large company. The removal of Boosey to the Hawkes works at Edgware was costly and required considerable planning. However, the restructuring and unification of the workforce and factory lines progressively eliminated duplication of company expenses. Production continued without interruption throughout this period, but the integration of two large workforces and implementation of new work practices required major reorganization at the factory. The eight-mile move was organized by the Works Manager, Arthur Blaikley,[14] who was responsible for the continuation of instrument production.[15] Boosey & Hawkes commented that "the re-equipment of a great works was a mighty undertaking,"[16] and it was more than two years before Boosey had completely transferred to Edgware.[17]

In 1931 Boosey & Hawkes set up an in-name-only subsidiary company called the "British Band Instrument Company." Many cheaper quality

14. Letter from G. Hawkes to Langwill (August 16, 1932): EUCHMI/L 284.

15. A letter dated December 13, 1932 from Margaret F. Blaikley (an employee) to Langwill sets out the situation: "Mr. Arthur Blaikley [...] is at present and has been for some months, working at very high pressure to get the machinery and men from this factory moved out to Edgware and combined with the Hawkes' factory, without interfering with the normal output of work [...] we do not know from day to day where men and goods will be." EUCHMI/L 470.

16. B&H, Catalog (after May 1, 1935): JMPC, 1.

17. Geoffrey Hawkes stated in a letter to Langwill dated August 18,1932 that "It is unlikely that the collection [of historic musical instruments] will be available for view in September, for we shall still be moving then, in fact our works will not be completely moved until Christmas." Letter, EUCHMI/L 288.

instruments, including the "Regent" models, were sold under this name with some stamped "British Band Instrument Company Ltd.," however, only a small proportion of instruments were actually recorded as such in the company workbooks.[18] A joint Boosey & Hawkes model numbering system was introduced from September 1932 for brass instruments and December 1933 for woodwinds.[19] This was fully developed by 1935 and used in the first comprehensive combined catalog. From 1936 Boosey & Hawkes regularly made brass instruments of all different types for Besson and manufactured multiple instruments of certain models as stencils for the dealer J.R. Lafleur, who exported them to America. A number of instruments were stamped with other dealers' names, such as P. Carabot (a Maltese dealer) and W. Grey.

The Identity of Boosey & Hawkes After the Merger

During the early years of amalgamation, while continuing to produce the separate model lines of its antecedents, Boosey & Hawkes struggled to find an identity. But, with the introduction of jointly designed models, the company started to promote itself as a modern, progressive company that placed emphasis on engineering skill and machines, and on scientific precision and accuracy in manufacture. Throughout the earliest consolidated catalogs, Boosey & Hawkes confidently projected the image of a strong, forward-looking, and proudly British company that had entered a new age of British technology.[20] However, that approach was often colored with overtones of the pompous and self-inflated attitude of earlier Hawkes & Son catalogs, considering itself to be the biggest and the best. Boosey & Hawkes employed a complete range of materials, metals, and processes and were equipped with new machines. This was a contrast to firms like Rudall Carte that were still using traditional methods and continued to use antiquated tools for some years thereafter.[21]

Although Boosey & Hawkes projected an image of modernity, manufacturing processes in American factories were further advanced, and it

18. B&H, *Instruments Brass 14*, *Instruments Brass 15*: HM/B&H A227/058, A227/059.

19. Inside the front cover of *Instruments Brass 15*: HM/B&H A227/059.

20. The first B&H catalogs were presented in simple black loose-leaf ring-binders stamped with a gold embossed hawk and bugle—the combined B&H emblems, and was compiled with the appropriate pages for distribution to specific clients and markets—military, orchestral, brass and dance band musicians.

21. Robert Bigio, *Rudall, Rose & Carte. The Art of the Flute in Britain* (London: Tony Bingham, 2011), 151.

is possible Hawkes & Son's expansion and relocation to the Edgware premises five years earlier had been inspired by the American firm C. G. Conn Ltd., who similarly presented itself in catalogs as a large, modern, and progressive company. Hawkes' advertising style and wording in its Edgware catalogs bear more than a passing resemblance to Conn's earlier literature.[22] After the merger, Conn's influence on manufacturing techniques at Boosey & Hawkes was clear; by 1932 it had adopted Conn's hydraulic expansion process for making seamless brass tubes, and later in the decade its Stroboconn, a chromatic stroboscope for checking tuning to within 100th of a semitone.[23]

During the 1930s, Boosey & Hawkes argued that its adoption of modern methods such as hydraulic expansion and the use of newer materials provided better accuracy in production. The company described itself as a firm with "vast experience covering literally hundreds of years, now joined with engineering knowledge and equipment more advanced than any other in the world"[24] (their British customers were assumed ignorant of the advances pioneered by Conn and other American firms). Although Boosey & Hawkes promoted a move away from traditional methods of manufacture, it did acknowledge that in instrument making, the scientific approach alone was not sufficient. The catalog stated,

> [W]e have made enough instruments to know that although theory, science of acoustics, blue prints and engineers' plans are an invariable help in the construction of the perfect musical instrument, yet experience has proven to us that theory alone can never produce the artist's instrument. There is something more in a musical instrument that only the really skilled artisan can produce.[25]

Customers were offered a personal service, with the "personal fitting and adjusting to the purchaser of best grade instruments."[26] Boosey & Hawkes emphasized the importance of well-tuned instruments, declaring that its tuning rooms were "equipped with every conceivable device, [with] highly paid testers and factory staff. . . at your disposal." However, the devices traditionally used until the late 1930s were a harmonium, chime bars, and tuning forks, after which the chromatic stroboscope was

22. C. G. Conn Ltd., *Saxophones*, 5.

23. The Stroboconn was patented by Conn in 1936. C. G. Conn Ltd., *Clarinets Flutes Oboes* Leaflet: EUCHMI/L 8-28-39.

24. B&H, Catalog (after December 1936): EUCHMI/R: 1.

25. Ibid., 2.

26. Ibid., 2.

introduced into the factory,[27] but even then the old methods were still employed.[28]

The new Boosey & Hawkes design and development department was described as staffed by "acoustic experts, highly qualified men with college degrees."[29] In its literature, the company claimed the Boosey collection of historic musical instruments kept at the factory was used for reference by the designers who were "constantly evolving designs, experimenting with new bores, in fact new everything."[30] However, the company did admit that very rarely was anything new found; for example, it continued to promote and feature Boosey's 1923 innovations of New Valve Action and "Silbron" valves well into the 1930s but now emphasized the role that new small precision machines played in their manufacture.[31]

Mechanization in the Factory

The development of new factory methods using machinery ultimately led to the replacement of skilled craftsmen by unskilled operators. Boosey & Hawkes stated, under the caption "British engineering revolutionizes instrument production," that "the result of the amalgamation of two firms of magnitude" and "the mingling of brains and tools, has necessitated vital changes in methods and designs."[32] The company's use of hydraulic expansion (as at Conn) was first employed for saxophone production in 1932. This major advance in manufacturing techniques enabled the bell, bow, and crook to be seamlessly expanded from single pieces of metal.[33] Hydraulic dies were created for the new process, which was considered modern, scientific, precise, and accurate. In the words of Boosey & Hawkes, "Hydraulic expansion takes the guess out of Brass instruments for ever."[34] They stated that nothing was left to chance with

27. B&H, *Woodwind Yearbook* (B&H, 1940): 13 and 17.

28. Ibid., 59.

29. At Boosey & Co. David Blaikley, a self-educated but highly respected acoustician who had been appointed Works Manager in 1868, aged 27, had continued to be responsible for instrument design until he retired in 1930.

30. B&H, Catalog (after December 1936): EUCHMI/R.: 3. The B&Co. collection of historic musical instruments was started by David Blaikley. It is this collection that is now held at the Horniman Museum.

31. Ibid., 5.

32. Ibid., 1.

33. B&H Ltd., *The Boosey & Hawkes Bulletin. Supplement to the Melody Maker* (March 1932): iii.

34. B&H, Catalog (after December 1936): JMPC, 3.

"no guess work [. . .]—no reliance on old-time skill which varied according to the health and temperament of the worker. Accuracy is built in this saxophone, every model made is an exact replica of the perfected master instrument."[35] Boosey & Hawkes included photographs of the processes in its catalogs (fig. 3);[36] the use of hydraulic expansion for making parts of brass instruments after the Second World War revolutionized manufacture at Boosey & Hawkes. Saxophone key-making and positioning were also performed by machine, with the keys steel bushed and strongly constructed from one piece of Aero-Metal instead of by the old method of hand or power forging.[37]

New machinery was used for making mouthpieces for brass instruments. Boosey & Hawkes claimed that the introduction of new technology and equipment, as well as the extensive facilities at the Edgware factory enabled "correct scientific principles" to be applied to manufacturing. They emphasized the importance of a suitable mouthpiece for each player and instrument and the effect it had on tone and intonation.[38] Wide ranges of mouthpieces for all instruments were introduced. The "Kosikup," originally a Hawkes design, was described as being "built on strictly scientific lines"[39] and "accurately cut by high-class machine tools" from "the most perfect" brass rod. However, in spite of all its intended scientific accuracy, Boosey & Hawkes, with reference to a chart of mouthpiece measurements, added that although the greatest possible care was taken to standardize the various models as specified, "the measurements quoted above can only be taken as approximate."[40]

Boosey & Co. and Hawkes & Son Models Retained After the Merger

For the first few years after the merger, while reorganization of the company took place, both Boosey & Co. and Hawkes & Son models continued to be made. The 1932 catalog (brass instruments only) did not contain any new designs.[41] By September 1932, brass lines had been integrated and a list of instruments to be included in a new catalog was

35. B&H Ltd., *Bulletin*: iii.
36. B&H, Catalog (before May 1, 1935): JHPC.
37. B&H Ltd., *Bulletin*: iii.
38. B&H, Catalog (after December 1936): EUCHMI/R: 28.
39. B&H Ltd., *Band Instruments and Accessories by Boosey & Hawkes* (1932): AMPC, 29.
40. B&H, Catalog. (after December 1936): EUCHMI/R. p.29 and p.30.
41. B&H Ltd., *Band Instruments and Accessories by Boosey & Hawkes* (1932): AMPC.

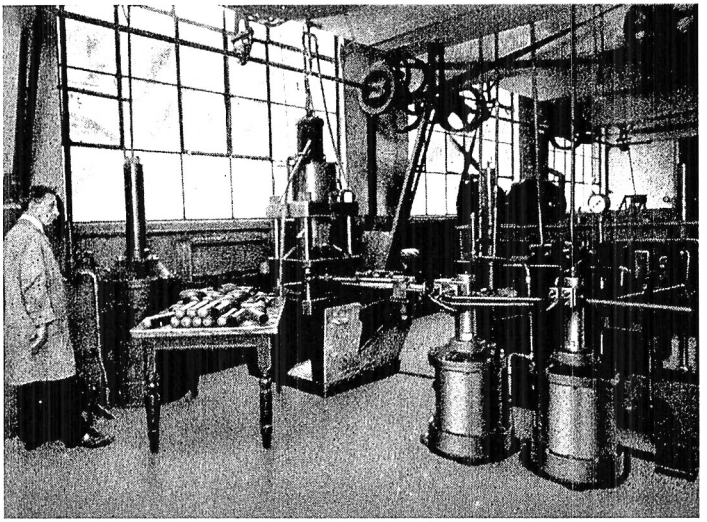


FIGURE 3. Compressors for hydraulic expansion. *c.*1935 catalogue (JHPC)

noted in the front of the workbook.[42] Most of the brass instrument models continued in production were Boosey designs, but occasionally discontinued Hawkes and Boosey models were made to order. Boosey models were sometimes stamped with the Hawkes name, and vice-versa.[43] For some time after the introduction of the combined instrument model numbering system, the new numbers appeared alongside the old Boosey numbers in the workbooks, thus enabling the historical progression of models to be understood. All the new numbers corresponded to Boosey's "Class A" instruments, with many of the "Class B" instruments listed rebranded "Regent" and assigned new numbers; sometimes both numbers were recorded.

42. Notes entitled "New Brass Catalog 23/9/32" inside the front cover of B&H. *Instruments Brass 15*: HM/B&H A227/059.

43. For example: November 24, 1931 Clippertone Trumpet IP 18b sn139984. Clippertone Trumpet NVA 18b sn139985. December 2, 1931 B-flat Trumpet B17a stamped HS Empire Cabarot. *Instruments Brass 15*: HM/B&H A227/059.

Cornet, Flugel Horn, Trumpet

During the early 1930s, the cornets that Boosey & Hawkes manufactured were predominantly Boosey models plus Hawkes' "Clippertone." Only a small number of soprano cornets, echo cornets, and flugel horns were made. Although the instrumentation for a brass band included just one E-flat soprano cornet (but seven or eight B-flat cornets) and one flugel horn, the number of these instruments that Boosey & Hawkes produced was low for the possible demand. Therefore, it is probable that bands were buying these instruments from Besson and other companies. Until 1939 flugel horns were predominantly old stock with five Hawkes & Son models sold and three experimental instruments made.[44]

Directly after the merger, the only trumpet models produced were Hawkes' "Empire" and "Clippertone" models. The "Clippertone" trumpet (fig. 4) is a high quality instrument that remained popular throughout the 1930s and was developed with the addition of Boosey's "New Valve Action." It was the only "combined" Boosey & Hawkes design and was available in four different models from September 1932.[45]

Tenor Cor, Baritone, Euphonium, Horn

Boosey's tenor cor models in F and E-flat continued to be produced in modest numbers as a substitute for French horn in military bands. B-flat baritones were available with a small or large bore and compensating pistons and in a cheaper "Regent" model. Euphoniums were made in the "Imperial" model with four compensating pistons and as a three-valve compensating instrument. Both Boosey's "Sotone" and Hawkes' Raoux French horn models were continued in production, and were offered in the 1935 catalog.[46] Throughout the period, Boosey's horns in F and E-flat continued to be produced for military use, from 1935 the latter sometimes named "Regent;" this was occasionally specified as having a German bore, i.e., a large bore.[47]

44. B&H, *Instruments Brass 16*: HM/B&H A227/060.

45. Note in the front of B&H, *Instruments Brass 15*: HM/B&H A227/059.

46. "Sotone" No.1 in A (small bore), originally a Boosey model, was described as the original "Sotone" and as possessing "the true French Horn tone, much demanded by English musicians, conductors etc." "Sotone" No.2 in A (medium bore) was based on the Hawkes Raoux design, and gave "a little more freedom in playing." B&H, Catalog (after May 1, 1935): JMPC: 24.

47. B&H, *Instruments Brass 15*: HM/B&H A227/059.

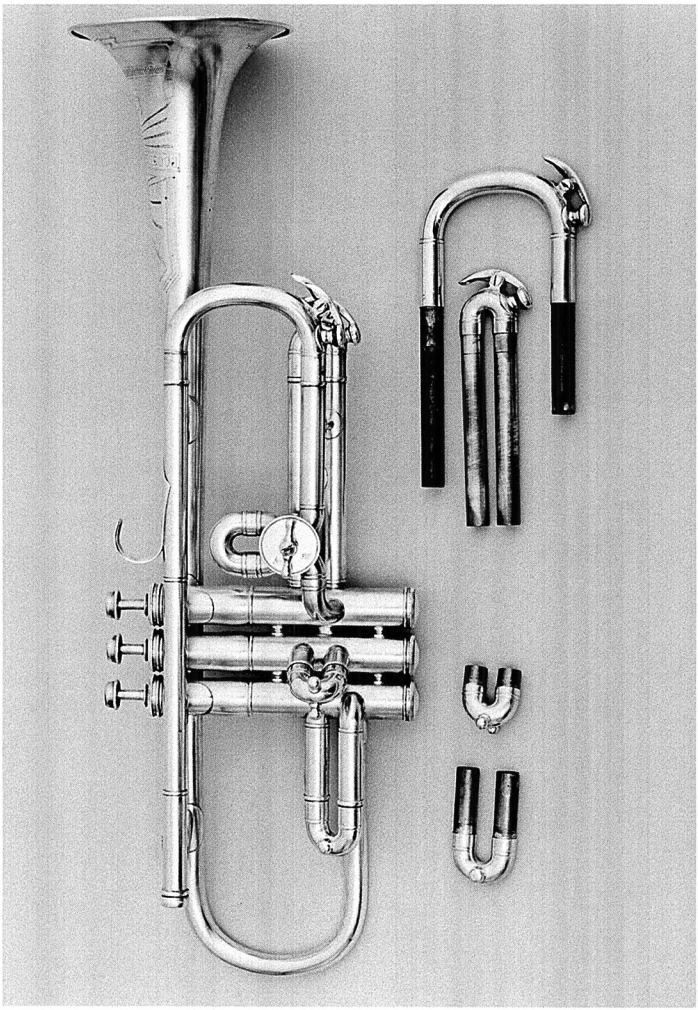


FIGURE 4. Clippertone trumpet (EUCHMI 3210) © University of Edinburgh. Antonia Reeve

Trombone, Bass

In 1932 Boosey & Hawkes offered seven models of trombone, each possessing "distinctive features—from which to make your choice and selection of the instrument best suited for your work" (fig. 5); four were originally Hawkes designs, three were Boosey.[48] A variety of bore sizes was offered. Today, both the small and medium bore sizes would be considered small. Large-bore instruments were popular for dance band use, however, the "Cabaret" and "Imperial" were not presented in the circa 1935 catalog that offered a reduced selection of slide trombones, even though the other models continued to be manufactured.[49]

All the bass instruments that were continued in regular production after the merger were Boosey designs, although a very small number of Hawkes' basses were made to order and old stock was cleared. In the circa 1935 catalog seven models of E-flat, EE-flat, and BB-flat bass were offered.[50] Boosey's "Imperial" basses earned the reputation of being the finest available and continued to be the most popular band instruments after the War. A few circular basses were produced, but there was little demand for them.[51] Between 1935 and 1939 production of basses rose steadily by approximately 150%. This may have been because Boosey basses were preferred to those made by Besson.

Clarinet

Clarinet manufacture at Boosey & Hawkes accounted for a major proportion of woodwind production, with a wide range of models designed for all areas of the market. The company optimistically described them as assembled by "the finest craftsmen in the world [. . .] with individual care and precision," each instrument "exhaustively tested for tone and tune by experts, using specifically devised systems of unfailing

48. B&H Ltd., *Bulletin,* xiv. (Boosey designs: "Regent," "Imperial," "Perfecta Truline").

49. In 1935 B&H were still trying to sell "Cabaret" trombones "given out" in 1932. B&H, *Instruments Brass 15*: HM/B&H A227/059.

50. E-flat Standard Bass 3 valves (A85) B4037, E-flat Standard Bass 3 valves, compensating pistons (A86) B4045, E-flat Standard Bass 4 valves, compensating pistons (A90) B4048, E-flat/EE-flat Imperial Bass 3 valves, compensating pistons, monster bore (A87) B4035, E-flat/EE-flat Imperial Bass 4 valves, compensating pistons, monster bore (A91) B4036, BB-flat Bass Imperial 3 valves, compensating pistons (A95a) B4038, BB-flat Standard Model Bass 3 valves, monster bore (A95) B4041.

51. B&H, *Instruments Brass 15, Instruments Brass 16*: HM/B&H A227/059, A227/060.

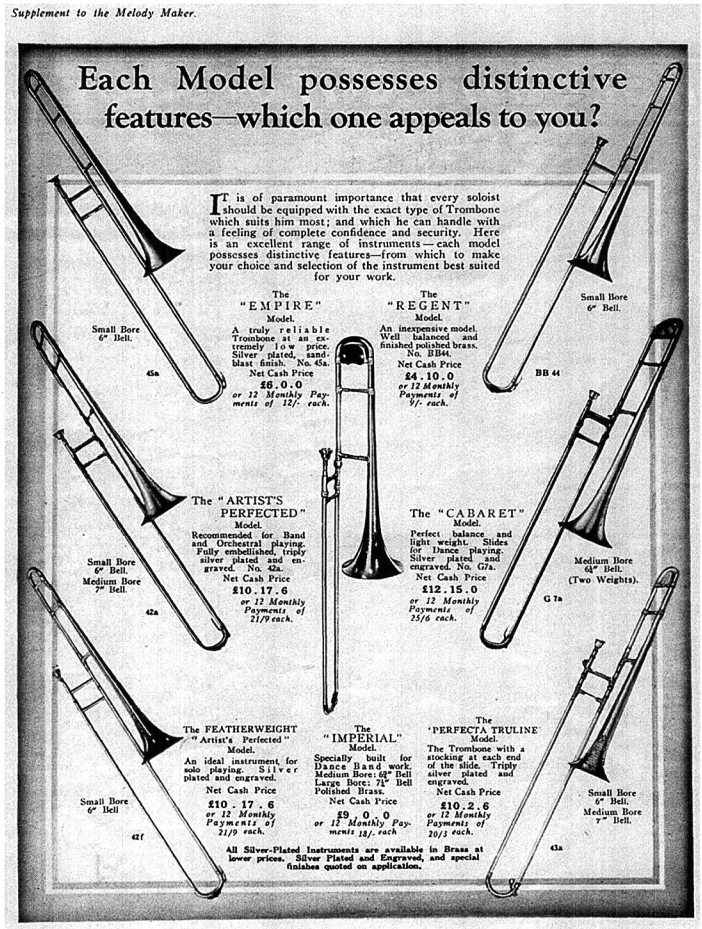


FIGURE 5. Boosey & Hawkes trombones. B&H *Bulletin* 1932 (JHPC)

accuracy."[52] The clarinet was the only woodwind instrument the company made that was widely adopted by professional players.

Boosey & Hawkes offered a broad range of clarinets: "old" models included the fourteen-keyed clarinet, Barret, Clinton, Clinton-Boehm, and Boehm systems.[53] The Clinton System, previously made by Boosey & Co., had gained popularity amongst British players and in the colonies toward the end of the nineteenth century. George Clinton subsequently developed this model with duplicate little finger keys and articulated $g\sharp^0$ which, because of its resemblance to the keywork of the Boehm clarinet, became known as the Clinton-Boehm System. This model remained in limited use until the 1950s but was superseded by Boehm system.

Oboe, Cor Anglais

Most of the Boosey & Hawkes oboes produced in the early 1930s were Boosey models, plus a few of Hawkes, including its "Morton No.1" design. Still, few professional oboists played Boosey & Hawkes instruments, many preferring models by Louis. By 1935 the company had reduced the number of models offered to five plus a cor anglais and oboe d'amore.[54] Although most players on the continent had adopted the conservatoire system after the Paris Conservatoire had officially endorsed it in 1881, the majority of British oboists were slow to make the change, with many still favoring the thumb-plate system as late as the 1950s.[55] The old Boosey sixteen-key two-ring oboe, which continued to be produced in small quantities every year until 1940, and the "Artist's Model" accounted for most of the oboes manufactured for some years. Boosey & Hawkes did not produce a conservatoire model until 1934, and even then only a small number were made annually.

52. B&H, Catalog (after December 1936): EUCHMI/R: A7.

53. fourteen-keyed (1001,2,3), Barret (1004,5), Clinton (1007,8,9), Clinton Boehm (1013,14), Boehm (1010,11,12), Clarinets of Moderate Price: fourteen key (1024), Barret (1025), Boehm (1026), Simple system alto (1016, 17), Boehm system alto (1020, 21), Simple system bass (1018, 19), Boehm system bass (1022, 23), other systems, such as Clinton, made to order.

54. A1070/1 "Artist's Model," A1072/3 "Conservatoire Model," A1074/5 full Barret system, A1076 oboes with saxophone fingering, A1080 "XXth Century Artist," A1081 cor anglais, A1082 oboe d'amore.

55. Anthony Baines, *Woodwind Instruments and Their History*, (London: Faber, 1957, 3rd ed. 1979), 101.

Saxophone

Saxophone models continued after the merger were Boosey's "Artist" and "Regent," and Hawkes' highly thought-of "XXth Century," which remained in regular production until 1940. However, during 1931 production was considerably lower than in previous years with most Boosey models discontinued and replaced by new designs (see page 59).[56]

New Boosey & Hawkes Instrument Models

During the 1930s Boosey & Hawkes focused much of its attention on developing new models of instruments particularly for use in dance orchestras and jazz bands, which had been growing in popularity in Britain throughout the 1920s. Boosey & Hawkes produced many instruments for this market with trumpet, saxophone, clarinet, and wide-bore trombone models designed specifically for the jazz player. The *Boosey & Hawkes Bulletin* (1932) is the first extant company literature to reflect the popular dance-band trend and predominantly target dance-band clientele. It promoted new models specifically for this genre, offering a broad selection of instruments from banjos, guitars, drums, and piano accordions to brass and woodwind models. It also included sheet music for "the Latest & Best Stomps & Hot Numbers."[57]

Saxophone

In particular, the *Bulletin* featured the "new '32' All-British E♭ Saxophone" (fig. 6) and gave a detailed explanation of its manufacture by the process of hydraulic expansion.[58] It was with the introduction of the "1932 model" (the "32," first recorded in the workbooks in September 1931) that saxophone lines at Boosey & Hawkes were integrated.[59] The "32" was promoted as manufactured by craftsmen with the aid of mod-

56. No Boosey "Artist" models were made after 1931 except for a baritone in 1932 and 1933. No "Regents" were recorded after 1932. A list of 25 H&S instruments made by two workers De Cort and Richer, sns from between 58410 and 61256 with order dates from July 6 to October 25, 1931 was included separately in the workbook. *Instruments Wood & Percussion 7, Instruments Wood & Percussion 8:* HM/B&H A227/018, A227/019.

57. B&H Ltd., *Bulletin*: ix.

58. Ibid., ii-iii.

59. "B&H '32' Alto," model A1197. First recorded: 18/09/1931 sns29714-16, Alto Saxophones, IP, N/M [new model], (1932) [in pencil], B&H, Mills.

Supplement to the Melody Maker

BEN TUCKER *(Savoy Hotel)* —and his new "32" Model.

To use his own words:

"It is the Saxophone I have been seeking for years."

Ben has been the possessor of his old instrument for over ten years. He gave the "32" the "once over" and the following day traded in his old instrument. He is now playing this all-British saxophone of which he is truly proud.

DAVE SHAND *(Jack Hylton's Band)* is not only a thorough and capable musician, but is a saxophonist of extraordinary ability—hence the position he now holds with this famous Band. Of this new all-British saxophone Mr. Dave Shand has said:

"It is the best investment I have yet made, and is the finest instrument I have yet played."

Investigate it to-day—it is your best investment for the future/

The **B&H** **'32'**

ALL-BRITISH ALTO SAXOPHONE

PRICES:

Brass, engraved with small ring round the name-plate. *or 12 Monthly Payments of 3/10 ea.*
Cash Price - - **£18.15.0**

Silver Plated, Gold Bell, fully engraved, as illustration
Cash Price - - **£23.5.0**
or 12 Monthly Payments of 4/6 ea.

Case, 3-ply base, covered black leather cloth; lined plush; fitted with lock and key; metal corner pieces.
Cash Price - - **£2.5.0**
or 12 Monthly Payments of 4/6 ea.

Important!

Definitely the highest possible prices allowed on High or Low Pitch Saxophones taken in part payment for our New Model.

FIGURE 6. The "new '32' All-British E-flat Saxophone." B&H *Bulletin* 1932 (JHPC)

ern technology and was endorsed by leading dance band players. Saxophone workforces of Boosey and of Hawkes were combined and expanded, and the latest factory methods were adopted with new machinery installed for hydraulic processes. All instruments were tested by ex-Hawkes employee John Pausey, an experienced player and saxophone expert.[60] From August 1932 a number of the "32" were branded "Regent" and sold under the British Band Instrument Company name, but this name was not used on saxophones other than for these instruments. The "32" represented the cheaper end of the market and was described as "thoroughly serviceable and efficient."[61] It remained in production in diminishing numbers until 1939 when it was rebranded the "Predominant" model. During 1932 and 1933 saxophones represented 45% and 42% respectively of total reed manufacture at Boosey & Hawkes, thus demonstrating the influence of dance and jazz band music on production.[62]

The higher quality "XXth Century" model, available in the complete range, remained popular until the War,[63] the alto advertised as "the alto with every modern improvement" and as "The Choice of the Stars."[64] During this period saxophones were recorded in the workbooks under a number of different model names. However, it is unclear whether these were new designs, designs made up of features from existing models, or renamed models. Production records of saxophones from December 1934 list many "XXth Century," amalgamated "32" and "XXth Century" models, and "New Century" instruments.[65] However, no extant saxophones stamped "32" or "New Century" have been found yet. The model name "New Century" was also given in the company catalogs to other instruments, including the "Boehm system deLuxe" and "1010" clarinets, flute, and large bore compensating double horn in 1936.[66]

60. B&H Ltd., *Bulletin*: iii. Fifty-four "32" saxophones were manufactured before the end of 1931, and for a few months production of all other saxophone models was suspended. High productivity was maintained for the first four months of 1932. The total number of all saxophones produced in 1932 was 280, and in 1933, 244; however, thereafter orders diminished. A227/018, A227/019.

61. E.g., B&H, Catalog (before May 1, 1935): JHPC, A55.

62. *Instruments Wood & Percussion 9:* HM/B&H A227/020.

63. B&H, Catalog, A51, A52.

64. B&H, *Woodwind 1940.*

65. The name "New Century" was first noted, but deleted, in the workbooks two years before in June 1933 with the instruments sold as "XXth Century."

66. B&H, Catalog (after May 1, 1935): JMPC.

Clarinet

Although during the 1920s many British clarinetists continued to play simple system instruments, Boosey & Hawkes recognized that the Boehm system clarinet had found increased favor in Britain. They therefore promoted a 'new' Boehm clarinet which became one of their most notable post-merger models. It soon became the instrument of choice for many clarinetists from all genres, and the model that would define the sound of British clarinet playing for some decades. Although the "new 'B&H' Boehm Clarinet" introduced and endorsed by Frederick Thurston was featured in the 1932 *Bulletin* as a "new" model, the workbook records suggest that it was in fact an existing Boosey & Hawkes design,[67] even though it later stated:

> The researches were conducted in collaboration with the entire technical staff of the Edgware works and culminated in a long series of experiments in which neither time nor money were spared, until after many months of labour these models were produced which after the most stringent tests by independent artists were found to be in excess of the most sanguine expectations, indeed it is but the bare truth to describe these clarinets as standing in a class by themselves, so completely do they render obsolete any others hitherto obtainable.[68]

There is no surviving material that endorses this, but improvements were made to the model 200 and 201 clarinets, with certain instruments recorded as having been tuned especially for professional clarinetists Thurston, Haydn Draper, and Ralph Clarke during May–July 1932. This indicates that they may have had a hand in their development. Thurston, who had previously played Hawkes' Martel clarinets, changed to this model; his instruments were ordered on September 30. During 1933, cast keys were introduced, and in June a "new B♭ Boehm clarinet" (no model number given) was documented as having "mc cast keys;" the keys were machine cast, i.e., made in one piece, not soldered. A month later, two further instruments were also noted as having them, and subsequently this was recorded for most model 200 and 201 clarinets. In November 1933 new model numbers 1010 (wood) and 1011 (ebonite) replaced the numbers 200 and 201. These clarinets soon acquired the name "1010" (from the catalog number) and rapidly gained popularity with leading British clarinettists (fig. 7).

67. No L420 model was noted in the *Bulletin*; the wooden Boehm model continued to be listed as the 200 and the military model (ebonite) 201. B&H Ltd., *Bulletin*, iv.

68. B&H, Catalog (before May 1, 1935): JHPC, A12.

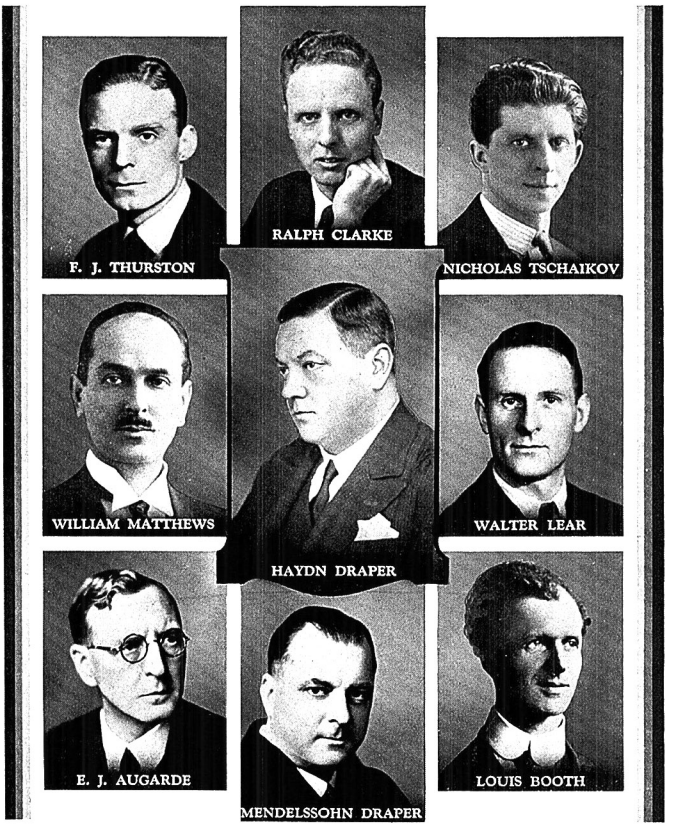


FIGURE 7. "Eminent players who use the B&H clarinet." B&H *c.*1935 catalog (JHPC)

The "1010" was one of the most influential and best known of all Boosey & Hawkes instruments, and it became associated with the British sound and style of clarinet playing. It had a wide bore of 15.24mm, and was generally characterized by a large and free-sounding tone that enabled many players to produce a full, expressive vibrato. It was described in its early days by the company as the "ideal clarinet for the critical performer" and as possessing "a most perfect tone equality and entire freedom from defective notes, due to dimensioning of the bore and mouthpiece."[69] There is no evidence in the workbooks to suggest that the "1010" was a specific new design, even though Boosey & Hawkes asserted that:

> the resident wood-wind experts at the great B&H works at Edgware were instructed to undertake the task of creating entirely new models, that should embody the results of minute and rigorous investigation of the theories of the greatest authorities on acoustical science up to the present day.[70]

Boosey & Hawkes claimed that development of the model started toward the end of 1930 when the directors of the company had recognized "the steady and notable increase in the number of customers for the Boehm-system Clarinets made by the firm." The objective was "the production of a Boehm Clarinet that should remain for all time unassailable in its perfection."[71] Boosey & Hawkes may not have achieved perfection with the "1010" as it was renowned among players for its difficulty to be played in tune, but it became the model of choice of the majority of leading British clarinet players in all genres of music for about fifty years, and is still used professionally by a few performers today.[72] Some "special features" were applied to the "1010" in 1937: an improved thumb rest, Lonberg coupling, and Taylor silent action. Other improvements included "New Century Tuning," "New C natural connection," and "New Rubbers" or "Rubber Stops."[73] The last "pre-war" "1010s" were produced on February 6, 1941.

69. B&H Ltd., *Bulletin*, iv.

70. B&H, Catalog (before May 1, 1935): JHPC, A12.

71. Ibid.

72. The "1010" was also available in ebonite (model no. 1011) and metal (model no. 1012).

73. "Lonberg coupling" was an improved link between the middle joint for long e-flat′/b-flat″. "Taylor silent action" was applied to the little finger action b′ to c♯″. Patents were pending. B&H, Catalog, (after December 1936): EUCHMI/R., A15. Some clarinets were tuned sharper specifically for dance band players; they were advertised as "The B.&H. New Century Boehm System clarinet" and "Tuned for the Dance

The top of the range clarinet, "The 'B&H' 'New Century' Boehm System De-Luxe" model was first introduced in the post-December 1936 catalog. It was described as possessing "manifold advantages" and was aimed at "all artist clarinettists." According to Boosey & Hawkes, it was already played by the majority of players in America and certain countries on the Continent. This obviously untrue claim was clearly a marketing ploy that did not attract the customers as intended. The first instrument made was recorded in July 1936 and only a further six B-flat clarinets and five pairs were produced between 1936 and 1940. At first, promotion of this model was aimed at the classical clarinetists, however, having received limited interest, Boosey & Hawkes targeted the dance band market, describing it as "The Finest Clarinet in the World, Tuned for the Dance Band Player." It was advertised under the name "New Century," rather ambiguously with a list of thirty-one purported players—with more people endorsing the model than the number of instruments made—alongside the cheaper "New Century Standard Model," the "1010" promoted under a different name.[74]

In the circa 1935/36 catalogs, Boosey & Hawkes offered a new range of "Clarinets of Moderate Price, London and Paris" that were available in fourteen-key, Barret, and Boehm systems.[75] These instruments were made in part on the continent as manufacturing costs for large quantities were lower abroad than in Britain. They were described in the catalog as "an entirely new range of models," designed "in collaboration with a Continental key machinery manufacturer" with "certain parts, such as rough key machinery, rough wooden joints, etc. [. . .] imported." However, the "essentials" of these instruments were considered to be "100 per cent British" and the instruments were tuned in the factory under the same supervision as the more expensive models.[76] Until toward the end of 1939, only modest numbers of the fourteen-key clarinet were recorded in the workbooks. None of the Barret model were produced, and it was not until October 1939 that reference was made to the Boehm 1026 model. The 1026 was developed in response to increased demand for low-priced Boehm clarinets, and it is possible that some instruments described as "Boehm B," recorded before the end of the year, were trial

Player." They were available in standard model 17k, 6r, and de luxe 20k 6r. B&H, *Woodwind 1940*, 52.

74. B&H, *Woodwind 1940*.

75. Model numbers 1024, 1025, 1026.

76. B&H, Catalog (before May 1, 1935): JHPC, A15.

instruments. Regular production commenced in January 1940, and the model was marketed as "the ideal doubling instrument for the dance band saxophonist" under the name "Predominant."[77]

After the merger, Boosey & Hawkes continued to develop and produce a small number of metal clarinets. Although Hawkes' "XXth Century" was well established, aspects of both firms' designs were applied to the new instrument models. By 1935 metal clarinets were offered with fourteen keys, and in Clinton and Boehm systems.[78] It was not recorded whether the alto and bass clarinets were from Boosey, from Hawkes, or of a new design. They were available in simple and Boehm systems; with other systems, such as Clinton, they were made to order. Simple system instruments remained popular, with four alto and twenty-four bass clarinets made between 1931 and 1940, plus a Barret and a Clinton system for Edward Augarde.[79] Only eight Boehm bass clarinets were recorded in the workbooks. One made for Walter Lear[80] in 1931 was measured and a plan drawn of it in 1934, perhaps with the intention of using it for design development. According to Boosey & Hawkes, the company brought out "the epoch-making New Century Boehm Bass Clarinet in 1933,"[81] but there is no record of such a model in the workbooks. Four Boehm bass clarinets were made in 1936 and one in 1937, but it is not recorded whether they were made with the new "automatic speaker-key action" offered in the catalog.[82] No bass clarinets were produced from 1941 until May 1946 owing to the company's focus on war work.

Oboe

Boosey & Hawkes promoted a number of minority models of instruments in its literature in the hope that they would gain popularity.

77. B&H, *Woodwind 1940*, 54. The "Predominant" clarinet was available in Boehm system and Albert system.

78. 14 keys A1003, A7, Clinton A1009, A9, Boehm A1012. B&H, Catalog (before May 1, 1935): JHPC, A13.

79. Edward Augarde (1887–1985) played bass clarinet in the BBC Empire Orchestra and in the London Symphony Orchestra 1913–33.

80. Walter Lear tested clarinet and saxophone at Boosey & Co. c.1929/30. He was a professor at Kneller Hall from 1930–48 and played bass clarinet in the BBC Symphony Orchestra and bass, basset horn, and saxophone in the London Symphony Orchestra, Royal Philharmonic Orchestra, and Royal Opera Orchestra at Covent Garden.

81. B&H, Catalog (after December 1936): EUCHMI/R., A17.

82. Ibid., A17.

Notably during this period, the focus was on oboes. During the dance band era, players were often expected to play more than one instrument ("double"). Seven oboes with saxophone fingering were recorded in the workbooks—of which six were bought in and one was made in-house.[83] They were recommended for dance band and military players who needed to double on saxophone and oboe.[84] In 1934 two "Reynolds" oboes were made according to modifications that Charles Reynolds, oboist in the Hallé Orchestra, had devised;[85] Reynolds was an influential player who, as a professor at the Royal Manchester College, taught many pupils including the distinguished player, Leon Goossens. An extant 1934 drawing of Goossens' oboe details two instruments made according to this plan that are recorded in the workbooks.[86]

The Barret system oboe was devised by Appolon Marie-Rose Barret in 1860.[87] Although it was popular in Britain, Boosey & Hawkes did not produce any full Barret system oboes until 1935; the first instrument was bought in and then a further four were made.[88] The "Whittaker" model was promoted by Boosey & Hawkes in its 1940 Yearbook as "designed by the late Stephen Whittaker to facilitate the rapid passages in flat keys and extreme sharp keys." It was played and recommended by Alec Whittaker, Professor of the Oboe, Royal Academy of Music. However, it

83. 14/09/1932 sn30119 Bought in: Oboe LP Sax System B/wd stamped only; 13/10/1932 sns30279/80 Bought in: Oboe LP Sax System B/wd stamped only; 01/12/1932 x3 AHC, stamped BH; 08/11/1932 sn30323 Made: Sax Oboe, LP, 5 rings to B-flat Cage. B&H, *Woodwind and Percussion 8*: HM/B&H A227/019.

84. Cottrell states that in the late 1920s the "oboe-sax" was developed by the French firm Lorée. It was essentially a Boehm-system oboe with the keywork modified to resemble saxophone fingering. The motivation for the design was to encourage some of the many saxophone players to transfer to or double on the oboe. Stephen Cottrell, *The Saxophone* (Newhaven and London: Yale University Press, 2012), 86.

85. Reynolds transferred some of the shake-keys to the other side of the instrument. Philip Bate, *The Oboe: An Outline of Its History, Development and Construction*, Instruments of the Orchestra (London: Benn, 1956; reprint, 1962), 83.

86. August 24, 1934 Plan: Oboe-Loree, Reynolds Model, used by Leon Goossens sn31337. Workbook entries: August 27, 1934 sn31337 LP, Bwd, "Reynolds," Skillin G.H; December 13, 1934 LP, Reynolds. M. Skillin G.H. B&H, *Woodwind and Percussion 8*: HM/B&H A227/019.

87. Barret action enabled c″ and b-flat″ to be produced by putting down any of the right hand fingers instead of lifting the left thumb from the thumb-plate. Baines, *Woodwind Instruments*, 328.

88. 17/10/1935 sn31955 LP, Bwd, Full Barret (Louis make); the first Barret oboe B&H made: 19/12/1935 sn32089 Barret oboe, LP, ebonite, plated, thin body, 1075. Skillin G.H. Four more were made between 1938 and 1940. *Woodwind and Percussion 8*: HM/B&H A227/019.

did not gain popularity and only one of this model was made.[89] Early in the decade a few metal oboes, perhaps developmental instruments based on Hawkes & Son's "XXth Century" model, were recorded in the workbooks. Subsequently, with some influence from the Boosey designs, Boosey & Hawkes produced the "XXth Century Artist Model" with a chrome body and silver plated keys. It was recommended for military use and was designed "expressly to meet the demand for an all metal instrument which is not only capable of the production of good tone, but will withstand hard usage and also remains unaffected by the impositions of extremely hot climates."[90] It never gained popularity; only eighteen were made between 1935 and 1939 and none thereafter.[91]

Cor Anglais, Oboe d'Amore

Demand for the cor anglais was particularly low at Boosey & Hawkes in the first five years after the merger, with only one instrument made. The small number of cors anglais produced had always reflected the infrequent orchestral use of the instrument, however, a "new 'B&H' Cor Anglais and Oboe D'Amore" was featured in their circa 1935/36 catalogs.[92] Whether it was because of an improved model, good advertising, or recovery from the recession, between 1935 and 1940 sales increased and nine instruments (including one old model) were produced. However, none were made between 1941–46, and only two in 1947. No oboes d'amore were actually made. Once again, this is indicative of the company's allocation of its resources to war work and military band instruments at the expense of orchestral instruments.

Bassoon

For the first few years after the merger Boosey & Hawkes offered predominantly French system bassoons.[93] However, in 1935 it promoted the

89. 08/10/1940 sn32694 LP, 1076, G, Dup pipes. Skillin. Ibid.

90. B&H, Catalog (before 01/05/1935): JHPC, A29.

91. *Woodwind and Percussion 8*: HM/B&H A227/019.

92. Models: 1081 Cor Anglais wood, 1082 Oboe D'Amore wood. Ibid., A28. It was advertised as the "New B. & H. Cor Anglais, The Artist Model, constructed on the same lines as the Artist Model Oboe" in B&H, *Woodwind 1940*, 92.

93. B&Co.'s Nos.127,128, "Perfected Model," Hawkes' "Military" and "Morton" models, a newly developed Hawkes' "Professional Model 'B,' French system," the "Service Model" (French system, based on the old Boosey military model with an ebonite lined wing joint and particularly robust keywork).

"Professional Model 'H,' German system" model, which had been originally produced by Hawkes.[94] British orchestras developed a preference for the large bore German bassoon during the first few decades of the twentieth century, and although it was slow to catch on, by the beginning of the War it had been adopted by a majority of British players. The change was initiated by the appointment of two Viennese bassoonists to the Hallé Orchestra[95] and influence from the recordings of the Berlin, Vienna and Philadelphia orchestras. However, it was the clear and effortless sound of the bassoonists of the New York Philharmonic Orchestra playing Heckel instruments during their visit to Britain in 1930 that really encouraged British players to change.[96]

A few leading British bassoonists continued to play French instruments,[97] but from the 1930s the popularity for the German bassoon influenced British manufacturers to change the models offered. Boosey & Hawkes developed its German model based on a Heckel instrument. Professional bassoonists were consulted for advice during its development; besides an extant plan of a Heckel instrument drawn in May 1934, there are notes detailing advice sought from John Alexandra and Archie Camden for the crook design.[98] In October 1934 Camden lent the company his Adler crook; he thought it greatly improved the Boosey &

94. B&H, Catalog (before 01/05/1935): JHPC, A45.

95. Hans Richter, conductor of the Hallé orchestra (1891–1912), in 1903 and 1904 appointed to the orchestra two German bassoonists, Otto Scheider and Wichtl, who played Heckel bassoons. Scholarships were endowed for two students, Archie Camden and Maurice Whittaker, to study with Scheider at the Royal Manchester College of Music. Langwill, *Bassoon*, 69–70.

96. Archie Camden influenced London bassoonists when he moved to London as principal of the BBC Symphony Orchestra in 1933. According to Martin Gatt (personal communication December 6, 2008) he made a lot of money importing instruments. Among the first London players to change were W.H. Foote, Richard Newton (from Hawkes "Morton" model, then Buffet) and John Alexandra (from Buffet). Baines, *Woodwind*, 340 and Lyndesay G. Langwill, *The Bassoon and Contrabassoon*, Instruments of the Orchestra (London: Benn, 1965), 171 and 176.

97. Wilfred James (1872–1941) high pitch Savary, low pitch Mahillon. Cecil James (1913–1999) Morton, then Buffet. A.E. Wilson high pitch Buffet. Langwill, *Bassoon*, 174–182.

98. John Alexandra tested bassoons for Boosey & Co. He was principal bassoon in the London Symphony Orchestra until he joined Beecham's London Philharmonic Orchestra in 1932 (with Gwydion Brooke as 2nd bassoon), and later joined the Philharmonia. He played a Heckel bassoon. Archie Camden (1888–1979) was principal bassoon of the Hallé Orchestra from 1914. He joined the BBC Symphony Orchestra in 1933, and the Royal Philharmonic Orchestra in 1946. He taught at the Royal Manchester College of Music and the Royal College of Music.

Hawkes "H" model which he considered to be "very defective as approved by Mr Alexandra." Ultimately the crook was designed by averaging the Heckel and Adler measurements, and was approved by Alexandra in November.[99] In 1935 an Adler "Sonora" bassoon was bought in to make a comparison with the "H" model, but it was "condemned" by Alexandra and subsequently sold second hand.[100]

Demand for Boosey & Hawkes bassoons was very low as professional bassoonists favored Heckel and Adler instruments, and military players retained the French system. After the initial introduction of the German model in 1934 and 1935 numbers dwindled, but in 1940 and 1941, for just two years, production rose suddenly, owing to an opening in the American market. However, government restrictions on export affected sales of musical instruments abroad and none was made from 1942 to 1945. A letter from Brian Manton-Myatt to Langwill in 1943 explains the situation:

> Perhaps you will be interested to know that we sent a few dozen of our Almenraeder model bassoons to America about two years ago, and had some really wonderful reports on them. It was a very great disappointment to me that the Government stopped further export just as we had managed to secure a "fair hearing" for our British made bassoons, but I can only hope that the future will bring better and fairer chances for us over there than we have had in the past, when the cut-throat prices of inferior products from France and Germany etc. kept our instruments out.[101]

Although both the French and German systems were promoted in the 1940 Yearbook,[102] after 1941 Boosey & Hawkes manufactured only the German model, thus no doubt reflecting players' preference for it. Only one contrabassoon is recorded between 1930 and 1947; Boosey & Hawkes bought in a Heckel for export to Siam (Thailand) on May 26, 1932. It was altered and then tested by Alexandra who discovered it required a shorter crook to obtain the correct pitch.[103]

99. Plan dated October 25, 1934. HM/B&H.

100. Plan dated 1935. HM/B&H.

101. Letter: October 18, 1943 from Manton-Myatt to Langwill. EUCHMI/L 4356.

102. Archie Camden discusses both German and French systems but endorses the former in his article. Archie Camden, "The Bassoon," in *Woodwind Year Book* (B&H, 1940), 35–39.

103. 26/05/1932 sn30055. Contrabassoon, wood, Frost, Heckel altered & stamped. *Woodwind and Percussion 8*: HM/B&H A227/019. Plan: May 26, 1932 FP Contra Bassoon Heckel. New at this date. going to Siam. No.30055 in bill books. Tried by Mr. Alexandra with shorter crook and reported true to pitch. HM/B&H.

Horn

The growing demand for the German style horn in Britain led Boosey & Hawkes to develop some large-bore models from February 1935. A number of different designs are recorded in the workbooks, but individual model names and numbers, apart from the lower-grade "Regent," were not noted until August 1935. Boosey & Hawkes double horns were essentially based on an Alexander 103 model (an early design patented in 1909) owned by Alan Hyde, and Boosey & Hawkes continued to make Alexander 103-type instruments into the 1950s and 1960s.[104]

Three new horn models were promoted in the circa 1935/36 catalogs: "Imperial," "New Century," and "Emperor."[105] The double horn, which was widely used on the continent, especially in Germany and Italy, was first adopted by a few British players in about 1910.[106] Boosey & Co. had previously attempted to introduce compensating and double horns in 1912 and 1923 respectively, but there had been no demand for them. The new models gained some popularity, although the French style instruments remained in regular use until the late 1940s.

The "Imperial," a large bore horn in A, with F and A crooks, according to Boosey & Hawkes, was designed to produce a big tone for large ensembles and for military band use; nevertheless, horns with F and A crooks were generally intended for orchestral use, not military. The "Emperor" was a conventional large-bore double horn in F with four rotary cylinders and an extra set of valve slides for B-flat—the fourth valve enabling an instant change.[107] The advantage of this system was that by using slides, crooks were dispensed with, however, the slides gave the instrument additional weight and made it a much heavier model than the others. The large bore "New Century" horn was a progression of Boosey's earlier design, and was much lighter in weight. It was a compensating double horn that served the same purpose as the double horn whereby the fourth valve changed the pitch from F to B-flat.[108] Pro-

104. Personal communication with Bradley Strauchen-Scherer. Compensating double rotary horn: sn146094, July 4, 1935 was copied from a 103 owned by Alan Hyde. Blaikley Photograph Album. HM/B&H. David Blaikley created a photograph album in 1898 in which he included certain notable designs and models. It was continued post-merger, with additions made until 1938.

105. Model numbers B4049, B4050, B4051.

106. H. E. Adkins, *Treatise on the Military Band* (B&Co Ltd., 1931), 131.

107. B&H, Catalog (after May 1, 1935): JMPC, 25 and 27.

108. Ibid., 26.

fessional horn players, besides Alan Hyde, who had custom built instruments during this period included a Mr. Phillips, a Mr. Marshall, and a Thomas Busby,[109] and one particular commission was for a film production at Elstree for three valveless French hunting horns.

Cornet

Within a year of the merger, Boosey & Hawkes introduced two new cornet model names: the "Regent" and the "Piccadilly." These and the Hawkes "Empire" name were sometimes applied to Boosey's B2 model which between 1934 and 1937 was also made for Lafleur and for Besson. As with the trumpet and trombone, the name "Piccadilly" was specific to models for Lafleur. Many of the cheaper "Regent" cornets (R718) and, from 1938, a number of "Regent" long model cornets (R764) were manufactured mainly for export to North America. The long model continued to be more popular in America than in Britain, and in general it was designed so that players of the unfashionable cornet could appear to be playing the fashionable B-flat trumpet.[110]

Trumpet

Besides making trumpets for the home and colonial markets, Boosey & Hawkes manufactured particular models for export to America where the popularity of bands and dance bands continued to grow. The "Alliance," a 'cheap' model that had previously been produced by Hawkes & Son for Lafleur from at least 1923, was recorded in the workbook as a 'new model' in January 1932; it went into regular production from the end of February and manufacture increased from May, with multiple batches of "Alliance" and fifty "Regent" trumpets listed in the workbooks.[111] It may be that they were both the same design sold under different names, as the 'Regent' was first promoted in the 1932 *B&H Bulletin.* The "Regent" was made to be less expensive than the "Clippertone," and although it was a low-priced model, Boosey & Hawkes described it as having "all the more important features attached to the

109. Thomas Busby's positions included principal horn in the Private Orchestra of His Majesty King Edward VII, The London Symphony Orchestra, Queen's Hall Orchestra, and Royal Italian Opera. Professor of French horn at Guildhall School of Music and Trinity College of Music.

110. Personal communication with Arnold Myers.

111. B&H *Instruments Brass 15*: HM/B&H A227/059.

higher priced instruments" and "brilliancy of tone and structural perfection."[112] Many "Alliance" trumpets were produced in 1933, most of them almost certainly for American export. From the end of 1936, the "Regent," listed with a new model number, was the most frequently recorded trumpet; it also appears to have been the same as a Besson model, Boosey's A18B, and Hawkes' "Empire."

Between February 1934 and June 1935, Boosey & Hawkes made a few experimental trumpets, and a new low price model aimed at the dance band market—the "Piccadilly"—was developed for Lafleur for sale in America. It was brought into regular production from June 18, 1935 under the name "Piccadilly Zenith." Adjustments were made to the design in February 1937. Many of these trumpets were made, but it appears that very few have survived.[113] The last batch of 'PZ' trumpets was recorded in November 1938.[114] In 1935 a "Narrow Regent Trumpet" was listed in the workbooks, but at first it was recorded under the names of "Piccadilly" and "Alliance." Many of these instruments were produced, some with shunt and some rotary action (the B-flat to A rotary valve was often called a "quick change valve").[115] It would appear that the "Piccadilly," "Alliance," and "Narrow Regent" trumpets were similar in design and that sometimes the model names were interchangeable.

Having endorsed the "Regent" trumpet in the 1932 *B&H Bulletin,*[116] Jack Raine, soloist in Jack Hylton's Band, subsequently worked with Boosey & Hawkes to design the new "Jack Raine Special Trumpet" and mouthpieces, which were offered in the circa 1935 catalog. Greater demands were being placed on jazz and dance band trumpeters to play in the altissimo register through the 1930s into the 1940s, and the Raine model, "Designed by a Player— for a Player!" was promoted as having "higher notes, increased range, speedier action and increased performance [. . .] Notes from top C to G above are now within the reach of the modern player." Raine, who was described in the catalog as playing "with success an all-British made Trumpet," expressed his "admiration

112. B&H Ltd., *Bulletin*, vi.

113. A few surviving instruments have been discussed on forums on the internet such as http://en.allexperts.com/q/Trumpet-2049/2010/3/trumpet-45.htm (accessed 10/11/2014).

114. B&H *Instruments Brass 16*: HM/B&H A227/060.

115. A shunt is a slide with limited travel that, when fully extended, lowers the pitch of the instrument by a semitone.

116. B&H Ltd., *Bulletin*, vi.

for the excellent interpretation of my ideas which you have successfully incorporated in this new 'all in one' model" and acknowledged the trumpet as "the best ever in my long and varied experience."[117] There is evidence that during 1928 and 1929 Boosey & Co. had customized a few instruments for Raine, although in a circa 1931 trumpet catalog he was featured alongside other players endorsing what had been the Hawkes "Clippertone."[118] However, the "Jack Raine" model never caught on.

Trombone

During the 1930s, owing to the popularity of British dance bands, many players became very successful. This was reflected in the high prices of some models of dance band instruments (fig. 5). The most expensive of the range was the "Cabaret" trombone, which was considered to have a wide bore. Boosey's "Imperial," also aimed at dance band players, was available with a large bore but was lower-priced.[119] However, some instruments from this period stamped "Imperial" were made for band and orchestral use with narrow bores. The demand for larger bore instruments for popular music was increasing, influenced by instruments made by American companies such as Conn and Olds. Extant notes and drawings by Boosey & Hawkes of trombone models produced by these firms and of experimental instruments made in the Boosey & Hawkes factory show new designs developed in collaboration with certain celebrated players. For a long time, wide-bore trombones were popular only for dance band use, as brass bands and orchestral players retained the narrow-bore 'peashooters' until after the Second World War and into the 1950s.

The "Piccadilly Zenith" tenor trombone, introduced in 1935 and produced until 1937, like the trumpet of the same name was a lower quality instrument manufactured for sale abroad by Lafleur and, therefore, not included in the Boosey & Hawkes catalog. A number of trial trombone models with different specifications and names were recorded in the workbooks. Sometimes small batches of instruments were made based on a previous custom-made instrument.[120] Special orders were taken for

117. Trumpet model: B4001, mouthpieces: B4002/3 in B&H, Catalog (after 01/05/1935): JMPC.

118. B&H, *Trumpets* (c.1931): AMPC.

119. B&H Ltd., *Bulletin*, xiv.

120. B&H *Instruments Brass 15*: HM/B&H A227/059.

professional musicians like Ted Heath,[121] and new design improvements developed in collaboration with dance band trombonist Tony Thorpe.[122] The "Thorpe" instruments in 1933 had "an additional cylinder to F" (a thumb valve for F), in 1935 similar slide lengths to an Olds trombone, and in 1936 "spiral slides," the latter having been patented in America in 1931.[123] Fifteen instruments are recorded with Thorpe's name but none are known to have survived.[124]

In 1933, Boosey & Hawkes designed a new style G+D bass trombone (a large bore model with a rotary valve to D) in collaboration with William Betty, bass trombonist in the Bournemouth Symphony Orchestra.[125] The progression of the design and a further experimental instrument can be seen in the workbooks. An alternative valve tuning slide for C was provided for repertoire including a low A-flat.[126] The "Betty" model (fig. 8) was used by orchestral players in the 1930s but started to fall out of fashion in the 1950s. Brass bands started using them in the 1960s and 1970s when all trombone bores became wider.[127]

Sousaphone

Besides producing high-quality basses, Boosey & Hawkes developed the lower priced "B" class range branded "Regent" for both the home

121. Ted Heath (1902–69) was a trombonist and big band leader who played with many prominent bands including Bert Ambrose in his early career. In 1944, influenced by Glenn Miller and supported by a BBC broadcasting contract, Heath formed a large jazz-orientated band which attained much success for many years.

122. B&H *Instruments Brass 15*: HM/B&H A227/059. Tony Thorpe played bass trombone in the London Symphony Orchestra 1957–62 and during the 1960s in the Royal Opera House Orchestra.

123. US1789589 A. Application August 5, 1929. Approved January 20, 1931. Alfred J. Johnson, York Band Instrument Company. This patent was for an improved arrangement of the slide stockings whereby the stockings are provided with an inner-helical lubricant groove.

124. Other unnamed instruments of this design have survived: e.g., no.143560, EUCHMI 1122.

125. G+D trombones were made in the early twentieth century by Courtois. The bore size of the B&H "Betty" model was 0.527 inches whereas the standard B&H bore size was 0.484 inches. Gavin Dixon, "Farewell to the Kidshifter: The Decline of the G Bass Trombone in the UK 1950–1980," *Historic Brass Society Journal* 22 (2010): 75–89.

126. In 1933 a "Betty" model was made for Frank Taylor, a professor at Kneller Hall. Eighteen "Betty" trombones were made up to 1939 and twenty more between 1947 and 1959. Arnold Myers, "Brasswind Manufacturing at Boosey & Hawkes 1930–45," *Historical Brass Society Journal* 15 (2003): 58.

127. The first B&H trombone with a really wide bore was their "Sovereign" model. The last known "Betty" was made in 1976 (sn590109, given out in 1976). It belongs to a British collector. Personal communication with Arnold Myers.

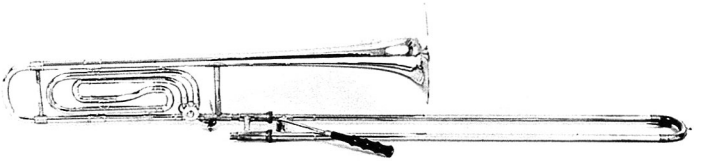


FIGURE 8. The 'Betty' model (EUCHMI 1120) © University of Edinburgh. Antonia Reeve

market and for export.[128] After the merger, sousaphones were not produced until 1936 when an average of six were made each year until the War; cheaper "Regent" models were introduced in 1936. A number of experimental, newly developed, and unusual basses were recorded in the workbooks and included in Blaikley's album.[129]

Trumpet

Traditional Bach and heralds' trumpets, which were used for oratorio, opera, coronations, and state occasions, were offered in the circa 1935/36 catalogs. Aida trumpets were not included. However, two pairs in A-flat and B natural—Verdi's scoring for Aida—were recorded in the workbooks in July 1934, the first listed since the merger. Developments took place the following year when a G bass and three B-flat tenor Aida trumpets, and also a B-flat Aida trumpet of cornet length ("Hawkes Patt") were made. In March 1937 a higher pitch instrument in E-flat was introduced. This new "family" of instruments: E-flat soprano, B-flat melody, B-flat tenor, and G bass was approved as standard by Kneller Hall in October 1938.[130] A number of these instruments were produced in 1937 for the coronation of King George VI, and from June 1938 they were recorded and known as "Coronation Trumpets."[131] Coronation trumpets

128. Workbook records and Blaikley's photograph album document some instruments for export to the Maltese dealer Carabott and for Besson.

129. *Instruments Brass 15, Instruments Brass 16*: HM/B&H A227/059, A227/060; David Blaikley's album. HM/B&H.

130. Notes in the front of *Instruments Brass 16*: HM/B&H A227/060 and entries in workbooks *Instruments Brass 15* and *Instruments Brass 16*: HM/B&H A227/059 and A227/060.

131. For example: two E-flat Coronation Trumpets were recorded in the workbook on 20/06/1938. *Instruments Brass 16*: HM/B&H A227/060. An advertisement in *The*

have continued in use for British state occasions with many produced subsequently. They have now developed into the modern Coronation Fanfare Trumpet models which are made by Smith Watkins.[132]

Music-making During Wartime

War was declared on September 1, 1939. The effect was far-reaching and brought about lasting changes to all aspects of society. After an initial lull, music performance and concert-going flourished, with music of all genres boosting the nation's morale throughout the War.[133] Orchestral performances reached large audiences in the provinces as the major symphony orchestras left London and toured the country. However, as wartime progressed many new concert series were organized in London, including one during the 1941–42 season that was presented under the patronage of the Allied Governments and the British Council by the Royal Philharmonic Society in partnership with the BBC, London Symphony Orchestra, and Boosey & Hawkes.[134] The flautist Gerald Jackson recounts that there was a great music boom in London during the War with many new permanent and short-lived orchestras appearing, such as the New London Orchestra, the New Concert Orchestra, and the National Symphony Orchestra.[135]

The Entertainments National Service Association was established to entertain the military troops, and the Council for the Encouragement of Music and the Arts was set up to support and promote British culture and enable civilians to participate in the Arts.[136] This led to the formation of many concert societies and concert series. Listening to BBC wireless broadcasts and gramophone records were popular domestic pas-

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Musical Progress and Mail in January 1939 describes them as 'Coronation Fanfare Trumpets (Reg. Design)' stating that they were designed by Major H. E. A. Adkins for the fanfares sounded in Westminster Abbey for the coronation of George VI. "The Musical Progress and Mail: Boosey & Hawkes Advert for Coronation Fanfare Trumpets," (January 1939): HM/CA A1/9/22.

132. http://heraldfanfaretrumpets.com/ (accessed October 16, 2015).

133. E. D. Mackerness, *A Social History of English Music* (London: Routledge and Kegan Paul, 1964), 265.

134. Nicholas Kenyon, *The BBC Symphony Orchestra: The First Fifty Years 1930–80* (London BBC, 1981), 170, 179.

135. Gerald Jackson, *First Flute* (Dent, 1986), 74.

136. http://www.portlandcema.org.au/cema_inc/background/background.html (accessed October 29, 2014). http://www.portlandcema.org.au/cema_inc/background/background.htm.

times, and sales of gramophone records were high in spite of purchase tax. Broadcasts of music on the Home Programme, and entertainment and music of a lighter nature on the Forces' Programme for the troops reached a wide audience. Dance halls and night clubs thrived as people tried to enjoy life and forget the horrors of war.[137]

In spite of increased musical activity, the numbers of wind instruments required for orchestral players, and consequently produced by manufacturers, was negligible compared to those for military, brass, and dance bands throughout the period. However, for most of the War wind instrument manufacture in Britain was severely diminished by the shortage of raw materials, trade restrictions, prohibitive rate of purchase tax and above all, the use of the factories and workforces for war work.

Wartime in the Factory

Toward the end of the 1930s, growing international tension and the changing political situation affected trade conditions and brought about a decline in the sales of musical instruments and consequently an increase in factory stock. For example, Boosey & Hawkes' greatest rivals, the London wind instrument making firm Besson & Co., recorded in its *Shareholder Meeting Minutes* that sales were down by about a third and stock was approximately double the figure of the same period for the previous year.[138] With preparations for war, costly obligations were imposed upon companies by the Civil Defence Act, whereby they were required to construct air-raid shelters, to form and equip fire-fighting and first aid squads, to obscure lights in all premises, and to take out Commodity Insurance against war risks.[139] Also, in accordance with the government fire prevention order, companies were obliged to appoint a duty rota of employees to guard factory premises in case of air raids and incendiary bombs.[140]

Instrument manufacturers undertook government contracts from the Ministry of Supply and the India Office for bugles and trumpets, but prices were not remunerative. However, in October 1939, at meetings of the Musical Instrument Makers Association, which were attended by Boosey & Hawkes, Besson, Dallas & Sons, and the Premier Drum

137. Mackerness, *Social History*, 265–70.

138. *Besson, Shareholder Meeting Minutes* (1932–1957): HM/B&H A227/178. April 18, 1939, 65.

139. Ibid., October 26, 1939, 72.

140. Ibid., September 12, 1940, 83 and November 27, 1940, 84.

Company, it was agreed that higher basic prices would be quoted for subsequent contracts.[141] From the outbreak of war, increasing government control was exercised over production methods, machinery, engineering skills, management, designs, and raw materials used at British manufacturing companies, and many small factories were requisitioned by the government for war work. New government departments were created to ensure maximum use of resources. The responsibility for obtaining and distributing raw materials was handled by the Raw Material Department, which became part of the Ministry of Supply, and a Ministry of Aircraft Production was created to control the manufacture of planes and accessories for the Royal Air Force. Many parts and accessories for airplanes were bought by the Air Ministry under the 'embodiment loan scheme' from smaller companies, and constructed at larger factories, some of which had previously been used for car manufacture.[142]

Instrument making companies, including the Salvation Army Musical Instrument Department at St. Albans, reduced production of instruments in order to concentrate on aircraft work.[143] Boosey & Hawkes put their efforts into obtaining war work and secured War Department Air Ministry contracts,[144] some of which they sub-contracted to Besson, who specialised in the fabrication of aircraft and engine pipes.[145] Although orders for instruments declined owing to a lack of support for band music in the forces and civilian bands, Boosey & Hawkes managed to maintain some instrument production and publishing throughout the War.

War work was of great importance to manufacturers as, in June 1940, the government instigated the Limitation of Supplies Order which restricted the supply of non-essential consumer goods to the home market.[146] This severely affected all companies, resulting in a sudden reduction in sales. Besson & Co. recorded that the order was causing them great difficulties, and that therefore they were attempting "to secure other business through various non-restricted sources." Their trade asso-

141. Ibid., October 26, 1939 and April 17, 1940, 78.

142. Mary Elizabeth Murphy, *The British War Economy* (New York: Professional and Technical Press, 1943), 45–63.

143. Besson, *Shareholder Meeting Minutes*. 01/1941, 87–88.

144. Work undertaken included contracts for Midgley Harmer Ltd., Gloster Aircraft Co., the Bristol Aeroplane Co. at Accrington, Armstrong Whitworth at Coventry, Aston, Napier Motor Co. and Rootes Ltd., Liverpool.

145. Besson, *Shareholder Meeting Minutes*. November 27, 1940, 84, and October 27, 1941, 94.

146. Ibid., November 27, 1940, 84.

ciation was also endeavoring "to get the question of the limitation of supplies of musical instruments to the armed forces raised in Parliament with a view to getting some relief."[147] Purchase Tax also greatly affected the sales of musical instruments in Britain during the war. It was introduced in October 1940 at a rate of 33.3% to lower spending on nonessential items and to raise revenue.[148]

In addition to reduced sales, companies were affected by increased wage bills. Between 1938 and 1944, as imports of food and goods declined, the cost of living rose by 50%. The government was forced to subsidize basic foods, and wages increased according to an agreement with the employees' trade union based on the cost of living scale as recorded in the *Labour Gazette.* Between the commencement of war and November 1940 instrument makers' wage rates were increased three times, each time by ½d per hour.[149] At Besson, from May 1940, salaried staff receiving a weekly wage below £7 were paid a cost of living allowance "as an effort by the Company to share part of the burden imposed on small salaried employees" by the wartime conditions. It was not regarded as increase of remuneration and could be raised or discontinued at any time.[150] The allowance was 4/6d per week for married employees and 3/- per week for single employees.

Vulnerable to air attack during the War, many central London firms sought factory premises in safer areas of the city. Toward the end of 1941, on the recommendation of the Ministry of Aircraft Production, Besson, together with Boosey & Hawkes, secured "dispersal premises" at Enfield in order to further their aircraft work.[151] A Boosey & Hawkes letterhead gives the location of the works as Edgware, Enfield and Brimsdown, Middlesex.[152] At Boosey & Hawkes war work included the manufacture of parts for aircraft and their assembly, such as bomb-door spars, bomb-doors, Lancaster elevators and Spitfire ailerons[153] (fig. 9).

147. Ibid., 91.

148. Ibid., November 11, 1940, 84.

149. Ibid., November 27, 1940, 85.

150. Ibid., September 12, 1940, 82–83.

151. The premises at Embassy Hall, Eaton Road, Enfield comprised approximately 25,000 sq. ft. and was rented for £600 p.a. The administration and staffing was arranged by both houses and Sidney Michaels appointed as General Manager. Ibid., October 27, 1941, 93–94.

152. Letter from G. Bryer, Professional Dept. to Langwill. December 12, 1943. EUCHMI/L, 4403.

153. B&H, Wartime Photograph Album (1940s): HM/B&H.

FIGURE 9. Covering and doping Lancaster elevators (HM B&H ARC/BH/BOO/012/001/001/027). Permission of the Horniman Museum, London

The company also made wire recorders that were supplied to all branches of the services.[154] The Edgware factory was reorganized and new plant installed. A letter dated October 18, 1943 from Brian Manton-Myatt to Lyndesay Langwill gives a personal account of the harsh realities of what went on at the factory:

> Unfortunately a fairly large list of foreign addresses I had compiled before the war was destroyed by the firm's workmen who demolished my tuning room one day (to make space for some very un musical war work) before I could rescue it, together with many of my papers and designs for post war new models of wood-wind. If only they had had a shade of respect for things other than objets de guerre I might perhaps have had a few more for you [. . .] I will do my best to trace the unfortunate instruments in our collection, but they have had disgracefully rough treatment by the workmen who removed them at the behest of the M.A.P. who have simply run roughshod over the Works and cleared out any and every thing that took space for machines. I do not even know where the collection is housed, much less in what condition it can be, and I tremble for the many interesting and excellent specimens it contained. If I can hear anything of its whereabouts I shall try

154. The Wirek type A was designed to be portable (57lb) mainly for recording speech. http://www.vintagerecorders.co.uk/VR_View_Page.asp?IDS=18 (accessed December 30, 2013).

> and unearth it, but I dare not be sanguine in view of all that has happened here since the Government took over the Factory. I cannot be more explicit, but there have been painful moments for those of us who regarded our work as an art to be respected and preserved at least as far as possible during these times which will come to an end sooner or later.[155]

The purchase of the new machinery was costly, however, it was recognized that after war ended it would be useful for instrument manufacturing.[156] Engineers were brought in to run the factory, and many women workers employed, some operating heavy presses[157] (fig. 10). In 1943 the company's letterhead documented the firm as "Direct Contractors to Admiralty, War Office, Air Ministry, Ministry of Supply, Office of Works, Crown Agents for Colonies. Also to the Governments of India, Australia, Canada, New Zealand, Union of South Africa, Burma, Egypt, Sudan, Iraq."[158] During the War there was a great shortage of raw materials, and a license was required to obtain steel and brass for making components for contracts. Orders from the mills often took nine months to be delivered, and everything was rationed.[159] Rubber was a restricted substance, and this affected the use of ebonite for instrument manufacture. With much of the Edgware factory given over to war work, production levels of instrument manufacture fell and many instrument models were discontinued.

The Effects of World War II on the Range of Models Produced

Boosey & Hawkes announced in their *Woodwind Year Book*, written in 1939, that

> the B.&H. Factory must maintain sufficient tools, machines, patterns— and a host of other things—in order to make: 63 different kinds of piccolos; 146 different kinds of flutes; 250 different kinds of clarinets; with all their variations of pitch, materials, systems of keywork, etc. (and there are also cor [sic] anglais, bassoons, bass clarinets, corni di bassetti, and various other less frequently seen instruments to be considered!).[160]

This may have been the case before the War, but during the War instrument manufacture was severely diminished, with considerably fewer

155. EUCHMI/L 4356.
156. Besson, *Shareholder Meeting Minutes*. 17/04/1940, 78.
157. B&H, Wartime Photograph Album.
158. Correspondence from Brian Manton-Myatt to Langwill. EUCHMI/L 4356.
159. Macree, in B&H, *Edgware Newsletter* (1970), 18.
160. B&H, *Woodwind 1940*, 111.

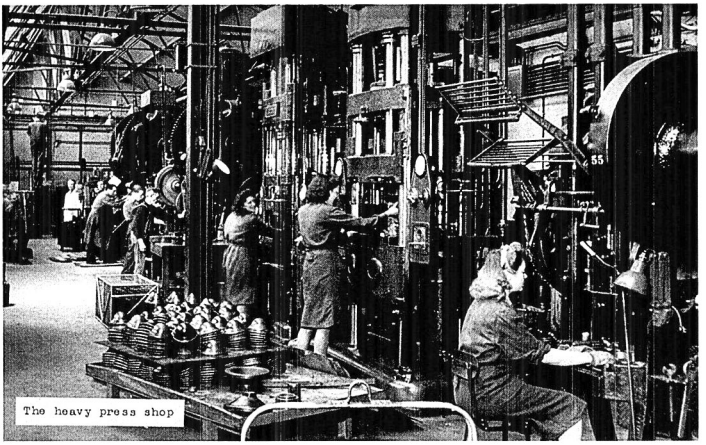

FIGURE 10. Heavy press shop (HM/B&H ARC/BH/BOO/012/001/001/017). Permission of the Horniman Museum, London

models retained. For a few years, war work dominated production using the engineering machinery that had been installed for that purpose. When instrument making was re-established towards the end of the war, this machinery was adapted for mass production of lower grade instruments such as "Regent" trumpets, trombones, and clarinets. The new processes and workforce brought about a radical change in production methods, and this resulted in a change in company ethos and a dramatic increase in the number of instruments made.

Several new clarinet models were manufactured during the early war years. Regular production of the 1026 "Predominant" (Boehm system) clarinet commenced in January 1940. This was followed by the 1027, which was first noted in the workbook in October 1940; only twenty-six of this model were made. The 926 (Boehm) clarinet (known as the "Imperial" from 1946) was introduced in January 1941, and this with the 1026 and 1024 (fourteen-key) model clarinets were the only reed instruments produced in quantity that year. Two clarinets of a new model with articulated $g\#^0$ and fork b-flat^0, the 927, were made in 1944, but then no more were made until 1946.

In November 1941 the Minister of Labour, Ernest Bevin, who was responsible for allocation of the British workforce during the War, targeted

a 30–40% increase in the production of war equipment for the next year.[161] Workers were therefore transferred from non-essential production and retrained, and more women were recruited into industry. In March 1942 output rose considerably, with the rate of production in Britain and its Dominions estimated at 70–80% of that in Germany.[162] This move was reflected at Boosey & Hawkes where many instrument makers were transferred to war work; the reed instrument making workforce diminished from twenty men to three as factory space was turned over to the war effort.[163]

Consequently, reed production fell dramatically from 742 instruments in 1941 to sixty-two in 1942. The same effect can be seen in brass production: 1,530 instruments in 1941 to 630 in 1942 before a sudden rise when mass production commenced in 1945, with an average of 3,292 brass instruments a year between 1946 and 1955.[164] No new brass models were introduced during the war except for a high pitch 'Utility Trumpet' (provided with a slide for low pitch) that was produced in quantity from 1942, some cheap Class A trumpets, and in 1944 an experimental B-flat trombone.

During the 1940s Boosey & Hawkes acquired its two closest rival companies, Rudall Carte & Co. and Besson & Co., which were struggling to continue in business. This consolidated Boosey & Hawkes' control of the market by increasing its productivity and enabling a more diverse range of products (fig. 11). The purchase in 1943/44 of Rudall Carte allowed Boosey & Hawkes to add professional orchestral flautists to its clientele. Until World War II Rudall Carte had manufactured brass and reed instruments as well as flutes, but brass production was discontinued in 1939 because of lack of trade during and after the Depression.[165] Rudall Carte's reputation was primarily for fine quality wooden flutes, which for many years were the instrument of choice of British orchestral flautists. As Anthony Baines wrote in 1957, "among leading makers of the wooden flute—they make metal ones too—are Rudall Carte (now amalgamated with Boosey & Hawkes), renowned as the finest British flute makers ever since they produced the first English-made Boehm flutes over a century ago."[166] Boosey & Hawkes continued to manufacture

161. Murphy, *British War Economy*, 76, citing *The Economist*, November 1, 1941, 526–7.

162. Murphy cites Geoffrey Crowther, editor of *The Economist*. Ibid., 76 and 78.

163. *Woodwind & Percussion 9* and *Instruments Brass 17*: HM/B&H A227/020, A227/061.

164. Company workbooks HM/B&H.

165. Myers, "Brasswind Manufacturing at B&H," 55.

166. Baines, *Woodwind*, 54.

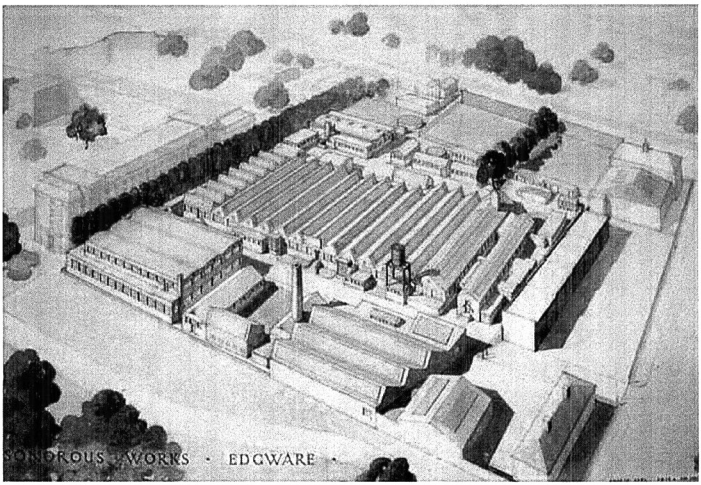

FIGURE 11. Boosey & Hawkes factory in 1943 by architect Ernest Seel. Isometric drawing, pen and watercolour (HM/B&H 2006.333). Permission of the Horniman Museum, London

Rudall Carte woodwind instruments separately under the Rudall Carte name until the 1980s, but after the take-over, the name was applied to cheap mass-produced models and not to high quality instruments.[167]

Boosey & Hawkes's merger with the distinguished and successful company Besson & Co. in effect took place gradually over thirty years. Although manufacturing links between the two companies commenced in 1931, Besson did not appear to become part of Boosey & Hawkes until March 1948 when the works were removed from the factory at the old Boosey Frederick Mews premises to become part of the Edgware plant. Besson's instruments were consistently held in high regard by players, and Boosey & Hawkes retained and reissued some of their models, finally rebranding themselves Besson in 2001.

167. This can be seen in the workbooks and catalogs.

Conclusions

The poor economic state in Britain during the Depression caused a severe decrease in the sales of musical instruments both at home and abroad. However, throughout this period, manufacturers generally maintained a high level of productivity, which led to many instruments remaining in factory stock for some years afterwards. This situation forced a number of companies out of business, but the amalgamation of Boosey & Co. and Hawkes & Son enabled the joint company to survive. By consolidating workforces and restructuring the factory Boosey & Hawkes, the largest instrument manufacturing company in Britain, was able to develop its design and production methods, retain a broad customer base, and assume dominance of the market during this lean period. During the immediate post-merger years, the new firm struggled to find a corporate identity; the image that the company projected was that of a large, scientific, and mechanized business, the antithesis of the earlier companies. However, in spite of their commitment to modernity, Boosey & Hawkes did acknowledge in its literature the importance of traditional craftsmanship.

Flourishing musical activity in Britain during the 1930s resulted in continued demand for instruments, and Boosey & Hawkes developed many new models aimed at popular culture music. Until this time most of the instruments the company manufactured were based on French models, however, a growing move towards German and American larger-bore instruments influenced Boosey & Hawkes to develop new designs in an attempt to keep up with foreign competition.

Although during the Second World War there was a widespread growth in musical activity throughout all genres of music and the Arts, sales of musical instruments were limited because of severe trade restrictions, taxation, and government sanctions. Shortages of raw materials affected production, but above all it was the change-over to war work, the altered workforce, and use of new machinery in the factory that irrevocably transformed the instrument manufacturing industry. Despite the hardships and changes that war brought about, Boosey & Hawkes was one of the few companies to maintain some instrument making throughout this period. Continued musical activity in Britain ensured a small demand for wind instruments and repairs, and therefore, even though most of the factory space was taken over for making aircraft parts and munitions, it was able to continue with its musical business, albeit with a

fraction of the previous output. With foresight, Boosey & Hawkes developed designs for mass producing instruments for when war ended, utilizing the newly installed factory machinery. Consequently, in 1945 the company was able to effect significant expansion into the export market, particularly to America and Canada.

Although the adoption by Boosey & Hawkes of some modern engineering skills before the War heralded the move to mechanized instrument-making afterwards, the wartime acquisition of engineering machinery and proficiency and the development of new processes led to a change in the ethos and identity of the company. Since much of what had previously been undertaken by hand could now be performed by machine, craftsmen who were used to hand-crafting instruments in small batches were forced to adapt their skills to new and modern methods of working. Boosey & Hawkes entered the post-war period characterized by its mass production—a modern, progressive company led by engineers, with an emphasis on scientific precision, accuracy in design, and manufacture.