

David Edward Hughes: Concertinist and Inventor¹

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On a late spring evening in Charleston, South Carolina, in 1845, a small family band comprised of three children appeared in front of a large audience of well-to-do planters and town folk in that city's Hibernian Hall. Each attendee had paid fifty cents to see and hear the little group, which performed four times over the course of a week in a highly-touted booking. The youngest member of the band was a girl of only seven, who sang operatic airs and played the harp 'with great originality of genius'.² A slightly older lad played the violin in a manner 'creditable to old and experienced masters, not excepting Paganini himself'. Of the eldest boy, who was fourteen, it was said that 'his flying fingers swept the lyre'. This boy also performed on the English concertina, about which the reviewer could only muster the phrase 'a most pleasing instrument'. For the past five years, David Edward, the fourteen-year-old, and the 'Hughes Family' had been playing in similar venues across the United States, Canada, England, and the West Indies.

These Charleston concerts, which took place on the 6th, 8th, 12th, and 15th of May 1845, are landmarks of sorts in the history of the concertina: they mark the earliest documented appearances of the English (or any other kind of) concertina in American music circles.³ The band's concertinist was David Edward Hughes (1831-1900), a musical child prodigy and mechanical genius whose later inventions did much to make today's communication, broadcast, and recording industries possible, and who was one of the most decorated and renowned scientists of his day. And of particular interest to concertinists is this: his scientific life and inventions, which followed his youthful days as a musician, display amazingly close similarities to those of Sir Charles Wheatstone (1802-1875), the inventor of the English concertina. Both scientists came from family backgrounds rich in music, both tinkered at length with schemes for mechanically made, transmitted, or recorded music early in their technical careers, and both went on to make major discoveries and quite similar inventions in the then-new field of long-distance electrical communication. While Wheatstone's life has been comprehensively described by Brian Bowers,⁴ this brief contribution will explore Hughes's life, with emphasis on its parallels with that of Wheatstone.

The Young Concertinist

David Edward Hughes was born to musically talented Welsh parents in London on 16 May 1831.⁵ His father, David Hughes (born c. 1803), was the son of a Welsh bootmaker; about his mother, Catherine (born c. 1798), little is known. The couple had four children: Joseph Tudor (born c. 1827), David Edward, John Arthur (c. 1835), and Margaret (c. 1838), and tours of English concert halls began when the eldest son, Joseph Tudor, was only five. Just when the family added a concertina to its act is uncertain, but we might note that there is an entry for a 'Captⁿ Hughes' in a Wheatstone sales ledger on 22 June 1836.⁶ Needless to say, considering the Captain a member of our Hughes family would go a long way in explaining how David Edward came to the instrument (see below).

In 1840, the family emigrated to America, arriving in New York City on the ship *Catharine* on 8 October 1840.⁷ Their entry papers list David, Sr., as a 'teacher of music', while the three boys are listed as 'musicians'. The family began to perform on tour later that year, their performances even including one at the White House. Then, after a hiatus of some months following the tragic drowning of Joseph Tudor in the Hudson River in 1841, they resumed performing, and toured in Canada and the West Indies before settling down on a farm in Virginia.

It is also from around this time that we have an engraving of the ten-year-old David Edward (Fig. 1), possibly the oldest surviving image of any musician playing a concertina. It shows a fair-haired David, family concertina in hand, dressed in the style of the day, and with two medals proudly displayed around his neck. Charming as it is, the drawing is naively executed: David's feet are drawn overly (if fashionably) narrow, and the concertina is so crudely drawn that, while the thumb straps leave no doubt that we're dealing with an English, an unknowing observer would find it hard to say just how many sides it has.

Only a few period newspaper accounts of Hughes family concerts have survived. Five-year-old



Fig. 1. Engraving of David Edward Hughes, age ten (c. 1841); the earliest known image of a concertinist. Reproduced courtesy of Mr. Ivor Hughes.

Joseph played the harp at the Strand Theatre in London in 1832.⁸ A few years later another London concert featured two brothers, with violin and harp being played.⁹ A third set of accounts describe the above-mentioned 1845 concert in Charleston. This concert had been carefully planned, with several advertisements appearing in the city's press in the days leading up to and during the performances. One of the advertisements—that in *The Southern Patriot* on 7 May—contains an image of the 'Hughes Family' that seemingly includes the entire family of six (Fig. 2). The teenage David stands in the middle holding his concertina, flanked on his right by little Margaret with her harp. John Arthur, standing on a platform, holds his violin at the far right of the image, which also accounts for three other members of the family, though they seem not to have participated at the Charleston concerts: the parents, David, Sr., and Catherine, both standing by harps, and perhaps, at the far left, a posthumous portrait of the deceased Joseph Tudor. The advert is also valuable for its information about the trio's repertory: the choicest selections from the most favorite *Operas* and *National Melodies*, together with ORIGINAL AIRS and of their own composition.¹⁰ VARIATIONS, David's musical skills were such that he was noticed by a German-American pianist named Herr Hast, who obtained for the nineteen-year-old David a professorship of music at St. Joseph's College in Bardstown, Kentucky, a Jesuit school in a town just one step removed from the frontier.¹¹ While there he wrote numerous compositions, one of which, titled *Lizzie Polka*, was published at Cleveland in 1852.¹² At the same time, he developed such a proclivity for mechanical and physical sciences that he was also appointed to a chair in natural philosophy. As we shall see, Hughes came to the sciences through his interest in the physics and mechanics of music and sound, just as Charles Wheatstone had some thirty years earlier. Yet biographers of Hughes seem unaware of Hughes's prior history with the Wheatstone concertina. In fact, biographers of Hughes seem unaware of the amazing parallels between the work of the two men.

The Hughes' Family



RESPECTFULLY announce to the friends of MUSIC in Charleston, that they will give their second CONCERT To-Morrow Evening, at Hibernian Hall. PROFESSOR STRONG will perform on the PIANO FORTE.

The CONCERTS of the MASTERS HUGHES' have created the greatest surprise and astonishment in the Musical world, and attracted the most distinguished audiences in all the principal cities of Great Britain, the Canadas, the United States and the West Indies. Their performances on the HARP, VIOLIN and CONCERTINA, comprise the choicest selections from the most favorite *Operas* and *National Melodies*, together with ORIGINAL AIRS and VARIATIONS, of their own composition.

Doors open at half past 7 o'clock; performance to commence at 8 o'clock. Admission 50 cents, children half price.

May 7

Fig. 2. Advertisement for one of the Charleston, South Carolina, concerts by the Hughes Family in *The Southern Patriot*, 7 May 1845. David Edward Hughes is in the center of the group, holding an English concertina.

The Mature Inventor

While teaching at St. Joseph's, Hughes began to investigate the possibility of writing music in an automated fashion on paper by playing the notes on a keyboard; in effect, he sought a tool not unlike today's midi devices. He devised a machine to do this that used pulses of electrical current sent by a piano-like keyboard to typeface characters set in a rotating wheel which printed onto a spool of paper tape. Thus at the tender age of twenty-three, Hughes had inadvertently created the telegraph printer (Fig. 3), the direct ancestor of the telex machine, teleprinter, and, in many respects, the computer keyboard.

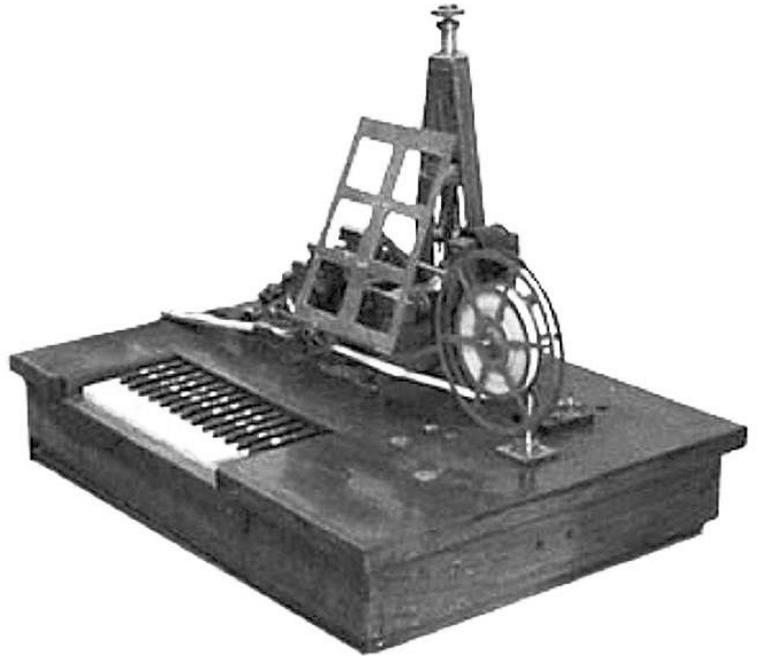


Fig. 3. Hughes's first telegraph printer, patented in 1855.

This machine allowed for the first time the commercial transmission and printed reception of Roman letters rather than code. Realizing the potential of his creation, he resigned his position at St. Joseph's, and spent the next two years perfecting it. As his obituary in *The Electrician* puts it, the instrument

. . . was speedily taken up in the United States as a formidable competitor to the Morse system, monopolised by the American Telegraph Co. A patent for this instrument was taken out in the United States in 1855, and in less than two years a number of small telegraph companies, including the Western Union—which was at that time in its early stages of development—had united to form one large corporation, the present Western Union Telegraph Co., to carry on the business of telegraphy on the Hughes system.

In that same year Prof. Hughes returned to England for the purpose of introducing the instrument to the then existing Electric Telegraph Co., which controlled the telegraphic business in England. Failing in this endeavour, however, Prof. Hughes was compelled to carry his invention across the Channel to France, where it met with a much more enthusiastic reception at the hands of the French Government, which agreed to give the instrument a year of practical trial on the French land lines, and if found satisfactory it was to be finally adopted. Aided by his experience already acquired in America, Prof. Hughes was able to make the experimental trial a thorough and complete success. The instrument was adopted in France, and indeed throughout Europe. . . .¹³

The only major industrialized country in which the Hughes system of telegraphy was not soon adopted was England, where the Wheatstone and Cooke system had been placed into commercial use soon after its invention in 1837; clearly that system was so entrenched that this new competitor was ignored. Yet even in England Hughes eventually enjoyed success, and his system was finally taken up there 1863.¹⁴ In an interesting parallel, Wheatstone also appears to have

considered and devised a telegraphic printer as early as 1841, but never brought it into commercial use, thinking it too slow and too expensive.¹⁵ There is no evidence that Hughes was aware of Wheatstone's unpublished work, and his (Hughes's) design shows no similarities in construction.

Hughes spent much of the two decades following his invention of the telegraphic printer on the Continent, installing his system in one country after another. Following that, he settled in London in 1877, taking up residence at 108 Great Portland Street, where—in another parallel with Wheatstone's career—he developed the carbon microphone in 1878. It had been fifty-one years since Wheatstone had experimented with the transmission of sound waves along metal rods, speculating that such a non-electrical method might take music and messages from London to Edinburgh. At the same time, Wheatstone constructed a similarly non-electrical device consisting of two rods that amplified faint noises when brought close to the listener's ears. He coined the term 'microphone' for the device, though it had little more than its useful name in common with the electrical microphones that were to come a half century later. In 1876, Alexander Graham Bell used a primitive electrical microphone invented by Emile Berliner in his first telephones. That microphone, however, was unsatisfactory, and severely limited the practical utility of the telephone. What Hughes discovered was that a loose contact in an electrical circuit between battery and transmitter produced a much better transmitted sound, and with this discovery he built the first carbon microphone, using such crude materials as toy boxes, sealing wax, and wires in the drawing room of his home. As the obituary in *The Electrician* states, 'it was not until Hughes. . .that practical telephony became a possibility'.¹⁷ The carbon microphone is the direct prototype of most microphones in use today, and was a critical element in the development not only of telephony, but of the broadcasting and recording industries yet to come.

We may measure the character of the man by what he did with this latest invention. By now Hughes was already famous and well-to-do as a result of his telegraph printer. He therefore decided to simply *give* his new invention, the carbon microphone, to the world by refusing to take out a patent. He reported his invention to the Royal Society in London on 8 May 1878, and made it and its details available to the general public on 9 June. This streak of scientific idealism is a characteristic that Hughes had in common with Wheatstone, who forty years earlier had planned to simply publish his groundbreaking findings on the telegraph to 'allow any person to carry them into practical effect'. Before Wheatstone could carry out his intention, however, his commercially-minded partner-to-be, William Cooke, convinced him to take out a patent and establish a commercial venture.¹⁸

Another of Hughes's important inventions came in 1879, when he developed the induction balance, which saw early use in metal detectors. Originally, it consisted of an

arrangement of coils whereby the currents inducted by a primary circuit in the secondary [circuit] are opposed to each other until they balance, so that a telephone connected in the secondary circuit is quite silent. Any disturbance of this delicate balance, however, say by the movement of a coil or a metallic body in the neighborhood of the apparatus, will be at once reported by the induction currents in the telephone.¹⁹

The very sensitive device was soon used in all sorts of metal detection, such as finding submerged torpedoes or in assessing the purity of metal in coins; it is still

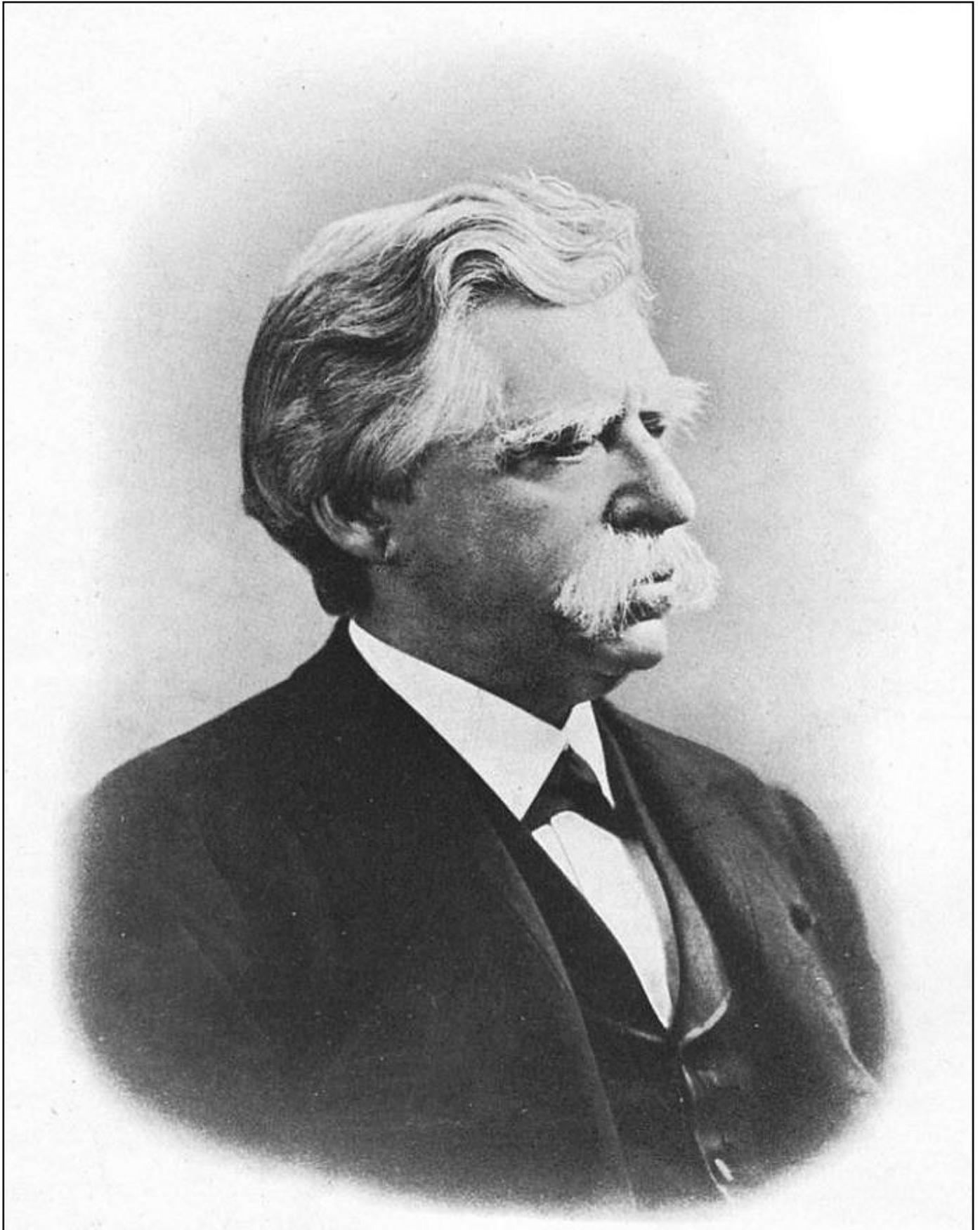


Fig. 4. David Edward Hughes, c. 1890.

used in modern metal detectors such as those in airport security. The device is also extensively used in today's medical imaging through EMI (electro-magnetic inductance), a field that began soon after Hughes invented the balance. In 1881, President James Garfield was shot by an assassin, and lingered for eleven weeks with a bullet lodged hidden in his back; he was soon to die from infection caused by

the hordes of physicians who tried to find the bullet. Alexander Graham Bell, a friend of Hughes, had heard of the new invention and decided to try it in the race to find the bullet. Although Hughes's balance was proven fully capable of finding the bullet through some practical tests that were devised in the hours before it was used on Garfield, the device failed on this critical first application because unbeknownst to Bell, the ailing Garfield was placed on a newly-invented coil spring mattress, and the metal bedsprings interfered with Hughes's device.²⁰

Finally, we must mention Hughes's work in discovering long-distance wireless transmission via radio waves. This came about in 1879, as he experimented with his home-built telephone, built to the specifications of his friend Bell's invention of 1876. When using his new induction balance across the room, he heard clicks in the telephone and correctly inferred that they were produced by waves of electromagnetic energy as opposed to simple induction. To test this, he went from room to room in his house and then went outside into the London streets, listening to his battery-powered telephone receiver in what some term, in somewhat tongue-in-cheek fashion, 'the world's first mobile phone call'.²¹ By way of these home experiments, Hughes was transmitting and receiving radio waves fully sixteen years before Guglielmo Marconi demonstrated radio transmission to the world. Unfortunately, Hughes did not publish his work. Rather, as R.W. Simons (1996) writes, Hughes

. . . showed this work to William Spottiswood (the President of the Royal Society), to Prof. Huxley, and to Sir George Gabriel Stokes, demonstrating transmission and reception from 60 yards (55m) to over 500 yards (460m) and noting the variation in signal strength with range. Stokes said that all the results could be explained by known electromagnetic effects and he therefore could not accept the suggestion that electric waves existed. Hughes was so discouraged at not being able to convince them that he refused to write up his work in a paper until he had better proof. In fact he did no further work and the record of his discouragement only came to light in a letter to J.J. Fahie in 1899.²²

Much to his credit, Hughes never pushed his claim as the discoverer of radio waves, recognizing that the glory belonged to those who published their findings (Hertz demonstrated the existence of electrical waves in 1887, and Marconi demonstrated wireless telegraphy in 1896). Late in life, however, when asked to document those early experiments for posterity, Hughes wrote an account for the London journal *The Electrician*. And in that journal's obituary for Hughes, we read that that account 'abundantly proved' that he had been 'the first to transmit actual signals over a considerable distance by means of electrically-generated ether waves; which is, in fact, the basis and essence of wireless telegraphy on the Marconi system'.²³ In 1922, Hughes's forgotten home-built wireless apparatus was unearthed in a London tenement, and was placed on display in a South Kensington museum.²⁴ Both Wheatstone, with his never-released telegraphic printer, and Hughes were graced with inventions of great import that never came to fruition.

Hughes was one of the most honored scientists of his day. A first honor came from France, where he was named a Chevalier of the Legion of Honor by Napoleon III in 1860. In 1867 the Paris Exhibition awarded him one of ten gold medals intended to reward the very highest achievements in science, and similar honors came from the nobility or leaders of each European country where the

Hughes telegraph system was installed.²⁵ Honors in England were slower in coming, likely because of the unique position that the Wheatstone-Cooke telegraph system occupied there. Nonetheless, Hughes eventually received the Fellowship of the Royal Society in 1880 and, for his work on the microphone and induction balance, the Royal Society's Gold Medal in 1885. One year later, he was elected president of the Institution of Electrical Engineers, and in 1898, the Society of Arts conferred on him The Albert Gold Medal, a lifetime achievement-style award for all of 'his numerous inventions, especially the printing telegraph and the microphone'.²⁶

Hughes was married twice. His first wife, London-born Maria M., about whom little is known, is listed with him in the London census of 1871. Later in the 1870s, he married the New Hampshire-born artist Anna Chadbourne (1826–1919); he had no children with either wife. Hughes was known to be 'simple in tastes' and 'a most genial companion'.²⁷ When he died in 1900, a colleague reported that 'it can truly be recorded that David Hughes lived without making a single enemy, and died mourned by all whose good fortune it has been to come within the cheery circle of his friendship'.²⁸ He left most of his considerable fortune to four London hospitals, with lesser amounts bequeathed to his wife, his sister Margaret, and several technical societies.

Hughes and Wheatstone

The parallels between the careers of Sir Charles Wheatstone and David Edward Hughes are many, even surprising. Both men were among the foremost inventors of their respective generations, and both came to the physical and electrical sciences from musical backgrounds. Wheatstone's family ran a music instrument shop and manufactured wind instruments, while everyone in Hughes's immediate family was a musician, with David Edward himself playing Wheatstone's greatest musical legacy: the English concertina. Perhaps inspired by this mechanical instrument, Hughes turned to the physical sciences and to acoustics. Here both Wheatstone and Hughes made lasting contributions to telegraphy, Wheatstone, by virtually inventing the field itself (concurrently with the Samuel Morse in the United States), and Hughes by furthering its rapid growth as a practical industry with his telegraph printer. Finally, both men were captivated by the idea of long-distance transmission of sound, with Hughes bringing Wheatstone's early concept of amplification and transmission of music to final fruition with the invention of the carbon microphone. Although it seems inconceivable that Hughes and Wheatstone never met, no record of such a meeting has come to light.

A final thought: the next time you listen to the radio or a CD, record a tune on your iPod, type some notes on your PC, or pass successfully through airport security, raise a glass both to the concertinist of that little family band of musicians who performed across the eastern United States in the early 1840's and to the role that Wheatstone's English concertina may have played in stimulating that teenage performer's mechanical and scientific muse.

POSTSCRIPT: After this article went to press, I turned up several more newspaper accounts of performances by the Hughes family in America; these include concerts in Washington DC in 1841 and 1843, New York in 1843, and Raleigh and Hillsboro NC in 1847. Of these, a detailed program has survived for

the concert at New York's Shakespeare Hotel on 27 July 1843, at which David Edward Hughes performed De Beriot's Seventh Air (originally for violin) as a concertina solo. Documentation for these concerts will appear at www.concertina.com.

NOTES

1. I am indebted to Ivor Hughes for the engraving of the young David Edward Hughes, (Fig.1) as well as for other information about the history of the family. My thanks also to Randall Merris, who kindly provided information from the census and immigration records for the Hughes family.
2. This and the two excerpts from the reviews that follow come from the Charleston newspaper *The Southern Patriot* for 9, 12, and 15, 1845.
3. But see the Postscript above. The next documented appearance of the English concertina in the United States comes with Richard Hoffman's New York City concert on 25 November 1847; see Allan W. Atlas, *The Wheatstone English Concertina in Victorian England* (Oxford: Clarendon Press 1996), 8, n. 54, who, taking Hoffman's publicity at its word—'Richard Hoffman will have the honor of introducing to the American Public [a] New Musical Instrument called Wheatstone's Patent Concertina—refers to Hoffman's concert as the concertina's United States debut.
4. Brian Bowers, *Sir Charles Wheatstone, FRS 1802-1875*, rev. ed. Institution of Electrical Engineers History of Technology Series, 29 (London: Institution of Electrical Engineers, 2001).
5. I have drawn on the following for the basic outline of Hughes's life: 'Obituary, David Edward Hughes', *The Electrician* (London), 26 January 1900, 457-58 (online at <http://Earlyradiohistory.us/1900/hugh.htm>); *Dictionary of National Biography*, xxii (London: Smith, Elder, 1906), 877-79); and two websites: Ivor Hughes and David Ellis Evans, 'A Welshman Who Became World's First to Transmit and Receive Radio Waves' at www.rootsweb.com/~vtwags/DEHughes.html; and unsigned, '100 Welsh Heroes' (National Library of Wales), at www.100welshheroes.com/en/biography/davidedwardhughes.
6. London, Horniman Museum, Wayne Archive, Wheatstone sales ledger C104a, p. 5; the sale is for Wheatstone concertina No. 100; the ledgers are online at www.horniman.info.
7. Washington, D.C., National Archives and Record Administration, Registers of Vessels Arriving at the Port of New York from Foreign Ports, 1789-1919. Micropublication, M237, rolls 1-95. This information can be accessed online at www.Ancestry.com.
8. 'New Strand Theatre', *The Times*, 18 February 1832.
9. Personal communication from Ivor Hughes, January 8 and 9, 2007.
10. At the risk of claiming too many 'firsts': the advertisement seems to contain the earliest image of a concertina as part of a musical ensemble.

11. 'Obituary', 457. I have not been able to identify Herr Hast.
12. The publisher was G.W. Brainard & Co.; a copy of the original print is preserved in the Dwight Anderson Music Library, University of Louisville (KY); communication of 8 January 2007 from Ivor Hughes.
13. 'Obituary', 458.
- 14 'Obituary', 457.
15. Bowers, *Sir Charles Wheatstone*, 148-50.
16. Though Bowers' work is the definitive biography of Wheatstone, it is worth consulting the Wheatstone entry in 'Wikipedia',: http://en.wikipedia.org/wiki/Charles_Wheatstone .
17. 'Obituary', 458.
18. Bowers, *Sir Charles Wheatstone*, 119.
19. John Munro, *Heroes of the Telegraph* (Seattle: Worldwide School Library, 1997), Ch. 10; one of the best resources for technical descriptions of Hughes's inventions, Munro's work is available on line at www.worldwideschool.org/library/books/Tech/engineering/HeroesoftheTelegraph.html.
20. R.J. Brown, 'Alexander Graham Bell and the Garfield Assassination', online at www.historybuff.com/library/refgarfield.html; see also, *Today in History: July 2, 1881: 'American Memory'*, Library of Congress; online at <http://memory.loc.gov/ammem/today/jul02.html>.
21. Tom Farley, 'Digital Wireless Basics, Telephone History', Ch. 3: 'Early Radio Discoveries'; online at www.privateline.com/PCS/history3.htm
22. R.W. Simons, 'Guglielmo Marconi and the Early Systems of Wireless Communication', *General Electric Company Review*, xi/1 (1996); online at www.marconi.co.uk.
23. 'Obituary', 458.
24. *Popular Science Monthly*, August 1922, 57.
25. 'Obituary', 458. Other awards include those from Italy, the Order of St. Maurice and St. Lazare, awarded by the king, 1862; Austria, Order of the Iron Crown, awarded by the emperor; Russia, Commander of the Order of St. Anne, 1883; Germany, the Noble Order of St. Michael, in Bavaria and Württemberg; Turkey, Grand Cross of the Medjidie, from the Sultan; and similar honors in Switzerland, Belgium, and Spain.
26. *Dictionary of National Biography*, xxii, 877-879.
27. *Dictionary of National Biography*, xxii, 879.

HISTORICAL DOCUMENT

George Bernard Shaw on the Concertina

INTRODUCTORY NOTE BY ALLAN ATLAS

Among late-Victorian music critics, none seems to have appreciated and praised the English concertina as much as George Bernard Shaw (1856-1950). Moreover, that he was knowledgeable about the instrument—in terms of both its technical capabilities and its social status—is evident from the care that he took to distinguish it from the German-style import (and, though he never specifically mentions it, its English-made counterpart, the Anglo), which he associated mainly with music on the streets (see No. 4).

What follows are the references—seven in all—to the concertina in Shaw's voluminous output of critical writing on music. I have taken them from the three-volume collection of his complete corpus of music criticism, *Shaw's Music*, ed. Dan H. Laurence (New York: Dodd, Mead, 1981). And since most of Shaw's comments about the concertina are tucked into notices that range over a number of matters, I have introduced each excerpt with a note about the overall context of each review and, where I could, added brief notes that identify the people, compositions, places, etc. to which Shaw refers.

For those who would like their Shaw criticism in doses smaller than that offered by the hefty (2,855 pages) *Shaw's Music*, there are a number of other, more compact collections that pull together either the criticism of a particular period or that on a given topic: *The Perfect Wagnerite* (1898; reprint 1972), *Music in London, 1890-94* (1932; reprint 1973), *London Music in 1888-89 as Heard by Corno di Bassetto* (1937), *Shaw on Music*, ed. E. Bentley (1955), and *How to Become a Musical Critic*, ed. D.H. Laurence (1960).

1. 'Music for Connoisseurs', *The Hornet*, 31 January 1877 [unsigned] (*Shaw's Music*, i, 86).

It was at *The Hornet*, a satirical weekly, that the twenty-year-old Shaw found his first journalistic employment upon arriving in London in 1876. This review deals mainly with the January 20th installment of the celebrated series known as the Popular Concerts of Chamber Music (or 'Monday Pops'), produced by Chappell & Co. from 1859 to 1898. That Shaw is already writing knowledgeably about the English concertina (and see No. 2, which follows only three months later) makes us wonder if he had not become familiar with the instrument before leaving Ireland.

Mr Richard Blagrove,^(a) who has espoused the neglected cause of the concertina, gave the first concert of his second season on Thursday evening, the 25th inst. He announces his intention of devoting the profits of these concerts to a fund for providing original compositions written for several concertinas. Although we cannot help a passing reflection that it may be possible to have too much of a good thing, we wish Mr Blagrove every success.

NOTE: (a) Blagrove (?1827-1895) was one of the great concertina virtuosos of the period, second, perhaps, only to Giulio Regondi; he played a particularly important role in commissioning works for the

instrument; he was also a first-rate violist, and taught and played viola at the Royal Academy of Music and in the Philharmonic Society Orchestra, respectively.

2. 'Signor Gayerré's Self-Complacency', *The Hornet*, 25 April 1877
(*Shaw's Music*, i, 118-19).

Here Shaw is concerned mainly with the appearance of the much-heralded Spanish tenor Julian Gayerré in Meyerbeer's *Les Huguenots*, performed at Covent Garden.

For an enjoyable musical evening we are indebted to Mr Richard Blagrove, whose fourth concert took place last Thursday at the Royal Academy of Music. The concert room in Tenterden-street is so comfortable, and the surroundings so quiet, that it forms an agreeable refuge for those who are curious to hear something novel in music, and are tired of the blaze and crush of the opera. The idea of a quintet by Mozart played on concertinas varying in size from a small oyster keg to a large hatbox may seem alarming; but the result is thoroughly agreeable, and proves that Mr Blagrove is an enthusiast and not a speculator. A pretty and rather brisk movement, specially composed for these concerts by M. Silas, and unaccountably termed an *adagio*, was performed last week for the first time.^(a) Mrs Blagrove^(b) lent valuable assistance in an arrangement of a portion of Hummel's Septuor in D minor,^(c) and subsequently accompanied Mr Blagrove in some Welsh airs and a selection from *La Sonnambula*.^(d) The English concertina closely resembles the Clarinet in tone—and, indeed, at a pinch, a worse substitute for Mr Lazarus^(e) than Mr Blagrove might easily be found. The substitution of reeds for strings produces a marked change in the effect of such works as Mozart's quintet in G minor,^(f) but does not detract from their charm. The vocalists were Miss Bessie Stroud, who was unwise enough to attempt Schubert's *Ave Maria*, and Mr Shakespeare,^(g) who sang a song of his own composition. He falls somewhat short of his celebrated namesake in point of originality, but his song was warmly received.

NOTES: (a) Edouard Silas (b. Amsterdam, 22 August 1827; d. London, 8 February 1909) settled in England in 1850; a pianist and organist, he wrote at least six chamber works for one or another combination of concertina, strings, and piano; the work to which Shaw refers must be his *Adagio in E* for eight concertinas (none of these works was ever published); (b) Mrs Blagrove was a pianist, *née* Eliza Ann Freeth; she often accompanied Richard; (c) Johann Nepomuk Hummel (1778-1837) was considered one of the great composers of the early nineteenth century and probably its foremost pianist; the Septet in D minor, c. 1816, was composed for piano, flute, oboe, horn, viola, cello and double bass; (d) likely Blagrove's own *Duet for Concertina and Piano on Welsh Airs* (1867); if Blagrove wrote a *Fantasia* or similar piece on music from Bellini's *La Sonnambula*, I am not aware of it (there is no listing for such a piece in the British Library's online *Integrated Catalogue*); on the other hand there is a *Fantasia on Airs from Bellini's Opera La Sonnambula* by

Regondi (1855), and perhaps this is the piece he performed; (e) Henry Lazarus (1815-1895) was considered the foremost clarinet player in Victorian London; (f) Shaw refers to the String Quintet in G minor, K. 516; (g) Bessie Stroud was the daughter of Chaplin Henry (also known as Henry Charles Stroud), himself a singer of note; Mr Shakespeare is the tenor William Shakespeare (b. 1849—still alive as of 1897); he taught voice at the Royal Academy of Music from 1878; could he be related to the concertina maker Thomas Shakespeare, who was active from 1884 to 1892?

3. 'The Bach Bicentenary', *The Dramatic Review*, 28 March 1885
(*Shaw's Music*, i, 222).

Shaw wrote for *The Dramatic Review* in 1885-1886. Here he reviews the performance of Bach's Mass in B minor by the Bach Choir under the direction of Otto Goldschmidt, concentrating mainly on the revival of the oboe d'amore and the baroque trumpet, the latter instrument often having been replaced by clarinets(!) or corneopans (cornet). Once again, then, Shaw offers the concertina as a substitute for the clarinet (see No. 5).

The rehabilitation of the old-fashioned trumpet was still more interesting. Owing to the weakness of conductors, the indolence or incompetence of players, and the ignorance of the public, trumpet parts are habitually played upon the corneopan (I prefer to give the thing its hideous English name): an instrument that, accompanied by the harp, can, in skilful hands, draw tears from a crowd at the door of a gin-palace by 'The Pilgrim of Love', or 'Then you'll remember me',^(a) but the substitution of which for the trumpet in the concert room is an imposture and an outrage. It is easier to play, however; and whenever trumpet players find a conductor whom they dare trifle with, they play the corneopan. On precisely the same ground, and with less injury to the general effect, clarinetists might play their parts on the English concertina, which is far more like a clarinet in tone than a corneopan is like a trumpet.

NOTE: (a) the ballads to which Shaw refers are from Michael William Balfe's *The Bohemian Girl* (1843) and Henry Rowley Bishop's *The Noble Outlaw* (1815), respectively.

4. 'Street Music', *The Dramatic Review*, 2 January 1886 [unsigned]
(*Shaw's Music*, i, 439).

Shaw rails against what he considered the offensive noise of street musicians, and he laces into the German concertina. (Surely, Shaw's references to the 'German concertina' are directed more inclusively to the German-*system* concertina, the English-made Anglo included.) Shaw, of course, was not alone in his anti-street music tirade. Prodded by the brewing magnate and M.P. Michael Thomas Bass, who published his influential *Street Music in the Metropolis* in 1864 and enjoyed the backing of Charles Dickens, the illustrator John Leech, the inventor Charles

Babbage, *et al.*, Parliament passed legislation on 7 July 1864 that restricted where and when street musicians (many of them immigrants) could ply their trade. Clearly, Shaw's solution for the problem (and whether it was such—a problem—surely varied from one pair of ears to another) is rather more drastic and, as always, more humorous. And that the matter was still a topic of concern at the very end of the century is evident from the essay by H. Heathcote Statham, 'The Street Music Question', *The National Review*, 31 (1898), 734-44, whose chief target, however, is the itinerant organ grinder.

The topic as a whole is treated in thorough fashion by both John M. Picker, *Victorian Soundscapes* (Oxford, Oxford University Press, 2003), and John E. Zucchi, *The Little Slaves of the Harp* (Montreal: McGill-Queen's University Press, 1992); for Henry Mayhew's interview with a mid-century, teenage concertina player on the riverboats, see the 'Historical Document' in *PICA*, 1 (2004).

The following measures are quite as practical as some that are now being rigorously carried out. Every person found singly in the streets with a wind instrument should be compelled to wear a muzzle of a pattern to be approved of by the council of the Royal Academy of Music. In the case of bagpipers, the instrument should be confiscated and destroyed. Two or more musicians in company should be dealt with as a band in the following way: they should be compelled to elect a responsible leader, recognizable by some badge or decoration. On the challenge of any householder or other person of substance, this leader should produce a tuning-fork, free reed, or pitch pipe giving the normal diapason of his band. If on trial at a given temperature any of the instruments were found to be incurably out of tune, both the player of that instrument and the leader should suffer a month's hard labor, and thereafter musically outlawed for the rest of their natural lives. Pawnbrokers' shops should be searched for second-hand brass instruments and German concertinas; and the law as to their possession should be assimilated to that concerning dynamite. Amateurs wishing to practice should, until they can obtain a diploma from an examining board, be confined to a four-mile radius measured from the centre of Salisbury Plain. And so on. Bad music is a worse evil than hydrophobia. A nation which taxes and muzzles dog, and yet allows German bands to blackmail it without restraint, had better at once utilize some empty space and conceal a couple of useless excrescences by wearing its ears inside its head.

5. 'Some Instruments and how to Play Them', *The Star*, 8 March 1889 (*Shaw's Music*, i, 575-76).

Shaw wrote for *The Star* in 1888-1890 under the pen name 'Corno di Bassetto' (or bassett horn). Though Shaw's remarks here might sound condescending (as if to say that the concertina is fit only for those who could not master the violin), nowhere, perhaps, does he pay the instrument a greater compliment. And since Shaw will once again associate the concertina with the clarinet, it is probably time to pause over and consider Shaw's coupling of the instruments in a little more detail: (1) that the concertina was suitable for music originally composed for wind instruments was a recurring theme in the manufacturers' publicity for the instrument

(though it was the flute in particular, not the clarinet, that was usually singled out); (2) Wheatstone's themselves produced what they called a 'clarionet' model, its tone colored by its 'fish tail'-shaped reeds (on the shape of the reeds, see Neil Wayne, 'The Wheatstone English Concertina', *Galpin Society Journal*, 44 [1991]), 138); in fact, there are records of such instruments in the 'production' book C1054 now housed in the Wayne Archive of the Horniman Museum, London; thus there are entries (p. 162) that identify Nos. 18831 and 18833 as 'clarionet' instruments in C and A, respectively (available online at www.horniman.info); and (3) a musician-friend of mine with a usually unerring ear who heard—but did not see—me playing my own Wheatstone 18090 (with riveted reeds) mistook it for, as he put it, a 'period clarinet'.

But I must not leave my inquiring amateurs without a word for those who most deserve my sympathy. They are people who desire to enjoy music socially: to play together, to explore the riches of concerted chamber music for mere love of it, and without any desire to expand their lungs and display their individual virtuosity. Yet they are too old to learn to fiddle, or, having learnt, cannot do it well enough to produce tolerable concord. Their difficulty is, fortunately, quite easy to solve. The instrument for them is the concertina: not the Teutonic instrument of the midnight Mohock,^(a) but the English concertina of Wheatstone. I presume Wheatstone and Co. are still flourishing in Conduit-street, although Mr Richard Blagrove and his quartet party have not been much in evidence lately. You can play any instrument's part on a concertina of suitable compass, the B flat clarinet being most exactly matched by it in point of tone. The intonation does not depend on you any more than that of a pianoforte. A good concertina is everlasting: it can be repaired as often as a violin. It costs from 16 guineas for a treble to 24 for a contrabass^(b) [sic].

NOTES: (a) the 'midnight Mohock' was the street musician; (b) I am not aware of any Wheatstone & Co. pricelist from around 1890, but based on pricelists before and after (Wheatstone's and other manufacturers'), Shaw's prices seem right.

6. 'Enough of Mere Ballet', *The World*, 6 April 1892
(*Shaw's Music*, ii, 593)

Shaw wrote for *The World* from 1886 to 1894. The Brothers Webb—Joseph and Robert, known as Jo Jo and Root Toot, respectively—entertained audiences from the 1880s to the 1920s. Joseph's four daughters—Inga, Tina, Sylvia, and Lillian—continued the family tradition under the name of the Fayre Four Sisters. On the Webbs, see Frank Butler, 'The Webb Brothers: A Memorial', *Concertina & Squeezebox*, 18-19 (1989), 11-14; Richard Carlin, 'The Fayre Four Sisters: Concertina Virtuosi', *The Free-Reed Journal*, 3 (2001), 79-88 (also online at www.concertina.com/carlin).

I heard also the Brothers Webb, musical clowns who are really musical, playing the Tyrolienne from William Tell^(a) very prettily on

two concertinas—though I earnestly beg the amateurs who applauded from the gallery not to imagine that the thing can be done under my windows in the small hours on three-and-sixpenny German instruments. The concertina on which the Webbs discourse are English Wheatstones^(b) of the best sort, such as are retailed at from sixteen to thirty guineas a piece.

NOTES: (a) surely from Rossini's opera; (b) Shaw was mistaken about the Wheatstones (see No. 7).

7. 'Why Drag in Valasquez?', *The World*, 20 April 1892
(*Shaw's Music*, ii, 604-5)

Shaw refers back to his review of 6 April (No. 6), where he had written that the Brothers Webb played Wheatstone concertinas. It turns out that he was wrong, as the concertina maker George Jones let him know in no uncertain terms. In fact, Jones threatened to sue. Shaw defuses the situation—at least from his vantage point—with a typical display of wit. (We can probably assume that Shaw would have prevailed had they sparred verbally.)

Jones (1832-1919), of course, was an important manufacturer in his own right, and played a role in developing the chromatic capabilities of the Anglo-German concertina (his patent No. 9314, 'Improvements in Anglo-German Concertinas', 23 June 1884, is online at www.concertina.com/jones). Further, Jones's memoir, 'Recollections of the English Concertina from 1844 by George Jones. . .' (1912), sheds invaluable light on the concertina trade of the period (the original manuscript is now housed at the British Library, Add. MS 71124 Q [donated by Frank Butler], Jones's grandson; edited versions have been published on two occasions: 'The Concertina Trade in Victorian Times: An Echo from the Past—Recollections of the English Concertina Trade by George Jones', *Free Reed: The Concertina Newsletter*, 16 [November 1973], 14-20; and 'Recollections of the English Concertina. . .', *Concertina Magazine*, 13 [Winter 1985], 4-5, 14; 14 [Spring 1985], 4-7; both versions are available online at www.concertina.com/jones). Further on Jones, see Frank Butler (and Joel Cowan), 'Concertinas in the Commercial Road: The Story of George Jones', *Concertina & Squeezebox*, 20 (Summer 1989), 5-14, which draws heavily on the memoir; Stephen Chambers, 'Louis Lachenal: "Engineer and Concertina Manufacturer"', *The Free-Reed Journal*, 1 (1999), 7-8 (online at www.concertina.com/chambers); and the unsigned article, 'Men We Have Met: George Jones', *Musical Opinion & Musical Trade Review*, 88 (1 January 1885), 203 (online at www.concertina.com/jones).

In speaking of the performance of the Brothers Webb at the Empire^(a) recently, I paid the concertinas they used the compliment of describing them as "English Wheatstones of the best sort." Here I unwarily fell into the old-fashioned habit of speaking of the English concertina as the Wheatstone concertina, the instrument having been invented by the late Sir Charles Wheatstone. The house of Wheatstone still flourishes; but the manufacture of Wheatstone concertinas is no more peculiar to it today than the manufacture of saxhorns is to the house of Sax,^(b) or of Boehm flutes to the representatives of Boehm.^(c) Now Mr Jones, of 350 Commercial Road, East, who manufactured the instruments I alluded to, and who claims the Messrs Webb as his

pupils,^(d) thinks that my way of putting the case confers the credit due to him upon Messrs Wheatstone of Burlington-street.^(e) Accordingly, he not only asks me to correct my statement forthwith, but, I regret to say, deprives my willing compliance of much of its grace by adding that he will place the matter in the hands of his solicitor if I don't. The oddity of this threat lies in the fact that to mistake any English concertina for one made by Messrs Wheatstone, who have much the same prestige among concertina makers as Messrs Broadwood^(f) have among pianoforte makers, is to pay it a very high compliment. Possibly Mr Jones feels on this point much as Mr Whistler did when he uttered his celebrated "Why drag in Velasquez?"^(g) But I wonder whether if I had by mistake attributed the portrait of Miss Alexander to Velasquez, Mr Whistler^(h) would have threatened to place the matter in the hands of his solicitor? I confess I wonder still more what could possibly happen to me if he did? However, if I cannot quite understand Mr Jones's legal position, I can sympathize with his desire to get full credit for his two fine instruments; and I shall in future take due care not to hark back ambiguously to the father of English concertina makers.

NOTES: (a) surely a reference to the Empire Theatre, Leicester Square; Charles Dickens, Jr, describes it as follows in his *Dickens's Dictionary of London, 1888* (London, 1888; facsimile reprint: Moretonhampstead, Devon: Old House Books, 1993), 97: 'A large commodious and very handsome structure, capable of holding about 1,500 persons, opened as a theatre on the 17th of April, 1884, and licensed as a music hall on the 12th of October, 1887'; (b) Adolphe Sax (1814-1894), inventor of both the saxhorn and the saxophone; that Shaw would refer to the former reflects its widespread use in brass bands of the period; (c) Theobald Boehm (1794-1881), in effect, the 'inventor' of the modern flute; (d) it was Jones who also introduced Joseph Webb's daughters to the instrument (see Carlin, 'The Fayre Four Sisters', 83); (e) Shaw is wrong about Wheatstone's address, which was 20 Conduit Street; as Stephen Chambers has pointed out to me, Shaw's confusion results from the three streets—New Burlington Mews, New Burlington Street, and New Burlington Place—that intersect with Regent Street just south of Conduit Street; (f) Broadwood & Co. was England's leading piano manufacturer in the nineteenth century; the firm reached the height of its success around mid-century and maintained it for another generation, producing about 2,500 pianos a year; (g) Diego Rodriguez de Silva Velázquez (b. Seville 1599-d. Madrid 1660), court painter to Philip IV; (h) James Abbot McNeill Whistler (b. Lowell, MA, 1834; d. London, 1903); the painting to which Shaw refers is *Harmony in Grey and Green: Miss Cicely Alexander* (1872-1874), now in the Tate Gallery; contemporary critics often compared Whistler's works, especially the portrait of Cicely, with those by Velázquez; Shaw, then, was up on his art criticism; see, among others, G.H. Fleming, *James Abbot McNeill Whistler: A Life* (New York: St. Martin's Press, 1991).