Phonography

by George F. Paul

From Tinfoil to Stereo - Another Look

Ever since I read my friend Tim Fabrizio's 50-year retrospective of the reference book, *From Tinfoil to Stereo*, in the December 2009 issue of *The Sound Box*, something has bothered me. Tim took the authors to task primarily for their writing style and pro-Edison spin. I certainly have no argument there, but toward the end of his article, Tim wrote, "What about the accuracy of the history? Not bad, based on what was known at the time."

That final clause strikes me as tantamount to arguing, "Sure, the book is full of inaccuracies, but based on how little they knew, it's pretty good!" Don't misunderstand me; I can forgive omissions "based on what was known at the time," but false information is altogether something else. If a writer isn't sure about a particular point, it's best to either (1) not address it, (2) to admit he/she does not know, and/or (3) to offer a possible theory - stressing that the definitive answer is currently unknown.

Unfortunately, Read & Welch put a large amount of incorrect information into print, and those misconceptions continue to plague our hobby a half-century later. For this reason, I must take issue with the opinion that historical accuracy in *Tinfoil to Stereo* was "not bad..."

Shortly after acquiring the 1976 edition of *From Tinfoil to Stereo*, I began spotting an error here and there. Surprised, I eventually started jotting down my observations on a piece of yellow lined paper I kept inside the flyleaf. Over the years, this piece of paper became crammed with various mistakes that presented themselves through Chapter 15. Below is the outline of that list. I don't claim this list of errata to be comprehensive, and I encourage additions.

The page numbers will coincide with the 1959 First Edition as well as the 1976 Second Edition. An (A) refers to the left-hand column, while a (B) refers to the right-hand column.

Errata in *From Tinfoil to Stereo:*

p.49, B: No such 6" x 2 1/4" Edison cylinders existed in the 1890s.

p.52, A: Titles on Edison cylinders in the 1890s were not inscribed. Ring-shaped end labels were supplied on duplicated Edison cylinders for a short time in the early 1890s.

p.61, A: The footnote should be dated 1896.

p.62, fig. 5-1: The word "phonographs" is not capitalized, suggesting that the Edison "Spring Motor Phonograph" was the first spring-driven talking machine. In fact, there were spring-driven tinfoil machines, as well as later Edison playing mechanisms driven by Peerless spring motors, Amet spring motors, Greenhill spring motors, and the Macdonald motor prior to the introduction of the Edison Spring Motor Phonograph in March 1896. This motor (later called the "Triton") was designed by Frank Capps. Edison failed to market a spring motor of his own design until 1897.

p.63, A: The sale of the Edison Spring Motor Phonograph was hardly "very good." Factory records indicate combined sales of the "Spring Motor" and "Home" to be only 774 units between March 1, 1896 and February 28, 1897.

p.67, B: The "Home" Phonograph was introduced in 1896.

p.72, A: Legs of various lengths are found on many existing Bettini reproducers, and are prominently illustrated in catalogues of the period.

p.73, B: This testimony is scientific in nature, and does not "…indicate(s) conclusively" that Edison was interested in encouraging the development of the Phonograph as a musical instrument. In fact he was, but this testimony certainly does not illustrate that.

p.83, fig. 7-2: The Graphophone Grand played five inch cylinders marketed by Columbia as "Grand" records, and by Edison as "Concert" records. The authors often confuse the "Concert" and "Grand" terminology.

p.88, fig. 7-3: The Edison "Concert" could also play Columbia "Grand" cylinders, Lambert cylinders, and other cylinders of 5 inch diameter. Speed was 120 rpm.

p.90, A: Columbia molded records were marketed as "XP".

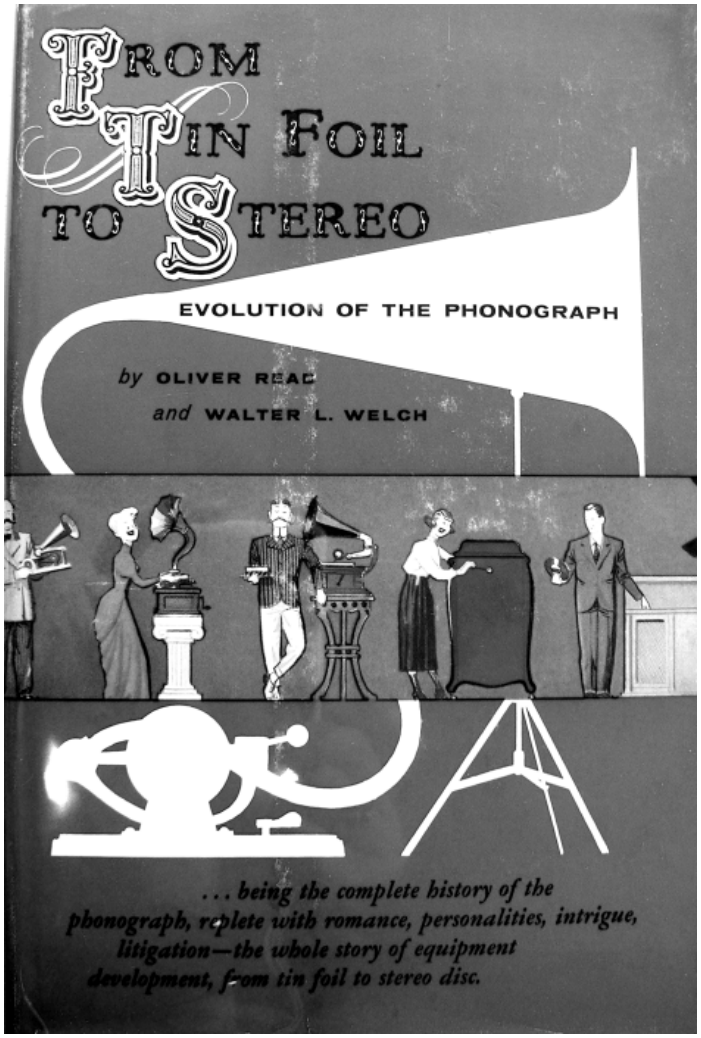
p.101, fig. 8-3: The reproducer shown did not employ a spring-loaded weight. These did not regularly appear on Edison reproducers until the 1920s.

p.102, fig. 8-4: The Amberola line carried Roman numeral designations until 1915. This is an Amberola "VI" (actually a "B-VI").

p.108, A: Bell & Tainter ozocerite cylinders were 6 inches long.

p.111, B: The authors contend that the spring motor would "obviously…have meant little to the amusement field" in the 1890s. If by "amusement field" they refer to coin-slot use, they should have said so. For home amusement, the advent of spring motors for talking machines was a huge impetus to sales in the 1890s. Edison failed to market a spring motor of his own design until 1897.

p.114, B: Yes, the Graphophone was equipped with Edison-type tapering mandrels and solid wax cylinders. It should also be mentioned that Edison had appropriated the floating stylus and incised recording from the Graphophone. Edison "…in



1896 began the manufacture of spring-motored machines for use in the home," but the Graphophone had already introduced the Type "F" and "Baby Grand" in 1894, and the Type "N" in 1895.

p.117, A: The correct spelling is "Seaman." Consistently misspelled throughout the book.

p.127, fig. 10-3: The motor of the Berliner could be described as spring-driven, or spring-powered, but the spring did not wind the motor; it was a component of it. The sound box on the Berliner appears to be a later Victor Exhibition.

p.122, fig. 10-1: This Berliner does not date from 1887, but from 1894-1897.

p.129, B: The Universal Talking Machine Company was organized in February 1898.

p.130, fig. 10-4: This Zonophone was not an "Improved Gramophone," was not made by the National Gramophone Corporation (it was manufactured by the Universal Talking Machine Company), and dates from 1901.

p.130, A: The National Phonograph Company was formed in January 1896.

p.131, A and p.148, A: Edison never made a Phonograph called the "concert Grand." It was the "Concert."

p.132, A: There is no such thing as a record labeled "Eldridge R. Johnson Record."

p.133, A: Johnson did not organize the Globe Record Company. This was a subsidiary of the George Burt Company. The rest of the Globe story on this page is largely inaccurate.

p.142, B: J. W. Jones traveled to Europe to make recordings for Vitaphone, not Zonophone.

p.152, B: Edison "Concert" cylinders never cost five dollars. They were introduced for four dollars, and eventually reduced to 75 cents. Columbia "Grand" cylinders were priced at five dollars upon introduction.

p.153, B and p.165, A are contradictory insofar as when 7 inch discs were discontinued. Victor discontinued them in 1906.

p.155, A: Actually, less and less weight was being imposed upon records with the appearance of the rear-mounted tone arm and self-supporting horn. Victor discontinued new listings of 8 inch records in September 1907.

p.155, fig. 12-2: The "AH" was introduced in October 1901, and sold for $30.00. The $20.00 model alluded to was the Type "AJ".

p.160, A: Johnson appropriated the idea of the Victrola from John B. Browning, as outlined on page 187.

p.162, fig. 12-6: Height of reproducer is NOT adjustable; mandrel position is adjustable.

p.162, B: The 1904 double-faced discs were by Odeon. In fact, Eldridge Johnson had included a double-sided 7 inch disc with the "Toy" Gramophone in 1900, and Columbia had briefly marketed double sided 10 inch discs in 1901.

p.163, fig. 12-7: "Similar?" Surely the authors didn't think a "BK" and "BF" ("Peerless") Graphophones were similar! A "BF" appears on Plate XII, C.

p.165, B: The Berliner patent's correct number is 534,543.

p.166, B: Duplex was not "…making a good record," as these were pressed by Columbia and Leeds & Catlin, and judging by their rarity today, Kalamazoo records did not enjoy "…a considerable sale."

p.171, fig. 12-10: The machine shown is an "HG" or early production "AG," not a "Graphophone Grand" (which was called the "Type GG.") Incorrect crank.

p.179, B: The vast majority of Edison phonographs were sold with 14 inch horns until 1907.

p.180, B: The Auxetophone was typically an external-horn machine, although a few internal-horn examples were marketed by the Gramophone Company in Britain.

p.180, fig. 13-1: The Victrola "IV" - although the lowest in model number - was introduced in 1911; five years after the introduction of the first Victrola.

p.181, fig. 13-2: Again, the authors assume that a higher model number indicates a later machine. Shown is a Victor "V" which was available in oak until the late teens, when it became available in mahogany. Production lasted until the mid-20s. The Victor "VI" was available only in mahogany, and its production lasted into the early teens.

p.181, fig. 13-3: By the time the Victor "School" machine appeared, there was already great interest in the talking machine, and it's doubtful that children's impressions of this model added substantially to the popularity of talking machines.

p.182, A: I've never seen a 2-sided Marconi disc; I'd be grateful to learn of one.

p.184, B: The Edison 4 minute wax Amberols were NOT molded from the same compound as earlier 2 minute cylinders. SEE PAGE 190, B.

p. 189, B: The lapse mentioned was from the time of the granting of the Jones patent (12/10/01) and the subsequent Johnson patent (8/11/08): 7 years.

p.195, A&B, and fig.14-6: The early Amberola used a Model "M" reproducer, not the "O" reproducer illustrated.

p.196, fig. 14-7: "diaphragm type reproducer"?

p.198, B: Except for the addition of diamond reproducers, the Amberol attachments remained unchanged after 1912.

p.198, B: Indestructible, U.S. Everlasting, Clarion, and others manufactured cylinder records at this time.

p.198, fig. 14-8: This is not an Amberola 1B mechanism.

p.201, A: No master records were lost in the fire; either cylinder or disc.

p.202, B: "…proof of a successful consummation of [Edison's] long time goal - to be able to exactly re-create the human voice!" Some would argue that this has yet to be achieved. It certainly was not done in 1915 using acoustic recording and playback methods.

p.203, B: The Roy T. Burke anecdote appears to be typical publicity hype. Direct quotation of this sort warrants sources.

p.206, B: The correct spelling is Aeolian-Vocalion. Consistently misspelled throughout the book.

p.209, A: A banjoist or guitarist is most certainly able to control the "quality" of tone after a string has been plucked.

p.209, B: To state that "Edison never descended to such flagrant misuse of the reputation of great orchestras and conductors" implies that these artists would have allowed such events to occur. The fact that great orchestras and conductors were absent from the Edison catalogue was not due to Edison's high regard for their reputations. Also, the brass recording horn was 125 feet long.

p.214, fig. 15-3: The model pictured is the "A/B-450", made of Circassian Walnut, and hardly a "popular model" at $450.00. It was manufactured from 1912-1916 and is extremely rare today.

p.214, fig. 15-4: The Victrola "XI" was first offered in 1911, and originally sold for $100.

Plate IV: The Edison "Standard" was introduced in 1898. The 1909 "Standard" was capable of playing both 2 minute and 4 minute records without additional "accessory gears."

Plate V: The Edison "Gem" was introduced in 1899. The "Triumph" nomenclature was not used until 1901, when the "Spring Motor" was renamed. The oak cygnet horn shown on the 1911 "Triumph" was not laminated.

Plate VI: The "Opera" was equipped with either a Model L or Diamond A reproducer; never a K.

Plate VII: The Johnson "Toy" was sold with a double-sided disc, and while it was capable of playing a Berliner record, the U.S. production of them had ceased by that time.

Plate VIII: The Victor "MS" was introduced in 1902. The "Royal" was introduced in 1901, and could play 7, 10, or 12 inch records.

Plate IX: The Disc Phonograph with "Loud Speaking Attachment", the "Premium", and the external horn Disc Phonograph were all experimental and should be so noted. The Amberola "V" of 1913 was designed to play Blue Amberol (not Amberola) records.

Plate XI: The Toy Graphophone was introduced in 1899 and originally sold for $3.00. The "Five Dollar Graphophone" was introduced in 1899. The Type "BC" Graphophone was introduced in 1905. The Eagle Graphophone was introduced in 1897 and sold for $10.00 without cabinet; $12.00 with cabinet. It was originally designated the Type "B" and was not marked "BX" until a few years later. The Type "Q" was not known as the "Ten Dollar Graphophone."

Plate XII: C) The Peerless Graphophone was introduced in 1905. D) Although the "BK" was introduced in 1906, the "BKT" was not available until 1908, and not equipped to play 4 minute records until that time. E) The "BE" was introduced in 1905 and called the "Leader." It was not until it was equipped with a tone arm ("BET") that it became the "New Invincible" and available with 4 minute capability.

Plate XIV: E) The Puck was German-made. H) This is an American Graphophone-manufactured machine, not a Pathe.

Plate XVI: A) Calling the Polyphone "…one of the forerunners of our modern two-speaker system" implies stereophonic properties, which the Polyphone lacked. C) the Wonder dates from 1898, and did not give twice the volume (nor did the Polyphone). It was offered for $18.00 and $20.00. F) The Echophone had no bellows, crude or otherwise. G) The Standard machine shown is a Style X2 (the X was equipped with a smaller, all black trumpet-type horn). The American Talking Machine Company had nothing whatsoever to do with this machine; it was manufactured by American Graphophone. It was available in at least 6 different models: X, X2, A, B, E, and AA.

One Final Note:

On page 217, Read & Welch ended Chapter 15 with these words:

"Meanwhile, Thomas A. Edison, Inc. plugged along, paying no attention to radio, but slowly and continually improving the white label disc record. The strange reluctance of Edison and his associates to interest themselves in the latter day development of electronics in which they had played such a vital part in the telegraph and telephone days still remains to be satisfactorily explained."

This is sophistry, plain and simple. It's clear that the authors had access to vast troves of documents, and the satisfactory explanation to this purported mystery had to have been known to them. However, it would have served to impede their deification of Edison, the man. Characteristically, the authors chose to spread the blame for Radio Myopia at West Orange among all involved. This is a sad injustice to those associates - including Edison's sons - who had desperately attempted to gain permission to work on electrical recording and radio in the early-mid 1920s. It is well documented that one man was responsible for stifling this R & D until it was too late.

My interest in *Tinfoil to Stereo* falls off after Chapter 15, and I have made no notes beyond that point. I hope I have demonstrated that historical accuracy in this admittedly groundbreaking book falls short of an acceptable standard. For all its good points - and they do exist - *From Tinfoil to Stereo* is a seriously flawed work; not the least of which is the authors' overtly pro-Edison bias. I'll always retain a soft spot for the book, but it belongs on the shelf only as a curio; an illustration of what the published history of sound reproduction was 50 years ago, and how far we have progressed.

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