

Extract from Article by the late Jim Carino of the Canadian Antique Phonograph Society, published in Antique Phonograph News Nov/Dec 2012.

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Dual-Tone Phonograph

The Dual-Tone phonograph's tone arm was invented by Austin W. Hoover and Robert Winter, Jr., of Irwin, Pennsylvania. The application of the patent was filed November 12, 1919, Serial number 337,605 and the patent, number 1,516,603, was granted November 25, 1924.¹ What is unusual about the machine is that the tone arm's base, mounted on the motor board leading to the internal horn, branches into two barrels. These two barrels join back into one, and loop to the right position to hold one reproducer. My observation is that the two barrels do not affect the tonal sound at all, and perhaps it was just an attempt to get around the Victor Tone arm patent. Regardless, the tone arm is eye-catching.

All the hardware is pot metal and gold plated. It stipulates in the patent that the reproducer and the horn were made of Bakelite, but that is not the case. The reproducer is also gold-plated pot metal and the horn is made of wood. Unfortunately, the machine came to me with the wrong reproducer. Fortunately, one of The Talking Machine Forum members, sent me a post, saying that he has this machine and described the reproducer as pentagon-shaped, with clipped corners. I have a reproducer that is pentagon-shaped with clipped corners and sent him the pictures in different angles. He confirmed it is exactly the same as his reproducer, with the US patent number 1392677 (granted October 4, 1921). The owner of the patent was Julius A. Brown of Peekskill, New York. In the patent



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drawings, there are seven sound control openings, which he called "apertures".² While my reproducer was marked "Supreme", it is the same construction as described in the patent drawings but it has four sound control openings or apertures. It is a common knowledge at the time, that the "off-brand" manufacturers used whatever components were readily available. These reproducers were modifications of the Fletcher reproducer, which is six-sided (hexagonal) with six sound control openings or apertures at the centre of each side. The sound waves enter through the six sound control openings, go into the air chamber, and thus have more chance to expand, before passing through the tone arm. This is Elmer Fletcher's principle, the inventor of this reproducer (US patent number 1,322,890, patented November 25, 1919).³ Elmer is not connected with the Dual-Tone Phonograph and Julius A. Brown just used the same principle of the sound control openings patented by Elmer Fletcher almost two years earlier. According to the Canadian Antique Phonograph Project, the Canadian McLagan Phonograph also used the Fletcher reproducer.⁴

Another interesting aspect about this Dual-Tone Phonograph, is the placement of the brass plate right in front, which was odd for the 1920's. The motor is "The Motor of Quality", which was used by many "off brand" Machines.

Sometime in the 1920's, Franklin Cox, of Manor, Pennsylvania, a retiree at the age of fifty from the Irwin Mine Car Foundry Company in Shafton, was asked to make cabinets for the Dual-Tone phonograph. His sole experience as a cabinet maker was through making and repairing furniture for his family as a hobby. The Cox family has had a strong thread woven into the tapestry of Manor, Pennsylvania since the early 1900's. The factory was doing a great business.⁵



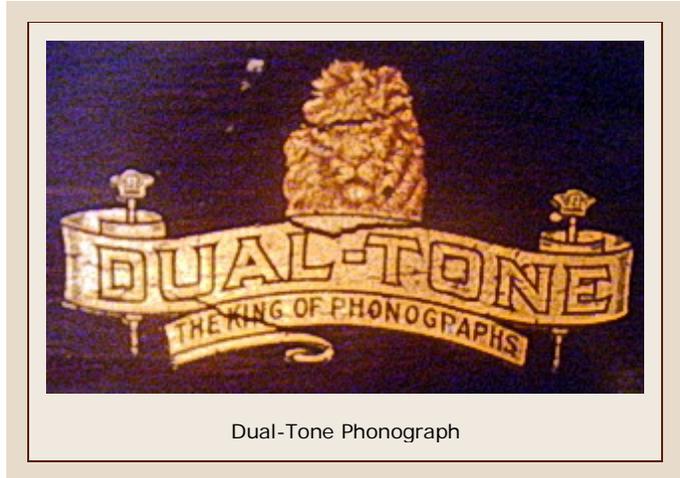
Detail of dual tone arms

Fletcher reproducer with dual tone arms

Charles W. Bowers was hired to be in charge of Merchandising for the Dual-Tone phonograph, headquartered in Rahway, New Jersey. According to Bowers, "Dual-Tone is a splendid product, and its demonstration quickly proves to the prospect, that it represents everything that the name implies."⁶

G.M. Soule was appointed as a travelling representative for the Dual-Tone Phonograph Company and started on the job on a trip to New York State and New England. He was known in the piano industry, and practically visited every state in the Union.⁷

With the advent of radio, the demand for Dual-Tone, like most of the "off brand" machines fell and the company went bankrupt. The building sat empty until it burned in July 4, 1933. Later, Jake Meyers opened a lumber company on the site.⁵ There are still two Dual-Tone Phonographs associated with the Cox family. One was purchased by Rexford Franklin Cox Sr., of Harrison City, at a sale. The second was a wedding gift to Bertram and Elizabeth Cox, from Franklin and Margaretha Cox. It remained in their house for many years. Later, they gave it to the Manor Outing Club. When interest waned in the Dual-Tone Phonograph, a club member, George Y. Heasley asked if he could have it. Eventually, George gave it to Dale Cox. Today, it remains at the residence of the late Dale Cox.⁵ Aside from the two, an acquaintance from northeastern New Jersey and I each have one and as of the time of this writing these are the four Dual-Tone Phonographs I know to exist. Please contact me if you also have one in your possession.



1. U.S. Patent 1516603
2. U.S. Patent 1392677
3. U.S. Patent 1322890
4. McLagan (Canadian Antique Phonograph Project)
5. Gail Noll, James Thompson and Dorothy Y. Miller, Manor, Pennsylvania: A Place in History, Word Association Publishers, Tarentum, Pa
6. The Music Trade Review, July 2, 1921, page 17
7. The Music Trade Review, September 10, 1921, page 20