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The 45rpm Phono Gazette

Challenge in 1939: Build a more dependable record changer that won't jam and break the records



"Chief" Benjamin Carson, lead engineer and designer of all record changers at RCA from the 1920's through the 1950's. Courtesy of Camden County Historical Society.

In 1939 RCA Victor issued a challenge to their chief engineer, Benjamin Carson, to build a record changer that would not break or damage records. At that time the record they were talking about was the brittle 78 rpm 10 inch and 12 inch record. Ben Carson had a lot of experience in this area, since he had designed all RCA Victor changers since the 1920's including the "Magic Brain". His response to the challenge was, "It can't be done. The only way to improve the record changer is to redesign the record and the record changer. He was given the go-ahead on this secret project that was known as Project "X".

Now that the "Chief" was given a free hand on both the record and the player, he took maximum advantage of the latest materials and techniques. The record would be smaller, lighter, break-resistant, with low distortion and quieter playing surface. Vinyl was expensive, but since the record would only be about 7 inches in diameter, the cost was acceptable. In order to make the new changer more reliable, the record dropping mechanism was put inside a large center spindle. This would do away with clamps and stabilizers that were needed to balance and separate the old records. The new changer would not have to determine the size of the record, since only one size would be used. In

order to make the mechanics of the changer as simple and trouble free as possible, the automatic shutoff feature was not part of the new design. The prototype of the new changer was smaller, cheaper and faster acting than previous record changers. The speed of the changing mechanism was considered important because there would be less dead time between classical music selections.

A prototype of the new record and record changer was ready in 1942 and was shown to company management. They were impressed with the design but things had changed since the challenge was issued. Now RCA Victor was in the middle of World War II and it was decided to keep project "X" secret and revisit it at a later time.

Stay tuned for part 2 of this story, which answers the question, Why did RCA Victor wait so many years before introducing the new 45 rpm record and record playing system?

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JERSEY/NEIL GENZLINGER

Radio Days or High-Tech, It's All the Same

THOSE of you who are still hoping that computers, cellphones, digital cameras and other modern gadgetry are passing fads and that we will soon return to the simpler days of a half-century ago might have been dismayed with what Phil Vourtsis had on display at the David Sarnoff Library the other day.

The event was a combination exhibition and radio-repair clinic, with members of the New Jersey Antique Radio Club doing the honors. Mr. Vourtsis, the club's president and the author of "The Fabulous Victrola 45," had a display related to the dear departed 45-r.p.m. record that was fascinating and hilarious, but also depressing.

The hilarity came from a 1949 promotional film in which an impossibly earnest fellow was extolling the virtues of this new way to listen to music. "Distortion-free records!" he exclaimed. And indestructible. "Bend 'em, bounce 'em; nothing happens!"

The depressing part was Mr. Vourtsis's sampling of newspaper articles from the period. It turns out the innocent little 45 wasn't so innocent after all; it was part of a war between RCA-Victor (which made many of its breakthroughs at labs in New Jersey) and Columbia for the ears of America. The new 45 from RCA was competing with a seveninch disc Columbia had just introduced as well as Columbia's LP's, and all were different from older-style records – different speeds, different needles, different players.

"The record-playing public," read one account, "which buys from 200,000,000 to 300,000,000 new disks a year, is faced with three mutually exclusive methods of reproducing music from records. Neither of the two new records can be played on conventional phonographs or radio-phonographs, nor can either be used on competing recordplaying machines."

It sounded, in other words, dismayingly

like the technological warfare that bedevils us today: VCR's vs. assorted types of DVD's, CD's vs. MP3's, Windows vs. Macs, attachments that won't open, digital cameras that won't download. Evidently there never really was a simpler time; products have always tried to push one another out of



the marketplace, and frustrated consumers. have always been left to play catch-up. "Only today the turnaround on a product

is much faster," Mr. Vourtsis said.

His club (www.njarc.org) has about 200 members, and watching them have fun with antique radios and other ancient technology makes you wonder what people will be doing a few decades hence with old cellphones. (Notice how primitive the ones from the 90's already look?) Lately, for instance, they've been having a contest to see who can pick up the most distant radio signal on a vintage receiver. When conditions are right, noise from Chicago or Canada or Mexico might squawk through the classic sets.

At the Sarnoff event, in Princeton, the club's experts ran a repair clinic where people could bring old radios for free doctoring. Some who brought in sick sets were fellow hobbyists, but others were hoping to revive a personal keepsake.

A lot of old radios are being unearthed these days in New Jersey and everywhere else as the radio-crazy generation dies off and its offspring inherit attics full of stuff. Mr. Vourtsis said that at first the repair clinics were just for club members, but then it seemed there might be laymen out there in need of vacuum-tube and soldering-gun assistance.

"It's pretty rewarding when we're able to help them out because they feel like they've reconnected with something from their childhood," he said.

Certain radios can be worth thousands of dollars, he said, though many more models were just as mass-produced as anything today and are worth less than a first-generation digital camera. Also, some antique sets might prefer to remain idle. For instance, someone once brought in an Emerson Catalin that gave Mr. Vourtsis pause.

"It was the kind of thing where I really didn't want to get the radio working again because heat from the radio could damage the cabinet," he said, "and with the Catalin that's where the value is."

One other booth from the Sarnoff event is worth mentioning, what with Valentine's Day not far off. It was a display of valentines, sheet music and such with radio themes, from the days when radio was new. "There's a Wireless Station Down in My Heart," was one song title. A card read, "Over the radio you can hear me pine, I want you for my Valentine." Apparently, linking romantic sentiments

Apparently, linking romantic sentiments to the high-tech device of the moment gives them extra credibility. So here's an assignment for the season: Use the words iPod, memory stick, mini-DVD and MP3 in a love poem. Give it to your sweetie. Then duck.

The Workbench How to make those tinny table models sound their very best!

Many of the more reasonably priced 45 players have pretty flat sounding amps and speakers. Models like 45EY2, 45EY3, and 7EY1 fall into this

category. The single ended amps are driving small 4 inch or 4 by 6 inch speakers in a plastic or bakelite cabinet. But it's amazing what you can do with the placement of the machine within the room you are using. Here are three things you can try to improve the low end response on your phonograph.

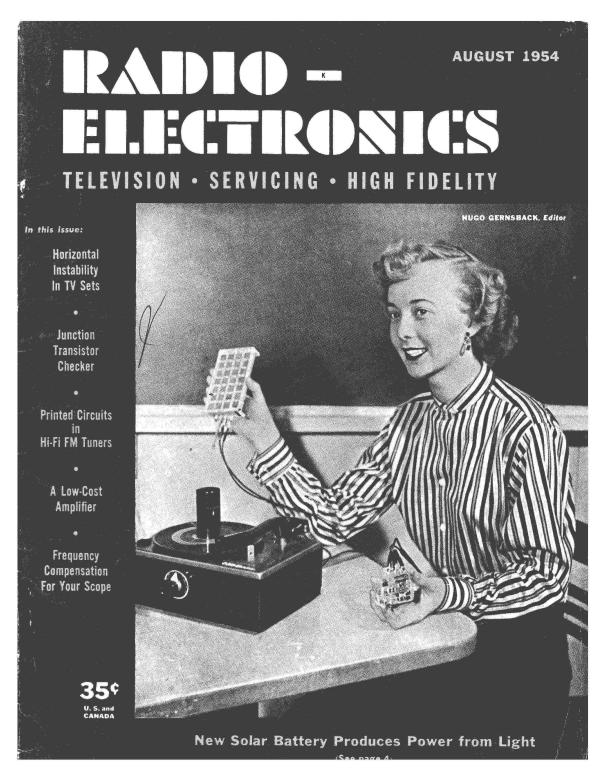
Place the unit in a corner of the room. What little bass there is will be reinforced by the two walls joining at the corner. Another trick is to place the phonograph in a wood cabinet or shelf. The sound will then use the cabinet to increase the low end. The last trick is provided by Doug VanCleave. Find or build a speaker cabinet with an 8 inch hole for the speaker. Remove the speaker so the box is empty. Place the box so the speaker hole is facing upwards. Place the phonograph over the speaker hole. The sound emitting from the bottom of the phonograph will enter the speaker hole and use the cabinet as a baffle.

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Subscriptions are available for \$5.00 annually. For more information call Phil Vourtsis at 732.446.2427 or email to prourtsis@att.com

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The famous rp-190 record playing attachment was even used to test newly developed photo cells in 1954.

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Want List

Bob Becker (201.391.2971)7 Woodland Road Woodcliff Lake, NJ 07677 rdbbecker@aol.com Beige knob for 8EY4FK Large tuning or vol knob for 9Y510 6JM25 Ding Dong Slideomatic 7HF45 Oak or Maple preferred 8EY4DJ gray plastic front with lid Decca blk/red portable 45 player Joe Centanni (716-223-8675) 1667 Waterford Road Walworth, NY 14568 S100x@aol.com VM Stereo 45 player Magnavox 45 player **Charles Cummins** (817-732-4313) 3912 Calmont Ave Fort Worth, Texas 76107 Bill Gourd (517-832-2934) 1024 West Park Drive Midland, Michigan 48640 I'm interested in one or two of these: 45EY4 or 8EY4 7HF45 (wood case) 8HF45P (portable) 9Y510 or 9Y511 (radio/phono) 4Y511 (radio/phono) last priority: 6EY3 or 6BY4 Hank Granse (360-871-9014) 6751 View Dr. SE Port Orchard, WA 98367 hgranse@wa.net Amp with knobs and bottom cover for a Mahogany 7-HF-45 Bob Green (570-366-3949) 1711 Breezy Acres Rd Orwigsburg, PA 17961 rcgreen@schmobile.com **Record Demonstrator** RCA Children's records **Doug Houston** (810-627-4141) 3441 South Hadley Ortonville, Michigan 48462 HoustonD@tacom.army.mil Ron Jeff **30 Devonshire Terrace** Flanders, NJ 07836 973-584-1007 Looking for 6JY1C Green case and tonearm Bob Kolba

817-294-9942 5950 Forest Highlands DriveFort Worth, Texas 76132 Rkolba0211@aol.com

John Lee 1658 E. 5th St. Ontario, CA 91764-2202 nipper45@verison.net I can scan ANY other character model decal in exchange for Snow White. John Ortale (203-754-8346) 44 Barden Street Waterbury, CT 06706 ortl@aol.com Early Disney models Tom Paruta (716) 837-8131 43 Flower St. Buffalo, NY TomTMP58@aol.com Zenith model T545 radio/phono. Zenith twin seven (G660) or "Dartmouth" console with twin 7 Bob Reck (410)647-1849484 Botteford Court, Severna Park, MD Dan Saporito $8-5^{th}$ Åve Ortley Beach, NJ 08731 Doug Robinson 2609S. 800E. Salt Lake, Utah 84106 Doug45rpm@hotmail.com John Schellkopf 1344 Goucher St. Pacific Palisades, CA 90272 Schellkopf@aol.com Looking to buy complete RCA 45 RS138A with 45-EY-2 amp in good condition. John Sportelli (619-296-2422) 3753 Herbert Street San diego, CA 92103 john.sportelli@cubic.com Set of knobs for RCA radio/phono models 9Y51, or 9Y510 Ray Tyner (614-475-1697) 4709 Wendler Blvd Columbus Ohio 43230-1642 rcray45rpm@msn.com Birch 45 player, Steelman 45 player Chambers Williams (817-446-0346) 9423 Marsh Creek San Antonio, Texas 78250 **Rex North**

(937-368-3060) 5333 Alcony-Conover Road Conover, Ohio 45317 Looking for spare idler and cam.

Services

Willie Bosco 707.923.3897 1588 Miller Creek Rd. Garberville, CA 95542 williambosco@msn.com "Lowrider" replacement cartridges available Paul Childress 6632 W. Denny Ct. Chesterfield, VA 23832 804-271-7842 pchildress@prodigy.net Players repaired and rebuilt **Bob Havalack** (585-458-0801) 44 Backus St (2nd fl) Rochester, NY 14608 ebm21@frontiernet.net Will repair/rebuild players. Specialize in car 45 player rebuilds. Idler and Cam rebuilding V-M Audio Enthusiasts (248-478-0990) eves/wkends 37530 E. Meadowhill Northville, MI 48167 gstork@concentric.net www.thevoiceofmusic.com Repair parts including both V-M and RCA 45 players. Phil Vourtsis (732-446-2427) 13 Cornell Place Manalapan, NJ 07726 pvourtsis@att.com Books signed by author The Fabulous Victrola '45' Schiffer Publishing LTD. 29.95 plus \$4 shipping Vintage Electronics 128 Buccaneer Drive Hattiesburg, MS 39402 601.264.4755 Rebuilding Service Idlers, cams, cartridges West Tech Services 570 Hazelgreen Road Smithville, WV 26178 Rebuilding Service Idlers, cams, cartridges Kurt Wilmarth (716.279.8948) c/o Echo-Tone Music 991 Genesee Park Blvd Rochester, NY 14619 Croonin@frontiernet.net Repair/restore service

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