Reverse-Restoration Project

Here's an interesting little project. A local municipal museum had been donated a near-mint looking condition and quite rare Edison radio. However, when it was placed in their 1930's period diorama there were many complaints that the radio looked too new and out of place when compared with the other exhibits. They duly contacted the SPARC museum and requested that the set be 'reverse-restored' so that their diorama could be completed.

The radio was brought into the museum and I set about the requested work. The set looked very nice indeed (photo, left) – all-original lacquered finish, the dial looking bright and sharp and a set of all-original knobs. When I switched it on it played very well and I felt quite dismayed at having to carry out the requested work – oh well, the customer is always right, and they were making a sizeable donation to the Museum. On inspecting the chassis, it was found to have a few minor rust spots, but was otherwise in good shape. All the tubes looked like new and were all present and correct. Underneath, the set had been completely re-capped using top-quality replacements and some of the resistors and wiring had been replaced – nice job too.

The knobs were removed – no problems with the grub screws. The speaker cable was then unplugged (this also looked like new), the four large cabinet screws removed from the base and the chassis then removed from the cabinet – ready to start…

Chassis De-Restoration

The good tubes were removed and, using a tube-tester, I carefully selected a set of failed tubes from the SPARC tube-vault ready for installation after the electronic de-restoration work. I decided to replace all the Mylar caps with some wax-paper units removed from other sets during their restoration. This was easier said than done as the leads were all too short – I persevered and managed to tag wires onto them fairly inconspicuously. Previously replaced wires were removed and ones with tatty sheaths installed. The large can wet-electrolytics were re-installed into the circuit. The line fuse was removed and a decomposing power lead fitted from a scrap set. I had noticed that the volume control was not noisy, so I carefully placed a few drops of oil through an

opening in its case, followed by some fine dust (model railway stores sell just the stuff for this – used for landscaping). The nice, springy mounts from the tuning gang were removed and replaced with carefully rolled-up pieces of chewing gum – just the ticket, all wobbling about and gooey just like the real thing after 80 years (an alternative would have been to use old-fashioned wood glue to simulate hardened rubber). The tuning gang frame was sprayed with water for several days to enhance the rusty patina – perfect result (photo, right).

The speaker looked a bit too new – a perfect cone, but luckily there were some rust spots on the frame. I damaged the cone by giving it a local application of water and pushing gently with my fingers. The tatty-effect was completed by using some 40 grit sandpaper to scuff the cone.

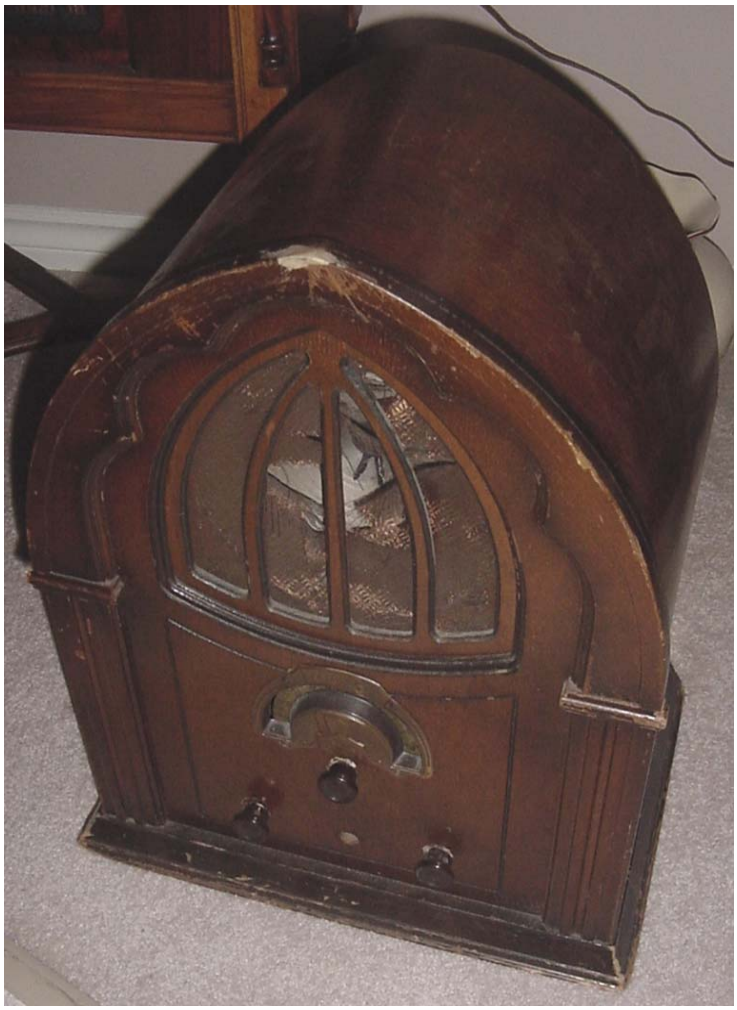
Cabinet De-restoration

The chassis was one thing, but aging the cabinet was another. This is where living in BC really pays-off. I started by leaving the set outside for a week in February. Wow, what a difference that made – the lacquer was looking cracked already (photo, left) and one of the corners was parting company with the side of the base. I left it another few days and then stood it in the airing cupboard to dry. Once it had dried out, I noticed that the base had a nice warp to it and there were signs of the veneer parting company with the plywood – just the job. However, it still did not look tatty enough for my liking, so I set about making some carefully-measured scratches, dings and scuffs using a wire brush, a nail and tapping it with a piece of 2x 2" wood. For good measure I flicked some off-white paint at it (all real antique radios must have flecks of off-white paint on them). A chunk of the veneer was removed from the apex of the cabinet with a chisel (the most prominent, eye-catching place) and the resultant unsightly gouge filled with some car body filler, tinted slightly with a dye-pen. The ageing process was completed by giving the cabinet a light water spray and emptying the vacuum cleaner bag onto it. The finished product was quite remarkable.

Next-up was the speaker cloth – unfortunately this looked like new. It was carefully removed and soaked in dirty water with a mild solution of sulphuric acid for a couple of days. It just managed to hold together when dried-out. Care was taken to rip the cloth such that the damaged speaker cone could peek-a-boo through it in a realistic time-honoured fashion (photo, right). The cloth was then re-installed in the cabinet.

Re-assembly and Finishing Touches

The chassis was re-installed into the remains of the cabinet – not an easy job due to the warping on the cabinet base and the use of perished mounts – it needed to be really forced-in. The screws were inserted – again some difficulty, but a hammer soon sorted them out.



The knobs were recovered from the rust chamber (my garden) – by now the grub-screws were nicely corroded such that they could not be tightened, so I glued the knobs onto the control shafts (I removed the lower-central control for added dilapidation effect). I then flicked some grease and oil at strategic places on the chassis and emptied-out my vacuum cleaner bag onto it, blowing the excess off – looking good.

I stood back and examined the set – what a mess it was. Scratches, scuff marks, paint spots and coming apart ever so slightly at the seams – the speaker cloth being the *piece-de-resistance*. Maybe I had overdone it a bit? – Oh well, they did ask for a set that looked 80 years old – and they certainly have that. All I needed to find now was a set of mongrel/ mismatched knobs and it would be complete.

Testing

I finally plucked-up the courage to switch the set on. With some trepidation, I turned the knob. Things did not look good at first – the dial light lit and I could hear a buzzing noise from the speaker. Not to worry though, after a couple of minutes I could smell something burning and then a satisfying loud 'ker-phuttt!!', followed by some blue smoke, the dial light going out and then a beautiful, well-deserved silence. The job was a good 'un' as they say.

The customer seemed to be ecstatic when the radio was collected the following week – kept waving his fists at me - I cannot wait to see the set in the diorama when I leave hospital…

Gerry O'Hara, Vancouver, April, 2011