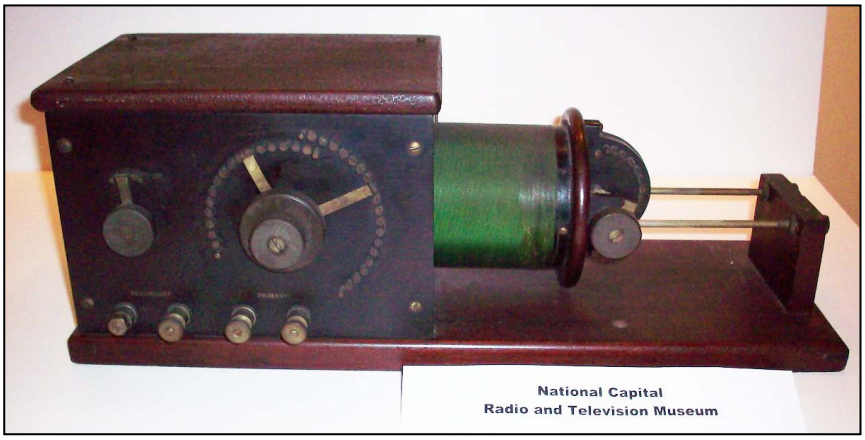
National Capital Radio & Television Museum

Artifact of the Week:

Meteor 57A Loose Coupler



Unless you are familiar with early radio history, you may not have heard of a loose coupler. This one circa 1916 is called a "Navy style" because the U.S. Navy used a similar design in its radios about the time of WWI. Meteor was a small manufacturer of radio components

At the time, a simple radio consisted of four main elements:

- An antenna to pick up the signals. (Usually a long wire, sometimes a loop-type antenna)
- A tuning device to separate stations. (That is what the loose coupler does.)
- A "detector" to separate the sound from the carrier wave. (Commonly a crystal detector in that era, or in a more expensive radio, a vacuum tube.)
- Earphones to listen to the sound

This loose coupler is basically a variable transformer, consisting of a larger stationary coil inside the wooden box (the primary), and a smaller concentric coil (the secondary) that slides along the rods in and out of the primary coil. Both coils have taps selected by the knobs. To use it, you slide the smaller coil along the rods and adjust the tap switches by trial and error until the desired station comes in best. When the secondary is fully into the primary, the coupling is said to be "tight," and when it is fully withdrawn, the coupling is said to be "loose." Needless to say, this primitive tuning device is *not* user-friendly. When later radios came along that had a single knob to change stations, radio listening became much simpler.

The two terminals on the left are labeled "Secondary" and the other two are labeled "Primary." The wiring diagram for the particular circuit being used would show how to make the proper connections.

We appreciate your support of the museum so that historical artifacts like this one, and the stories that go with them, can be preserved for future generations. THANKS!