Tube Of The Month

WE 101(*)

Western Electric was very interested in the new triode that DeForest had invented. They needed something to replace the mechanical repeaters they were using. By 1914 they were making a small triode called the 101A for use as a repeater amplifier. They knew that "long distance" telephone service was going to be the ultimate money making application. In 1914 telephone service began from New York to San Francisco. This only required the erection of 130,000 telephone poles and stringing 2500 tons of copper wire. The 101A tubes were used in eight repeaters on the line. The 101A had a filament that used 4 volts at 1.45 amps. The maintenance on the tubes and the batteries must have kept them busy.

As improvements were made, the 101A was replaced by the 101B, 101D and finally the 101F. The 101F had a 4 volt, half amp filament and had a life of 40,000 hours or 50 times longer than the older 101A. In the late 1920's, over 50,000 tubes were in use in the Bell system. The shape of the bulb was changed in the late 1930's and it was continuously produced until about 1984. This family of tubes was the first to use the bayonet base with its side pin that is still used today.

The first example shown is an early 101D with the plate in two pieces so you could see the guts from the side. The second example is a 101F with the early patent dates marked on the glass and the closed sided plate. These tubes are known as "tennis ball" tubes.

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