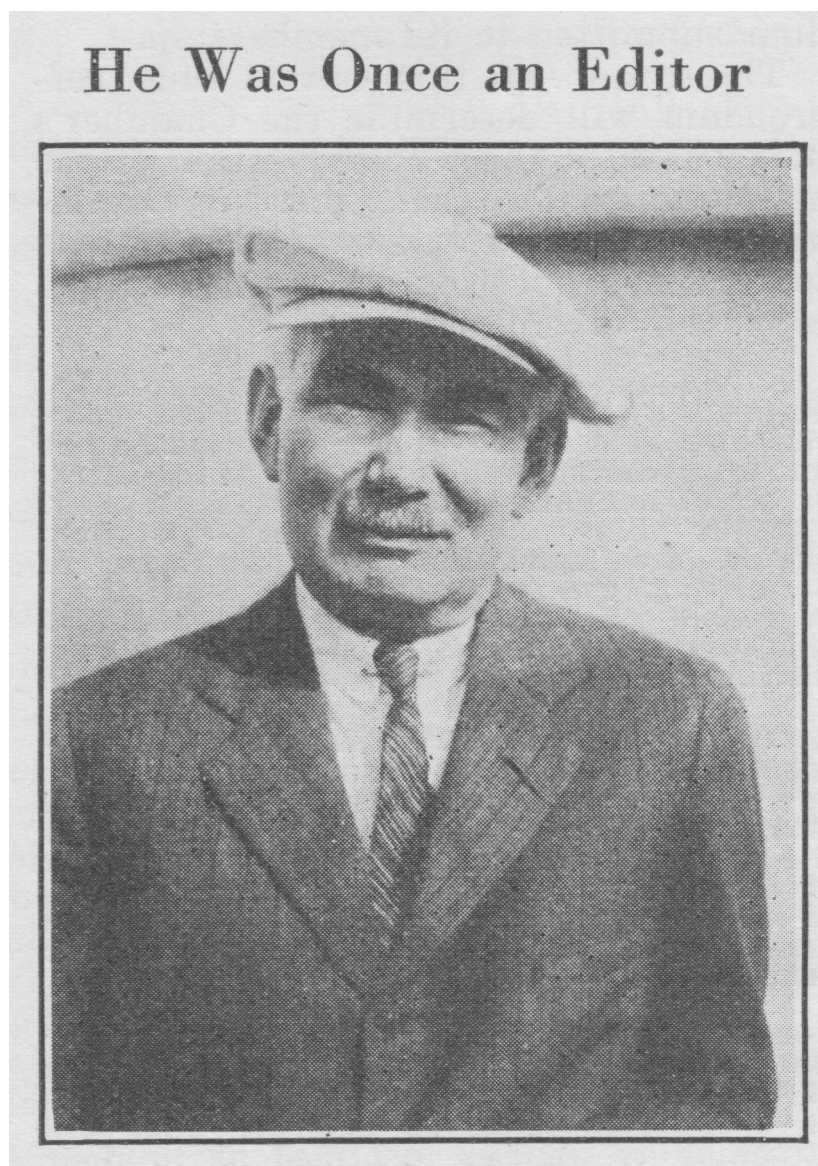


Lee de Forest, Editor – and more!

By Bart Lee, K6VK, CHRS Fellow, AWA Fellow

This note is dedicated to CHRS Journal Editor Richard Watts

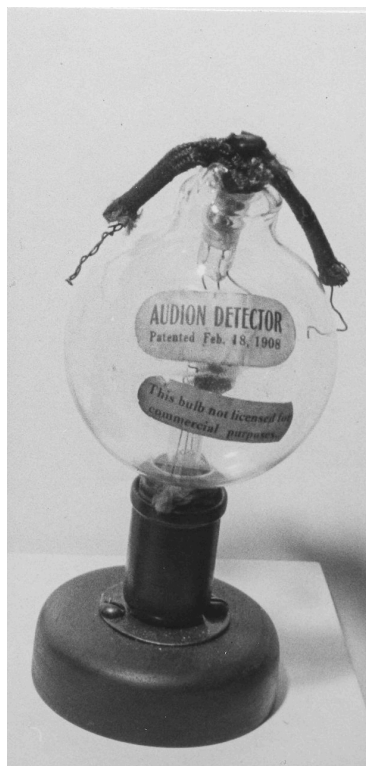
Lee de Forest became the KING OF RADIO, TELEVISION, AND FILM, which is the title of Mike Adams's book (2012). My foreword to Mike's book (below) may show why Mike's title is so sound, but first:



In Dr. DeForest's brilliant biography of achievement, there is one dark chapter concerning which his historians say little. And though we would not drag it out at this late date to blacken a great man's reputation, candor requires that we here set down that, for a few short months in Chicago, 19 years ago, Dr. DeForest was *an editor*. But just as he was getting into his editorial stride, a happy windfall or payments from some earlier inventions enabled him to resign from the sombre brotherhood of editorial scribes. Indeed, it was at that moment back in 1907, that he turned over his editorial desk on the old *Western Electrician*, Chicago, to your present Editor of *Radio Retailing*, then just commencing his own career of crime.

Radio Retailing, Feb. 1926, page 190; O.H. Caldwell, Editor

So writes the Editor of *Radio Retailing* in 1926, about the year 1907. In this year Lee de Forest patented the invention that changed much of the world, the triode vacuum tube: the Audion.



An Original Audion, Perham Collections, History San Jose

In 1907 Dr. de Forest had invented a very useful wireless telegraphy device, which would be litigated for decades. Yet he didn't quite know what to make of it, or even much about how to use it. Mike Adams told this story well, and like de Forest, the story tells about the aural world. I wrote a foreword to Mike's book, laying this out:

[Lee] Foreword: [to Mike Adams, Lee de Forest]

Lee de Forest could hold in one hand one of the most important devices of the 20th Century, one that he had invented in 1906, and in the other hand a gold Oscar that the motion picture academy awarded him mid-20th Century. His driving fascination with the power of sounds to carry intelligence and hearing those sounds links the two. Mike Adams tells Lee de Forest's story in a new and compelling way: from an early mastery of flame, to the final mastery of sound. It is a splendid tale of a definitive 20th Century life, the paradigm inventor, well told.

Lee de Forest discovered "an invisible Empire of the Air" just as he claimed. It is now the Empire of electronic media in which we live. But radio provided the foundation for it all. De Forest more than anyone else deserves the title "Father of Radio" just as he also claimed. De Forest heard the world as much if not more than he saw it. His was the Aural World, not the Visual World. He knew great music and wrote good poetry. He heard and wanted to help others, millions of others, also to hear.

The wireless telegraphy born around him printed its messages. But de Forest conquered that technology by hearing the signals sent out by the early spark transmitters. He improved that art by making its signals tones of higher frequency, more easily heard in poor conditions (and in retrospect on primitive equipment). We think of the 20th Century radioman wearing earphones. For that we can thank de Forest. He moved on, a restless man and a restless inventor. He

invented one of the most important devices of the 20th Century, the three-element vacuum tube (the “radio tube”). He did so in order to hear signals. He leapt at the suggestion of the name “Audion” for his device. To him, it was the near magic of “audible ions.” He put those audible ions to work so we could hear the wireless telegraphy otherwise so hobbled by slow unreliable printing devices. For success, de Forest turned to skilled telegraphers who had long worked by ear. Vast networks of such audible signals soon evolved.

But restless he was, so he turned to another device (the continuous wave “arc”). His goal was sending out music in the ether, to be heard by all. In 1908 that was a revolutionary act, with few antecedents but world-historical consequences. Those consequences flowed from the use of de Forest’s own Audions to provide the continuous waves to carry radio, that is, voices and music, around the city, around the region, around the nations and around the world. De Forest first perfected his device to provide these powers in 1913: amplification and oscillation. In less than a decade, radio, heard by millions every day nearly everywhere, changed the world.

Yet one 20th Century medium of entertainment and information, the “movies” was silent. Actors could speak with their facial expressions but not their voices. Lee de Forest created the “soundtrack” giving voice (and music) to the movies. To be sure, others worked to the same effect, just as many others had perfected the radio arts. But once again, de Forest’s focus on sound carried the day. In our day, it’s all Internet and multi-media, but the roots of it all come from Lee de Forest’s seedlings, the Audion, the radio transmitter and receiver, and the soundtrack.

About the Audion, de Forest later said: “I held in my hand the long-sought Aladdin’s Lamp of our new world, ‘a lamp by which one might hear instead of read’...and all but remake our world.” [FATHER OF RADIO (1950), page 1] He had earlier written: “The Audion is ... to the sense of sound, what the microscope is to the sense of sight.”

[FATHER OF RADIO (1950) page 477, 1920 paper.] We can hear so much now because Lee de Forest dedicated his life to helping us do so. If the real ‘bottom line’ is, as Edwin Land suggested, in heaven, Lee de Forest is a rich man indeed.

Thus, Lee de Forest invented the “radio tube” more than 100 years ago, making modern electronics possible and perhaps inevitable. Yet he failed in “Radio” after striving mightily – nobly or ignobly, depending on one’s point of view. He turned to Hollywood in the middle of his life, about 1920. Lee de Forest then pioneered the “Talkies” by bringing sound to motion pictures and their industry.

Having brought the sound of radio – voices of entertainment and history, music good and bad, real and imaginary events conveyed by the nuance of audio – into millions of homes in America and in the world, he then brought those sounds to the movies, in thousands of theaters, again for millions of Americans and the world. He called his first radio tube the “Audion” precisely because it enabled us to hear what was otherwise undetectable and invisible – radio waves – and he devoted his life to helping us hear music and people in what we now call “the media” – two of which, radio and movies with sound, he practically invented single-handedly. Mike Adams has a most interesting story to tell. {Lee, 02 May 2011 v.2.1}

From Editor of the *Western Electrician* to the KING OF RADIO, TELEVISION, AND FILM, suggests a series of good career moves. It is true of course that he was on occasion just “one step ahead of the Sheriff.” But he married a movie star and lived happily ever after.

(30 VI '22, v2 de K6VK) ##