

# Random Thoughts of an Old Timer

By Lloyd Manuel

WE have in our town a man with brains and ability. We call him, when not featuring his decisions in superlative terms, the Superintendent of Wiring. More than twelve years ago, when I asked him if I might run a telegraph line across a trolley's right of way, he turned me down. That proved his wisdom. If he hadn't turned me down, I probably would be on the shelf now as far as wireless is concerned. And the art thereby might have suffered. Perhaps it has suffered anyhow; but that isn't the story.

You see, it's this way. With the aid, counsel and support of a chum, I had decided to get a telegraph line across that trolley, but when we were refused permission to cross, we swore by all that is good and holy that we would establish communication in some way. We started to do it by wireless.

I began by getting together a lot of hay wire. This was easy; my brother at the time ran a livery stable. It was finally all patched together, after many trials and tribulations. Then I nailed a broom handle on one end of my woodshed. This was the mast. Two clothes pins served for spreaders and the completed cage was about a foot long, each wire separated by about an inch. Such is the ignorance of youth.

For a station, I commandeered my brother's hen-house, after evicting the hens. This of course made my brother peeved, but to his credit be it said that he did not block the progress of science. As a matter of fact, he remarked that my experimenting might lead to great things, and proceeded to sell the hens. As may well be imagined, this good word and action nearly overwhelmed me; since then, however, there has come the disturbing conclusion that his magnanimity had some relation to his needing money about that time.

I bored an inch hole in the roof of the

house for an antenna lead-in, and inserted the neck of a soda-water bottle, after punching a hole through the bottom of the bottle. One of my mother's saucers ornamented the top of this dignified and formidable arrangement, and my insulator was complete. It looked quite like a commercial product. Even though it wasn't the most efficient insulator ever constructed, it was the joy of my heart for some little time.

After getting the lead-in through, I commenced to realize that a real outfit should have instruments. I had no more idea what the instruments were like than I had knowledge of Chinese script.

So, I hied myself to the public library and procured a book which gave a layman's account of the Marconi apparatus. I didn't understand the whole write up, but dimly realized that I must have a coherer and a relay.

I swapped my air rifle for a relay. The coherer—embryo inventors please note—I made as follows:

First I took a bottle and filed the neck off; this was the glass tube. For plugs I took two small corks and covered them with tinfoil. Then I went junking!

After raising rags, bones and bottles worth fifteen cents, I sold out. I filed enough silver off the dime to partly fill the space between the plugs and mixed 'em with a few nickel shavings from the five cent piece. This was my mixture, and the end of my finances. After mounting this "Busy Bertha" on a base, my coherer was complete.

To decohere, I quietly removed the electric bell from the house, leaving as a substitute my little dollar motor with a fan attached. Over this fan I placed a bell so that when the fan revolved it would hit the tongue of the bell and cause it to ring.

I connected the "instruments" and tried for about a week to get signals. Sometimes I thought that there was

something doing, but more often. . . .

Then a friend, a real electrician, who had seen the aerial harzarded a guess that I was using a microphonic detector. Not having the least idea in the world what that was, I denied the allegation. He then told me of the Massey microphone. I scouted around under the electric light pole on the corner, found several carbons and fixed up a microphone. Then I was stuck. I had to have a telephone receiver. Nothing could be done without a 'phone.

I went junking again. With the money procured by three days' work, I bought a long receiver, second-hand.

I possessed, at this time, a little box of tools, presented to me by that genial and mythical old gentleman, Saint Nicholas. I dumped all the tools out of the box and mounted the carbons on the top. I had an eye for the esthetical, so in order that things might look quite orthodox and beautiful, I hummed some twisted pair and wired this wonderful instrument up as per instructions received from the before-mentioned electrician friend.

I hadn't listened for more than five minutes, when—wonder of wonders!—the contraption began to buzz! My chest swelled with pride. I ran out of the place with more agility than ever an occupant (hens included), had left it before.

Into the house I dashed and breathlessly informed my parents that I was some boy; that I was designed for a more useful place than the reformatory. To better impress the achievement upon my five brothers and two sisters, I announced that I was headed for the scientific class. Verily, I believe in all truth that I felt that day greater than Sir Oliver Lodge.

With what I considered becoming modesty, I permitted them all to listen in, gravely informing them that the signals which they heard emanated from a station about five hundred miles away. I afterwards got to know that spark very well, and had I told them five hundred feet, my chances of getting to heaven would now be brighter.

But allowing the family to listen helped some, for they all clubbed in and bought

me a dinky little quarter-inch Rhumkorf coil, which I hooked up.

I now started to learn the code. In those days Morse was used more extensively than the Continental. I took the bell which I had used on the coherer set, hitched it up in series with a battery and a strap key made from a piece of barrel hoop and a round headed screw. I then started in to practice.

At night I took this outfit in upon the kitchen table and sat up sending to myself until some unspeakable hour, when my father would appear with fire in his eye and a slipper in his hand, and make me sashay. My code practice would then be finished on my brother's shins—he slept with me, poor soul—until I fell asleep. After a while I was able to handle about five words a minute.

I will never forget the day when the government station answered my signals. They reduced their speed to such an extent that I could read them. My sign was GR. "GR GR GR," they said, "if you don't stop operating that coil, you will find yourself in the jug shortly." I answered by sitting on the key. I was such a nice boy!

My first receiving tuning coil was made from a portiere pole wound with No. 18 annunciator wire. This was inserted in the aerial circuit, in series. Meanwhile, the house bell had been shorn of its wire and discontinued. Such trifles as annunciators for callers could not be allowed to stand in the way of scientific research; the coil added materially to my range.

The next thing that comes to mind is the fact that a friend of mine had seen a silicon detector. He informed me that he had seen a detector that worked without battery. I promptly told him that the operator had been stringing him. But I set out to find out about it, and soon got hep to a piece of a fused silicon. What an improvement! Immediately I threw the microphone into the junk-heap; it was a thing of the past.

Then I left school and got a job driving a grocery wagon, at the fabulous sum of five dollars per week. As a promulgator of the quardruped, I was not what is called a success, my mind being constantly on the wireless. If a customer

ordered a pound of coffee, I was sure to bring a barrel of flour. Anyway, at the end of nine weeks, the inevitable happened; I got fired. Not, however, until I had saved enough money to buy myself a good head set and a decent aerial.

Immediately, I erected a fifteen-foot mast on my house and a thirty-footer on my woodhouse, a large edifice of its kind with a chimney. Since the erection of that mast, the chimney has never been seen. I may say in confidence that the chimney was used as a fulcrum to raise the mast. How myself and my brother ever managed to raise that pole is beyond me. But raise it we did, amidst the slangy protestations heaped upon my, so to speak, innocent head by a battered and torn brother.

One neighbor asked me if I had erected a pigeon trap; and I now see the justification of the question. Marconi himself never used more wire in a single aerial.

There is nothing like a decent aerial to make a boy proud, I reflected.

Dilapidated though the station be,  
Antenna you're a joy to me.

With the advent of these improvements, my range was immediately increased to about a hundred miles. So satisfied was I then, that for want of something better to do, I went to work as a carpenter's helper. On this job, I received nine bones a week, and between the fact that I was a real scientific explorer and a youth of means, I acquired a swelled cranium. So I started to stick signs up in my station, making patent the fact that I was not running an information bureau and that I was controlling 3,500 volts in my transmitter. Soon I had little kids, in short trousers, and big kids who should have been dressed in pinafores, on my trail.

They all wanted a set, and I was invited in all manner of ways to aid them. Feeling, in my egotism, that I could uphold the reputation of a consulting engineer, I elected to assist anyone who would pass over the formidable sum of ten cents. I had one customer on this basis. I was an information bureau, after all.

Finding that the cash proposition didn't go, I opened my heart and became a king to the kids. But, O my, when I

think of some of the answers that I handed out, I feel that shooting is too good for me.

The electrolytic detector, the carborundum, the magnetic, the perikon, the galena and many others were tried in their turn. I had good success with all the different types.

Now, so far as the personal reminiscence thing is concerned, it is time for me to cease firing.

My experience has been that the youthful enthusiast is not willing to start simply, and let his instruments grow with his knowledge. Yet this is unquestionably the best way to get a good fundamental knowledge of the subject, and will make for success every time.

At the present time I use the vacuum valve. Combined with this I have a good loose coupler, doughnut type, a 2,000-ohm pair of phones, two variables and a loading coil. I reside in Rhode Island and get Guantanamo, Cuba in good shape. Figure that out on your sliding scale. I have received Pensacola when using a crystal, and a single straightaway wire, 200 feet long and forty feet high.

My radio set has kept me in many nights, when I probably would have otherwise been out wasting my time on the street corner. So seriously, it is a real thing to be interested in. How better can a fellow spend his loose change than by becoming acquainted with this, a most interesting field of study that has been opened by Marconi and the great men who have contributed to the art.

So boys, men, aye and girls, go to it.