POSTSCRIPT: TWO-WAY TRANSATLANTIC COMMUNICATION

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The 1921 Transatlantic Tests were one of the true turning points in amateur radio. They proved the superiority of CW over spark: by the mid 1920s, spark was pretty much gone. Much of the technology they used is still in use today, nearly 100 years later: CW, superhet receivers, top-loaded vertical antennas, and of course the Beverage receiving antenna. 100 years from now, I wonder what they'll say about what we're using.

This was, of course, only one-way communication. Godley was dependent upon Marconi and RCA commercial circuits to send his reports back to the USA. The first amateur two-way contact between North America and Europe took place nearly two years later, in November 1923, between Fred Schnell, 1MO, of ARRL Hq, and a French amateur, Leon Deloy, French 8AB. Deloy had traveled extensively in the US, visiting prominent US hams and learning about their stations so he could build what was probably the best amateur station in Europe.

That 1923 QSO took place not on 230 meters which was used by 1BCG in 1921, but on a wavelength of approximately 100 meters, chosen to get away from the increasingly crowded conditions on the longer wavelength brought about by the rapid growth of AM broadcasting. To their surprise, Schnell and Deloy found that making contact on 100 meters turned out to be much easier than they had thought. They had no idea why, but assumed it must have had something to do with increased efficiency of their antennas at the shorter wavelength.

It wasn't until 1924 that Edward Appleton, a physicist at Cambridge University, made careful measurements of skip zones at 100 meters and shorter wavelengths, and calculated that there must be something, such as an ionized layer, that was reflecting signals back tow earth. He even got the altitude right, and eventually received a Nobel Prize for his work.

Once Appleton had developed the theory, commercial and other interests rushed to stake out frequency allocations in the new short wave bands, raising a real question as to whether anything would be left for the amateurs who had done so much to discover them.

In 1924, radio in the US was regulated by the Department of Commerce. The Secretary of Commerce was not a ham, but his son was. An engineer by profession, the Secretary made sure that amateurs' needs were met. Today's 80, 40, 20 and 10-meter bands can be traced directly back to the process he set in motion.

His name? Herbert Hoover.