

P O L D H U

“I WAS THERE”

By P. J. WOODWARD

POLDHU. Birthplace of long distance wireless communication on both long and short waves. Poldhu—“Black Pool”—what memories that name recalls to those of us who were privileged to work there in the old days! Poldhu and its Poldhu pots—those glassplate/tinfoil condensers which used to break down so often and flood the floor with insulating oil! Those floods of oil which the “jiggers” used to add their quota to when you took them from the vats for repair or replacement. And the sounds of pioneering experiment—how they come back! The crash of the spark . . .

Happy days.

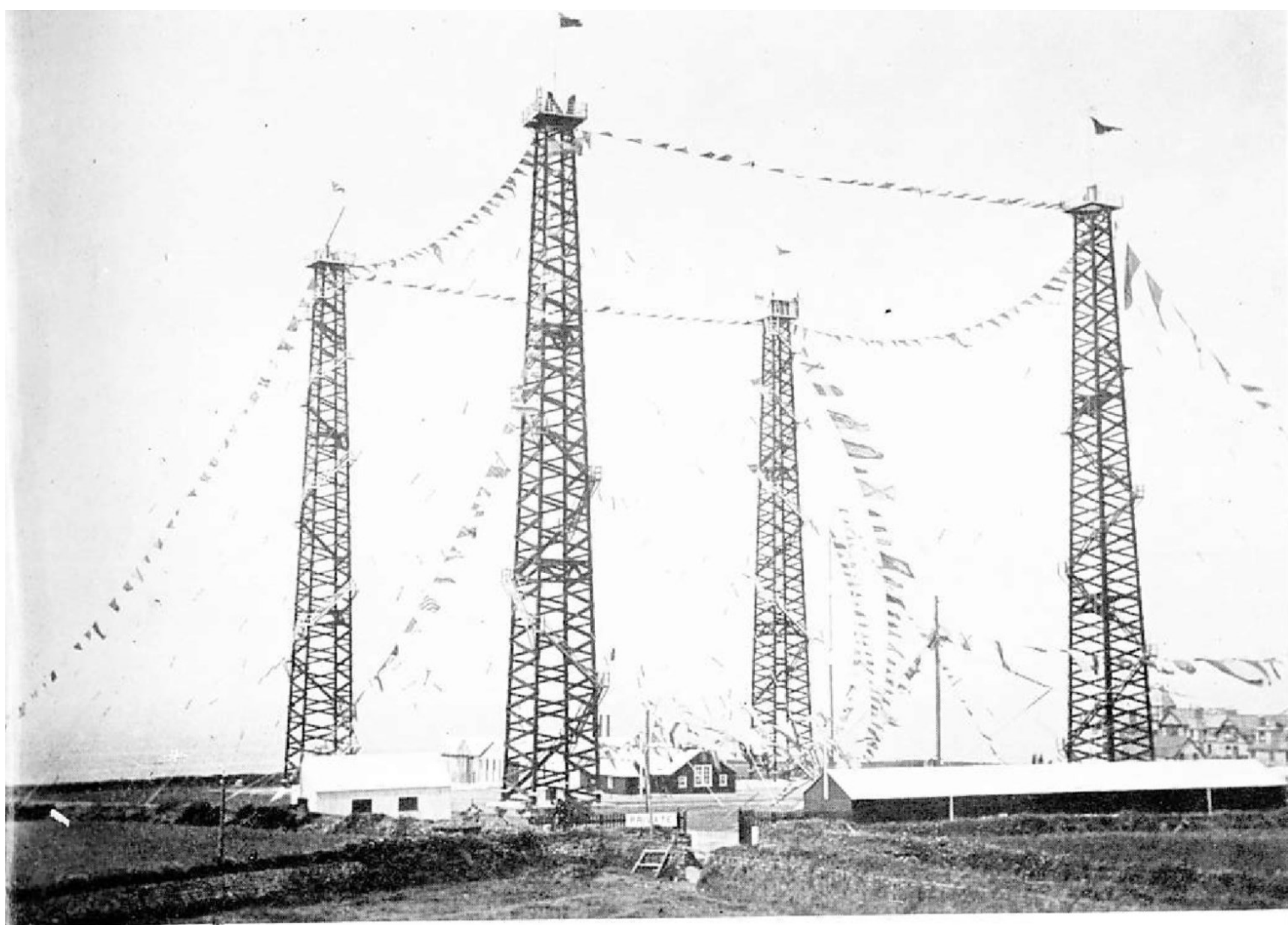
A handful of local residents, a handful of visitors to the three hotels, a few casual holidaymakers: I doubt if anyone else had so much as heard of Poldhu, that remote delightful Cornish headland, in 1900. Yet by the end of 1901, the name was ringing throughout almost every country on the globe.

Marconi's new wireless telegraphy had spanned the Atlantic.

Very soon after Marconi had succeeded in sending his famous first transatlantic signal from Cornwall to Newfoundland, the Canadian Government offered the Company a substantial

Marconi at Poldhu with A. E. Heming, who designed the towers. They seem to have a problem which requires some thought. This was the day the Prince of Wales, later King George V, visited the station. The staff were busy making last-minute preparations





Poldhu en fete. With the grey sea beyond, the station was gay with bunting for a Royal occasion. An interesting feature of the towers are the "staircases" up to the top. Below, Mr. and Mrs. P. J. Woodward

sum of money to build a station in Canada if they would in return charge less for transmitting messages from England to Canada.

The bargain was struck, a site was chosen on Table Head near the town of Glace Bay in Nova Scotia, and the building of a station similar to Poldhu's was begun in the spring of 1902.

The initial experiment from Poldhu had been a success. Subsequent signals, however, were disappointing.

Early in 1902, therefore, work was begun at Poldhu on permanent supports for a large aerial. Four 212-foot wooden towers were designed and erected by A. E. Heming. Steel wire triatics were stretched between their tops to support the aerial wires. Poldhu's power plant was also increased; a 75-kilowatt single phase alternator was put in. The HF





Early directional experiments off Poldhu. Marconi is at the tiller and G. S. Kemp—who might be feeling the weather?—is listening with earphones

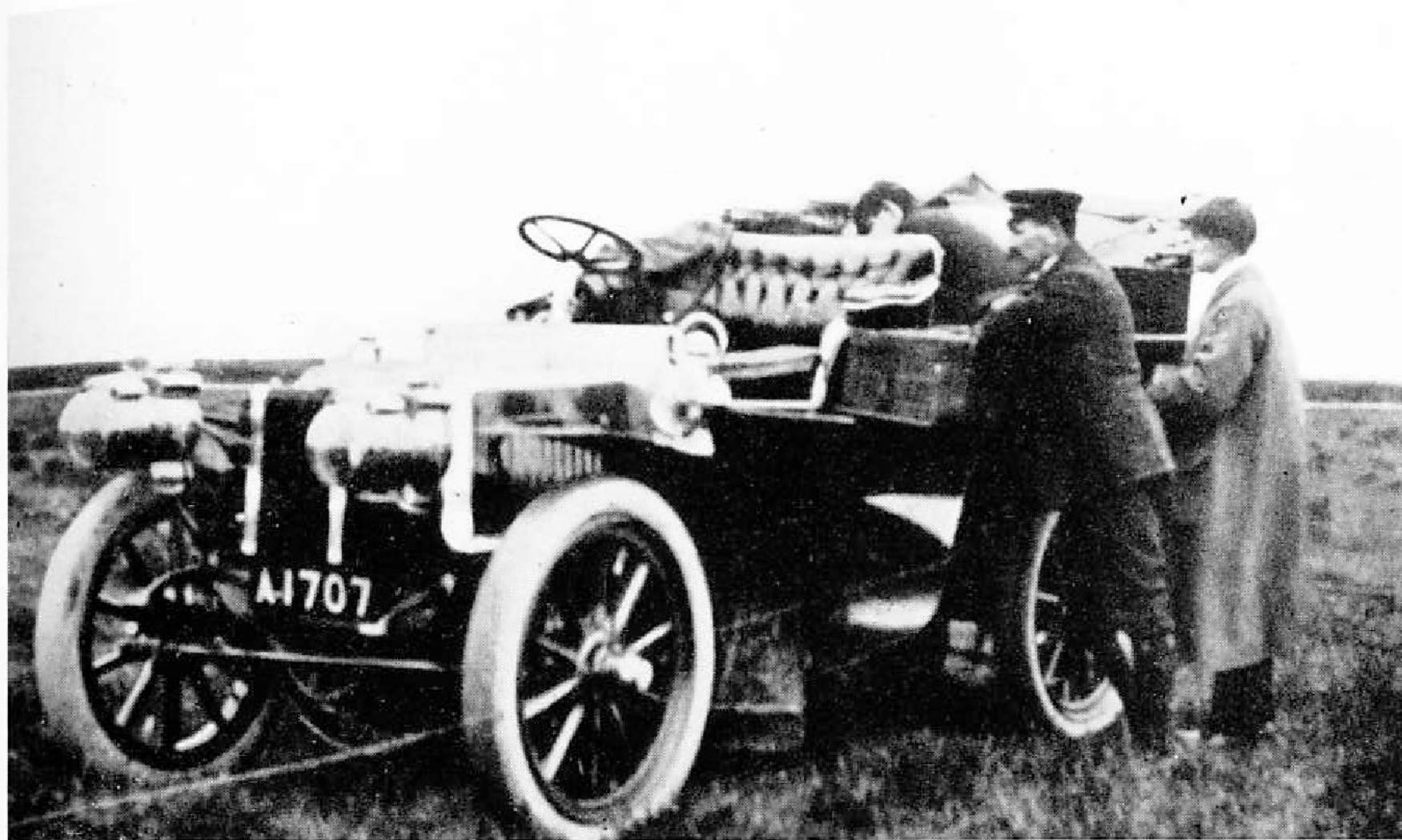
apparatus was enlarged and improved. One of the L/C spark circuits was done away with and the signalling switches were put into the HT circuit.

Now Poldhu has naturally enough become famous as a transmitting station. Comparatively little receiving work, it is true, was done there. It did, however, happen to be the station which received the first signals and messages both from Canada and the U.S.A., and I was fortunate to have been there to receive them.

Glace Bay, of course, was pushing on under Mr. Vyvyan all through 1902 while these improvements were being made at Poldhu; and transmissions from this first Canadian station actually started towards the end of November. For the first week or so the results were disappointing. However, in the early hours of 5 December, I remember, the magnetic detector gave signals of such good strength that I tried the less sensitive coherer receiver and tape recorder. The result was reasonably

successful and I tore off a section of the slip as a memento. These were the first wireless signals from across the Atlantic ever to be recorded by Morse Inker. A small sample of the Inker tape recording can still be seen in the South Kensington Science Museum.

Poldhu was the scene—from 1905 onwards—of early experiments in the directional effect of long horizontal wires. They were made both on land and sea with the magnetic detector as the receiving instrument. Marconi took the receiver in his car to various points at different distances from Poldhu and, for purposes of experiment, at each spot long horizontal wires were laid out on the ground stretching radially from the receiver. On the sea, the aerial, a long wire supported by cork floats, was towed behind a boat rowed now in this and now in that direction from the transmitter. These directional experiments were made from time to time in conjunction with the alterations and additions being made to the main



Experiments on Goonhilly Downs near Poldhu. Marconi listening in the car, his chauffeur, and W. W. Bradfield, General Manager of the Company at that time

transmitter. The results, however, in spite of improvements both at Poldhu and Glace Bay, were never anything but disappointing. It was soon obvious that the station simply wasn't powerful enough to give the strong reliable signal necessary to keep a steady commercial service going across the Atlantic. Hence the ultimate decision to build a more powerful station over in the west coast of Ireland's County Galway at Clifden.

Poldhu, and Cape Cod, went into service then as transmitting stations for sending messages to ships outside the range of the normal ship/shore stations. Both stations transmitted the daily news for publication on board Cunarders in

a newspaper which became the first "daily" to be printed regularly at sea under the title of *Cunard Daily Bulletin*.

My own connection with Poldhu ended in 1905, so I can give no first-hand account of the important work that went on after that. I went to Glace Bay with happy memories of Poldhu. And I have special reason for having happy memories still. There can't be many Marconi men who were at Poldhu without becoming acquainted with that well-respected family, the Downings. On my return from Glace Bay in 1913 I persuaded one of the Miss Downings to change her name to mine.

Yes, I am glad I was there at Poldhu.

When Mr. Woodward received the first tape signals from Canada at Poldhu in 1902, he kept the piece of inker tape, which is now an exhibit in the Science Museum

