

RESEARCH BRANCH SECRET WAR DIARY

21st September Design of a Simple Telegraph Printer1940

This investigation originated in a suggestion by Major G.T. Evans (R.E. & S. Board) for a simple multi-stylus receiver suitable for use in the field. This gave fairly good results but very much better ones were obtained with a Hell Type Helix receiver, constructed on the Station, and with electro chemical recording. These results are as good as those normally obtained with the Standard Siemens Hell ink receiver. Commercial transmissions from Germany have been satisfactorily intercepted. In view of this, it has been agreed to drop the Evans receiver and Major Evans is arranging a demonstration of the Dollis Hill receiver to M.I. staff.

In spite of various objections which have been raised against the Siemens Hell receiver on the score of the critical nature of the adjustments, no difficulty has been experienced in obtaining first class reception on the Siemens Hell type receiver with ink roller constructed comparatively roughly in the laboratory. It would appear therefore that there is less need to make use of the relatively expensive and difficult electro-chemical recording. Tests are however in hand to determine whether a cheaper form of chemical recording paper can be obtained and one which will be less liable to blurring of the signal. A workshop made model of the ink receiver is now under trial.

Disablement of Secondary Batteries

An enquiry has been made by the M.I. Branch of the War Office as to the possibility of disabling the batteries of enemy telephone exchanges. A compound has been found which, when added to the cell, produces intense frothing during the gasing of the cell. If some material, such as zinc or magnesium, is also added the action is sufficiently violent to empty the cell of liquid in a short time. The cell is not damaged but the scheme might have a nuisance value. Methods for damaging the cell are still under investigation.

28th September Work of Post Office and Army Signals Co-ordination Committee1940

The formation of a committee to give increased co-operation between the various parties concerned with the supply of Army Signals equipment is referred to in the Non-Secret Diary entry of August 31st. This committee has since been responsible for the laying of about 50 miles of rubber insulated quad cable and a long length of D.8 over a triangular course mainly in Hertfordshire so that field tests of loading, repeaters, carrier/