APPENDIX L

MOST SECRET

CODE NO. II

1. In this code the words of the message are written in clear in the letter, but the order in which the words occur is jumbled by the method described below.

2. Before the encoder can start operating this code he requires to decide three things:-

1. The number of squares he is going to use. This is determined by the number of words in his code message.

2. The frequency to be used, i.e. the position in which the words of his message will occur in his letter: say, for example, 4, 7.

3. A sign to indicate that his letter contains a code message.

3. The explanation of these three pre-requisites is as follows:-

A. The number of squares is drawn thus:

15	14	12	9	6
13	11	8	5	3
10	7	4	2	1

The message is written into these squares in the order shown. The first word of the message in Square 1, the second in Square 2 and so on, i.e. diagonally starting from the right bottom corner.

It is necessary that all the squares should be used. i.e. that the number of words in the message should correspond exactly with the number of squares.

A. The encoder indicates the number of squares he is using by means of the number of letters in the first two words of his opening sentence. The first word shows the number of horizontal squares and the second the number of vertical squares, i.e. the opening words "Every day" indicate a rectangle containing 15 squares (5 x 3).
The encoder will have his own frequency and will therefore select two figures from the following figures: 4, 5, 6, 7, 8.

Supposing his frequency number is 47, he would then start his code message on the fourth word of the first full line of his letter. The next code word would come seven words later, and the third code word four words after that, etc.

NOTE: The selected frequency number will never change and will be registered with M.I.9. under the encoder's name.

A. The encoder will select his own code sign which will also be registered with M.I.9. under the encoder's name. Such code sign may be for example:

i. - Underling date.
ii. - Date in Roman figures.
iii. - Some peculiarity in signature.
iv. - Use of the word "Very" in terminating, i.e., "Yours <u>very</u> sincerely".

Care should be taken by the encoder not to use the code sign unless his letters contain a code message.

A. To indicate that his code message has ended, the word "but" should be placed in the first frequency position after the last word of the message.

B. The procedure for writing a letter containing a code message is as follows:

Assuming that the encoder's frequency number is 47 and that the message contains 15 words, the message is written into the squares as indicated in paragraph 3.

The letter is then written, using the words in successive squares along each horizontal line – 15, 14, 12, 9, 6, 13, etc., i.e. as for reading.

For example: -

Code sign, say, 10.XII.40

Dear George,

Every day that goes by makes

- – - 15 – - – - – - 14 – - – 12 – - – - – 9 – - – 6

- - – - – 13 – - – 11 – - – - – 8 – - – 5 - - – - – - 3

- – - 10 – - – - – - 7 – - – 4 - - – - – 2 – - – 1

- - – - – – <u>but</u>

(a dash means a space for a word to be filled in afterwards.)

The easiest method of writing the code letter is to space the words of the code message out first, and fill in afterwards.

The following points should be observed:

A. <u>Not</u> to use words of a suspicious nature such as guns, troops, names of places, etc.

It is obvious that since the code words are in clear in the letter, words of a suspicious nature would not pass the Censor. A suspicious letter will either be destroyed or perhaps in time decoded.

B. If suspicious words have to be used, then recourse must be had to "spelling" unless such words can be so disguised that their real meaning would not be apparent to an ordinary reader.

Part II of these instructions will deal with the method by which "Spelling" can be used in this code.

PART II SPELLING

1. To indicate that spelling is to start the word "the" is introduced in place of the code word (or words) about to be spelt.

2. When the word "the" occurs in a code word position spelling with start immediately after the enxt full stop, and will continue regardless of stops until spelling is finished.

3. A new paragraph means that coding of words has once more started. At the beginning of the new paragraph the frequency will be started afresh as at the first full line of the letter.

4. In between the end of the spelling and the new paragraph as many lines as desired of ordinary letter can be written in which there is neither coding nor spelling.

5. <u>Method of spelling:</u>

Starting with the last letter of the code-user's surname the alphabet is written in order across into 3 groups each containing 9 letters. As there are only 26 letters in the alphabet an additional symbol * is inserted after Z.

Supposing the surname is Porta<u>l</u> the alphabet will then be written as follows, starting with an L.

Group 1	Group 2	Group 3
L.111	M.211	N.311
O.112	P.212	Q.312
R.113	S.213	T.313
U.121	V.221	W.321
X.122	Y.222	Z.322
*.123	A.223	B.323
C.131	D.231	E.331
F.132	G.232	H.332
I.133	J.233	K.333

The easiest way of memorising the figures to be placed after each letter is as follows:-

- Place the figure 1 after each letter in Group 1
- Place the figure 2 after each letter in Group 2
- Place the figure 3 after each letter in Group 3

Follow this by writing successively down each group three 1's, three 2's and three 3's. Then follow this by writing down each group the figures 1, 2, and 3 in succession.

The result is to arrange the figures 123 in every variety of combinations.

6. The following example shows how spelling is carried out:-

Let us say that the word to be spelt is RUHR.

From the above table

R = 113
U = 121
H = 332
R = 113

To encode 113 select three consecutive words in which the initial letter of the first is from Group 1, the initial letter of the second also from Group 1, the initial letter of the third from Group 3.

Thus:-

I	f**i**nd	**t**hat	**I**	**a**m	**i**n	**n**ow	**q**uite	**a**
1	1	3	1	2	1	3	3	2
	R			**U**			**H**	

				is	not	too	bad	
comfortable	**c**amp.	**T**he	food					etc.
1	1	3						
	R				*no code or spelling*			

PART III DECODING

1. The decoder will know:
1. The writer's code sign.
2. His frequency.
3. The writer's name. The last letter of which will be the writer's "spelling" letter.
    In writing to a P/W the P/W's own code sign, frequency, spelling letter will always be used by M.I.9.

2. The decoder will proceed as follows:-
1. Mark out a square in accordance with information obtained from first two words of opening sentence of letter.
    (See Part I para: 3).

2. Underline the words in frequency positions (See Part I para: 3). Remember that if the word "the" appears in a frequency position, spelling will start after next full stop.

3. With the start of a new paragraph after "spelling" frequency will start afresh as at the beginning of the letter, but in this case at the beginning of the paragraph instead of at the first full line. (There will be no code or spelling between end of spelling and new paragraph) (See Part II para: 4).

4. Transfer all code words to their respective squares (as for reading see Part I, para: 3) leaving decoding of spelling to the last.

The message can then be read off diagonally from right bottom corner as explained in Part I, para: 3.

PART IV GENERAL NOTES

1. All those who have been instructed in Code II should, through their respective Intelligence Officers, register the following particulars with M.I.9.

1. Name, rank and number.
2. Frequency number.
3. Code sign.

2. It is also very desirable that each code user should write a practice letter to M.I.9. including, when possible, the "spelling".

This practice letter must, for security, be sent through the Intelligence Officer and marked "Secret". The name, rank and number of sender should be stated on the letter.

3. P/W's can send their letters containing a code message to any address in England. M.I.9 alone will be responsible for intercepting any code letter, even should it be addressed to an entirely fictitious address.

The decoding will in no way entail delay in the delivery of letters from P/W.

4. Important: In teaching this code it should be strongly emphasised that P/W must beware of discussing it in any room or circumstances where there is danger of being overheard through a microphone.

12.12.40