

SECURITY

THIS DOCUMENT IS THE PROPERTY OF H.B.M. GOVERNMENT, and is issued for the information of officers and responsible officials.

The officer or official in possession of the document will be responsible for its safe custody and that its contents are not disclosed to any unauthorized person.

The document will be kept under lock and key when not in actual use.

Officers commanding units and establishments, &c., are responsible that appropriate circulation is given to this document.

POSTAL CENSORSHIP

BROCHURE FOR USE OF OVERSEAS CENSORSHIPS

(CODE SECTION)

THE WAR OFFICE,
LONDON, S.W. 1.

Any person other than the authorized holder upon obtaining possession of this document by finding or otherwise should forward it, together with his name and address, in a closed envelope to the Under-Secretary of State, The War Office, London, S.W. 1. Letter postage need not be prepaid; other postage will be refunded.

All persons are hereby warned that the unauthorized retention or destruction of this document is an offence against the Official Secrets Acts, 1911-1920.

[SECURITY B 408]

FOREWORD TO THE CODE SECTION

What is Code?

Several definitions have been used to describe Code. It has been spoken of as a disguise; as a method of clothing words and sentences so that only those with special knowledge can see through the disguise; as the cloaking of information so that only the initiated can pierce the veil.

Code dates from the earliest days, and every time it appears it has acquired new forms, for man's ingenuity continues to invent new ways of hiding things from the general public and revealing them to the chosen few.

In some countries Code is made the object of special study so that, if occasion arises, it can immediately be adopted for transmitting information between one country and another without the name of the sender or the information becoming known to any unauthorized person.

And when it is a question of finding out whether a document contains Code, or whether a letter covers more than meets the eye, there is immediately begun a battle of brains.

Imagination must be met by imagination, guile must be faced by guile. All possibilities must be considered and weighed with probabilities and improbabilities. And finally, it must be decided whether the verdict shall be guilty, or not guilty; whether the document contains Code or not.

And if, in the strivings between the examiner and the sender of the letter, the latter succeeds in baffling the former, let this only make him strive the harder not to allow himself to be baffled twice.

It is in order to minimize, as far as possible, the chances of Code escaping the examiner's eye that the following pages have been written.

CODE SECTION

The first steps to be taken will be the instruction of the potential staff of first examiners on "things to look for" which may indicate that a letter under examination may contain some message other than at first appears by the context. And it is important to impress on this potential staff the responsibility which rests upon them, as first examiners, whether a letter which may be suspicious goes on its way quickly, or whether it is submitted for special testing as a result of their instruction.

If this potential staff is being instructed in classes, it is advisable that each class shall be instructed on exactly the same lines so that eventually all examiners have the same knowledge and are working on the same lines.

This brochure deals only with "visible" means (although hidden or disguised) as distinct from letters which may have some message in a secret method which requires chemical or physical treatment to reveal it.

It is a great help to examiners for them to visualize some of the methods likely to be used and therefore illustrations, if possible, on a screen or by other means should be shown to cover all the points the instructor wishes to convey. Preferably actual specimens, if available, should be shown—if not available, specimens should be made to illustrate the points.

The following are suggestions for instructing such classes:—

In the first period, before it is realized how strict is the Censorship, attempts will be made to send messages in rather blatant forms, and therefore it is best to deal with the very obvious signs first and these include the following:—

1. Numerals arranged in groups or inserted in other ways in the letter; or groups of letters which do not make words.

Any figures unnaturally or persistently introduced into the text should be watched for.

Comment.—These will usually be:—

- (a) Ordinary figure codes.
- (b) Dictionary codes.
- (c) Business codes.
- (d) Transposed or manipulated alphabets.

Figures persistently introduced into the text are often so introduced for the purpose of drawing attention to the key of a Code when (as often occurs) it is changed from time to time.

Illustration No. 1 is an ordinary business code.

Illustration No. 2 is an alphabetical transposition.

Illustration No. 1

Copy letter introducing numerals in groups.

10783 60540 59672

1. Your letter concerning 35824 and numbered 211 of the 7th July 1915 was received on August 8th and has been forwarded.

2. We have to give you the following further instructions:—

Go to 10586 to meet the representatives of 45564 15077 and 69821 who will give you further instructions. You may then have to go on to 41139 to receive the 79805 23100 65400 but wait till you receive orders. Letters from there should be submitted to 32076 and 46798 who will 64067 52239 to 66475 78649 45523.

This is important so be careful to follow the instructions.

The groups of figures here are imaginary. This can be taken from any figure code such as business codes or privately arranged codes.

Illustration No. 2

Geneva, 15.7.22

HSAQD	PFFFF	HPLU	FUVFV	PKLVQ
EYVJG	BNBVZ	QGRLY	TLPRT	EIOVX
AQCIS	CJHKQ	XRHPE	VLRPV	ACTWV
QOEZR	PWZKC	PLHVV	AJFVN	TEIYU
MEAGS	VLIBV	KKOKV	VIIYA	BVKUN

Decode of the above:—

Go to Clydebank and try to get particulars of new ships about to be laid down and report as soon as possible. Further orders later regarding other yards, M.

Method.—The alphabet has merely been transposed by the use of the figures 1472 written and repeated under each letter of the clear message and then by transposing either 1-4-7—or 2 places forward as the case may be—the resulting letters divided into groups of five form the message.

To decode transpose the letters backwards by using the figures 1472 as above

Encoding:—G o t o C l y d e b a n k, etc.

14 7 2 147214721, etc.

HS AQ DPFFFFHPL, etc.

Decoding:—HSAQD PFFFF HPL, etc.

14721 47214 721, etc.

GotoC lydeb ank, etc.

2. *Arbitrary Symbols.*

Many examples could be given of these but the design of the symbol does not matter as any symbol can be used to represent a letter. Particularly look for the introduction of shorthand symbols interspersed in the longhand. They are usually not the complete shorthand sign for a word as this would be too obvious, but they are the elementary shorthand symbols representing the letters of the alphabet, or sections of the words, and a message is thus spelt out or divided up. Astronomical symbols or references to astronomical subject should also be looked for.

Comment.—(a) Each symbol represents a letter and decoding is usually a simple matter if the message is sufficiently long.

(b) The introduction of shorthand symbols is really important and someone who knows shorthand should examine letters suspected of containing them. It is possible that a person who hardly knows what shorthand looks like would pass letters with these symbols in them. Someone must have, or acquire, a knowledge of the various systems used from the earliest times as old and other little-used systems are still capable of being used to make a kind of private code.

(c) Astronomical subject and signs are referred to because in a certain country some high officials were known by these signs and may be so referred to in letters.

Illustration No. 3 is an ordinary symbol code.

Illustration No. 4 is a letter with shorthand symbols introduced between the longhand words.

Illustration No. 5 is a very old shorthand still capable of use as a private system.

Illustration No. 3

-V >I--I 3E 3I-~ 3EII <I?OY+V 5 H26+
 >I? I9- 3Y -I5+I-+ 3Y >II-~+I-+ >I~
 H26 +I >V?3E I263IO H26 3EII >I?+I 5I9I
 -I 6I? : H26 +I+ -V >II 3I OI? : H26+
 >H26 -26 H26 I? +V? <H26-+ ! V?3 H26 >V?3I
 +H26~ IY+ OI? I? 8H26 I? . >I- 3Y 3I
 5I9I-I 6I+ V?3 IY6 OI? I? I?+~+ ~V+V
 >I H26 H26+ OI6? IY- V?26 I? >I-~
 <H? I? H26+ OI? ~>I? +?IO3 I3I? H26
 4I 3H26 H26+ 5I9I IO 3I H26+ 3H26 ~I
 >I?+H26 I? H26 H26+ H26+I6I -V?H26
 >H26~ H26 -26 H26 6IY+ 3I-~ 3H26 I?~I?H26
 3H26+H26+I +I+ H26 -H26 I? >I6?H26 9H26 I?
 5I+I >I?3 <I?+I? 39H26 -H26 8I? . 4H26
 OI6 >H26 H26 6IY+ H26 I? I- I? I?+I
 26I 3I-~ 8I? I?3I? 5I-26H26! >I3I? +H26
 H26 OI-26 OI26 4I 3H26 H26+ -H26
 IY-~I? 3I? 3I? -I?9I I?3 9I64 2I?9I 5I?
 I? 3H26 ~VO OI? I? 5I-~I- 9I? 9I?5!
 >I?3I?4I? 6I-+ 3I 3H26 I?+I? 3I H26+ 6I?H26
 -I? IY6I 19H26 5I-26H26 I?+ OI? 3H26-I?9I
 IY6I -H26 I-~I- I?6I 6I+ OI6 OI? +I+I?
 <H? 39H26 I?+ 5I9I6I? 3H26 >H26 -H26 I?
 OI? 3I? I?+I? . OI? 9I?+ , H26 OI?26+I
 3H26 9H26+H26-I >H26 I?+ IO 3H26-I? -
 9I-~ 3H26 IO+I5I I?3 9I6 I? <H? 3H26 I?
 +?IY? 6H26 3I5I?3 .

Illustration No. 4

Downland Park
 Maidstone.
 Kent
 15th June 1917

My dear George

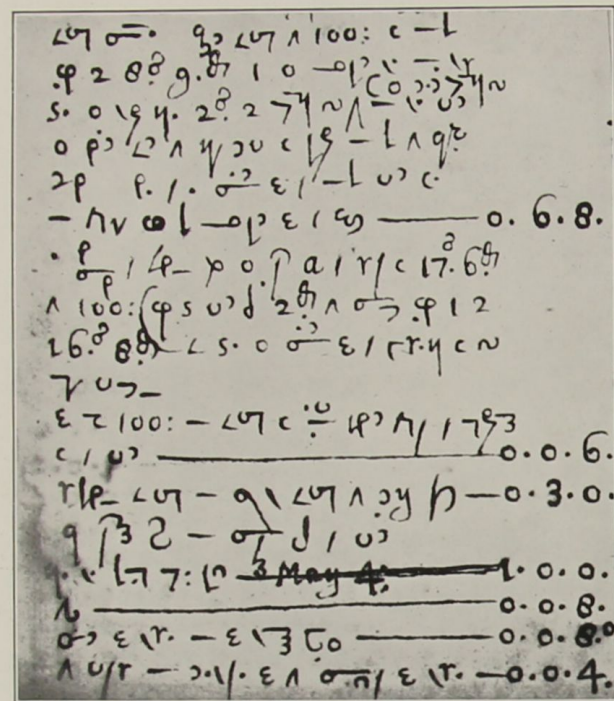
We were all so glad to receive
 your welcome letter and to hear
 that you are as well as can be
 expected in the circumstances. We
 too are fairly well although I
 am afraid Mother is not too well
 but then her age is against her.

This terrible war hangs on and
 never seems to end but I suppose
 it will some day. And then we
 shall all meet again in a happy
 family party! But when will
 that be I wonder. Pray that it
 may come soon. We hope soon to
 hear from you again with better
 news of Margaret.

Message in shorthand in the above:—

Transports will leave Folkestone Monday Dawn. Troops now massing
 at Hythe.

Illustration No. 5



A 17th Century system of shorthand. (Thomas Shelton, 1631).

3. Extraneous marks, underlining of words or figures, dots, etc., including the deliberate underlining of dates or other figures.

The usual dotted letter, if the dot is made either above or below the letter, is fairly obvious and should not escape notice but particularly look for "dotting" of the letter by pressure with some blunt instrument—such as a wooden skewer—on the ink itself so that it is not noticeable at all from the front but appears at the back of the paper in the form of a raised bump.

Comment. This includes:—

- (a) marked letters which do not always make proper words when extracted but are frequently a manipulation of the alphabet.
- (b) underlining of figures often used as the key to the message in the letter, etc.

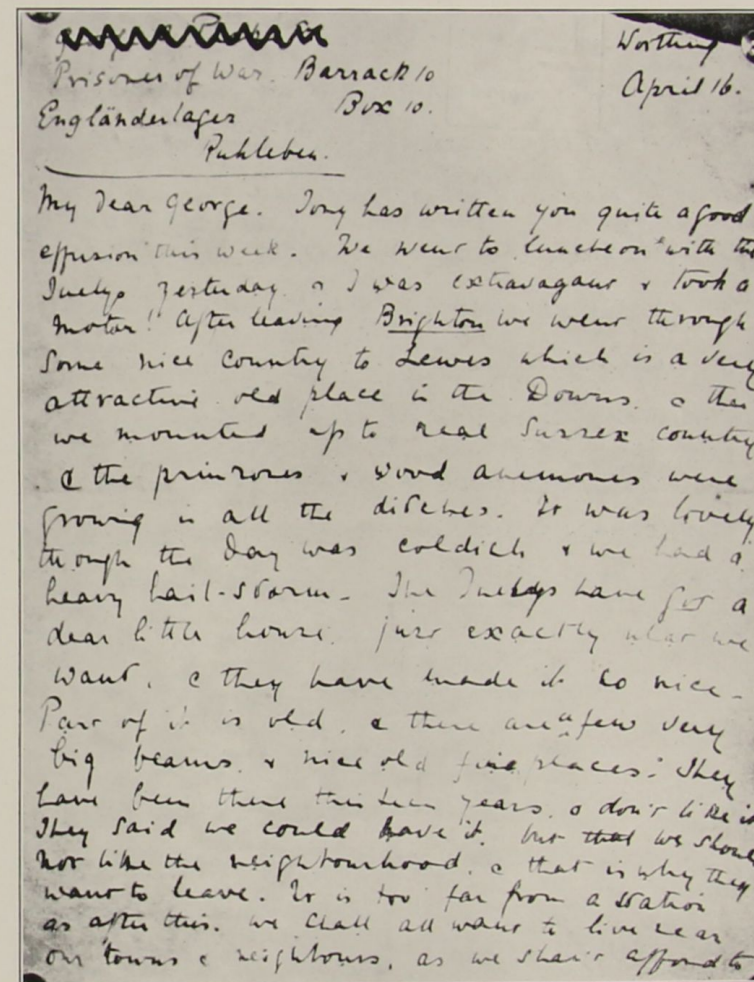
Illustration No. 6 shows very finely dotted letters.

Illustration No. 7 shows marked words.

Illustration No. 8 shows duplicated letters made by altering the alignment of the typewriter. (Please notice the weakness in the use of the method in that the end of the letter is entirely free from the duplicated letters which shows that the "errors" in the typing in the first part of the letter are deliberate.)

Illustration No. 9 shows thickened words and letters which are significant.

Illustration No. 6



Message in the above:—

I saw in Brighton a P. man who got away (Malorey). He knew you.

Illustration No. 7

7.10.18

My dear Cousin

Your letter reached me in this Camp where I have been for 2 months among all sort and conditions of prisoners of War. They are a mixed lot and sometimes I think how terrible it is for them. There is very little chance of improvement. Our food is not too bad but I have not been well although I am now responding to treatment and am much better. It is no use being discontent but we all hope soon to hear it is finished and we can come home to our people again. We have very good exercise and little chance of getting fat! but if we are healthy what more can we expect? I hear you are to have another move. Is that right? I do hope it will improve your position. They say there is good opportunities in that line. How are you feeling? I hope you are in the best of health. The shortage of letters is very trying and I am always wondering how the family is getting on. Do write again soon please and let me know. Yours always Tom.

Message in the above:—

Camp conditions are terrible. Very little food. Bad treatment. Much discontent. But the people have very little. If what we hear is right they are feeling the shortage.

Illustration No. 8

London, 22nd: November 1936

My dear Williams,

Your letter of the 5th was received with great pleasure by the whole family. It is so long since we heard from you that we were expecting to leave for the week-end again without any letters. However, we were glad to hear before we left and to know that you are all well.

I think things are improving don't you? There has been a pretty good set-back in business through these very troublesome times and I don't suppose we shall make up for lost time before the end of the year so far as finances are concerned.

How are things with you? We hope they are not too bad although we realise times must be difficult over there. We were very glad to hear of your boy's success in his examination and hope it is only the beginning of a very successful career. We are sure he deserves it.

We have attended to the little business you asked us about and everything is now in order and you need not worry about it any more. The firm in question will pay the amount due to us and we shall hold it for you until you say what you wish us to do with it.

Let us hear from you again soon.

Yours etc.

The message conveyed by means of the duplicated letters is:—

5 transports leave Dover Tuesday.

Illustration No. 9

London 7. 10. 1918.

My dear Bert.

Thanks for your letter. Glad to know you are keeping cheerful in such conditions. However much we may hope for the finish we can only hope that before long something will help to put a stop to this dreadful war. You know about the new house don't you? We hope to move in next week. I think everything will then be better for everyone. A change is good and we are looking forward to it beyond words and trust all will be well. Your Mother came along to our home last week and we hope she will come again as we thoroughly enjoyed her visit. You remember Alice don't you? Well she got married the other day to everyone's surprise and is going to live near us so we shall be seeing a lot of her we expect. What a change that will be for us all but you know Mother always liked her so things may be easier now. Don't you long to come home? I hope it won't be long now and there will always be a good welcome awaiting you. You know that don't you? If I can manage it I shall be sending you another parcel next week and I hope that will help you on for a few weeks. I am expecting news of Sidney shortly and will let you know about him next time I write.

Well, old fellow, I must now close this scrawl. I hope to write again soon.

Buck up, old son, everything will be all right

Yours etc

William

Message in the above:—

Battleship Temeraire returned to port badly damaged. All sworn to secrecy.

4. Pinpricks, Scratches or Indentations.

Particularly look for indentations on either or both sides of an upright letter.

Note that if a pinprick is made through the ink of the letter it is only visible by holding the paper to the light. This is the best method as a pinhole either above or below a letter may be seen when reading the letter in the ordinary way.

Comment.—This is similar to No. 3. Sometimes a pinprick in the vicinity of a figure in the date, or in the body of the letter is sufficient to give the key to the message in the letter.

Indentations may be semaphore signs.

Illustration No. 10 shows semaphore signs made in this manner.

Illustration No. 10

SEMAPHORE BY INDENTATION

Used by a British Prisoner of War in Germany.

The indented shapes are made on the letters "T".

To read, the receiver darkens the surface leaving only the white ridges.

Example:—

Beneath dearest Auntie suggestion about just

5. Freehand drawings of all kinds.

Comment.—These must be examined for the introduction of writing in trees, etc., or Morse or other signs in the lines of the drawing.

Illustration No. 11 shows a fashion plate in which a system of Morse (not the usual dot and dash) has been introduced into the embroidery, etc., of the dresses.

Illustration No. 11



Message.—(In figures 1, 2 and 3).

Heavy reinforcements for the enemy expected hourly.

(In signature in French shorthand)—

Before Arras.

6. Unusual or little-used forms of shorthand.

All shorthand letters must, of course, be read.

Comment.—See former note (p. 5) regarding someone who knows shorthand systems. There are many more systems than people think, and a collection of text books of different systems in all languages is useful as anyone knowing shorthand can easily learn sufficient of another system to read it.

See illustration No. 5 (p. 8).

7. Accounts or sums in various forms.

These may take the form of children's sums, or accounts of expenditure on any particular subject, or household accounts.

Comment.—These are often figure Codes. The totals can usually be disregarded as they are frequently used as "blinds".

Illustration No. 12 shows a figure Code put into the form of children's sums.

Illustration No. 12

1133.	2.	2
11.	1.	3
1616.	1.	5
1.	11.	3
2344.	2.	2½
<hr/>		
£5105.	18.	3½

55.	3.	3¼
11.	3.	6
3313.	3.	3

£3379.	10.	0¼
--------	-----	----

11.	1.	6
26.	2.	3
	2.	0
	4.	0
	3.	3½
	1.	1

£37.	14.	1½
------	-----	----

Message in the above:—

Ten troop trains left here today. West.

The method is to use the ordinary set of dominos to represent (in some pre-arranged order) the letters of the alphabet. This is the simplest form. Many variations are possible.

Key—

Domino	0/1	0/2	0/3	0/4	0/5	0/6	1/1	1/2	1/3	1/4	1/5	1/6
Alphabet	Z	Y	X	W	V	U	T	S	R	Q	P	O

Domino	2/2	2/3	2/4	2/5	2/6	3/3	3/4	3/5	3/6	4/4	4/5	4/6	5/5	5/6
Alphabet	N	A	B	C	D	E	F	G	H	I	J	K	L	M

the 6/6 can be used as a "blind".

8. *Manuscript music.*

Comment.—This must be tested to see that it is genuine music and not a symbol code, using the musical notes as symbols.

9. *Marked string* (used sometimes to tie small packages enclosed in letters) *hand embroidery* or *coloured beads* enclosed in a letter.

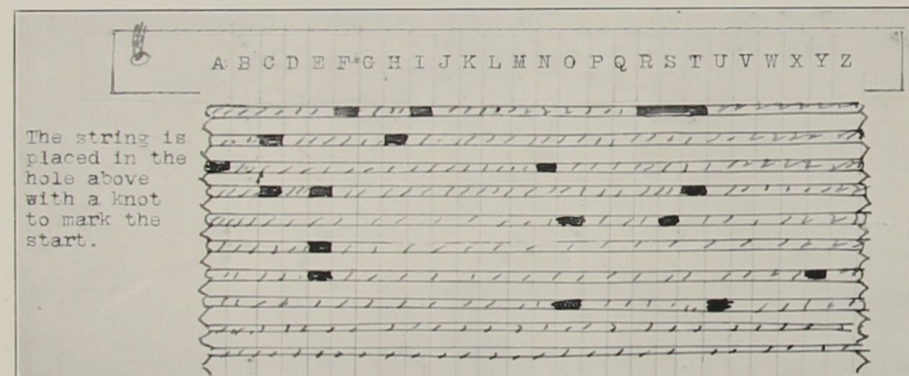
Comment.—String marked (or knotted) at irregular intervals is probably a code based on a piece of card divided vertically into spaces to represent each letter of the alphabet around which the string is wound and marked line by line to spell out the message. To read it the piece of string has to be fitted to a piece of card the same size. Look for any accidental crease in the string which may give the width of the card! Failing that it would have to be worked out by measurements.

Hand embroidery may contain Morse in the stitches.

Coloured beads can be used for a "Colour" code.

Illustration No. 13 shows the string method.

Illustration No. 13



Message in the above:—

First chance to see you.

10. *References to religious texts, extracts from the Bible or other books.*

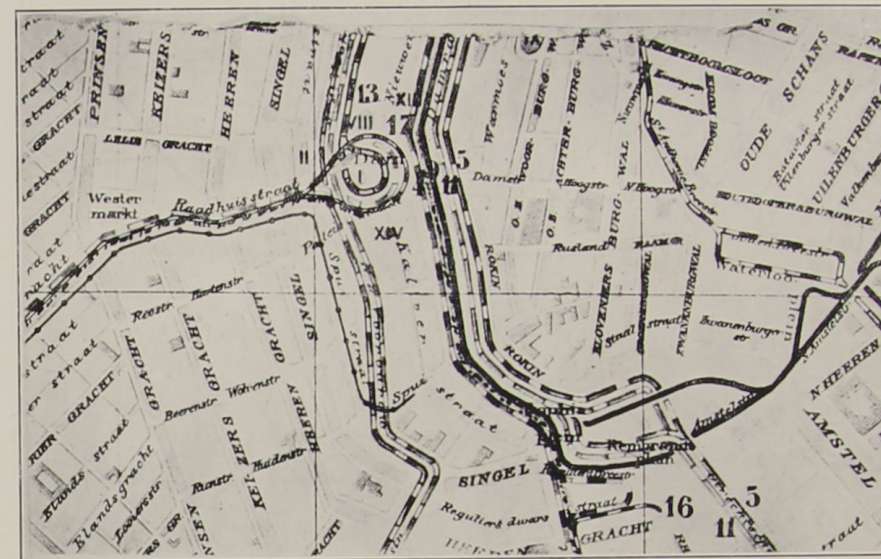
Comment.—All extracts must be verified. Texts and Chapters from the Bible are sometimes used merely to introduce figures in a form not likely to arouse suspicion. The figures of Chapter and verse may be the key to a Code.

11. *Printed maps or printed drawings enclosed in letters.*

Comment.—Morse can be introduced into the heavy lining in the print such as tram lines, etc.

Illustration No. 14 shows part of a map enclosed in a letter with Morse so introduced.

Illustration No. 14



The morse letters had to be transposed 11 positions forward.

The message in German when translated read:—

Oil has arrived, everything is ready.

Gustav available for the appointed day.

12. *Unintelligible letters.*

Sometimes these are only made to look difficult by the introduction of an unnecessary syllable into every word which has the effect of making it look like an extremely uncommon language! Such for instance as the introduction of ERG into the word "hostile air craft". This would become "hergostergile ergair cregraft".

Sometimes they are letters written in three or four parts (the first word from the letter on the first part, the second word on the second part and so on) and sent to different intermediaries so that each part in itself does not make sense, and it can only be read when all the parts are received by the several intermediaries and put together.

Illustration No. 15 shows 4 parts of such a letter.

Illustration No. 16 shows a sample of the unnecessary syllable introduced into words.

Illustration No. 15

I.

We the and enquiries no story transports leave
week stated in We confirm or our closely am be
Things difficult if delay you reason.

2.

have port have suggested confirmation you are
within but to about will this wire men watched
afraid caught are for there in will

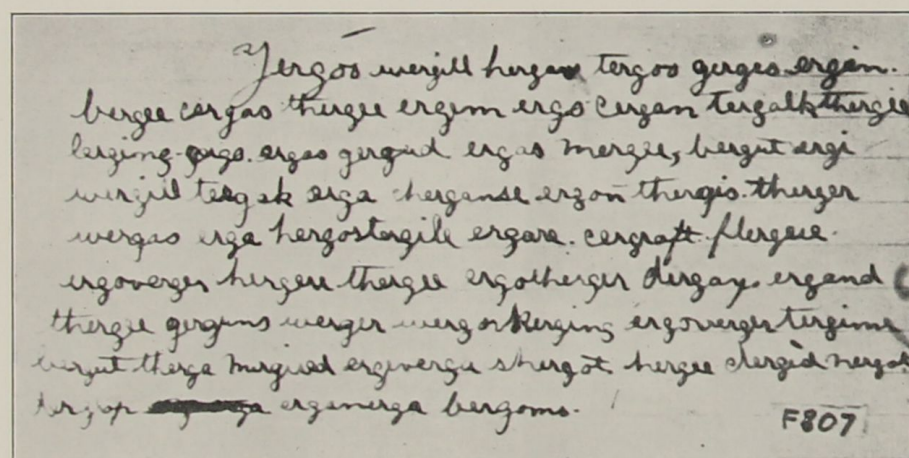
3.
been you made There of mention due the four be
a try and you are and some very getting us is
sending understand.

4.
to mentioned the is the No to next are leaving
fortnight to write All being I may soon. very
and any reports the

The message sent in the above 4 parts when put together reads as follows:—

We have been to the port you mentioned and have made the enquiries suggested. There is no confirmation of the story you mention. No transports are due to leave within the next week but four are stated to be leaving in about a fortnight. We will try to confirm this and write or wire you. All our men are being closely watched and I am afraid some may be caught very soon. Things are getting very difficult for us and if there is any delay in sending reports you will understand the reason.

Illustration No. 16



Message in the above. (After taking out the unnecessary ERG syllable and allowing for bad spelling):—

You will have to guess because the M.O. can talk the lingo as good as me but I will take a chance on this. There was a hostile aircraft flew over here the other day and the guns were working overtime but they missed every shot. He did not drop any bombs.

13. Chess problems, bridge problems, acrostics, etc.

Comment.—All these must be verified. If they are not genuine chess problems the possibility must be borne in mind of the chess board being an agreed size to fit a map of any particular locality, and the position of the pieces conveying information regarding the actual positions covered by the different Chessmen.

14. Stamps.

Enclosed in letters or peculiarly arranged or mutilated (*i.e.*, the teeth of the stamp cut or the stamp perforated in some peculiar way) or arranged in colours or numerical values.

Comment.—The cutting of the teeth or otherwise marking them may be used for any of the various known stamp codes; for the introduction of Morse, etc.

* * * * *

When it becomes known that the Censorship is making the sending of messages difficult, the less obvious kinds will be attempted.

The discovery of these is much more difficult but it will help the examiners to bear in mind the following possible methods:—

15. Secondary meanings.

These are generally references to current affairs hidden under general phraseology which, however, will be reasonably clear to an examiner possessing a general knowledge of current events. By this method attempts are generally made to convey prohibited news such as the location or extent of damage by air raids, etc.

Comment.—Illustration No. 17 is a rather crude sample. First there are references to the writer's "queer writing" which immediately arouses suspicion. Then there are certain words with marks against them. The letter conveys several pieces of news by this method, and by secondary meanings.

(See next page)

Illustration No. 17

F402
Date 19.12.16

My Dear Edgar.

So very glad to hear that you had received my letter, and that you were able to read my queer writing. I can't do better, and so expect the same difficulties when I write and make what you can of it. Yes, the poor Kokon was drowned and we miss him. Mr. George Immers is in much the same place as he was: hope he'll come through. Oh! I must tell you about his Missis - you know, Ray! She had 'many of the troops' staying there: landed by surprise in the hotel: greased, next day all over her best carpet: no joke, blokes 'rummaging' there and in the place over-run as if by some hungry Huns. She'll get over that 'hump'. By the way, hope you get nice 'food': must be awfully exciting for dear 'guilt' boys who have gone like you from our slow towns. I am married like most men to game's up and look to other forty-one gray old years before me. But the pushing times are 'over' smashing through into our dear fatherland. I cannot 'keep up the pressure' constantly: going to try hard! But here ends the group. Had six lovely cigars sent me from over the water the other day: two

were rollers though, so threw them in the sea when I was at Scarborough. Really waste was it? Don't expect any more during the war.

Will come home asking for his terms allowance but of course no peace for his father's pocket. Did it get it of course. All at home pretty well

considering. Keep you and up old boy and be cheerful - there's a warm cosy place just waiting for you. They are keeping up splendidly and crowded with kind letters. I may go to Lake of Wight at Christmas & and will write again. We all send love & best wishes for the new year. Yours very sincerely,

Suggestion that letter contain hidden message.

= our troops holding their own
= many troops landed in Greece

= Roumania in. Overrun by Huns

= food awfully dear
= boys gone from towns
= married men up to 41 years

= pushing goes into Fatherland

= keep pressure going hard

means raid by 6 Zepps on Scarborough. 2 brought down

means Germany asks for peace terms

The method is partly secondary meanings and partly the use of every third word commencing at a word which has a slight mark in front of it. There is a mistake in the 'married men' and the 'keep pressure' sentences but the meaning seems to be clear.

16. Methods where certain words or letters at given distances or certain distances from one another are significant.

The rest of the letter is filled in to make sense. Frequently the words do not read very naturally and there is a sense that they are "dragged in". The significant words or letters themselves may appear slightly different from the rest of the letter as they will have been written first and the remainder filled in afterwards, causing them to appear darker than the rest, or even lighter if they have been written first and blotted before the rest is filled in. There is also frequently bad spacing as it is far from easy to fill in the remainder of the letter and make it natural as regard spacing.

Comment.—Illustration No. 18 shows significant letters at regular intervals (and incidentally demonstrates the misspacing mentioned above).

Illustration No. 19 shows the system of using every eighth word. Notice the insistence on the figure 8 in the text of the letter.

Illustration No. 20 shows a method where the initial letter of each line read downwards and then the last letter of each line also read downwards are significant.

Illustration No. 18

There has only been 1 Card from you all this very long time. I fear many will not arrive at all. Well, I trust that your health improves & that you now keep in good trim. We are still managing very nicely altho' now as things are it is moderately hard to get on so very fast. I am still endeavouring to change but here everything is slow in my own line of work. I get a bit fed up but it is no use my grouching. Rose & the kids think that they would sooner be in England but it can't be. I received very good news the other evening. I was up at Joe when they received some picture post cards about Jim. It seems as if he is doing very well in the United States & they expect he will not trouble much about when he returns so long as he makes his pile. But on the other hand as up in arms against the Americans. He seems as if he only just manages to live & we can understand now why he seems to be a little jealous of Jim. Well when are you going to send us another letter? If we wait every time as long as now I don't somehow think we shall get excited about it shall we?

(See next page)

Illustration No. 18—continued

There has only been 1 Card from you all this very long time. I fear many will not arrive at all. Well, I trust that your health improves & that you now keep in good trim. We are still managing very nicely altho now as things are it is moderately hard to get on, so very fast. I am still endeavouring to change but here everything is slow in my own line of work I get a bit fed up but it is no use my guessing. Rose & the kids think that they would sooner be in England but it can't be. I received very good news the other evening. I was up Dads when they received some picture post cards about Jim. He seems as if he is doing very well in the United States & they expect he will not trouble much about when he returns so long as he makes his pile. Bert on the other hand is up in arms against the Americans. He seems as if he only just manages to live & we can understand now why he seems to be a little jealous of Jim. Well when are you going to send us another letter? If we wait every time as long as now I don't somehow think we shall get excited about it shall we?

Message in the above:—

Today five troop trains, many machine guns and ten large guns passed through Bruges on way to West front.

Illustration No. 19

Dear Ted.
 Congratulations on the 8th anniversary of your wedding day & many of them as our old pal "Buffalo Bill" would say.
 I hope you are quite well again. I am fit and well. I hope to receive a letter from you, the first for twelve months; I would write more often but paper is scarce. I am still continuing my Turkish studies, etc.. I have gone down 8 pounds this half month, at the rate of a half pound a month, I expect next month to go down a very little more owing to the hot weather, which is sure to start quite soon now, I hear that the inhabitants say in four weeks. I have increased five pounds this winter, consequently my clothes ~~at~~ cost a bit more than they did before, of course this is temporary but it is necessary to keep the fact in mind. My food will have to be cut as I stuff myself rather at times; I will find this rather difficult but needs must, etc.. It is still too wet to "footle" - new verb not in the dictionary but ought to be sufficient for you who have played a lot. To help you to and your wife to enable you to live, I have sent you as a present of a sum of money to carry on during the summer and to live in the way you are accustomed to live in. My contribution is very small indeed, but even a little helps as money said on a well known occasion. You know it is very hard indeed these expensive days even to moderate expenses get about to live in

Message in the above:—

I receive twelve paper Turkish pounds a month. Owing to the increased cost of necessary foodstuff this is not sufficient to enable us to live, etc. (The rest of the message was in the continuation of the letter but it is not necessary to reproduce it all here. The above is sufficient to illustrate the method.)

Dear Mum & Dad. 14th March 1917
 Please thank everyone for the letters. Mum
 need not worry about me and she need not. Here,
 thank God, all is going on as well as we can expect.
 Many letters seem to go astray and those which
 are arriving are very late, but most of them do
 reach us eventually and we know we have good
 kind friends who remember us in our trouble. I
 suppose things are progressing as well as,
 under the circumstances, we can hope for and
 nearing the end so that we can soon return. I
 do so long to be home again and God knows
 everyone must be sick of the war. The public
 really must be getting depressed at the reports. Who
 looks at the paper today with pleasure? O.V.
 every prisoner hopes it will very quickly be
 terminated so that he can return home. Our
 fate here I know long for that time to come.
 Everyone of them is fed up. It will be jolly good
 riddance when it does come. I often wonder how is
 Sis getting on? Is she married yet? She
 is a long time making up her mind. Can
 father send me some more socks please? I should
 thank him for them very much indeed. I never
 heard from Sydney after all. I wonder has he
 ever written to you? It makes me wonder what's up.
 Our friends have been very kind indeed to me. Do
 let them know how very much I appreciate their
 delightful parcels. And tell them how long they last!

The message conveyed in the above letter by using the first letter in each line and then the last letter in each line is:—

Put marks under letters if the old method is discovered. Send report.

17. Awkward or unusual phrasing generally.

This is usually some method similar to paragraph 16 above. It is often also a sign that the writer is not using his or her own language.

18. Unnaturally broken words or misspacing.

Sometimes this is done with such care that it is not very noticeable but there is almost certain to occur an instance (or perhaps more than one) where the break is very noticeable and will arouse suspicion. Sometimes, if it has not been pre-arranged there is a clue in the first letter such as mention of the writer "breaking his word" or about "gaps in his correspondence".

Comment.—Illustration No. 21 shows a clear reference to the broken word but even without this clue the very noticeable break in the word "goes" towards the end of the letter should have aroused the examiner's suspicion.

Illustration No. 22 is the similar method but perhaps not quite so noticeable. Here the letters standing alone form the message.

Illustration No. 23 although it might come under the same heading as the unintelligible letters (p. 17) is put here because the misspacing immediately suggests some column or square method of writing. It is actually a "grille" code and the illustrations show the grille in its different positions so that every word on the card is readable. The figures on the side of the card—1, 2, 4, 3—give the order in which the grille has to be placed.

Afion Kara Hisar. 2nd July 1917.
 My dear Sally. Last weeks letters may not go through
 as exceeded regulations. We are now out of quarantine
 and two other officers have joined us in the same house
 making a party of five. Our old trio with Yeats-Brown
 and Stone. Both old residents of the camp and very good
 fellows. We are busy making ourselves furniture and
 as comfortable as possible. Anything except very
 primitive furniture is out of the question. Not only a
 few of the other prisoners whose stories of capture are
 most interesting and thrilling. You ask about
 that Spaniard Señor Codica. Well he may think I have
 broken my word!! It depends if you read my letter
 right. I am sure you will see it from this point
 of view. If you want my keys tell him he must
 find them and tell me when you have got them.
 Write a line to Lieut. R. H. Portal of H.M.S. Colossus
 telling him I received his letter of 12th May/17 but cannot
 reply till after a week or two. Inform Dorothy you
 have received this and that I have not had a line
 for sometime. How goes the hunting? Plenty of
 otters to be found? With your new hounds you should
 be having successful days. Turkish Ramadan fast
 is now on. River is at a discount during this
 period. Lovely weather and feeling very fit
 Love & all from your ever

Message in the above:—

In future take centre word, then first and last of each line. So on.

Secondary meaning—the references to hunting refers to the war. "Hounds" means "troops", etc.

Illustration No. 22

8-4-18
 Dear Oliver Though nothing has come from any of you for more than a week (and then only old letters), I must write to you to prevent (as far as I can) further gaps occurring in my correspondence. Your letters should soon be coming here direct, and let us hope they will be followed by the parcels you sent me thirteen and fourteen months ago! Since the very gloomy weather of about ten days ago has gone and the magnificent spring sun of Anatolia has brightened us considerably, yet we still remain very anxious. The news that reaches us is none of the best. So we depart into the country to forget it. I have got together a small field club consisting of 1/2 a dozen amateur naturalists. We go out three a week from 10 till 3 and catch butterflies. After lunch we geologize or botanize according to ones inclination.

Message in the above:—

No Red Cross Mission has ever been near us. Our Doctor has no drugs or inst... (The continuation of the letter contained the rest of the message.)

Illustration No. 23

ready early to leave five report transports
 will be expected sent by next next week
 but week to leave by the Thursday usual
 evening route am tomorrow being same
 watched route from Expect Dover Important
 troops that you and receive may to get
 other not information said to quickly becoming
 urgent by the matters succeed desired C 42

1
2
4
3
Please send letters to new address.

See below and the following 2 pages for the correct reading of this card.

1

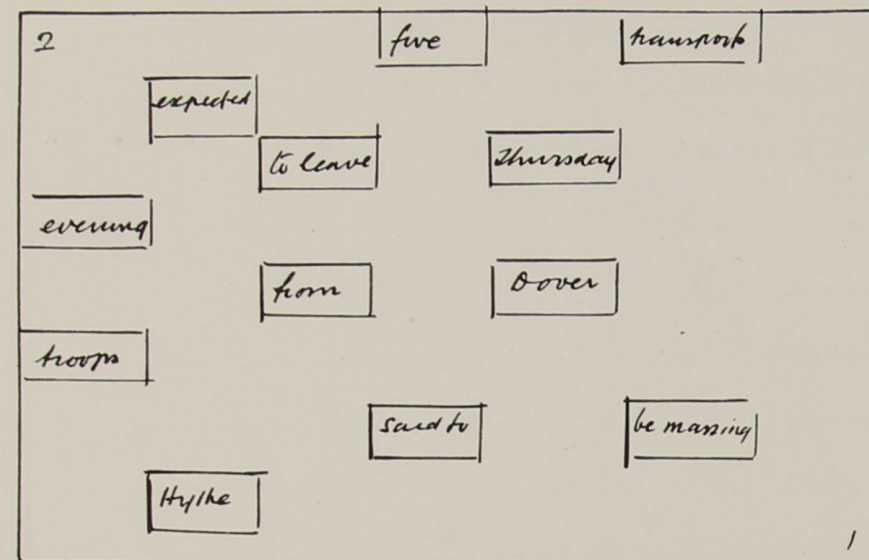
will be	sent by	report
		usual
route	tomorrow	Important
that you	receive	quickly
urgent	matters	

2

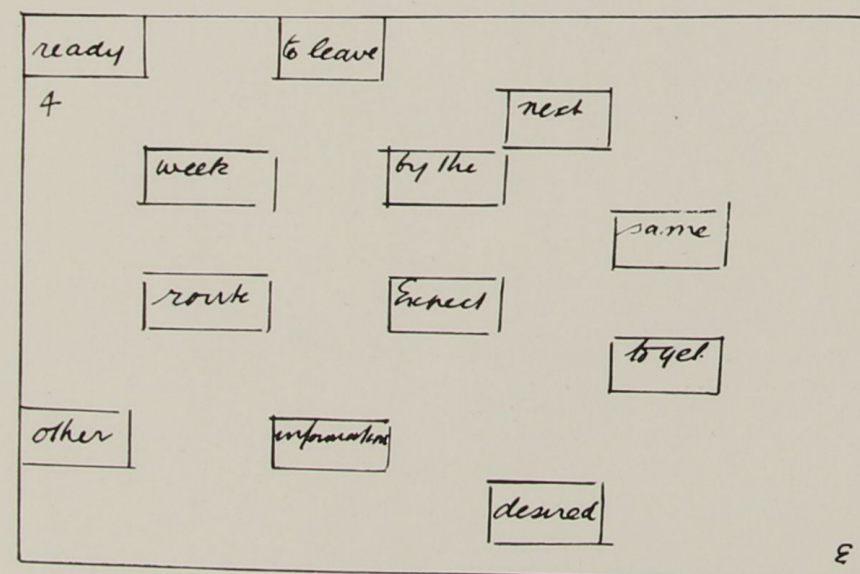
FIRST POSITION

28

Illustration No. 23—continued



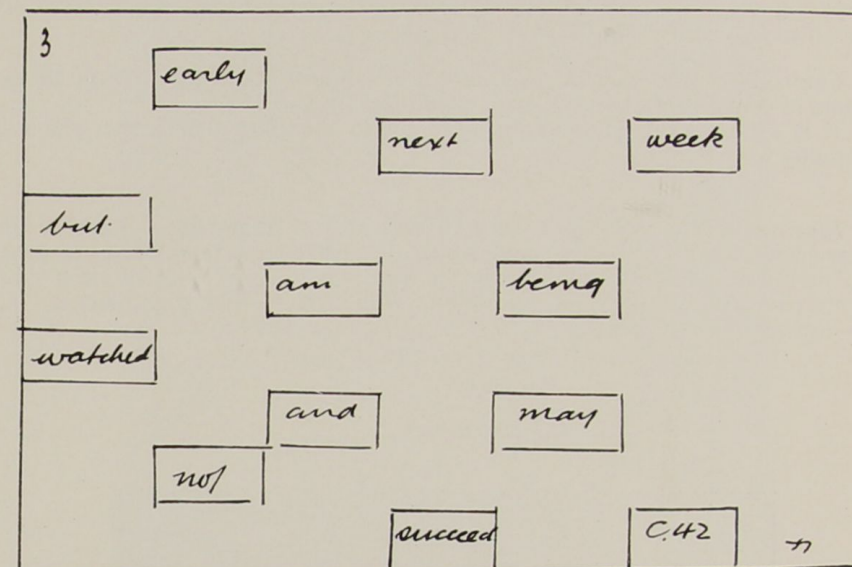
SECOND POSITION



THIRD POSITION

29

Illustration No. 23—continued



FOURTH POSITION

19. Different formation of certain letters.

This is difficult to discover if it is well done and can only be found by comparing certain letters all through the communication to see if they are sometimes differently formed.

Comment.—This may be used to convey Morse signs particularly in the method of dotting the letter "i" or crossing the "t".

It is sometimes used to draw attention to the particular letter which is differently formed.

Illustration No. 24 shows a very careful way of doing this. Some of the letters (which are capable of it) have a slightly turned back hook—like the letter "w" on the second line of the letter in the word "following" and the letter "y" in word enquiry on the next line and so on. Other letters—like round letters "a" etc.—are slightly thickened.

Illustration No. 24

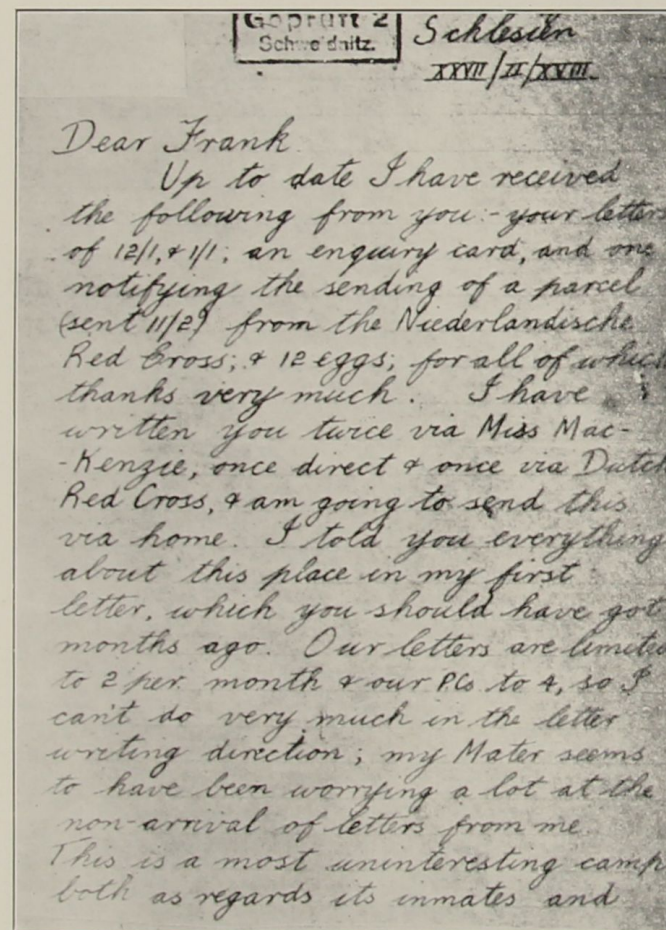
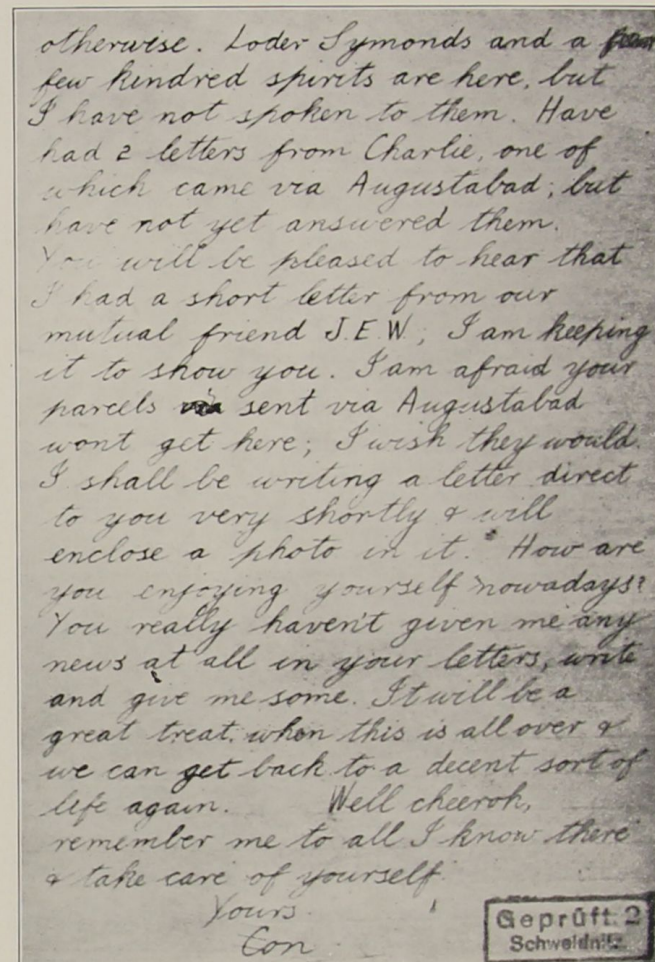


Illustration No. 24—continued

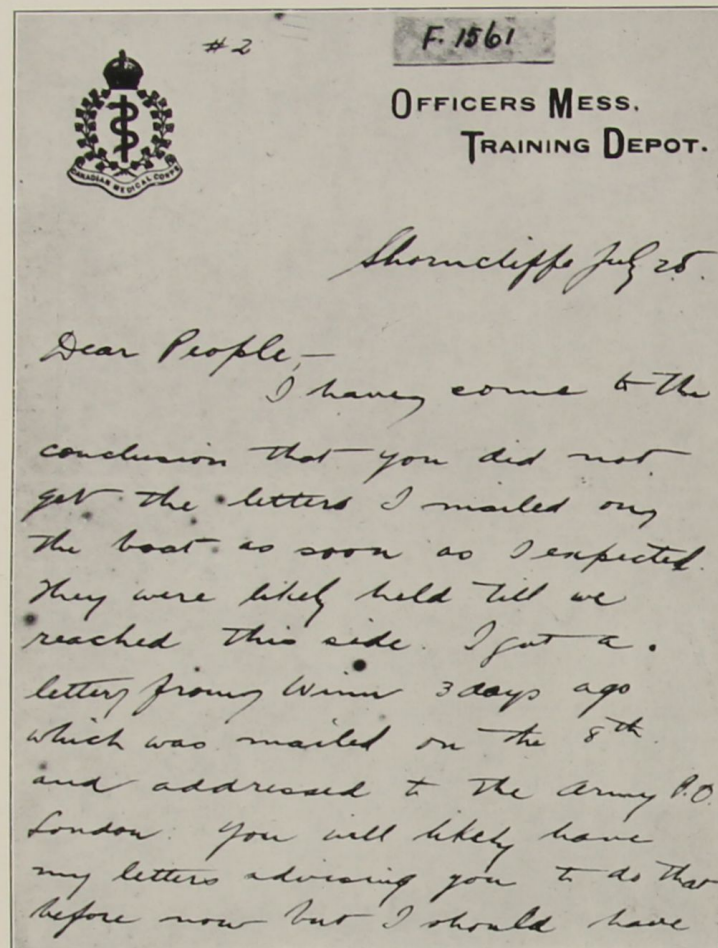


The method here is (1) in the case of a straight letter - e for instance - to slightly bend back the top of the stroke i.e. to and (2) in a letter where this is not possible to darken slightly part of it i.e. - an.

The message in the above letter is:—

"Away from here very shortly, idea is to get nearer. Will send result as soon as poss. Is this legible?"

Illustration No. 25



20. Unnaturally emphasized up or down strokes or curved strokes at end of words.

There has been a case where these occurred at the beginning of the word but it is more generally at the end.

Comment.—These usually point to words above or below as required—not necessarily on the next line, it may be two lines above or below, or even more.

Illustration No. 25 shows this method.

The method here is to take the whole word before any word which has an unnecessary finishing "tail" as in "have" in the first line.

The message therefore starts "I mailed a letter", etc.

21. Excessive introduction of Christian names.

Comment.—See next item (No. 22).

22. Reports of health when unduly emphasized and relating to many different members of the family or friends.

Comment.—If these Christian names and reports of health appear to be excessive they may be an arbitrary Code where harmless sentences have pre-arranged meanings. It might be useful to record some of the suspected sentences for future reference. Sometimes even contradictory reports may be found concerning the same people.

23. Incorrect Dates (i.e., noticeable difference in date of letter and date of posting) or alterations in dates or other figures.

Comment.—This sometimes occurs when a letter is written in an enemy country and posted in a neutral country, or the figures themselves may be the key to the Code in the letter.

The examiner will get a good idea of the style or standing of the writer of a letter from its construction; the address; the kind of paper used; the handwriting and, perhaps more important still, from a general "feeling" whether the letter is as it appears to be or whether there is a suggestion that something else is meant to be conveyed by it.

Suspicious letters without an address naturally become more suspicious.

Many simple methods of code are adopted in quite innocent correspondence when it becomes known that each letter is being read by a Censor and sometimes codes are adopted to annoy the Censors, or even to insult them, but that must not prevent any letter, however, innocent it may appear to be, being submitted for testing if it contains any of the signs or indications mentioned.

One of the most difficult methods to detect is the purely arbitrary code where a pre-arranged meaning has been adopted for quite proper and usual words. There is frequently, however, even in these letters a strained sense in the wording or phrasing and here the examiner will have to rely largely on his or her own common sense and intuition in arriving at the conclusion whether the letter may contain more than is at first apparent. If it raises the slightest suspicion in the examiner's mind it is best to submit it for further examination rather than risk sending it on, and here again the examiner should be reminded of his or her responsibility in arriving at this decision.

The number of methods possible to convey information is illimitable but it is in the use of the method that the danger of exposure lies. Unless done with extreme care it will invariably show some weak sign somewhere which will arouse the examiner's suspicion. The astute examiner will soon discover any forced or unnatural wording or something odd in the writing which will make him hesitate to pass it and so may lead to the discovery of some secret message being sent under cover of ordinary wording.

Briefly, look for the weakness in the use of the Code.

It is useful to cultivate a good memory as a sentence in one letter which only faintly aroused suspicion may occur again and lead to the discovery of a method hitherto unknown.

A knowledge of current events is useful in detecting the secondary meaning letters.

Slang and coarse expressions (which are not Code) are often obscure in their origin and meaning and difficult to understand but they should not be passed until read by someone who can understand them. Most regiments have "nick-names" which might be used for giving locality when such information is forbidden.

Ostentations display of sentiments which a patriotic Censor might be expected to approve, or sometimes "sob-stuff" (about imaginary sick beds and deaths) designed to move the Censor's heart may be suspect on the ground that the writer is very likely using a pseudonym or a false address.

BIBLIOGRAPHY

As regards books on the subject of Cryptography, in most of the important Libraries and Museums there are usually many publications going back to quite early days—even as far back as 1518.

Klüber's Kryptographie.

Fleissner's Handbuch der Kryptographie.

Hulme's Cryptography.

Delastelle's Mathématiques.

Myskowski's Cryptographie indéchiffrable.

and other similar books will give a good groundwork and articles in Encyclopædia Britannica and other similar reference books will help.

There are modern books also on the subject but they mostly refer to these earlier books although they are well worth examining because they give more modern mathematical methods of deciphering numerical ciphers.

In modern censorship, however, the numerical ciphers are not met with so much as the more subtle methods of attempting to get information past the Censors—the writer knowing full well that every letter is examined, and that anything in the nature of a cipher would be obvious at once and certainly would not be allowed to go on even if it could not be read easily.