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TELEGRAPHIC CODE.  
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*Fig. 1.*

A is |..  
B " |....  
C " |....  
D " ||..  
E " |..  
F " ||..  
G " |||..  
H " |||..  
I " |..  
J " |||....  
K " |||..  
L " ||....  
M " ||....  
N " |||..  
O " ||..  
P " |||....  
Q " |||....  
R " |||....  
S " |||..  
T " |||....  
U " ||..  
V " |||....  
W " |||..  
X " |||..  
Y " ||..  
Z " |||....

*Fig. 2.*

1 is |..  
2 " ||..  
3 " |||..  
4 " |||..  
5 " |..  
6 " ||..  
7 " |||..  
8 " |||..  
9 " |..  
0 " |....

*Fig. 3.*

Period is ||..  
Comma " |||....  
Colon " |||....  
Semi-colon " |..  
Interrogation " ||..  
Quotation Mark " |||....  
Parenthesis " |||....  
Paragraph " |||..  
And " |..

*Fig. 4.*

<i>Sending (or Receiving) Form.</i>					
<i>Send Tugs and Lighters immediately</i>	9  ...	8    ..	9  ...	9  ...	...
<i>"In section 142."</i>	2   .	4    .	3   .	1  .	...
<i>"Sandy bottom."</i>	2   .	5  ..	4    .	3   .	...

Witnesses

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By

*[Signature]*

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# UNITED STATES PATENT OFFICE.

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## TELEGRAPHIC CODE.

No. 833,904.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, DANIEL H. WILCOX, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Telegraphic Codes, of which the following is a specification.

This invention relates to telegraphic codes.

Telegraphic codes now in common use, particularly the Morse method, which is made up of a great many combinations of dots, dashes, and spaces or waits between the dots and dashes, are exceedingly complicated and require considerable study and actual experience followed by current practice to master the same, whereby trained operators are absolutely necessary and under such codes command relatively large salaries. Therefore one of the essential features of the present code is to render the same exceedingly simple of comprehension and manipulation, whereby the employment of trained and experienced operators is obviated.

Another important feature of the present method resides in the fact that the beginning of each character is indicated by a dash and ended by a dot, or vice versa, whereby the tremendous amount of spacing of the Morse and other codes is practically eliminated.

A still further feature of the invention is apparent in the use of dots and dashes so arranged that alternation of dots and dashes does not exist in the present method.

With the above and other objects in view the present invention consists of an improved code adapted for wireless or other systems and includes the use of dots and dashes arranged as shown in the accompanying drawings, as related in the following specification, and as particularly pointed out in the appended claims, it being understood that changes may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 illustrates the "spelling code." Fig. 2 illustrates the "sentence code." Fig. 3 illustrates the signs or marks for punctuations, &c. Fig. 4 is a fragmentary view of a specially-prepared blank sheet for use in connection with the sentence code.

In carrying out the present invention it will be explained that I employ a spelling-code

and a sentence code, the former pertaining to the art of communicating by letter and the latter by cipher, whereby communication may be carried on openly or secretly, as may be desired.

Taking up first the spelling code, it will be seen that the letter A is indicated by one dash and two dots; B, by one dash and four dots; C, by one dash and five dots; D, by two dashes and three dots; E, by one dash and one dot, and so on throughout the alphabet. The combinations of dashes and dots for the indication of each letter begin with a dash of irregular length and end with a dot. However, it is to be understood at the outset that I do not limit myself to the particular combinations of dashes and dots for the respective letters as described herein and as shown in the accompanying drawings, for it is obvious that, if desired, the said combinations could be changed without defeating the object of the present invention.

In my claims I shall attempt to cover the invention in such manner that different combinations than those shown may be used, if desired.

By reason of the fact that I employ two marks or signs for the indication of the different letters of the alphabet and begin combinations of such signs or marks for each letter with one form of mark and end with the other it is apparent that spacing is minimized to a considerable extent as compared with the Morse method. To further reduce the great amount of spacing customary in the old methods, the dashes and dots of a letter do not alternate with respect to each other in a single instance, thereby enabling even a novice to transmit or receive messages intelligently. In other words, the sender or receiver knows that in the manipulation of my improved method that as soon as a dash follows a dot another letter has been begun. It is apparent, therefore, especially since a dash is noticeably longer than a dot, that no attention need be paid by either operator as regards spacing between letters. The only real space, and it need not be a measured space, is a wait between sentences, and, as a matter of fact, the sign for a period obviates the necessity of a space or wait between sentences. This minimizing of spacing is one of the paramount features of my invention.



My improved method is so simple that even in the event communication should be established between two points in the absence of a regular operator at the receiving-station any person at the receiving-station could copy the marks or signs upon a specially-prepared or even a blank sheet for translation upon the return of the regular operator or one familiar with the marks or signs of the letters of the alphabet.

While I do not wish to be limited to the precise marks or signs or the combinations therefor, as shown in Fig. 3, for punctuation, &c., in said figure I do show a certain method for indicating periods, commas, semicolons, &c. It will be seen that the mark or sign for a period is the same as the letter U—that is, two dashes and two dots—the marks or signs for the other punctuating characters being the same as some of the other letters of the alphabet. The marks or signs employed in connection with the characters just alluded to are preferably those seldom ending a word of the English language. This is another important feature of the present method in that it tends greatly, if not completely, to obviate the possibility of confusion in translating messages.

Reference to Fig. 1 of the drawings will disclose that those letters of the alphabet used most frequently in the construction of sentences of the English language are indicated by a fewer number of dashes and dots than other letters not so frequently used for the purpose just stated. This feature tends to facilitate the transmission of messages.

There are some special trades on water and land where the messages or sentences or phrases communicated between two or more points are of a more or less stereotyped character, and therefore it is intended to extend the present method into what may be termed a "sentence code," under which secret or stereotyped communications may be transmitted. For instance, reference to Fig. 2 of the accompanying drawings will make it plain that a dash and a dot indicate the numeral 1, that two dashes and a dot indicate the numeral 2, that three dashes and a dot indicate the numeral 3, that four dashes and a dot indicate the numeral 4, that one dash and two dots indicate the numeral 5, and so on, as shown in said figure, down to and including the zero or 0, which latter is indicated by one dash and four dots. The combinations of dashes and dots may be different than as arranged in the accompanying drawings, and obviously they may be changed as regards their combination for the transmission of secret messages or for sending stereotyped communications. A stereotyped communication might be long or short; but it could be quickly transmitted by reference to numerals—say, for instance, 9899, or some other number, even a single number—there being

different numbers or combinations thereof for each stereotyped phrase, word, sentence, or statement, the latter and their respective numbers being arranged in a code-book (not shown) and suitably indexed.

In Fig. 4 there is shown a specially-prepared blank, which is divided longitudinally into a relatively wide column at the left-hand side, followed by a series of longitudinal columns, if desired, all of the columns being subdivided by transverse columns. If preferred, the sender could write out explicitly in the first column one statement in each section of the column and indicate the proper marks or signs opposite the statement as written out prior to sending the message. The receiver may be also provided with like blanks, so that as he receives the message he could mark down the signs as they are received and afterward translate the same by reference to the code-book. (Not shown.) The form and arrangement of this blank sheet is not essential to the manipulation of my improved code; but it may be found very useful both to the sender and receiver. It is to be understood that I am not claiming the blank sheet, but that I am illustrating and describing it merely for purpose of explaining the use of any ordinary sheet or one finally adopted.

From the foregoing it will be appreciated that my improved code may be used advantageously upon land or water, and it might be remarked that since some of the smaller craft navigating the waters of the Great and other lakes could afford a wireless equipment, but not an experienced operator, the present code would prove of material value to owners of vessels in that the vessels, at comparatively little expense, could be kept in constant communication with other vessels and places along the shore. Moreover, communication could be readily had between islands and the mainland; where occasional hurry messages are needed, but not enough of them to warrant a cable or even Morse-code operators in connection with wireless telegraphy. There are other and special trades in connection with which my improved code could be used to advantage. It will also be understood that a message may be sent slowly or rapidly without causing confusion. Indeed, a person may send a message without any previous experience. The signs or marks as applied to letters or numerals may be easily memorized. Spacing is practically eliminated under either the spelling or sentence code and as regards the punctuation marks or signs. A letter or numeral may be indicated without alternating the dashes and dots, and as premised in the foregoing the characters—such as letters, numerals, and punctuation-marks—may begin with a dot and end with a dash, instead of beginning with a dash and ending with a dot. It will thus be



understood that the term "characters" in the appended claims is intended to include the marks for letters, numerals, and also the punctuating-marks, the latter including periods, commas, semicolons, colons, interrogations, quotations, &c., as shown in Fig. 3, or as may be needed in the use of the present method.

It will be appreciated that the present method embodies another important feature, in that by reason of the non-alternating of dashes and dots and other characteristic features my method is more accurate than the Morse and similar methods.

Obviously a given signal would be employed for the purpose of indicating that a change was to be or was about to be made when it was desired to shift from the transmission of letters to numerals, or vice versa. One signal might reside in the use of dots or dashes arranged in spaced pairs—that is, a series of dashes or dots arranged in spaced pairs and given slowly or in rapid succession.

What is claimed is—

1. The herein-described method of telegraphic communication which consists in transmitting characters by two different signs, the signs of each character being non-alternating with respect to the signs of other characters.

2. The herein-described method of telegraphic communication which consists in transmitting characters by dashes and dots,

each character beginning with a dash and ending with a dot.

3. The herein-described method of telegraphic communication which consists in transmitting letter, numeral or punctuating characters by two different signs, each character beginning with one sign and ending with the other.

4. The herein-described method of telegraphic communication which consists in transmitting characters by dashes and dots, each character beginning with a dash and ending with a dot, the dashes and dots being non-alternating.

5. The herein-described method of telegraphic communication which consists in transmitting characters by signs, each character beginning with a sign differing from the end sign thereof.

6. The herein-described method of telegraphic communication which consists in transmitting characters of different codes by signs, each character of each code beginning with a sign differing from the end sign thereof, and signs for indicating a change from one code to the other.

In testimony whereof I affix my signature in the presence of two subscribing witnesses.

DANIEL H. WILCOX.

Witnesses:

L. L. CHANDLER,  
P. E. ODELL.