

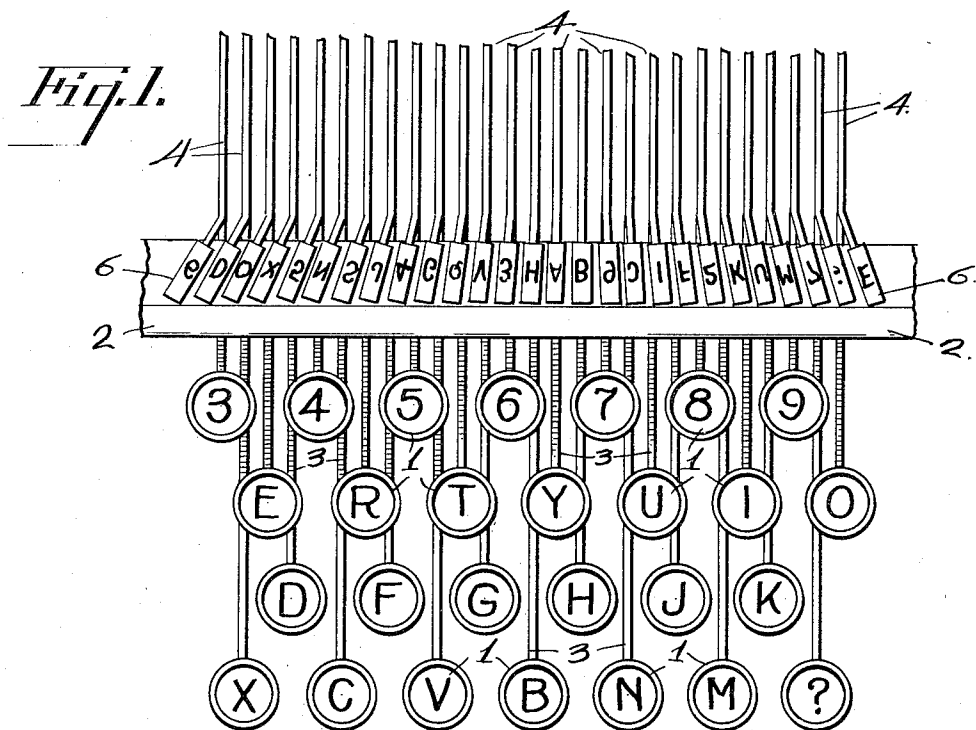
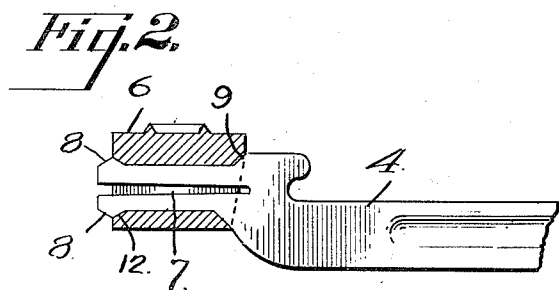
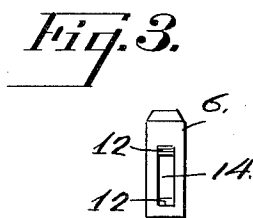
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J. L. ALDRITT

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CODING AND DECODING TYPE BAR

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CODING AND DECODING TYPE BAR

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My invention relates to improvements in coding and decoding typewriters wherein pairs of transposed type members operate in conjunction with the keys of the typewriter, when actuated in the usual manner, to form a code and also to decode said code.

The primary object of the present invention is to provide a new and improved coding and decoding typewriter.

Another object of the invention is to provide new and improved means for easily and quickly changing the various combinations of code characters to form new codes whenever required.

A further object is to provide a new and improved means for coding and decoding messages acceptable to and conforming with the international and national telegraphic requirements.

A still further object is to provide improved means for coding and decoding matter automatically whereby the time and labor required for coding and decoding in the present system may be eliminated.

A still further object is to provide a new and improved coding and decoding method of a simple and effective nature whereby the possibility of error is greatly reduced.

A still further object of the present invention is to provide new and improved means upon a standard typewriter whereby matter may be automatically coded and decoded in various combinations and codes, automatically.

A still further object is to provide a new and improved typewriter of standard type, having improved means for automatically coding a message or letter when said message or letter is written upon said typewriter in the usual manner, and for decoding said message upon the same or a similar typewriter.

I accomplish these and other objects by means of the device disclosed in the drawings forming a part of the present application, wherein like characters of reference are used to designate similar parts throughout the specification and drawings and in which—

Fig. 1 is a broken plan view of a portion of the key-board and type-bars of a standard

typewriter, disclosing the manner in which certain pairs of type-members are transposed;

Fig. 2 is an enlarged broken detailed view, partly in section, disclosing the manner in which the type members or heads are detachably mounted upon the ends of their respective type-bars; and

Fig. 3 is an enlarged end elevation of one of the type-members removed from its respective type-bar.

Referring to the drawings the numeral 1 is used to designate the usual and regular keys of a typewriter 2, which keys 1 are connected by means of the usual key-bars 3 in the usual manner, to the type-bars 4 upon the free ends of which are, in the present invention, detachably mounted the types or type members or heads 6.

In the present invention, the free ends of the type-bars 4 are provided with longitudinally disposed slots or slits 7, as disclosed in Fig. 2 of the drawings, in order to provide two resilient or yielding spring members provided at their outer ends with projections having oppositely inclined portions 8, the purpose of which will hereinafter be more fully set forth.

The slotted ends of the type-bars 4 are also provided with aligned shoulders 9 against which rest the inner ends of detachable type members or heads 6, said members or heads 6 being held normally against said shoulders 9 by the tension of the spring members on the free ends of the type-bars 4 which cause the inclined surfaces 8 to press against similar surfaces 12 on the outer end of a centrally disposed aperture 14 of the type head 6, as disclosed in Figs. 2 and 3 of the drawings.

The inclined surfaces 8 of the type-bars 4 tend to normally retain said type head 6 in position against the shoulders 9 of the bars 4 in order to align said type heads 6.

By reason of the yielding nature of the spring members on the outer ends of the said type-bars 4 the type heads 6 are thus rendered detachable and interchangeable in order that the following may be accomplished.

The detachable type heads 6 are transposed in pairs with the vowels paired off, using the letter "y" as a vowel, with each other, and the consonants paired off with other consonants, and the numerals and punctuation marks similarly disposed.

There are many variations of codes which may be thus formed, but in order to comply with the requirements of telegraphic code messages I have, as above described, paired off vowels with vowels and consonants with consonants, whereby code words will have substantially the same pronounceable arrangement of consonants and vowels as the original word.

One of the many variations may be indicated as follows: The type heads 6 are transposed in pairs, vowels with vowels, and consonants with consonants, on respective pairs of type-bars 4 so that the letters A 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 on the keys 1 will be represented or transposed to the characters Y H N X O J V B U F M P K C E L T S R Q I G Z D A W, respectively, as disclosed in part in Fig. 1 of the drawings.

In operation, supposing that it is desired to send the following message in code. In sending this message in accordance with the present practice, considerable time and labor is consumed in first finding the proper code words, writing them on a piece of paper or the like, and then transcribing them into the message or letter. In the present instance the work of coding the message or letter is automatically accomplished as follows when sending this message:

BUY OIL COMMON

The words "BUY OIL COMMON" are written out in the usual manner on the key board of the typewriter and by actuating the keys of the letters contained in the message, the transposed type heads 6 automatically print the transposed characters corresponding to those keys and the message will be printed in code thus

HIA EUP NEKKEN

which is a pronounceable code and therefore complies with the telegraphic requirements. Similar typewriters with similar transpositions, are utilized by members using the same code so that when the code message is received, by again writing the coded message on the typewriter in the characters of the code, the message will be automatically decoded without loss of time in looking for definitions of the code words, and the consequent elimination of error.

Thus, when the regular keys on the typewriter representing the letters "HIA EUP NEKKEN" are actuated they will print their transposed characters thus "BUY OIL COMMON" and the coded message is

thus automatically decoded without loss of time required in the present practice of looking up the definition of the code words.

While it is essential, in sending messages telegraphically, that vowels must be transposed for vowels and consonants for consonants, it is quite obvious that for letter correspondence this limitation need not apply. The only requirement for correspondence, such as letter writing in code, is that the letters shall be transposed in pairs, whether vowels for vowels, or consonants and vowels. When the key "H" is actuated, for instance, it may print any other transposed letter of the alphabet, or a numeral, or punctuation mark, and thus automatically print a portion of the code, as for instance, "B" and as "H" and "B" are transposed, in the code illustrated herein, when, in decoding, the key "B" is actuated it will print the letter "H" and thereby automatically decode the message or letter without loss of time or error.

Therefore, it is obvious, that by transposing the type heads in pairs, when the message or letter is spelled out by actuating the regular keys of the typewriter a code will be formed automatically and when the keys representing the code letters are actuated they will again transpose to the original letters or characters and thus automatically decode the message or letter.

It is also obvious, that by making the type heads of a typewriter detachable and interchangeable, that said type heads may be transposed in pairs to form a great and almost infinite variety of codes, which codes, may be easily and readily changed by the simple expedient of rearranging and transposing the type heads.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

An article of manufacture for use with a typewriter comprising detachable type heads provided with centrally disposed longitudinal apertures provided with inclined surfaces at the outer end of said apertures; and type-bars longitudinally split at their outer ends to provide a pair of yielding spring members, said type-bars being also provided with aligned shoulders, said spring members being provided to engage the central apertures of the type heads and having means at their outer ends for holding the type heads in engaging relation with the aligned shoulders to align said type heads, whereby said type heads may be transposed in pairs upon their respective type-bars, to print a code when the keys of said typewriter are actuated, and to decode said code when the keys corresponding to the characters of the code are actuated.

In witness whereof, I hereunto set my signature.

JOSEPH L. ALDRITT.