Jan. 19, 1926. 1,570,178

F. PREVOST

CODE MACHINE

Filed Dec. 13, 1923

Fig. 1.

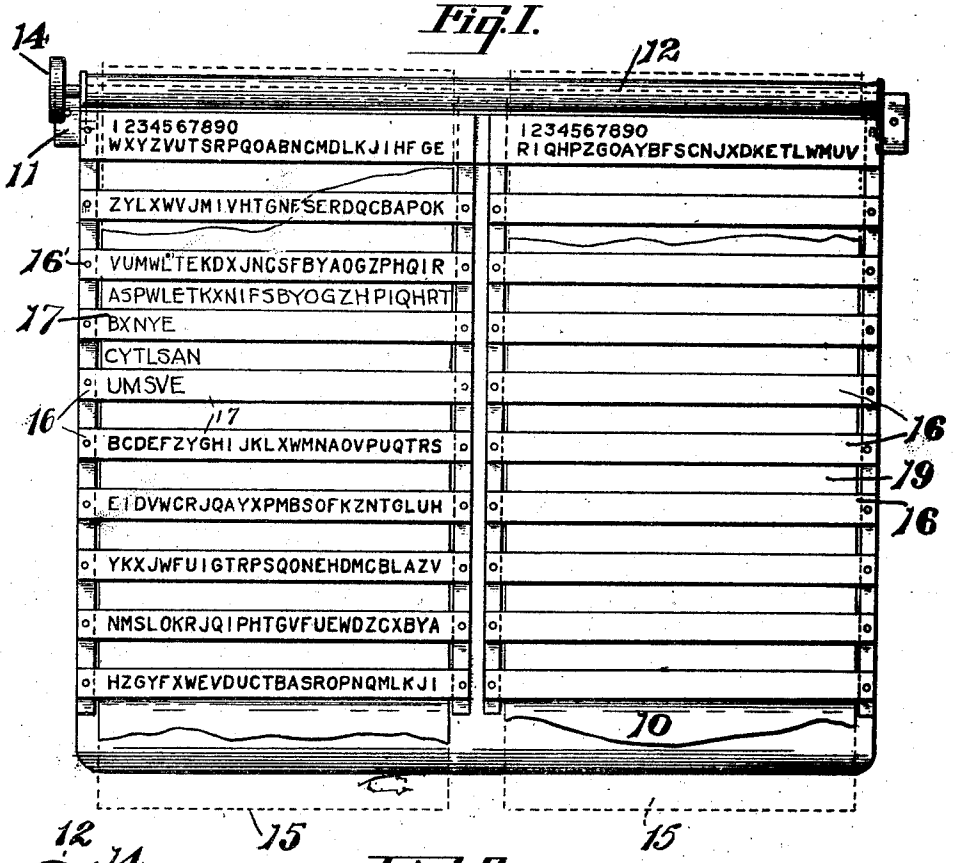


Fig. 2.

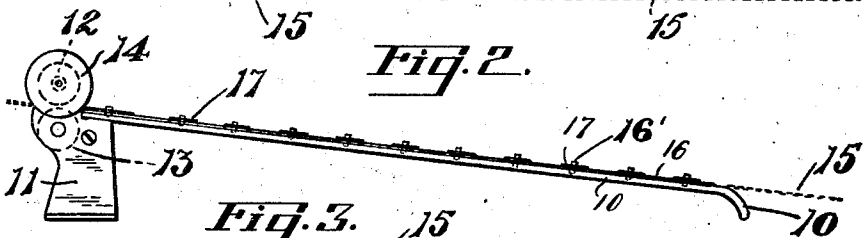


Fig. 3.

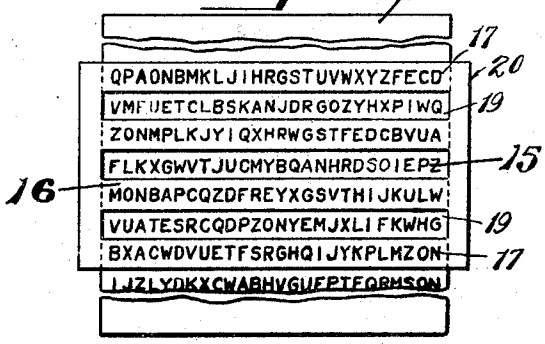
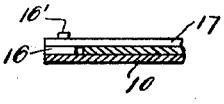


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANK PREVOST, OF LEAD, SOUTH DAKOTA.

CODE MACHINE.

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To all whom it may concern:

Be it known that I, FRANK PREVOST, a citizen of the United States, residing at Lead, county of Lawrence, and State of South Dakota, have invented new and useful Improvements in Code Machines, of which the following is a specification.

This invention relates to cipher code systems and particularly pertains to an apparatus for classifying code words, phrases and other symbols employed in translating or coding and decoding cipher words.

At the present time a large number of code systems have been developed, as well as apparatus for properly utilizing them, but most of these systems have been undesirable in that the code words might be decoded when a particular system was discovered. It is the principal object of the present invention, therefore, to provide a code system and means for operating the same, whereby a large number of code words may be coded or decoded by means which permit a wide latitude of variation in the system used, while insuring that the work of translating the codes may be conveniently carried out.

It is a further object of the present invention to provide a code system which is not dependent upon any fixed charts or apparatus, and which makes it possible for individual use of the same apparatus without probability of any two individuals using the same code.

The present invention contemplates the use of sets of alphabets, the letters of which are arranged at random, and when letters occupying corresponding positions in the two alphabets are matched a code word may be coded or decoded.

The invention is illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is a view in plan disclosing one form of my invention made in two sections, the left hand section with master key strips applied to the header plates and the right hand side with the strips removed.

Fig. 2 is a view in side elevation of the invention shown in Fig. 1.

Fig. 3 is a view in plan showing a modified form of my invention.

Fig. 4 is a detail view of a portion of the device shown in Figs. 1 and 2.

Referring more particularly to Figs. 1 and 2 of the drawings in which the mechanical code device is shown, 10 indicates a base plate here shown as provided at one end with supporting legs 11 by which it may be disposed at a convenient angle and having its forward end turned down to form a support for the plate. Mounted above the base plate 10 and adjacent the legs 11 and between extensions thereof are friction rollers 12 and 13. These rollers are suitably journalled at their ends and may be rotated by a knob 14 secured to the trunnion of one of the rollers. It is understood that the cylindrical faces of the rollers are disposed parallel and in close proximity to each other and that when the rollers revolve a code chart 15 may be frictionally engaged and moved longitudinally of the base plate 10.

Mounted upon the base plate and extending transversely thereof are a plurality of transversely extending header plates 16 upon which master key strips 17 are detachably mounted. These plates 16 are arranged parallel to each other and are spaced from the upper surface of the base plate 10 so that the code chart 15 may move over the surface of the base plate while passing beneath the header plate 16. These master strips carry indicia comprising alphabets, numbers, symbols or other indicia. It is desirable that each of the transverse strips shall carry a complete set of symbols, as, for example, a complete alphabet, and that the said symbols in the various sets shall be arranged at random.

As shown in the drawings, the base plate 10 is divided longitudinally into two sections, each section being fitted with a pair of rollers 12 and 13, as well as sets of parallel spaced plates 16. These plates, as shown in Fig. 1 of the drawings, are each provided at their ends with fasteners 16′ for detachably securing the master key strips 17 in position across the header plates 16 and to be supported thereby as shown in Fig. 1. It will be evident that the master key strips 17 used in the two units of the apparatus may be different and that in each instance each

strip will represent a complete master alphabet or key. It will also be evident that the number of units is not limited and that any number of units might be used, in which event the capabilities of the machine will be multiplied. The code sheets 15, which pass beneath the header plates 16 and over the base plate 10, carry parallel rows of indicia, the separate rows of which may be brought to register in the spaces 19 between the header plates 16 so that the characters on the master key strips 17 carried by plates 16 will register with characters on the code sheet 16 appearing between the header plates 16, thus making it possible to select symbols on the code sheet which will represent symbols on the master key strips. In the present instance the symbols on the code sheet 15 and the symbols on the master strips 17 are alphabets, the letters of which have been arranged at random in a row and without any particular system, such, for example, as might be obtained by selecting type from a pile of type consisting of one alphabet and then marking the characters down in succession as selected. By this arrangement a prepared code sheet 15 may be supplied with the device and also master key strips which may be procured by the users from the owners of the code system; as, for example, two parties could agree upon the arrangement of characters on a master strip and use this strip in duplicate, one copy being retained by each of the parties. They might then use the present invention with the same master key strip and while writing the same words might express them differently in symbols selected from the code sheet, one operation on one line and the other party operating on another line of the code sheet. In fact, in the use of the present invention the capability for variation in code symbols is practically unlimited, as when the machine is set with the code sheet in proper register with a plurality of master key strips 17 successive words may be indicated by symbols taken from different lines of the code sheet when selected from any one of the master key strips, or successively by reference to any predetermined master key strips or progressive selection thereof. It will also be evident that a word may be spelled by selecting the first letter with reference to the first master key strip and the associated line of symbols on the code sheet 15 and the remaining letters of the word by reference to successive master strips and the associated lines of the code strips. In making numerals in code removable numeral master key strips may be used if desired.

The present invention is also capable of other manipulation as the rollers 12 and 13 may be rotated to shift the code sheet relative to the headers and the master strips carried thereby, thus multiplying the available combinations by the number of rows of characters on the code sheet by changing the relative positions of the lines of characters on the code sheet 15 with the master strips 17 carried on the header plates 16. The capabilities of the system and device may be further enlarged by the use of a plurality of units arranged side by side, the code sheets of all the units being operated individually or actuated in unison, it being understood that the code sheets of the different units might be different or that duplicate code sheets might be used by placing them in relatively different relations to the master strips of the different units.

By study of the present invention it will be evident that a simple modification of the apparatus might be made while utilizing the same system by providing a master strip frame 20 formed by a plurality of spaced header strips 16 connected at their ends and thus producing rectangular openings 19 through which the rows of symbols on the code sheet 15 may be read.

The headers 16 carry master key strips 17 which may be attached thereto or directly applied to the frame, thus performing the same purpose as the master key strips in the form of the invention shown in Fig. 1. The frame may be moved longitudinally of the code sheet according to a predetermined arrangement.

It will be evident from an examination of the drawings that it is immaterial to the operation of the invention whether or not the master strips are moved over the surface of the code chart 15 or the code chart is moved relative to the master strips. For example, in the structures shown in Figs. 1 and 2, the code sheets 15 are moved relative to the master strips 17 which are carried on the header plates 16, while in the embodiments of the invention shown in Fig. 3, the master strips and the code sheets are moved relatively to each other and in all instances the effect is the same as different master strips are caused to assume different positions relative to rows of indicia on the code sheets. In the form of the invention illustrated in Fig. 3 of the drawing the cross bars carrying the key strips are connected by side bars forming with the same a movable frame which may be conveniently shifted from one position to another over the code sheet. It will also be apparent that the present invention will have particular merit in individual correspondence, in which case those corresponding will be supplied with duplicate code sheets or charts 15 and with separate code strips 17 which may be easily carried and may be used or changed upon prearrangement with the other correspondence.

While I have shown the preferred forms of my invention as now known to me, it will

be understood that various changes might be made in the combination, construction and arrangement of parts by those skilled in the art, without departing from the spirit of the invention as claimed.

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

1. A device of the character described comprising a code sheet having parallel rows of symbols thereon and an element carrying a master row of symbols to be disposed in register with separate aligned symbols of the parallel rows.

2. A device of the character described comprising a code sheet having parallel rows of symbols thereon and another member carrying parallel master rows of master symbols to lie parallel with the rows of symbols in the code sheet and to register with the symbols in the parallel rows on the code sheet.

3. A device of the character described comprising a code sheet having parallel rows of symbols thereon and an element carrying rows of master symbols, said rows being parallel to the rows of symbols on the code sheet and with the successive symbols in the rows on the code sheet in register with successive symbols in the rows on the movable element, said code sheet and element having relative movement transversely of the said rows of symbols.

4. A device of the character described comprising a code sheet having parallel rows of symbols thereon and an element carrying a plurality of parallel rows of master symbols parallel to the rows of symbols on the code sheet and with the successive symbols in the rows on the code sheet adapted to register with successive symbols in the rows on the said element, the latter and the code sheet having relative movement transversely of the said rows of the symbols.

5. In a device of the character described comprising a code sheet having parallel rows of symbols thereon and an element carrying parallel rows of master symbols adapted to register with alternate parallel rows of symbols on the code sheet, said code sheet and element having relative movement.

6. A device of the character described comprising a code sheet having a plurality of parallel rows of symbols thereon, a master element adapted to be superposed upon the code sheet and having pluralities of parallel rows of symbols thereon spaced apart the distance of one or more rows of symbols on the code sheet, the number of symbols on a row on the code sheet being equal to the number of symbols on a row of the master element and being in register therewith.

7. A device of the character described comprising a code sheet having parallel rows of symbols thereon, a master element superposed over the code sheet and having a parallel row of master symbols thereon, and means for moving the code sheet laterally whereby any desired row of symbols thereon may be brought to register with the row of master symbols.

8. A device of the character described comprising a code sheet having parallel rows of symbols thereon, a master element superposed over the code sheet and having a parallel row of master symbols thereon, means for moving the code sheet laterally whereby any desired row of symbols thereon may be brought to register with the row of master symbols, and means for removably holding the master row of symbols in place.

9. A device of the character described comprising a code sheet having parallel rows of symbols thereon, a master element superposed over the code sheet and having parallel spaced rows of master symbols thereon, and means for moving the code sheet laterally of the rows of symbols whereby any desired row of symbols may be brought to register with the master row of symbols.

FRANK PREVOST.