

## IN THE UNITED STATES PATENT OFFICE

In re Application of

Division 44

William F. Friedman

Serial No. 549,086

Filed: August 11, 1944

For: ELECTRICAL SYSTEM

## AMENDMENT

The Honorable Commissioner of Patents  
Washington 25, D. C.

Sir:

This is in response to the final rejection of 13 April 1956. Please amend the case as follows:

## IN THE CLAIMS:

Cancel claims 2, 5 through 7, and 11.

Claim 10, line 2, cancel "adapted to be".

line 3, after "rotors" insert - in a plurality of parallel circuits  
each including said source of current -.

line 3, after "connected" insert - for energization -.

lines 4 and 5, cancel "a plunger .... said rotors, ".

line 6, cancel "a" and insert - the -.

line 6, after "one" insert - relatively invariable -.

line 7, after the comma insert - an additional normally open switch,  
means for stepping a rotor,".

line 8, cancel "adapted to be".

line 8, cancel "plunger" and insert - last mentioned means -.

line 9, cancel "associated with said output" and insert - of said  
other stationary contact -.

Add the following claim:

25. In a cryptograph including a source of current, a plurality of indicating devices, a normally open switch for each said indicating device, and a plurality of variable electric paths interconnecting said indicating devices in pairs, two circuits closable by each said switch, one including said source of current, said last-mentioned switch, and the said indicating device thereof, and the other including said source of current, said last-mentioned switch, the said indicating device thereof, one of said variable paths, and the interconnected said indicating device.

## REMARKS:

Although the Patent Office action of 13 April 1956 was termed a final rejection, it is requested that the case be reconsidered in the light of this amendment. As a matter of fact, the Examiner's conclusion that an issue has been reached appears not to be supported by the final rejection of claims 2 and 10 (long since held to be allowable) on a ground never before raised against them.

The present amendment is directed to the subjects matter of claims 2 and 10 only. Because it appeared awkward to amend claim 2 in the respects mentioned by the Examiner, that claim is hereby canceled, and the substance thereof is embodied in new claim 25. Without departing from the concept of claim 2, the new claim, after reciting the various elements of physical structure, clearly sets forth the two kinds of circuits involved in the claim and specifically includes the source of current in each.

As amended, claim 10 also includes the source of current in the circuits described. Further, all alternative expressions have been deleted. It appears that misunderstanding exists as to the authenticating function of the cryptograph, and in this respect attention is directed to pages 9 and 10 of the specification. From the description, it will be understood that authenticating is accomplished not with the rotor maze in its condition as of the final character of an enciphered message, but, instead, with the maze in the next succeeding condition. This means that, after the completion of a message proper, one, two, three, or four rotors will be stepped before the authentication operation.

According to the applicant's invention, authentication is accomplished as an automatically-occurring aftermath of a stepping operation following completion of a message, and requires no operation of any keyboard key.

To put it otherwise, a desired message is enciphered to completion in normal fashion. Switch 23 is then thrown to its "authenticate" position, and plunger 38-39, depressed. This last-mentioned action will step one or more rotors and close the "E" encipherment circuit, excluding, however the "E" indicator, and a single indicator will thereupon be lighted. Obviously, some letter other than "E" could be utilized, but, once selected, the choice is not readily variable.

Except as above explained, all rejected claims have been canceled.

Allowance is requested.

Respectfully,  
WILLIAM F. FRIEDMAN

By \_\_\_\_\_  
His Attorney