

## IN THE UNITED STATES PATENT OFFICE

In re application of;  
 W. F. Friedman,  
 Serial No. 107,244,  
 Filed October 23, 1936,  
 Cryptographs

Div. 53, Room 6897

Washington, D.C.,  
 November 27, 1940.

Hon. Commissioner of Patents,  
 Washington, D.C.

Sir:

In response to the official letter of December 21, 1937,  
 amendment is made as follows:-

In the specification:-

Page 6, line 6, change "37" to: 37'

Claim 1

Line 5, cancel "cam-bearing"

Line 1, after "rotatable" insert: cam

Lines 7 and 8, cancel: "a set of contact levers and  
 associated contacts controlled by said cam-bearing members;"

Line 8, after "with" insert: and operated by

Line 9, change "cam-bearing" to: cam

Claim 2

Line 7, after "means" insert: operated by and

Claim 3

Last line, before "to" insert: and having means cooperat-  
ing therewith

Claim 7

Last line, after "members" insert: at different angular  
velocities

Claim 12

Line 9, after "displaceable" insert: at different angular velocities

Claim 13

Line 11, after "displaceable" insert: at different angular rates

Add the following claims:-

14. In a cryptograph, a keyboard having a plurality of operating keys, first and second rotatable members, means actuated by depression of the keys of said keyboard for rotating said members at different angular velocities, first and second switching devices each having a plurality of interconnected segments, the segments of the first device being respectively in contact with segments of the second device and movable with respect thereto in an order to provide various current paths through the circuits of the two switching devices taken together, means responsive to a predetermined angular position of the first rotatable member to move the first switching device relative to the second switching device, means responsive to a predetermined angular position of the second rotatable member to move the second switching device relative to the first switching device, means <sup>responsive to</sup> ~~(depending on)~~ operation of the keys and the position of said first switching device for feeding current into the respective segments of the first switching device, indicating means having a plurality of indica, and means having a plurality of current receiving contactors for receiving current from the second switching device and respectively <sup>responsive to</sup> ~~(depending on)~~ the position of the second switching device to determine which contactor receives current from a given segment, and means independently and respectively connecting the various contactors to the plurality of indica.

15. A method of enciphering messages including rotating a plurality of character-displacing commutators at different angular rates from predetermined original positions, and giving indications according to the cascade of the individual character-displacements of the commutators.

REMARKS

Claims 1 - 15 are in this case. Claims 1 - 6 and 9 - 11 were rejected on the ground that functionally described means constitute the essence of the invention. However, the clauses in the last few lines of these claims are "means" clauses, hence structural clauses. See in this regard Ex parte Burton 36 U.S.P.Q. 152. The applicant relies heavily on the above cited decision.

The invention of this case is a true combination and the several elements may be recited functionally when desired.

Claims 7, 8, 12, and 13 are rejected as failing to clearly point out an alleged essence of the invention.

In claim 7, last line, an amendment calls for rotating the cam bearing members at "different" rates; hence the claim now inherently calls for a permutative displacement of the commutators since different rates of angular cam velocities will create different angular velocities of the commutators. The different angular velocities of the commutators create a large number of different current paths through the several commutators and inherently creates a system that repeats only after millions of operations. Claims 12, 13, and 8 (which depends on claim 7) have been amended to recite different angular velocities of the cam members hence the same arguments

presented for claim 7 apply to these claims.

New claim 14 calls for rotating the first and second rotatable members at different angular velocities and advancing the switching devices when these rotatable members pass predetermined "angular" positions. This creates permutations. New claim 15 states that the commutators rotate at different angular rates. This creates permutations. New claims 14 and 15 are patentable since the art of record does not show two or more commutators in cascade relation as required in the claims to thereby effect permutations.

Respectfully submitted,

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Attorney for Applicant