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LS:ab

Henry B. Stauffer  
Armed Forces Security  
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Washington 25, D. C.

GPO 16-27815-9

*John A. Marzall*

Commissioner of Patents.

Applicant: William F. Friedman

Ser. No. 107,244  
Filed October 23, 1936  
For CRYPTOGRAPHS

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OCT 25 1936

Responsive to Appeal of November 26, 1951.

In reviewing this case for purposes of Examiner's Answer it has been found that the principal reference Damm, 1,540,107, has been misapplied to the finally rejected claims, and that certain significant features thereof have been overlooked in the allowance of claims. In order to correct the above inadvertences the final rejection of claims 15-17 along with the allowance of claims 2-4 are hereby withdrawn and the following action is issued.

In the Damm patent computers  $C_1$   $C_2$  correspond to elements 16-20 of this case, cam units  $M_1$  to  $M_4$  - to the cam devices 6-10, keys  $T_+$ ,  $T_m$ , etc. - to keys 1, and keys  $T_{2+}$  and  $T_{2m}$  - to keys 2. Unit v5 of the reference is an additional encoding device over and above the encoding instrumentality as disclosed by the applicant; it is not needed for anticipation of the claims and may be ignored (omitted with its function) along with some other features of the reference not involved in the present case.

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With the foregoing understanding of the reference in mind, claims 2-5, 7, 9, 11, 13, 14 and 17, are rejected as fully met by Damm. In connection with the recitations in claims 7 and 13 to the effect that cams are rotated "at different angular velocities" it should be noted that in the reference the ratchet wheels associated with cams  $N_1 - N_4$  are of different diameters just the same as are applicant's ratchet driving cams 66-70. Thus, it is perfectly obvious that the recitation of "different angular velocities" reads on the reference as well as it does on applicant's disclosure.

Claims 6, 8, 10 and 12 are rejected as substantially met by Damm. The reference shows cams  $N_1$  to  $N_4$  of varied sizes but fails to describe their precise proportions, or their exact mathematical relation. Thus it is not clear whether these cams are "prime to one another" or not, but it is held obvious and non-inventive to make them such. The limitation quoted is not deemed of patentable significance. The comment as to the "prime" relation disposes also of the "aperiodic" limitation of claim 10.

Claims 15 and 16 are rejected as not patentable over Damm. The sole distinction from the reference resides in the recitation of "a similar plurality of

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rotatable camming members"; this refers to the presence of one cam such as 6 for each commutator wheel such as 16. In the reference, two cams control the stepping of each commutator wheel ( $N_1$  and  $N_2$  control stepping of  $C_2$ , for example) thereby attaining a higher complexity of coding. It is obvious that if a more simple code were sufficient one of these two cams could be omitted without exercise of invention. In this connection note applicant's own statement on page 7, lines 14-17 of his specification.

Claims 15-17 are further rejected as covering nothing more than the functions of applicant's apparatus. They are actually worded in terms of apparatus features and do not properly point out whatever slight variation or improvement the applicant may have achieved over the prior art. Clearly his invention lies in a coding machine, not in any novel method of coding. In re Washburn, 640 O.G. 8; in re Ashbaugh 630, O.G. 622; in re Kinderman 633 O.G. 632.

W  
In the specification, page 8, lines 18-20,  
some numbers of contact lines (shown in Figure 2)  
are erroneous. Correction is in order.

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While it is recognized that the present rejection constitutes a substantial deviation from the earlier treatment of the case, it involves no new art and may be taken as final if desired (for purpose of appeal).

Examiner