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## Applications for Patent of Albert W. Small

Assistant Director, R/D  
 THRU: DD/PROG  
 DD/COMSEC  
 DCS/P-0

R/D

43 At. 1004  
 H.B. Stauffer/mrh/60255

1. On 27 February 1956, Mr. Albert W. Small addressed a letter, Inclosure 1, to the Director, National Security Agency, requesting declassification of an application for patent No. 382561, filed in his name 10 March 1941, for Method Of And Apparatus For Cryptography, Inclosure 2. This application is under a Patent Office Secrecy Order requested by one of this Agency's predecessor organizations; it is in allowable condition, and a patent could issue promptly if the Secrecy Order were to be rescinded.
2. While Mr. Small's request was limited to No. 382561, there is, in fact, a second, closely-related, application on file in the Patent Office, similarly under a Secrecy Order; this is No. 555,402, filed 22 September 1944, for Method and Apparatus for Cryptography, Inclosure 3. This case is not in allowable condition, but this is largely due to purposeful delay, and it could be made ready for issue as a patent within a relatively short time.
3. The subjects matter of the Small applications are in part common with the subject matter of an application of Hagelin No. 386569 which you recently considered. The question in the Hagelin case was whether to seek a Secrecy Order, and the unanimous view was that it would be undesirable to do so.
4. The Hagelin application above referred to (of which no copy is at present available) contains a disclosure of the principle of reentry as applied to a rotor maze, two forms thereof being described, namely, reentry at the input of a maze and reentry at about the midpoint thereof. The Small applications, on the other hand, describe and claim considerably more than these two specific forms of reentry.
5. This Agency is under no compulsion to act favorably upon Mr. Small's request. The cases at present are Government-owned, although an agreement exists to reassign them to the inventor (and take back a free license in favor of the Government) whenever security considerations may permit.
6. Several courses of action appear to be available. 1. The two Small applications may be maintained with propriety in their present status. 2. The applications (or either of them) may be declassified, and patents permitted to issue. 3. It is probable that unclassified portions/One or both of the Small applications could be "carved out," and so-called divisional or restricted applications filed. Whether this can be done depends somewhat upon a determination of the unclassified portions. If it can be done, any such restricted application

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**SUBJECT: Applications for Patent of Albert W. Small**

**TO: Assistant Director, R/D      FROM: R/D      DATE: 13PH147 COMMENT NO. 1**  
**FRG: DD/PROD                      E.B. Stauffer/mrh/60255**  
**DD/COMSEC**  
**DCS/P-O**

would be entitled in litigation or negotiation to the filing date of its parent case; this means, of course, that Mr. Small would not lose any rights flowing from the early filing dates of his applications Nos. 382561 and 555402.

7. Your comments are requested. As suggested in paragraph 6, an indication of unclassified areas in the two cases would be appreciated in the event it is felt the applications (or either of them) must remain classified. Any restricted application which might eventuate would be made available for examination before filing if desired.

**HENRY B. STAUFFER**  
 Chief, Patents Branch

3 Incls:

1. Ltr. dtd. 27 Feb. 56
2. Patent Application No. 382561
3. Patent Application No. 555402

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