17 December 1954

Mrs. M. H. MacKay Assistant to the Editor in Charge of Editorial Production Encyclopaedia Britannica 425 North Michigan Avenue Chicago 11, Illinois

Dear Mrs. Mackay:

I return herewith the prints of the two new illustrations which will accompany my article CODES AND CIPHERS.

The print of Fig. 9 requires a small correction which I have indicated thereon; the letters F and E should be interchanged in position on the lst wheel only. However, I think it would improve the picture to add the letters I show on the two tapes in the print. These letters would make clear to the reader that on one tape the machine prints the plain text; on the other tape, the cipher text. I hope this addition will not cause too much trouble; if it does, just forget it.*

As regards Fig. 12, the print is quite correct, but here again, if the letters I have added can be shown on the tapes, the picture would be improved.

Sincerely.

WILLIAM F. FRIEDMAN

Incls:

* The letters I have shown on the print are supposed to represent the plain text words THE QU.CK and the equivalent cipher text KPNZI ..RX. The letter Z here enciphers the space between the words; the space beyond the I in the cipher indicates that the cipher text is automatically grouped in 5's; the dots in this explanation represent letters which are hidden under the cutting bar.