
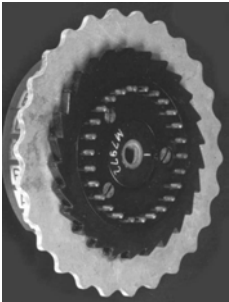

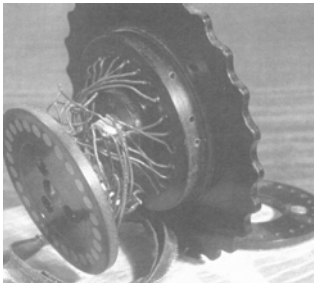


Rotors (Enigma)







Rotors



Wired inside to implement a (fixed) permutation.



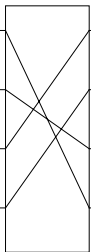
Rotor Schematic I

A —

B —

C —

D —



A —

B —

C —

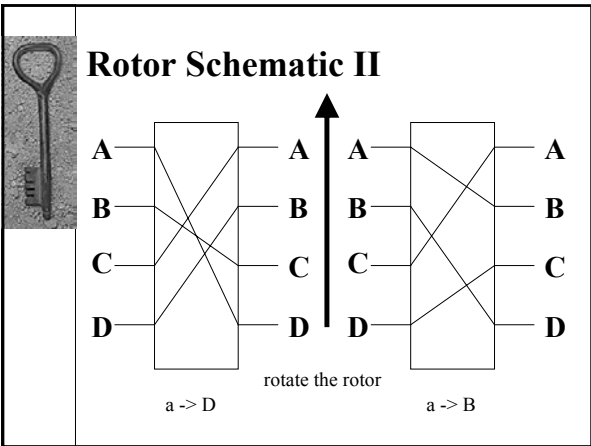
D —

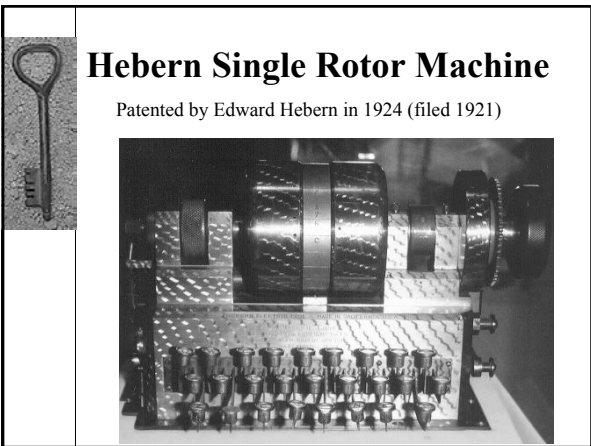
plaintext aabcdb

ciphertext DDCABC

left contacts: typewriter

right contacts: lamps







Using Rotors

The idea of rotors was invented independently by

- Arthur Scherbius (Germany), filed for patent on 2/23/1918
- Hugo Koch (Netherlands), filed for patent on 10/7/1919
- Arvid Damm (Sweden), filed for patent on 10/10/1919
- Edward Hebern (US), filed for patent on 3/31/21



Scherbius
(lately invented Enigma)



Boris Hagelin
(took over Damm's company)
