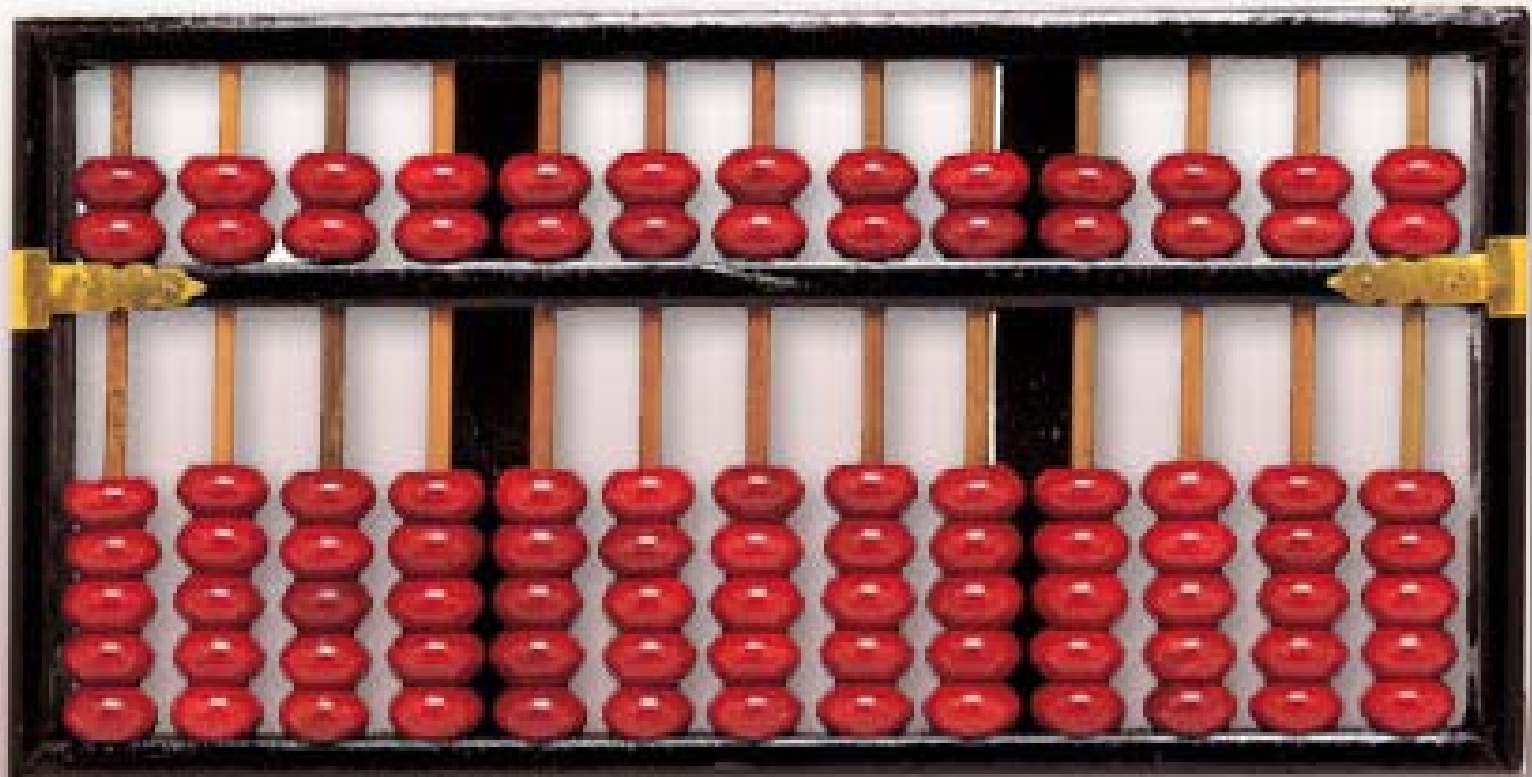


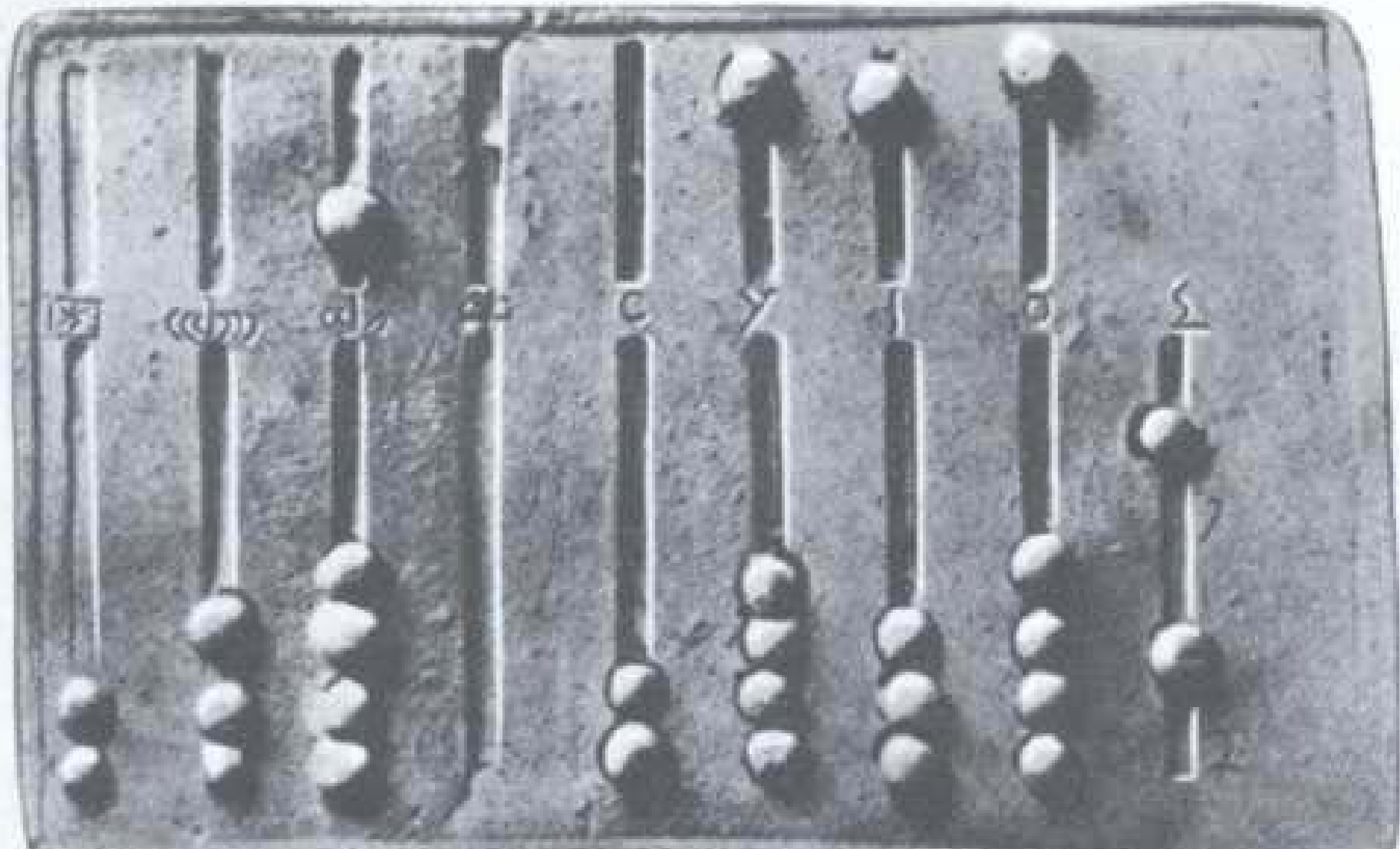
COMPUTERS

From Abacus to AI

Abacus

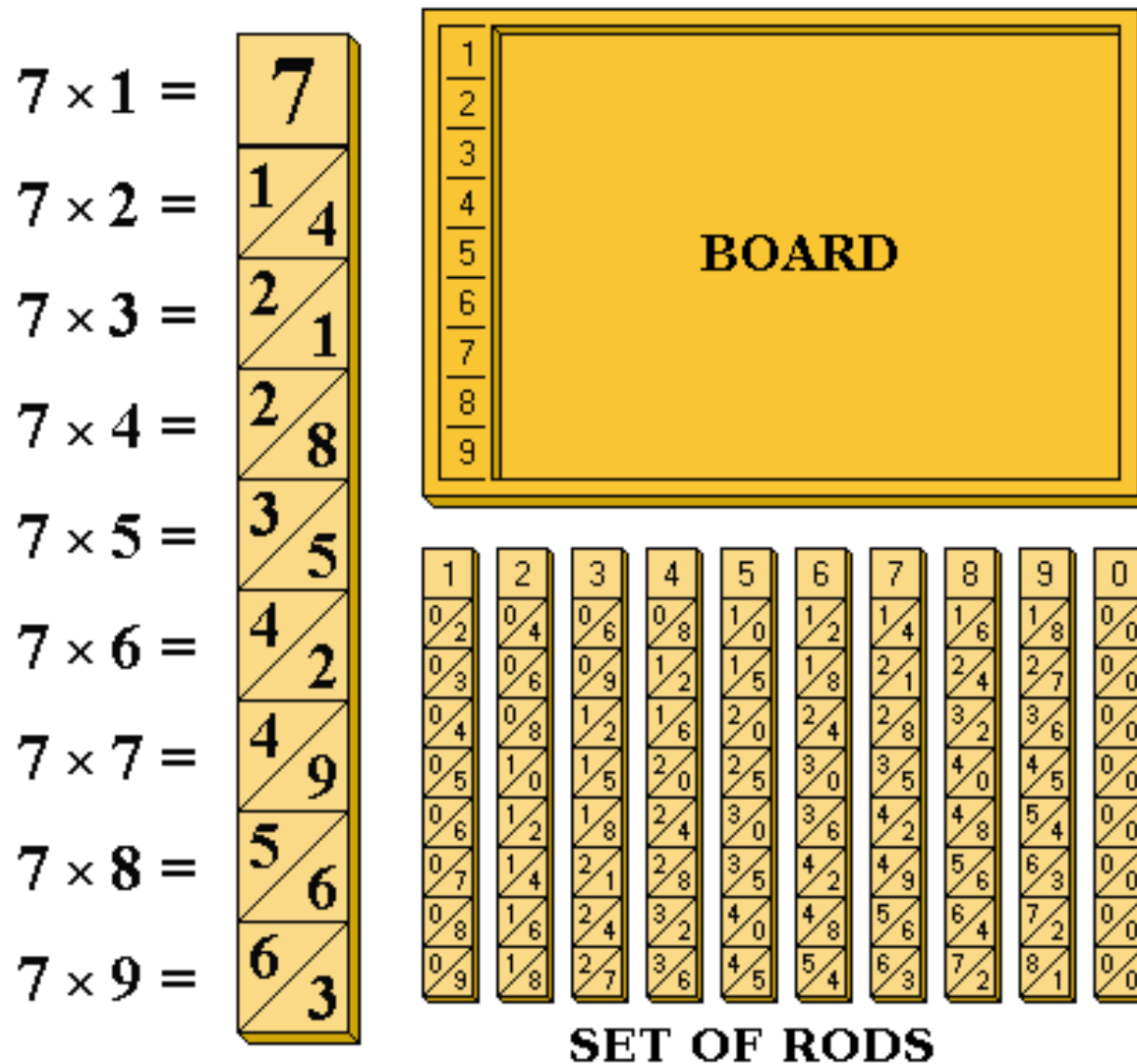


Ancient Roman Abacus (ca. 100 B.C.)

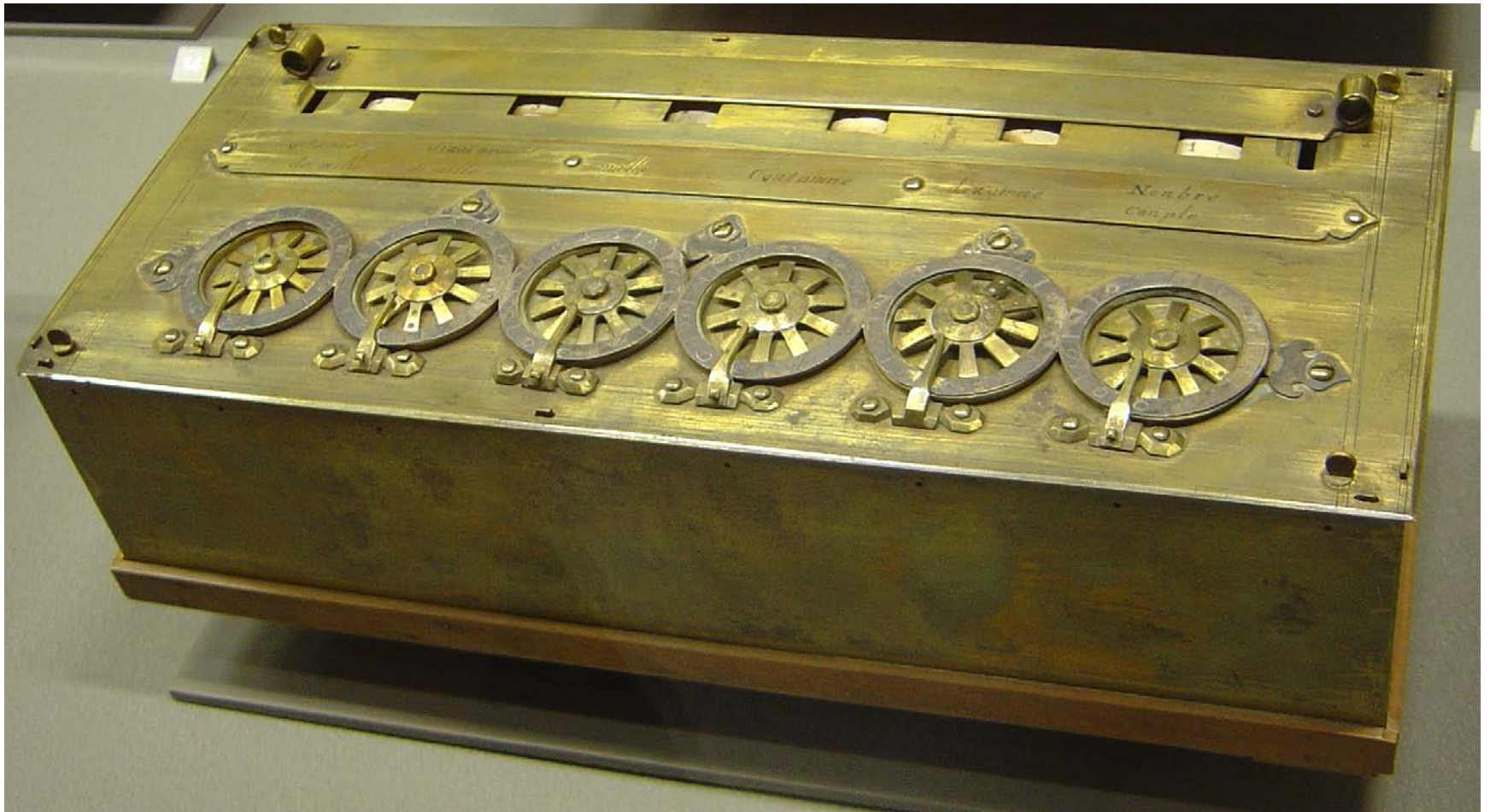


John Napier

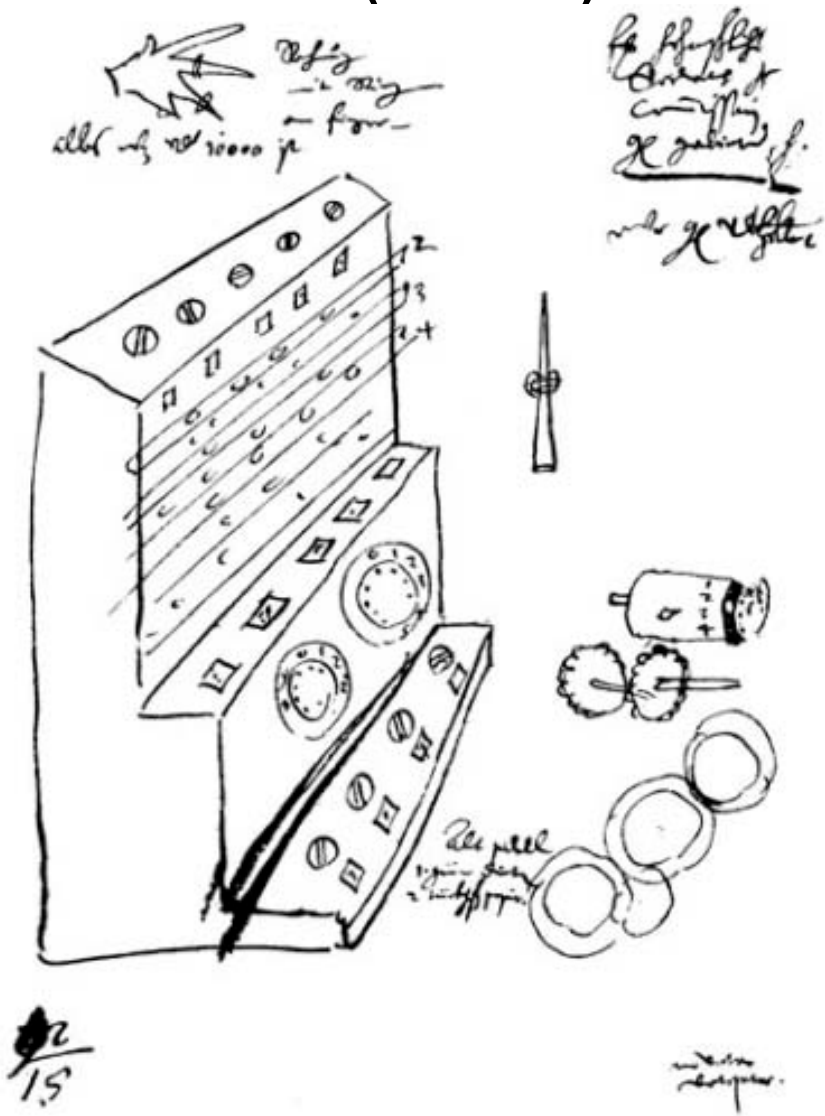
“Bones” (Designed 1617)



Blaise Pascal Pascaline (1652)



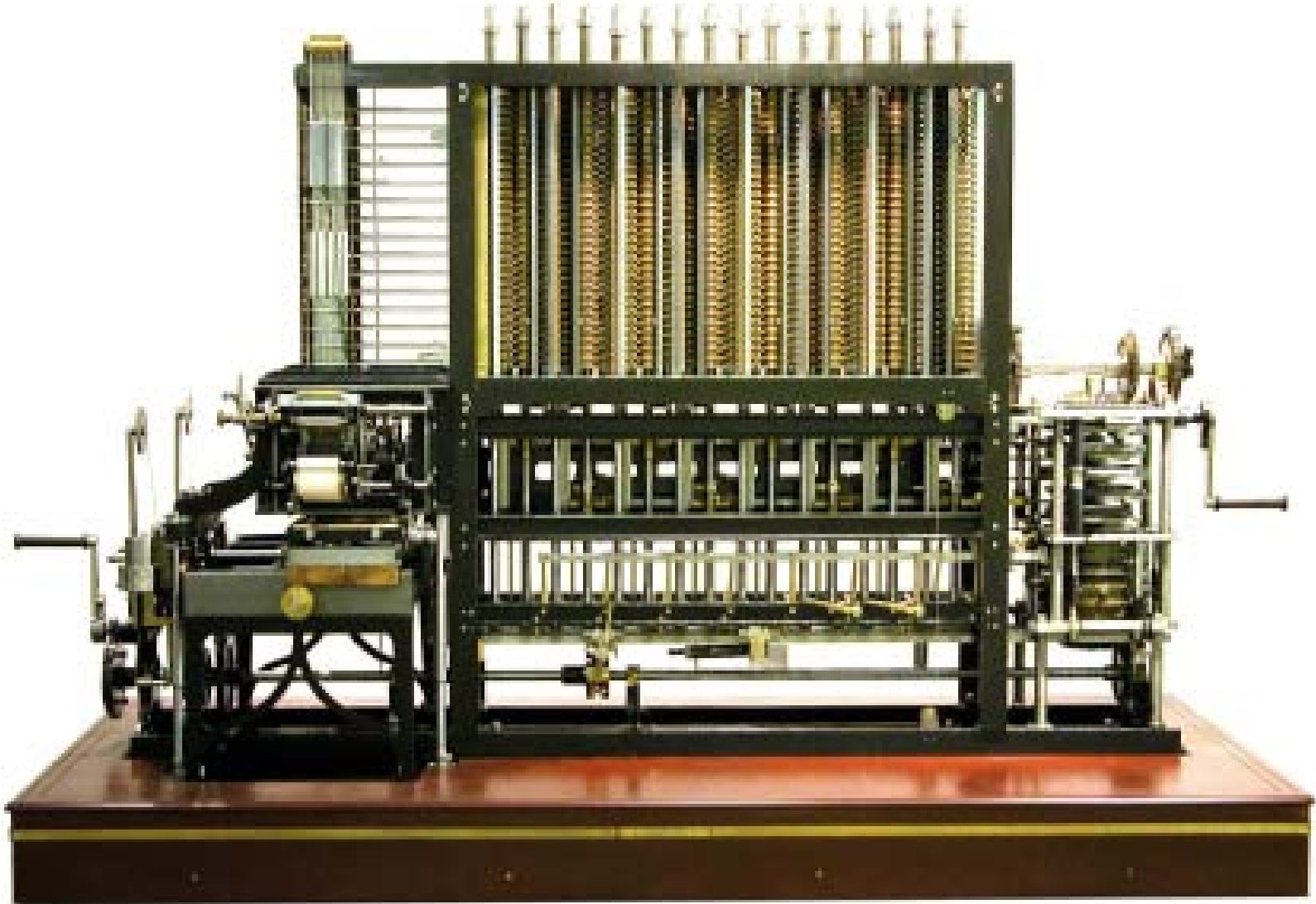
Wilhelm Schickard Sketch of Digital Mechanical Calculator (1652)



Charles Babbage Difference Engine



Charles Babbage Difference Engine





Per Georg Scheutz Difference Engine (1850s)

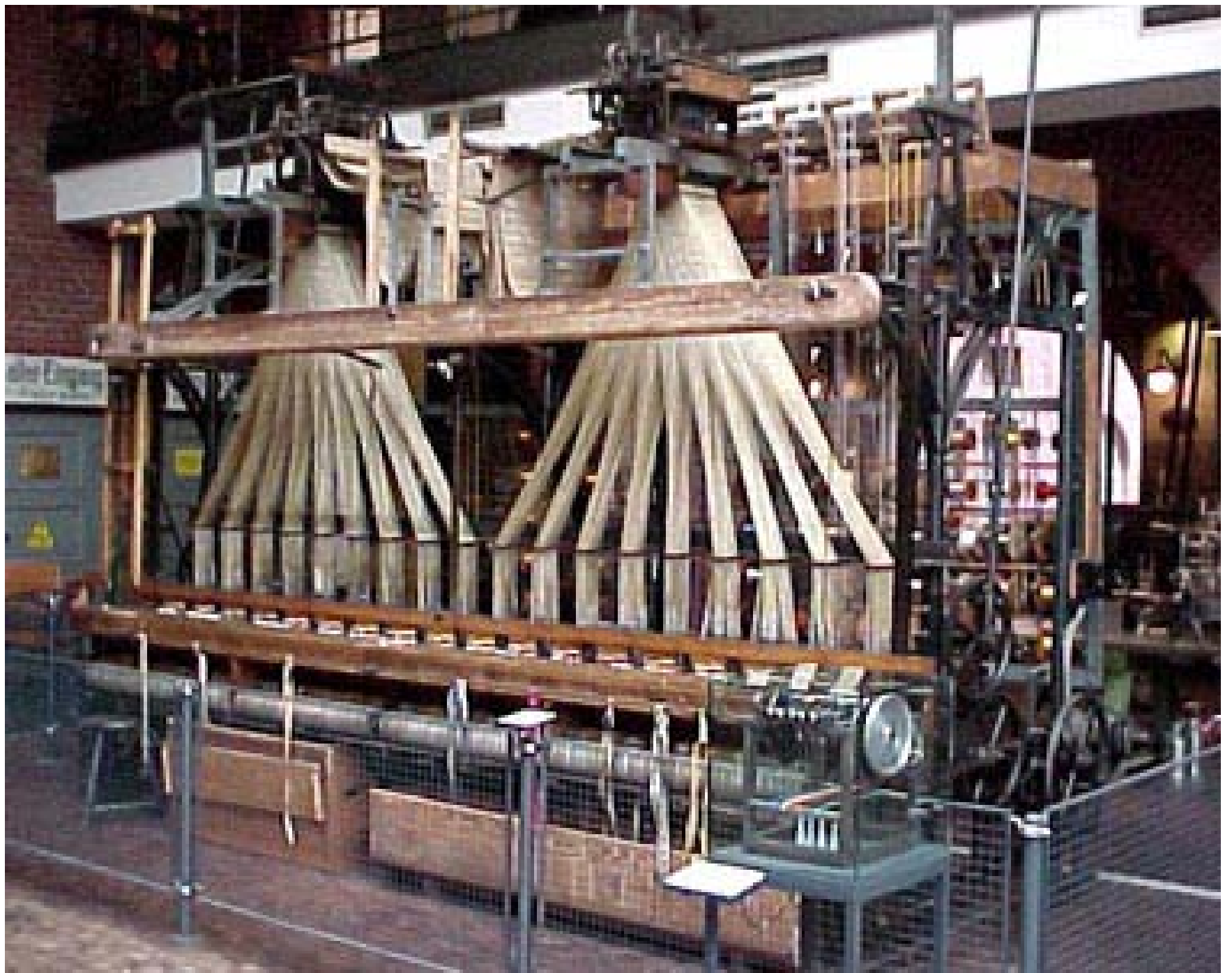


Scheutz Third Difference Engine



Joseph Marie Jacquard Loom (1801; 1883 model)



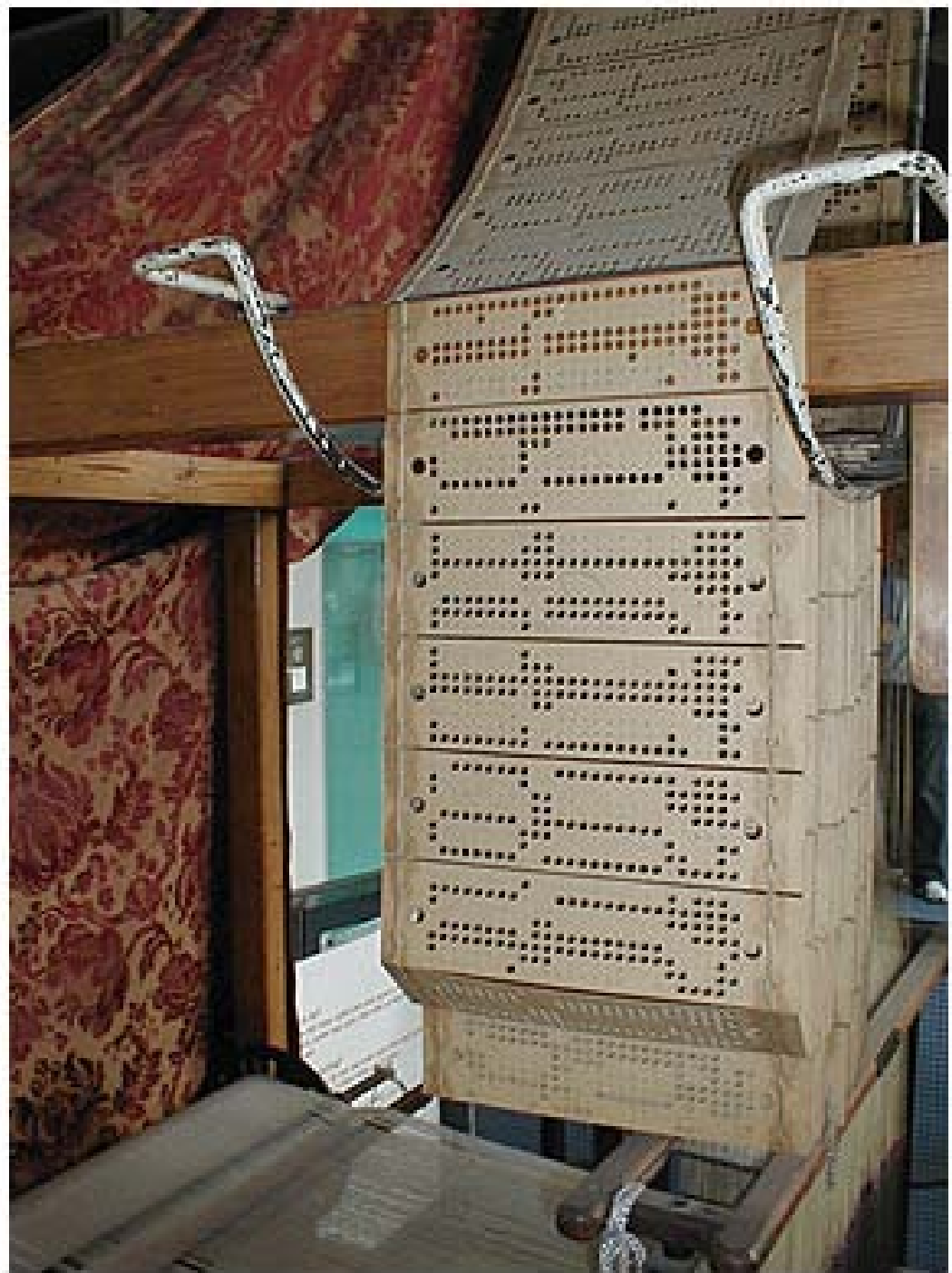




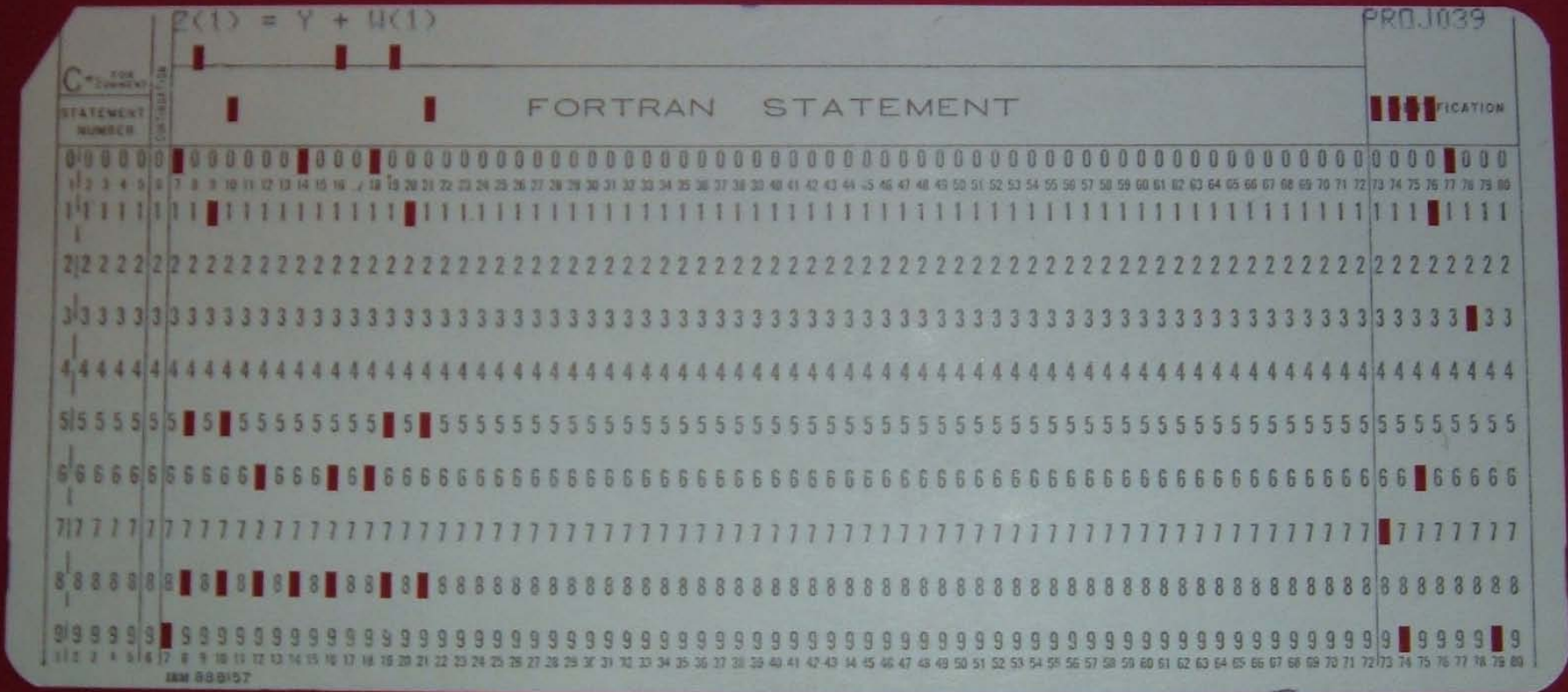
Making Punch-Cards



[Jacquard-card Making.]

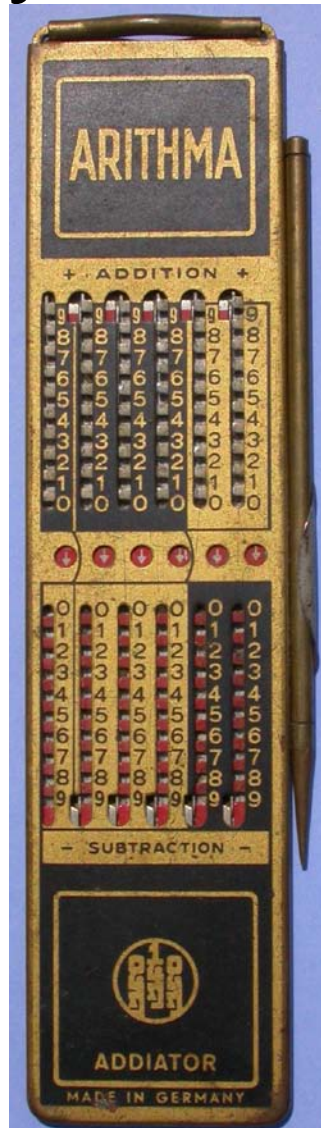


Fortran Punch-Card 1970s

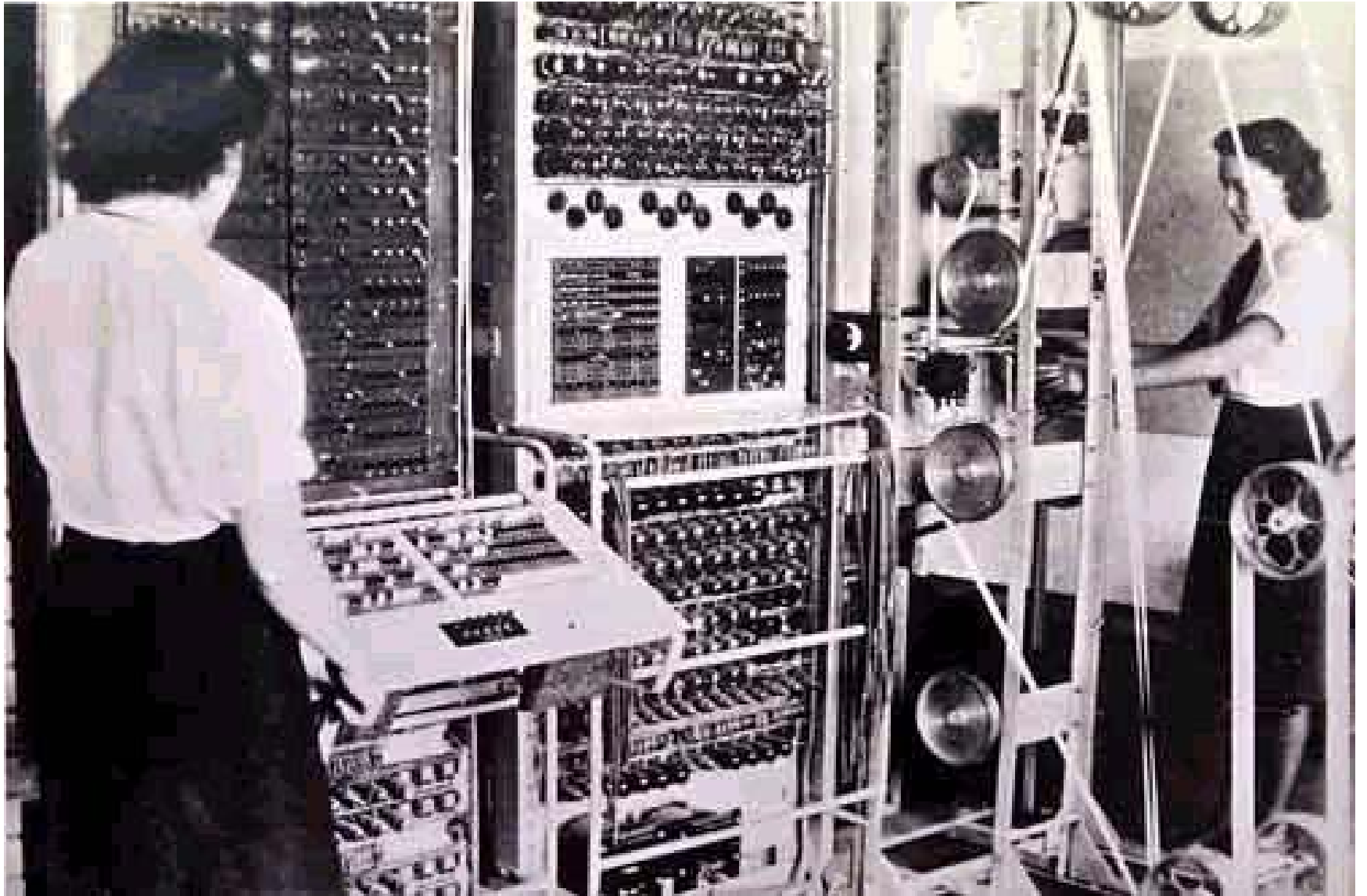


Addiator

Early 20th century



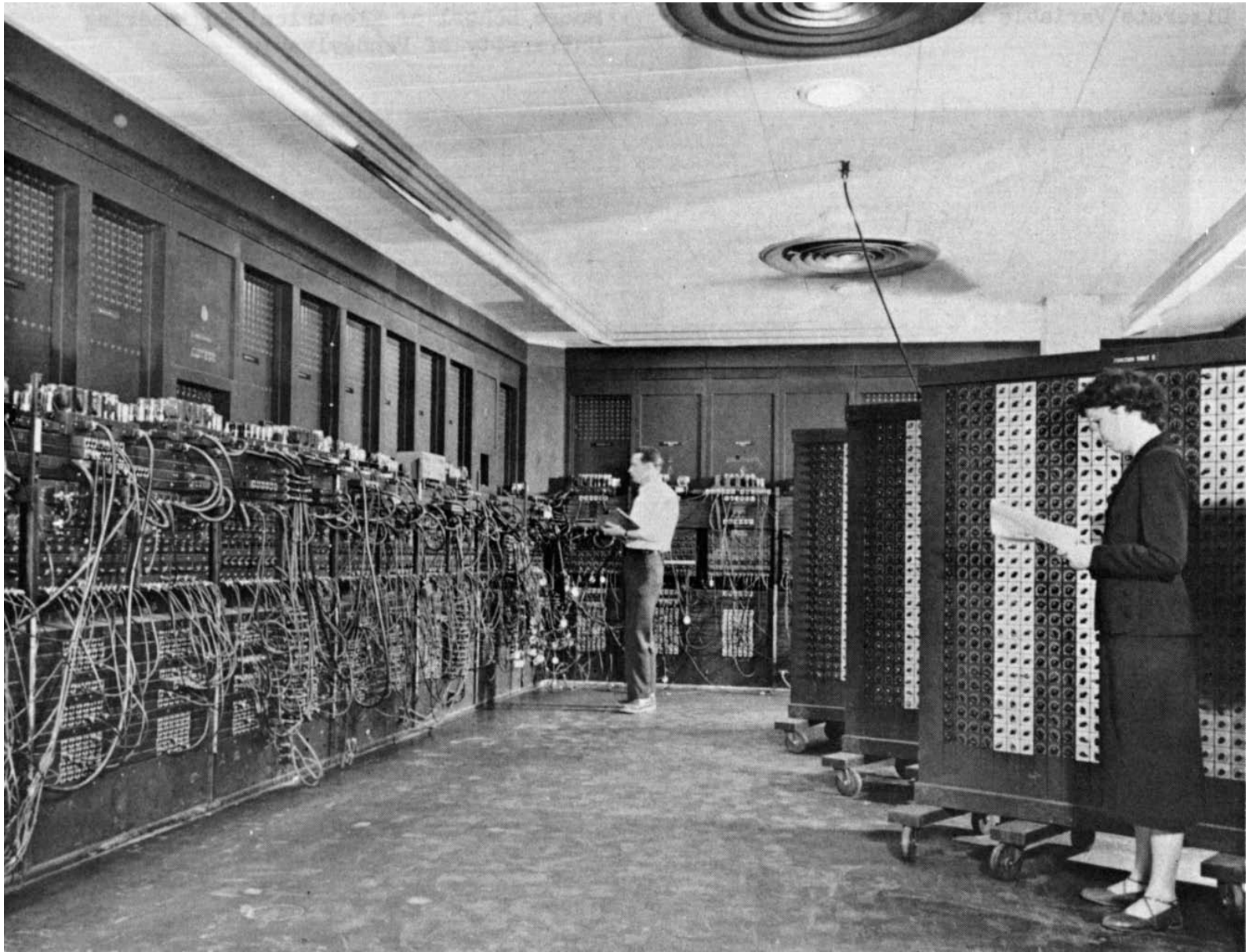
Colossus (1943)



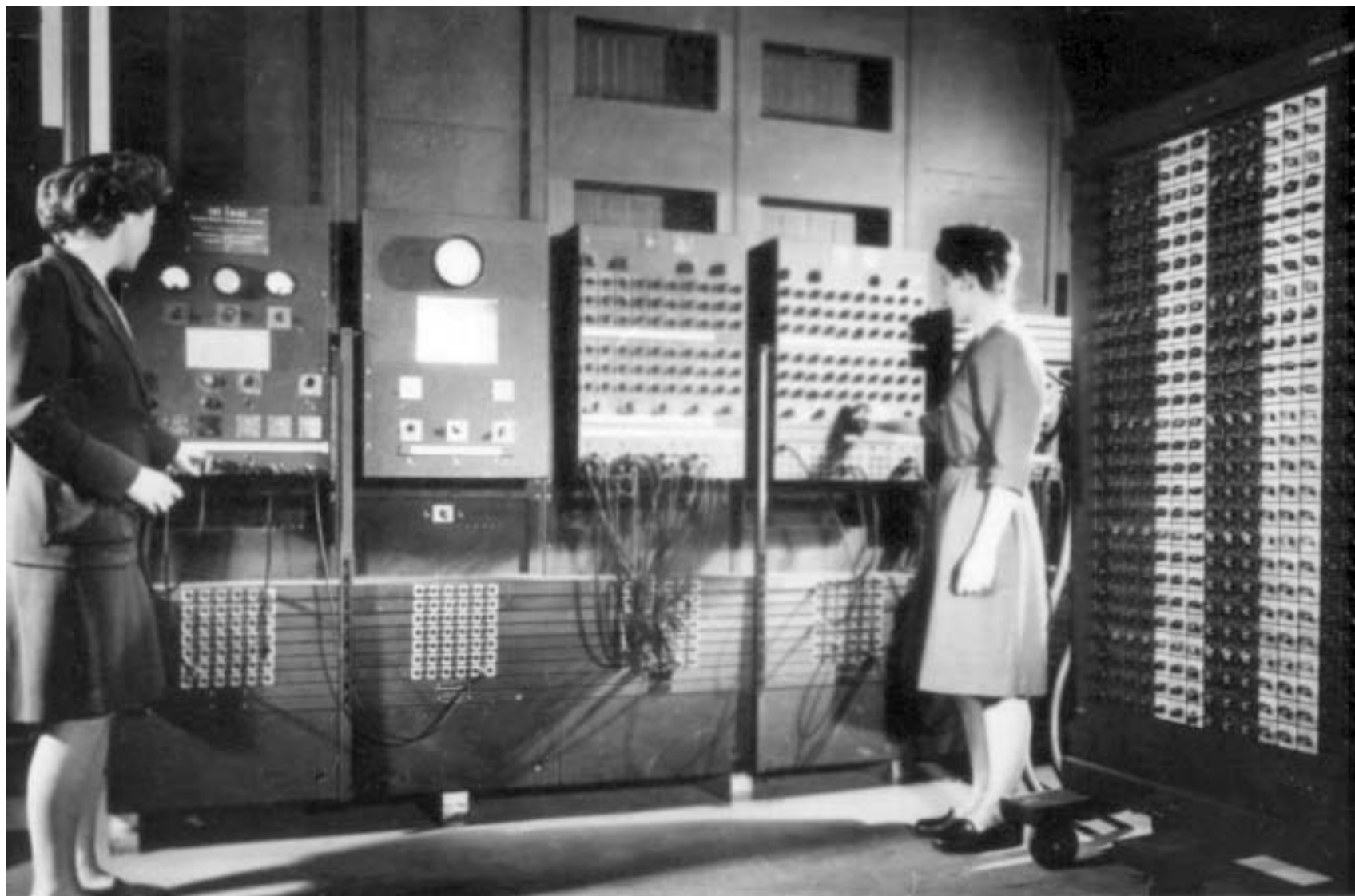
EDSAC



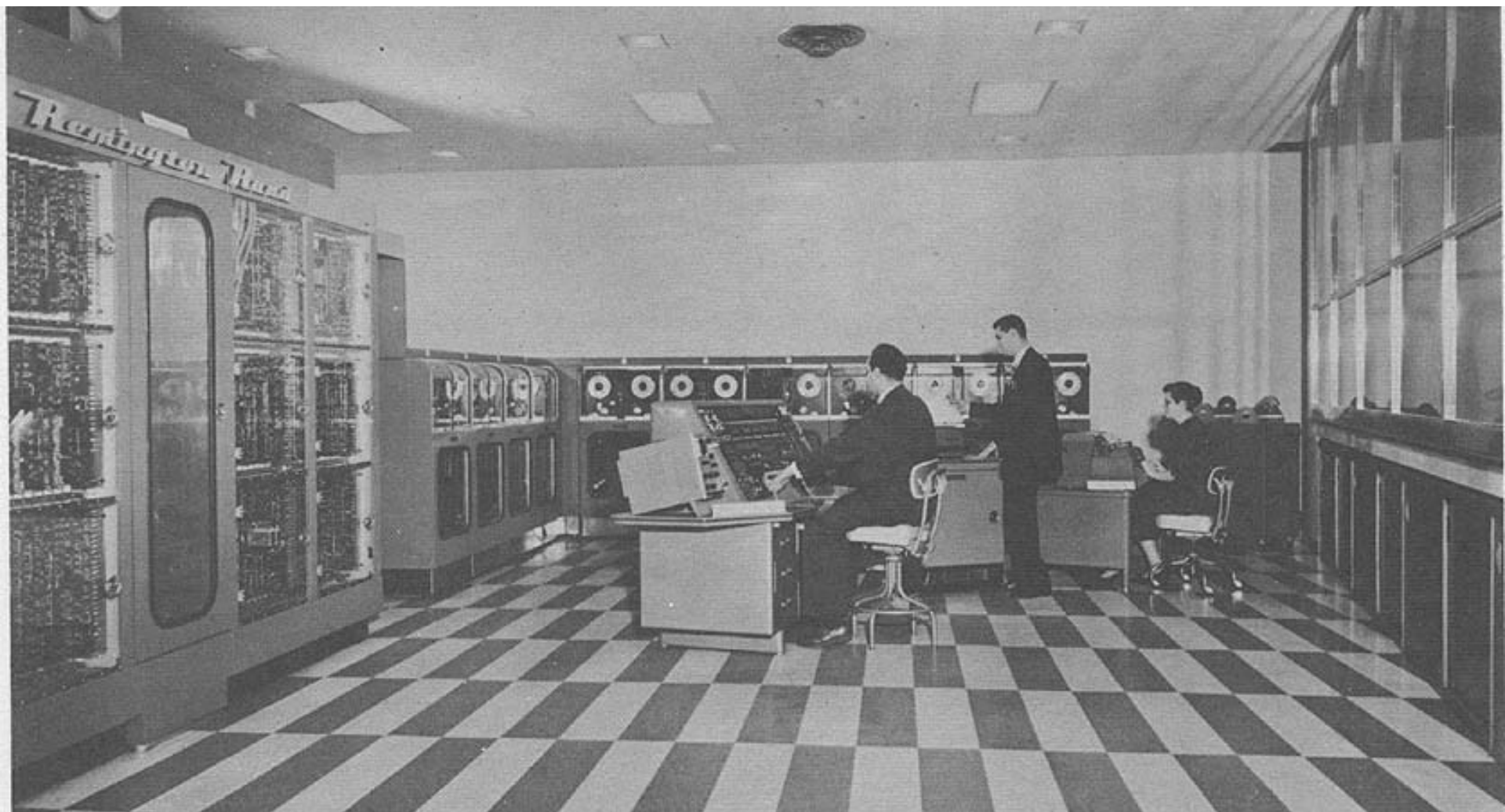
ENIAC



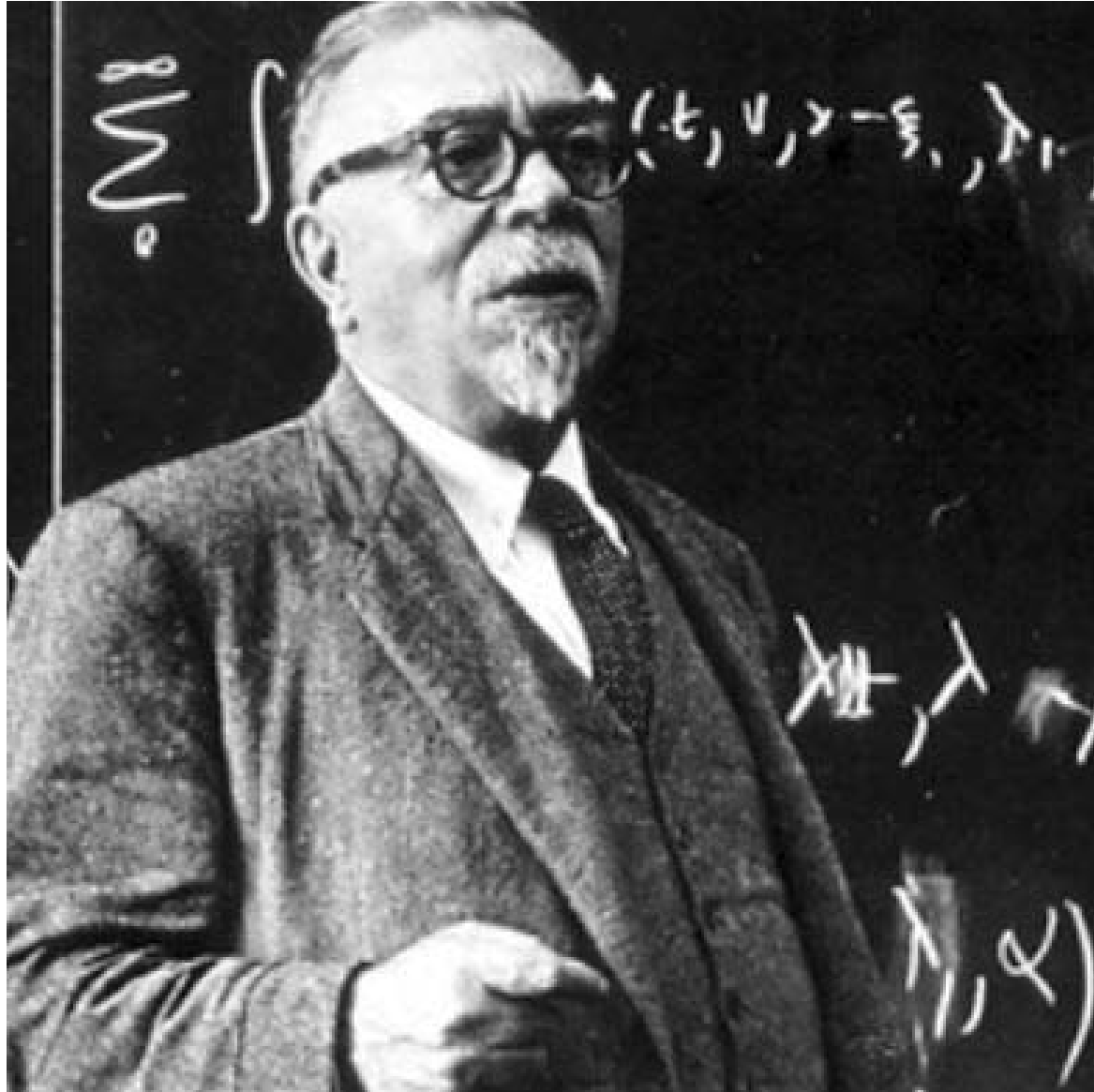
Operating ENIAC



UNIVAC I (1951)



Norbert Wiener (1894-1964)



Alan Turing (1912-1954)



HAL 9000 (2001)

