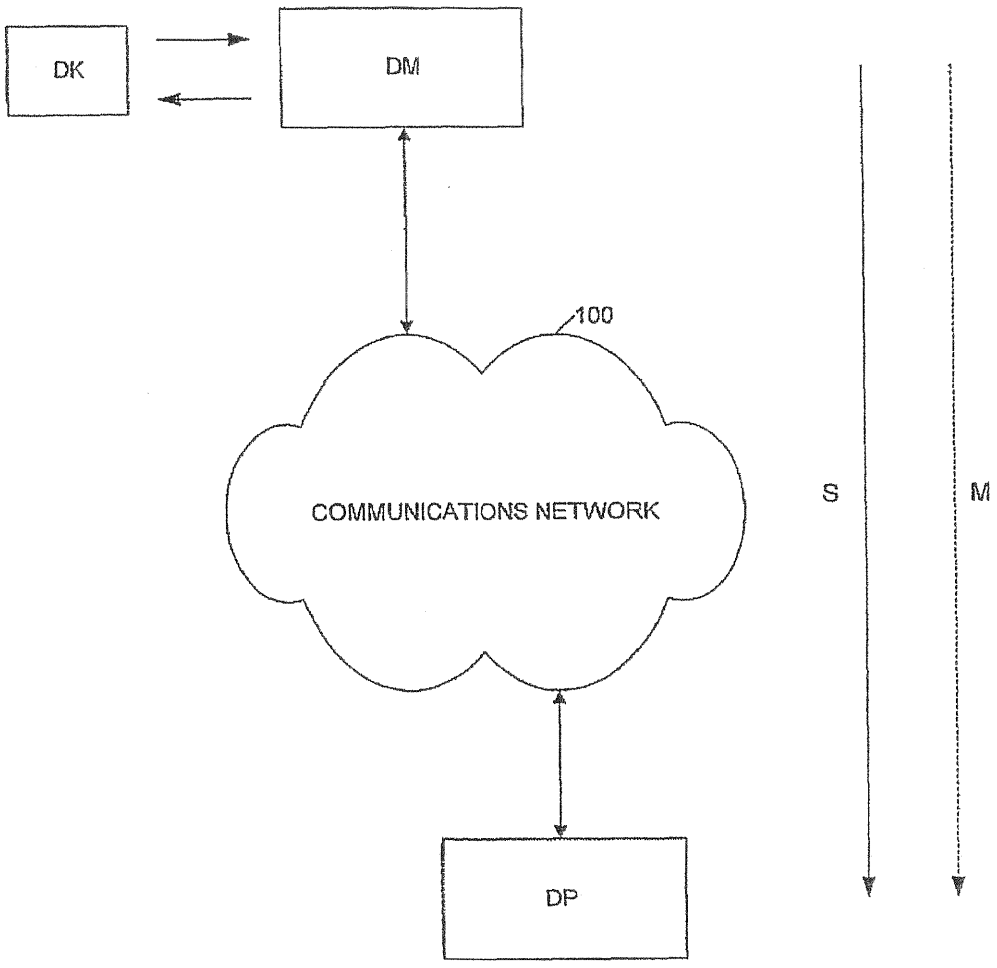


Figure 1

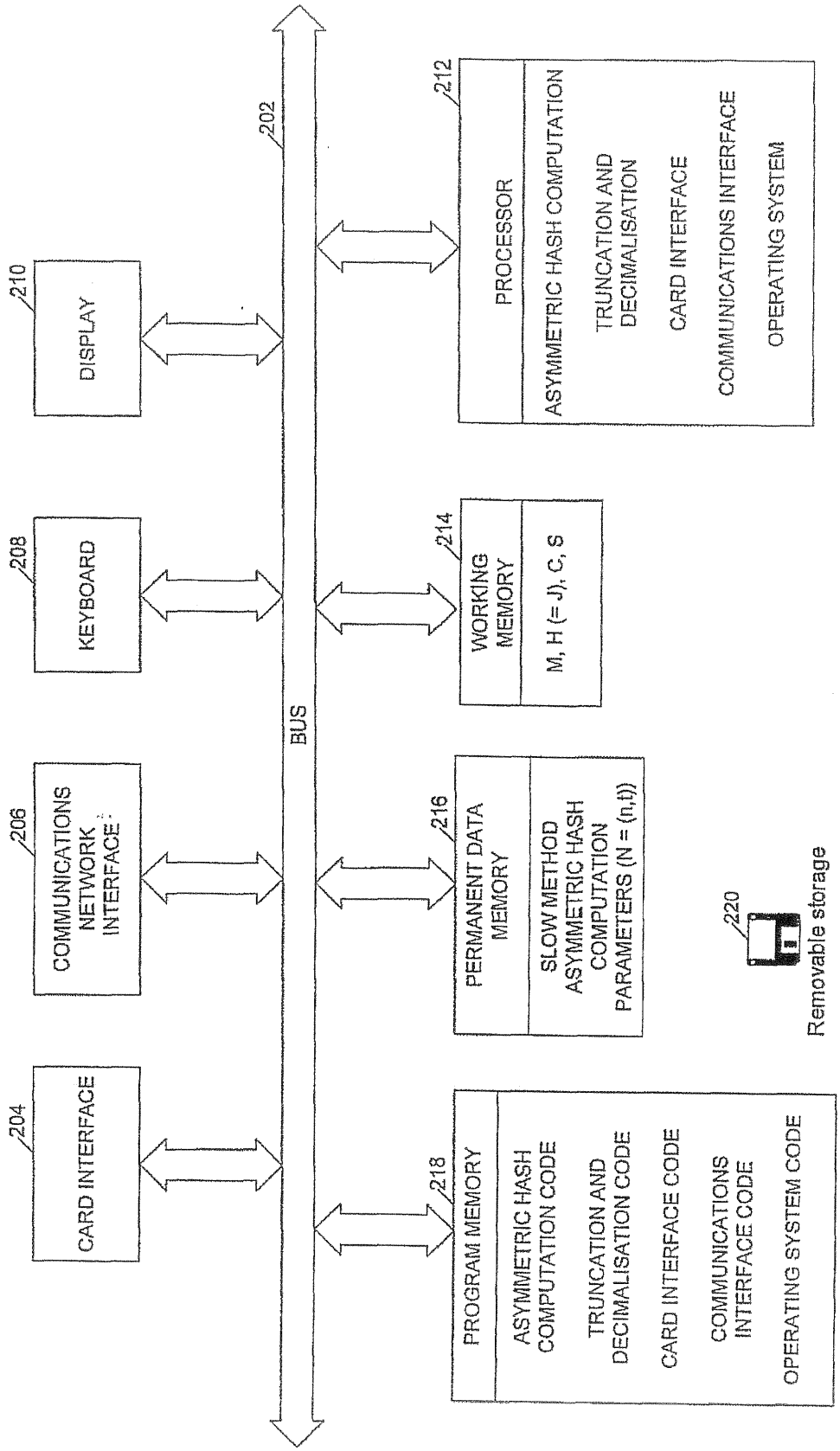

200a
202
BUS
204
CARD INTERFACE
206
COMMUNICATIONS NETWORK INTERFACE
208
KEYBOARD
210
DISPLAY
212
PROCESSOR
ASYMMETRIC HASH COMPUTATION
TRUNCATION AND DECIMALISATION
CARD INTERFACE
COMMUNICATIONS INTERFACE
OPERATING SYSTEM
214
WORKING MEMORY
M, H (= J), C, S
216
PERMANENT DATA MEMORY
SLOW METHOD ASYMMETRIC HASH COMPUTATION PARAMETERS (N = (n,t))
218
PROGRAM MEMORY
ASYMMETRIC HASH COMPUTATION CODE
TRUNCATION AND DECIMALISATION CODE
CARD INTERFACE CODE
COMMUNICATIONS INTERFACE CODE
OPERATING SYSTEM CODE
220
Removable storage

Figure 2a

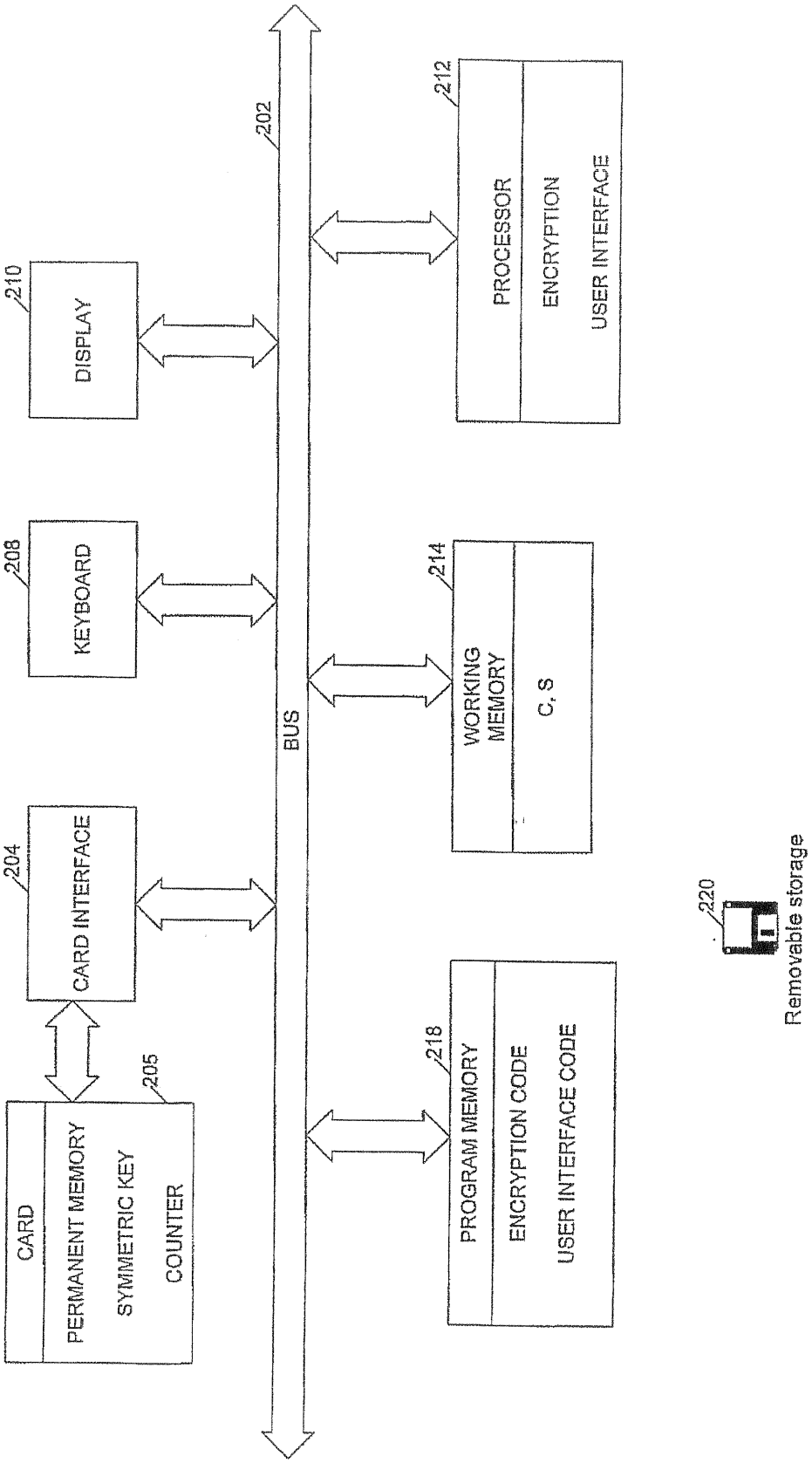

200b
202
BUS
210
DISPLAY
208
KEYBOARD
204
CARD INTERFACE
205
CARD
PERMANENT MEMORY
SYMMETRIC KEY
COUNTER
212
PROCESSOR
ENCRYPTION
USER INTERFACE
214
WORKING MEMORY
C, S
218
PROGRAM MEMORY
ENCRYPTION CODE
USER INTERFACE CODE
220
Removable storage

Figure 2b

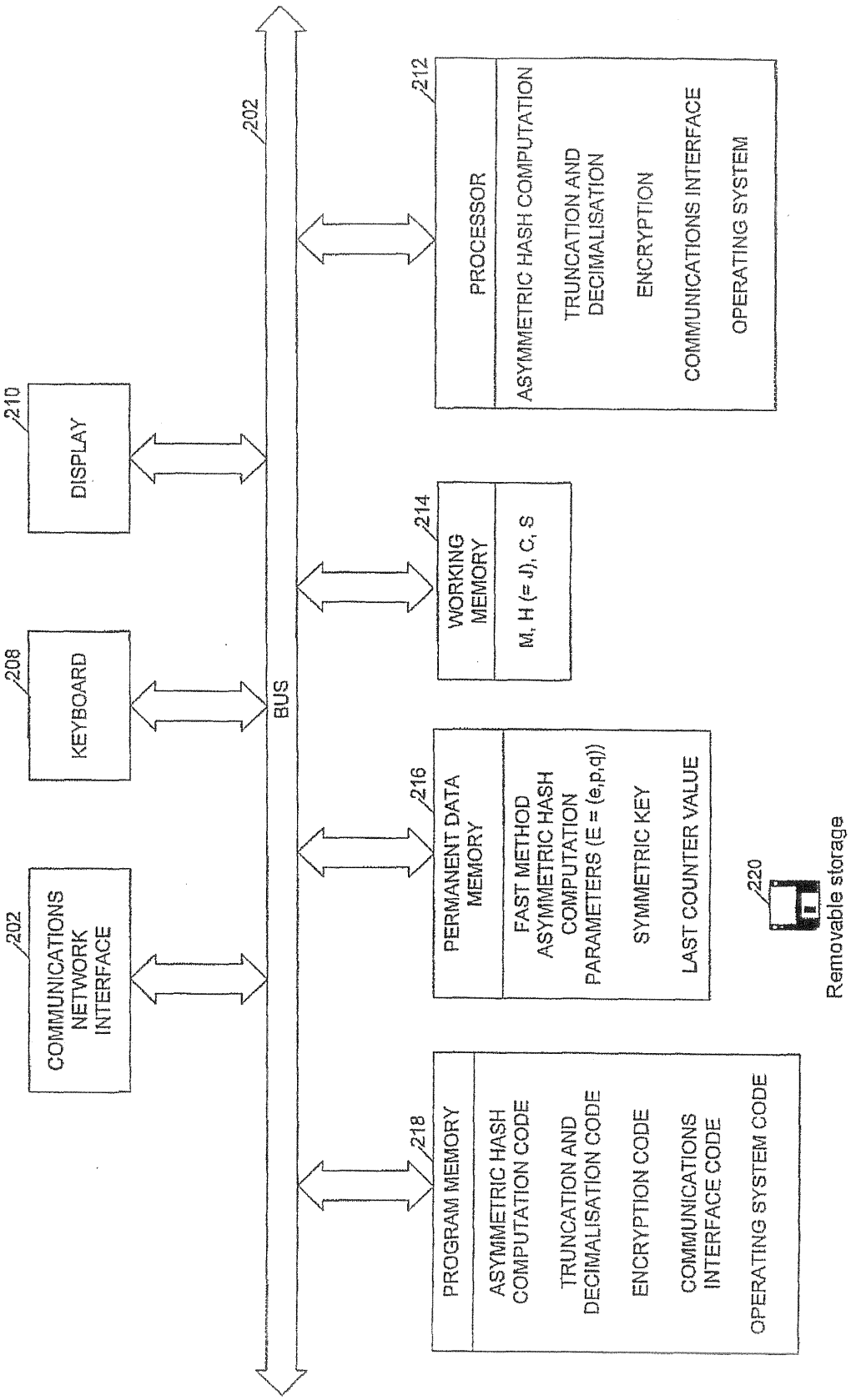

200c
202
BUS
210
DISPLAY
208
KEYBOARD
202
COMMUNICATIONS NETWORK INTERFACE
212
PROCESSOR
ASYMMETRIC HASH COMPUTATION
TRUNCATION AND DECIMALISATION
ENCRYPTION
COMMUNICATIONS INTERFACE
OPERATING SYSTEM
214
WORKING MEMORY
M, H (= J), C, S
216
PERMANENT DATA MEMORY
FAST METHOD ASYMMETRIC HASH COMPUTATION PARAMETERS (E = (e,p,q))
SYMMETRIC KEY
LAST COUNTER VALUE
220
Removable storage
218
PROGRAM MEMORY
ASYMMETRIC HASH COMPUTATION CODE
TRUNCATION AND DECIMALISATION CODE
ENCRYPTION CODE
COMMUNICATIONS INTERFACE CODE
OPERATING SYSTEM CODE

Figure 2c