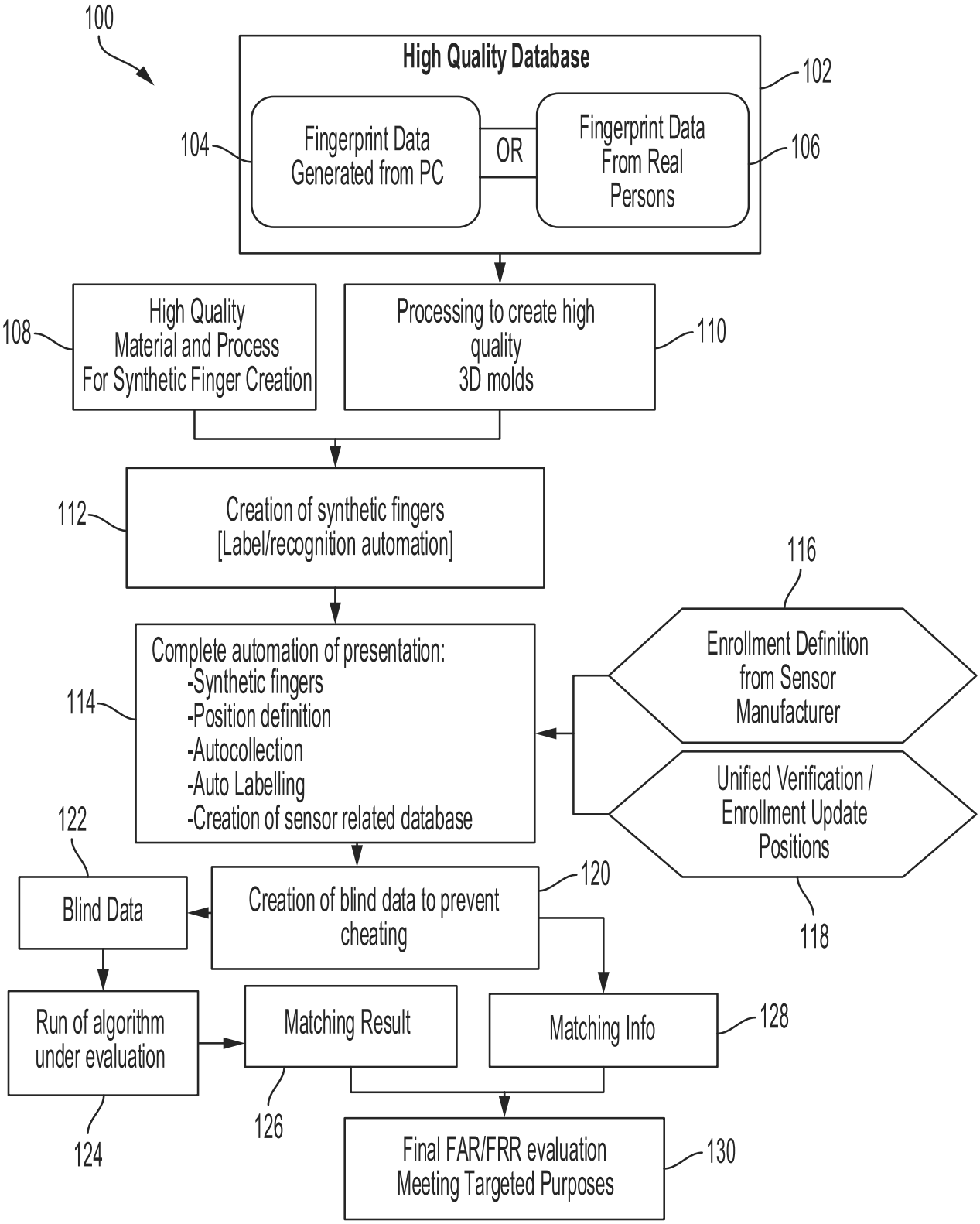

100
High Quality Database
102
104
Fingerprint Data Generated from PC
OR
Fingerprint Data From Real Persons
106
108
High Quality Material and Process For Synthetic Finger Creation
Processing to create high quality 3D molds
110
112
Creation of synthetic fingers [Label/recognition automation]
116
Complete automation of presentation:
-Synthetic fingers
-Position definition
-Autocollection
-Auto Labelling
-Creation of sensor related database
114
Enrollment Definition from Sensor Manufacturer
Unified Verification / Enrollment Update Positions
118
122
Blind Data
Creation of blind data to prevent cheating
120
Run of algorithm under evaluation
Matching Result
Matching Info
128
124
126
Final FAR/FRR evaluation Meeting Targeted Purposes
130

FIG. 1

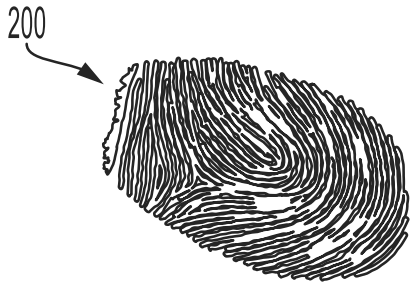

200

FIG. 2

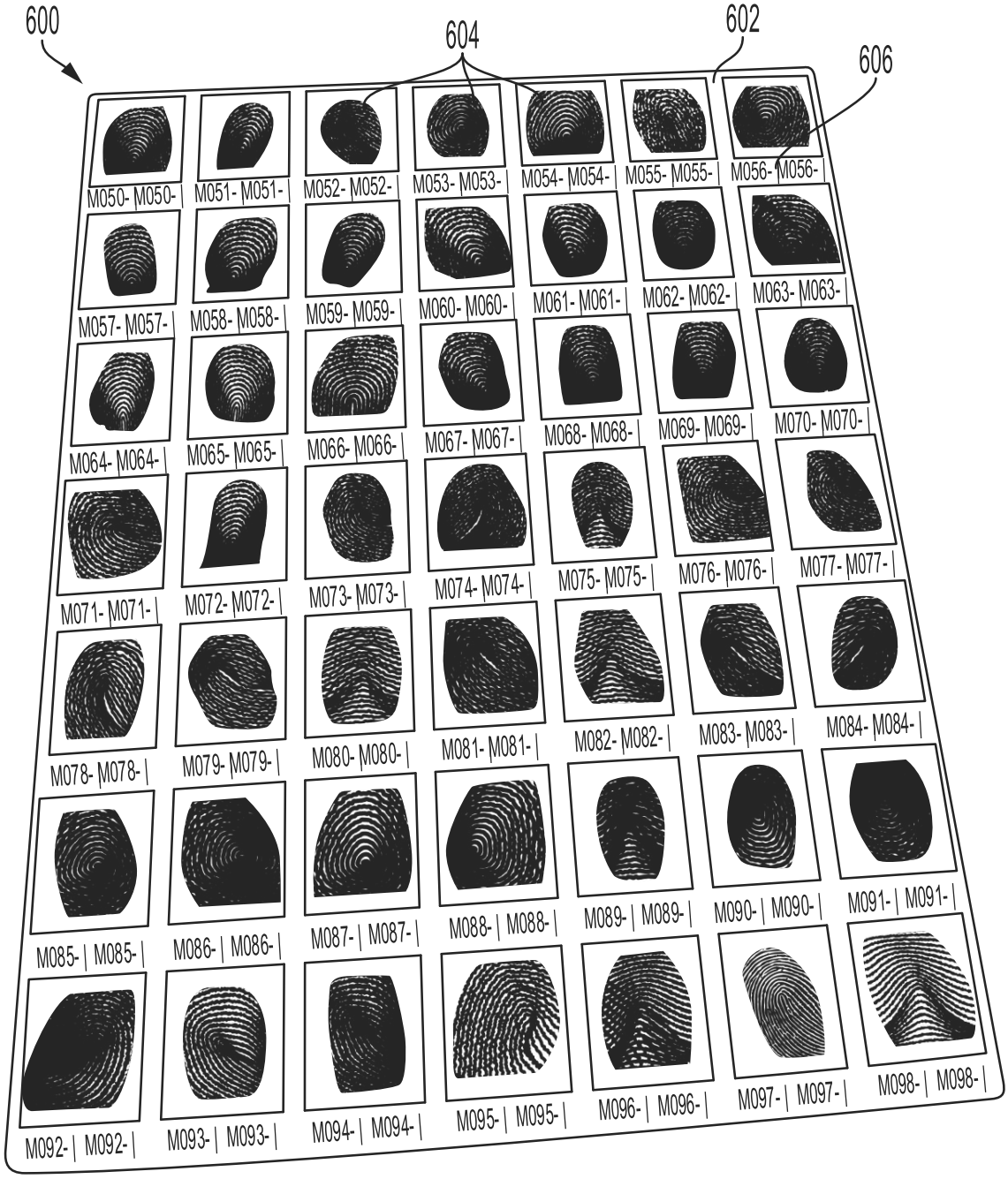

600
604
602
606
M050- M050-
M051- M051-
M052- M052-
M053- M053-
M054- M054-
M055- M055-
M056- M056-
M057- M057-
M058- M058-
M059- M059-
M060- M060-
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M062- M062-
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M067- M067-
M068- M068-
M069- M069-
M070- M070-
M071- M071-
M072- M072-
M073- M073-
M074- M074-
M075- M075-
M076- M076-
M077- M077-
M078- M078-
M079- M079-
M080- M080-
M081- M081-
M082- M082-
M083- M083-
M084- M084-
M085- M085-
M086- M086-
M087- M087-
M088- M088-
M089- M089-
M090- M090-
M091- M091-
M092- M092-
M093- M093-
M094- M094-
M095- M095-
M096- M096-
M097- M097-
M098- M098-

FIG. 3

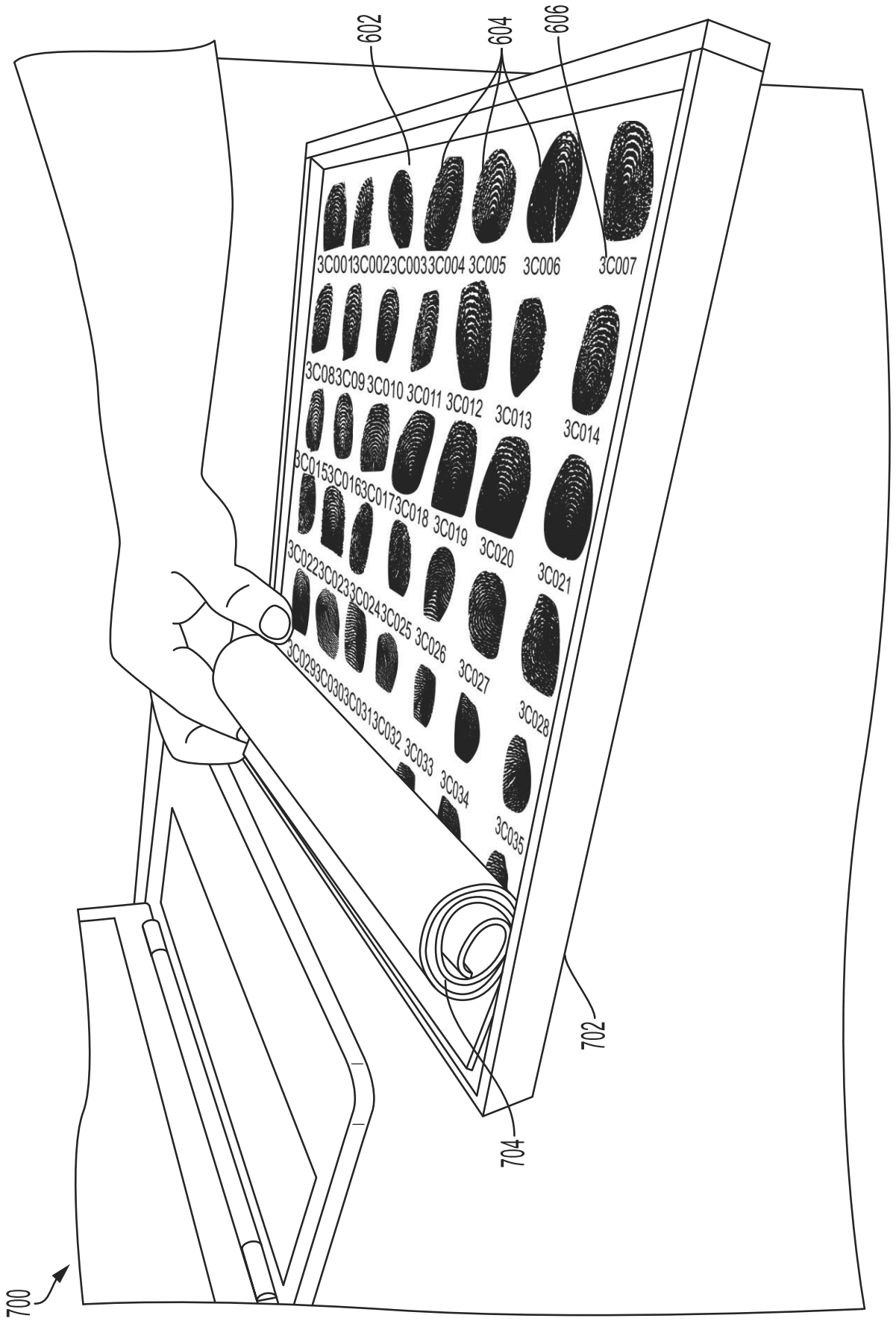

602
604
606
3C0013C0023C0033C004 3C005 3C006 3C007
3C083C09 3C010 3C011 3C012 3C013 3C014
3C0153C0163C0173C018 3C019 3C020 3C021
3C0223C0233C0243C025 3C026 3C027 3C028
3C0293C0303C0313C032 3C033 3C034 3C035
700
702
704

FIG. 4

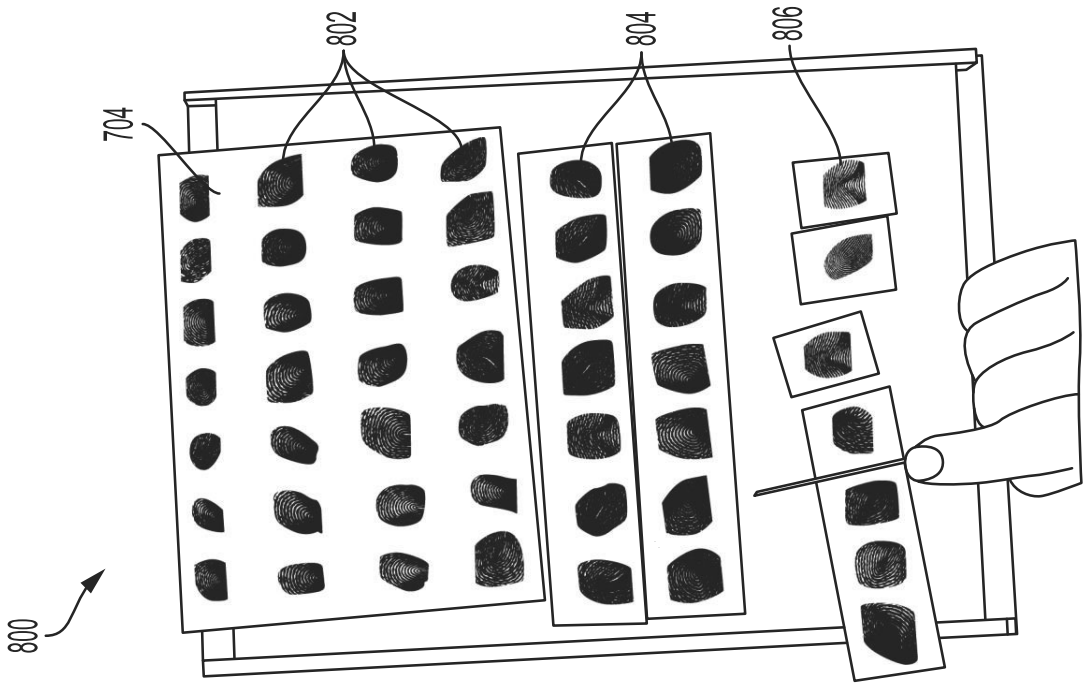



FIG. 6

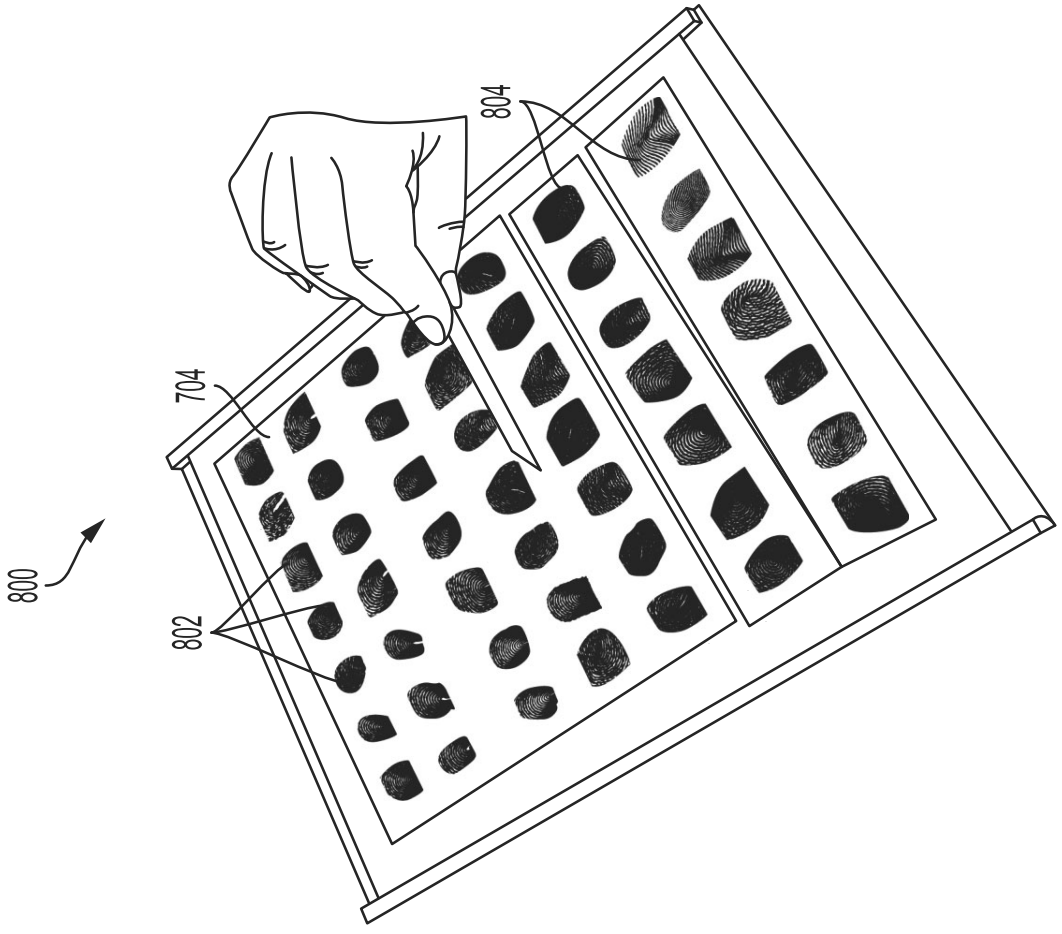



FIG. 5

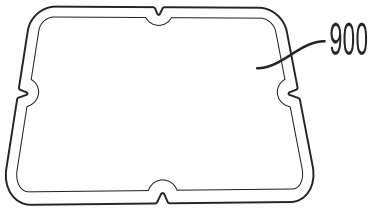



FIG. 7A

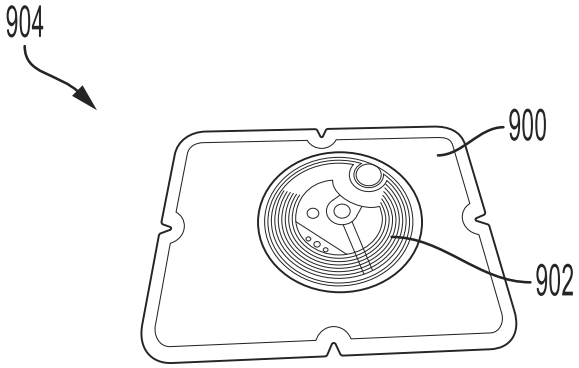



FIG. 7B

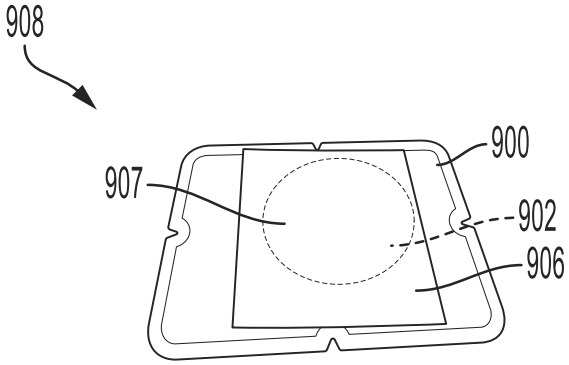



FIG. 7C

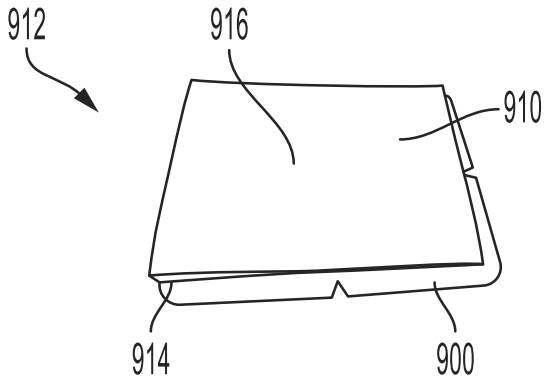



FIG. 7D

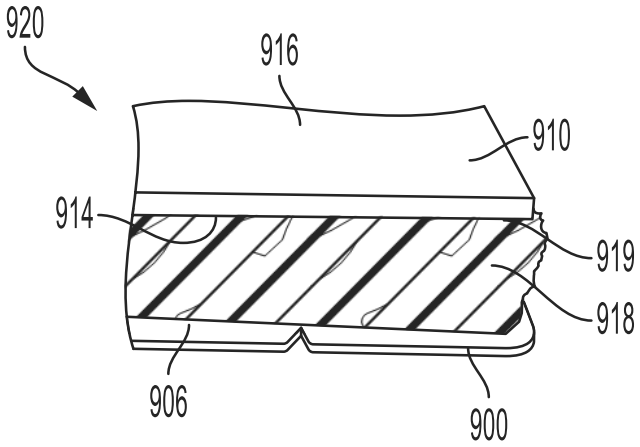



FIG. 7E

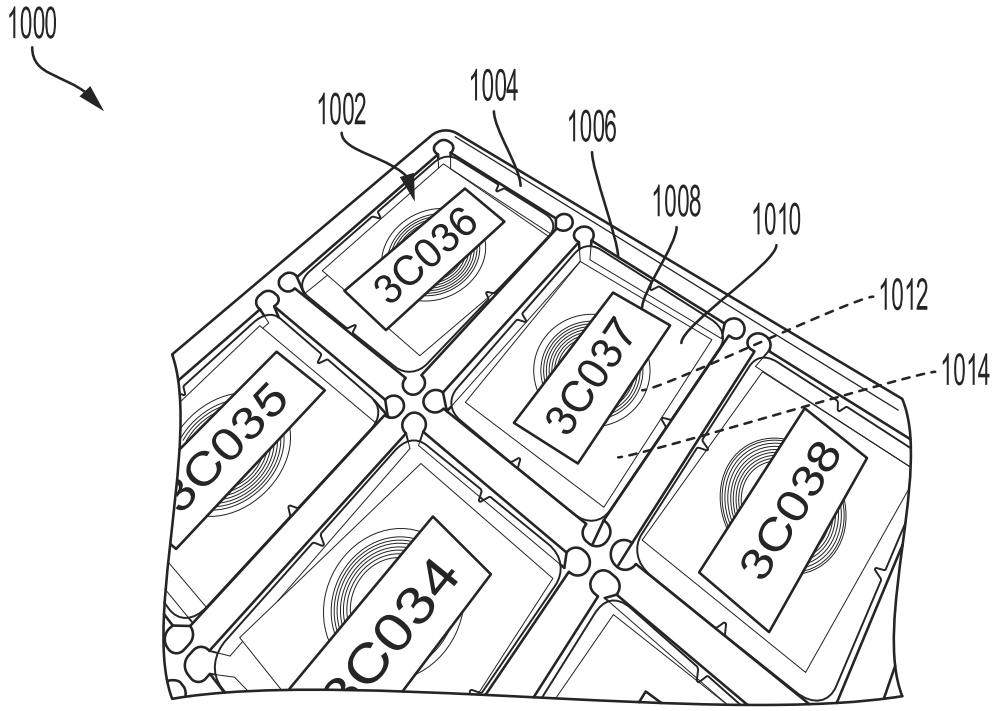

1000
1002
1004
1006
1008
1010
1012
1014
3C036
3C037
3C035
3C038
3C034

FIG. 8

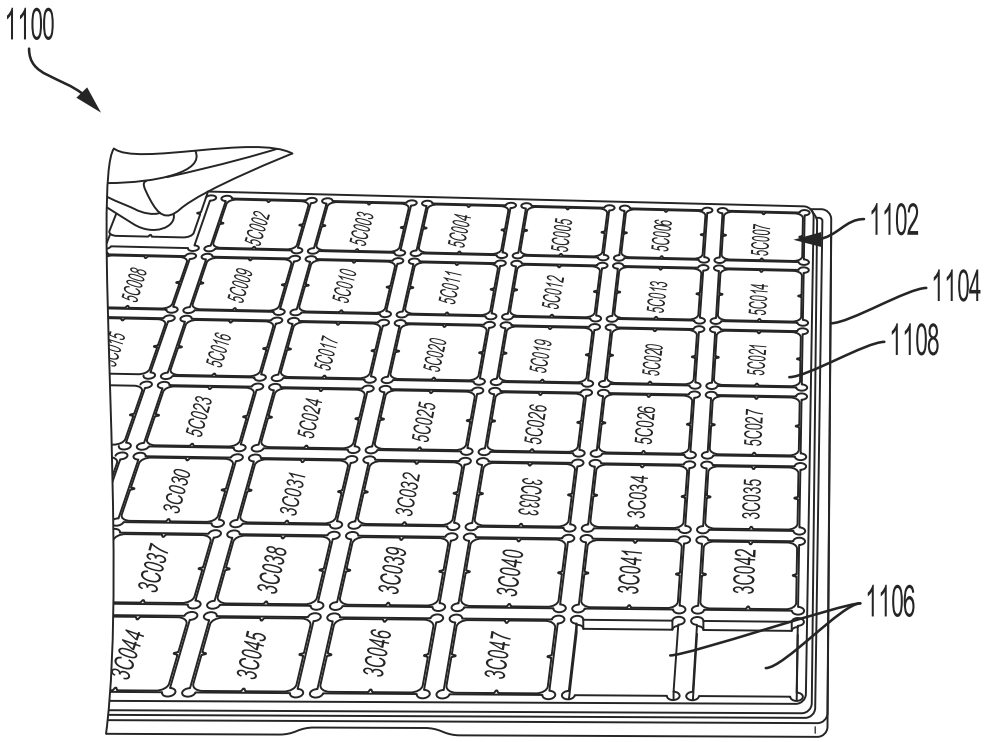

1100
1102
1104
1108
1106

FIG. 9

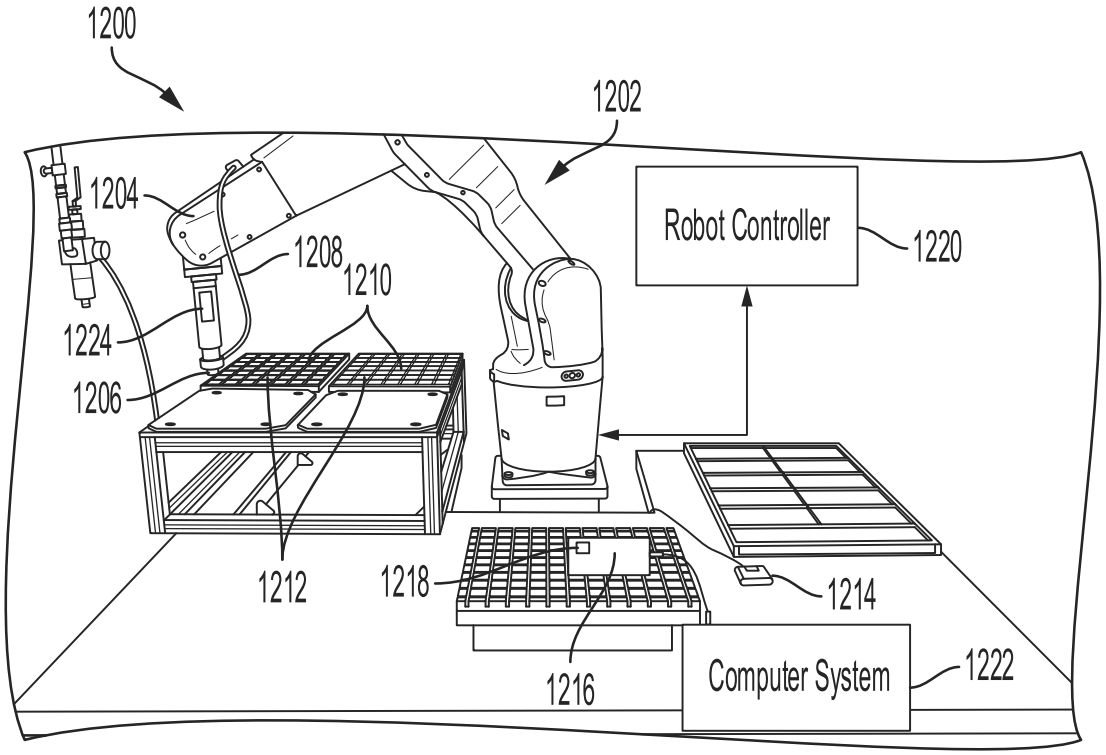

1200
1202
1204
1208
1210
1224
1206
Robot Controller
1220
1212
1218
1214
1216
Computer System
1222

FIG. 10

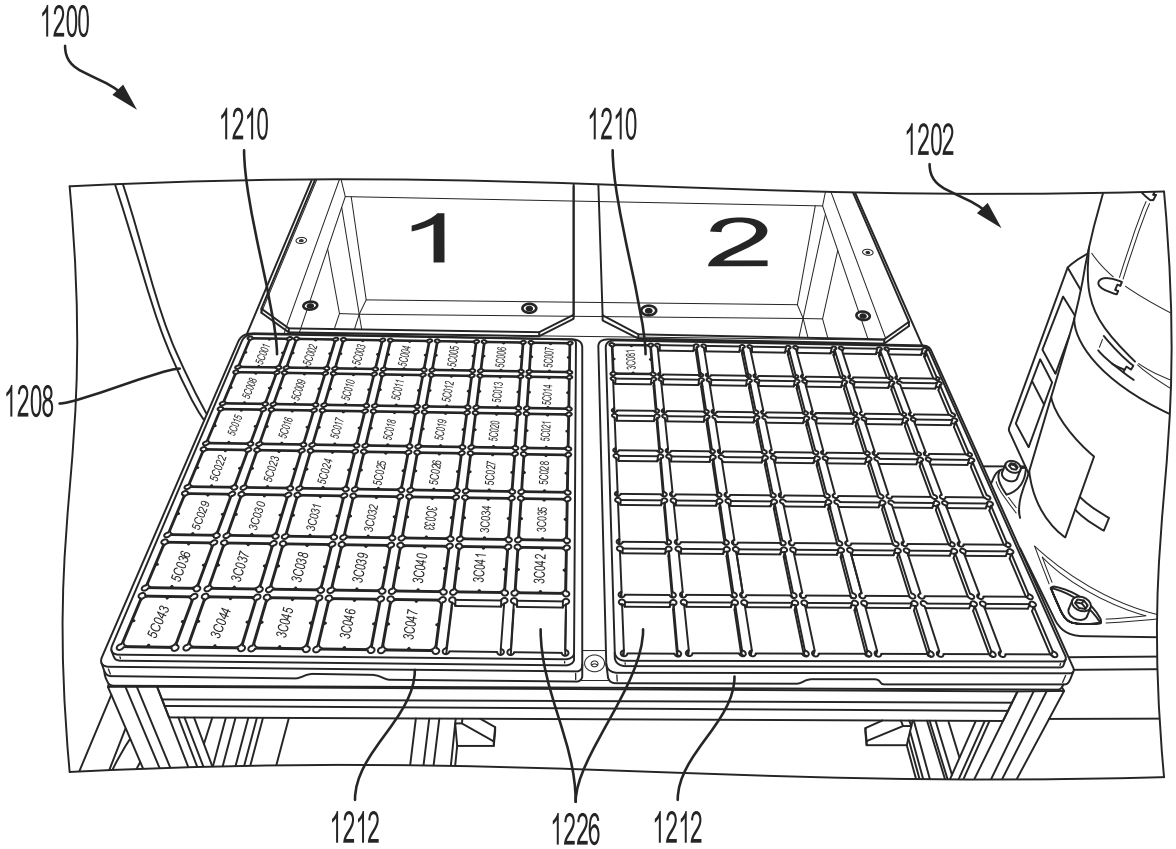

1200
1210
1210
1202
1208
1
2
1212
1226
1212

FIG. 11

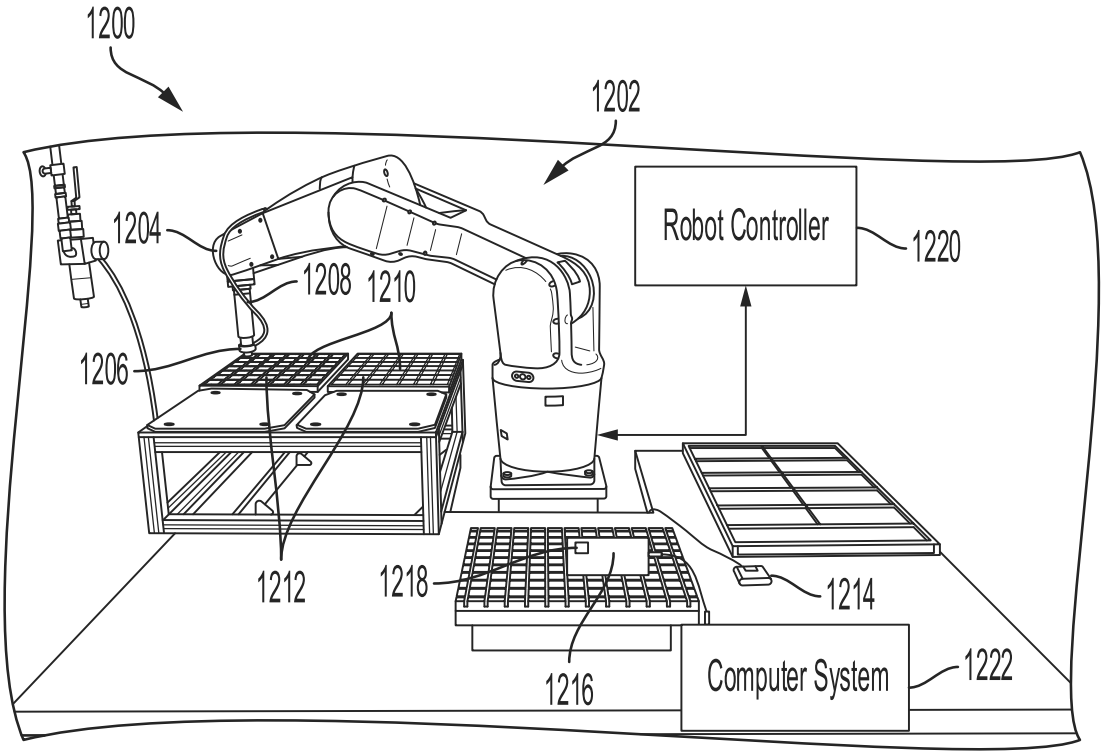

1200
1202
1204
1208
1210
1206
Robot Controller
1220
1212
1218
1214
1216
Computer System
1222

FIG. 12

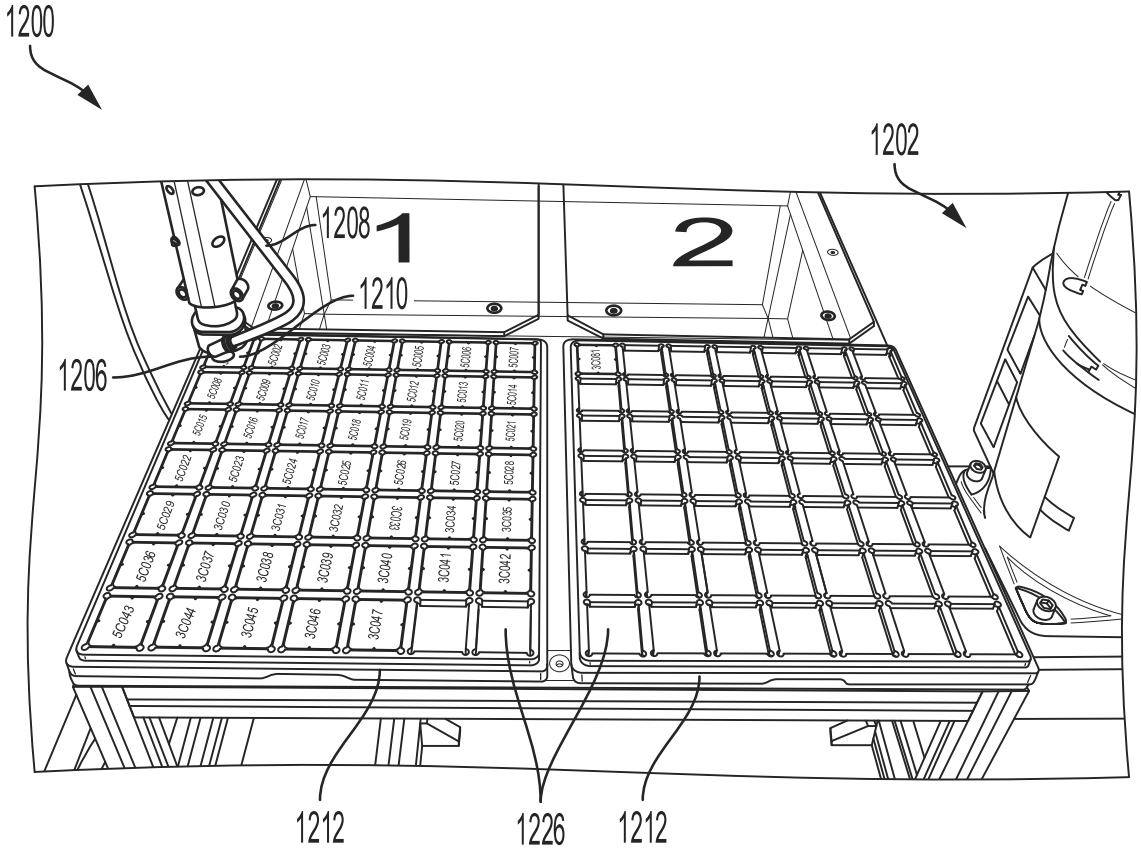

1200
1202
1208
1
2
1210
1206
1212
1226
1212

FIG. 13

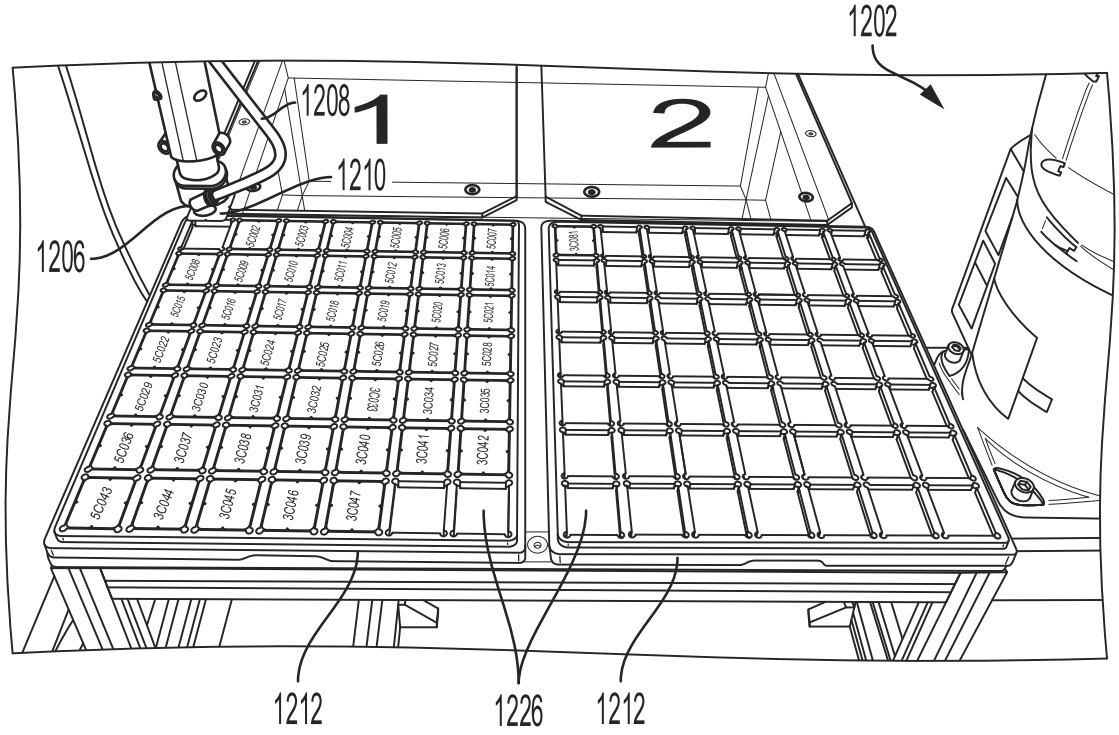

1202
1208
1
2
1210
1206
1212
1226
1212

FIG. 14

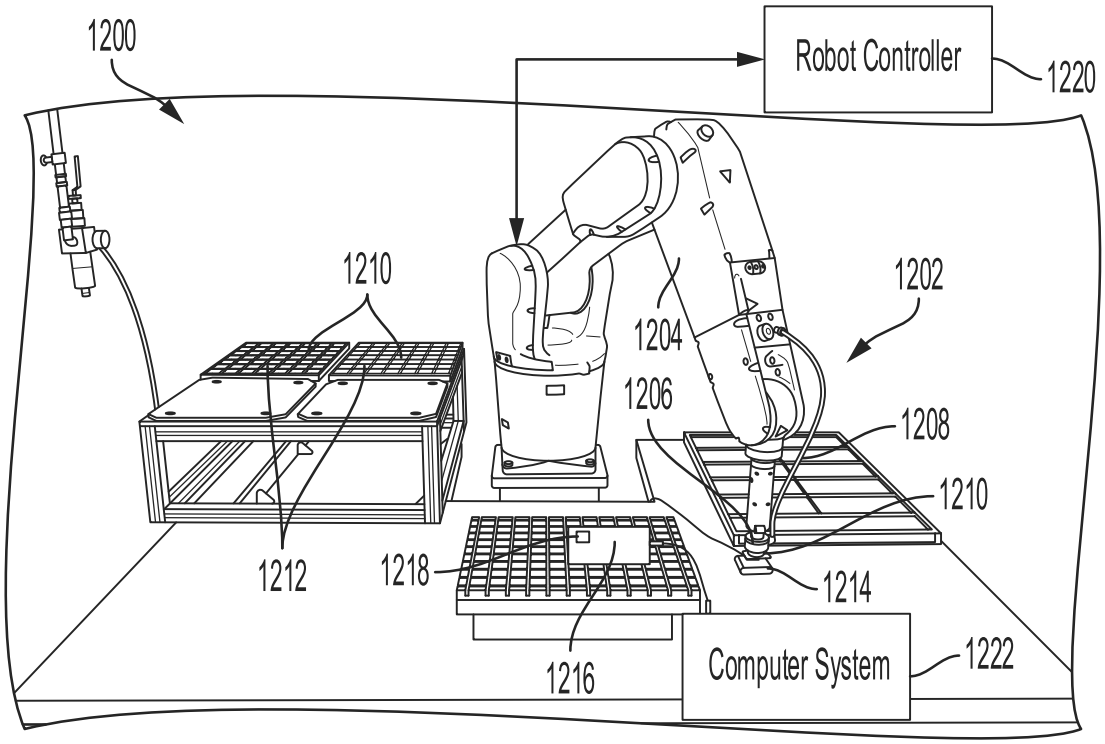

1200
Robot Controller
1220
1210
1202
1204
1206
1208
1210
1212
1218
1214
1216
Computer System
1222

FIG. 15

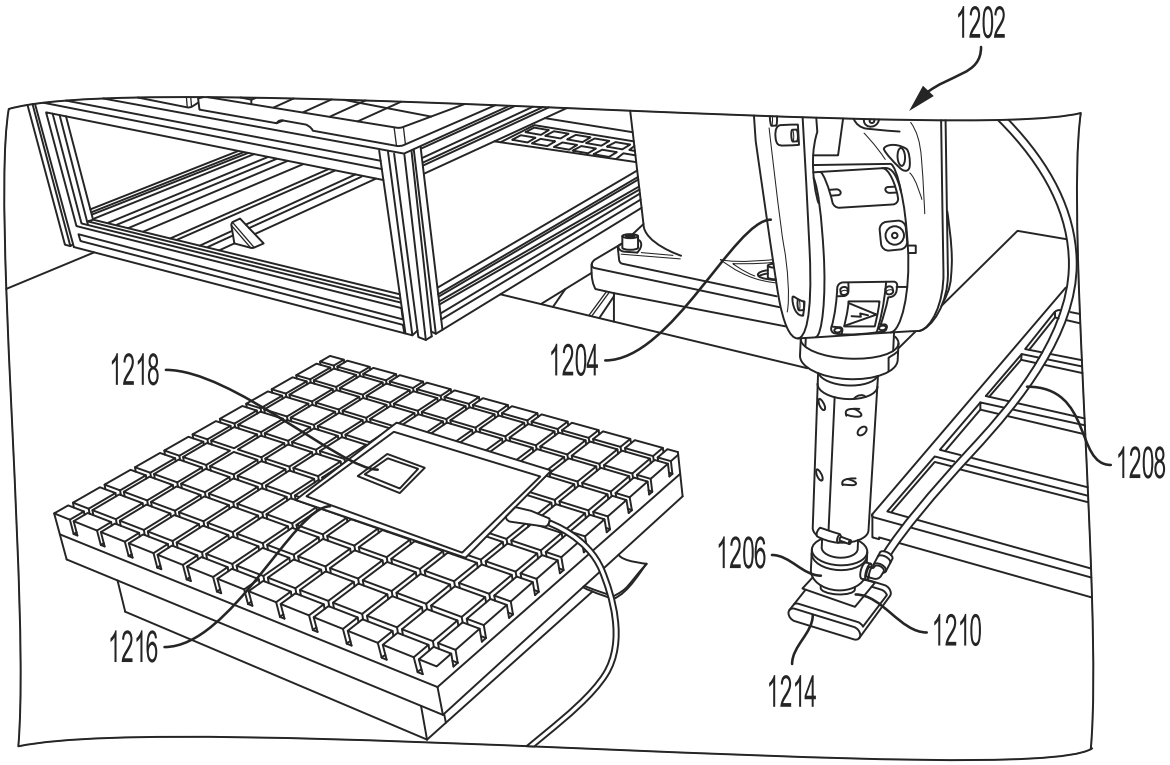

1202
1204
1218
1208
1206
1210
1216
1214

FIG. 16

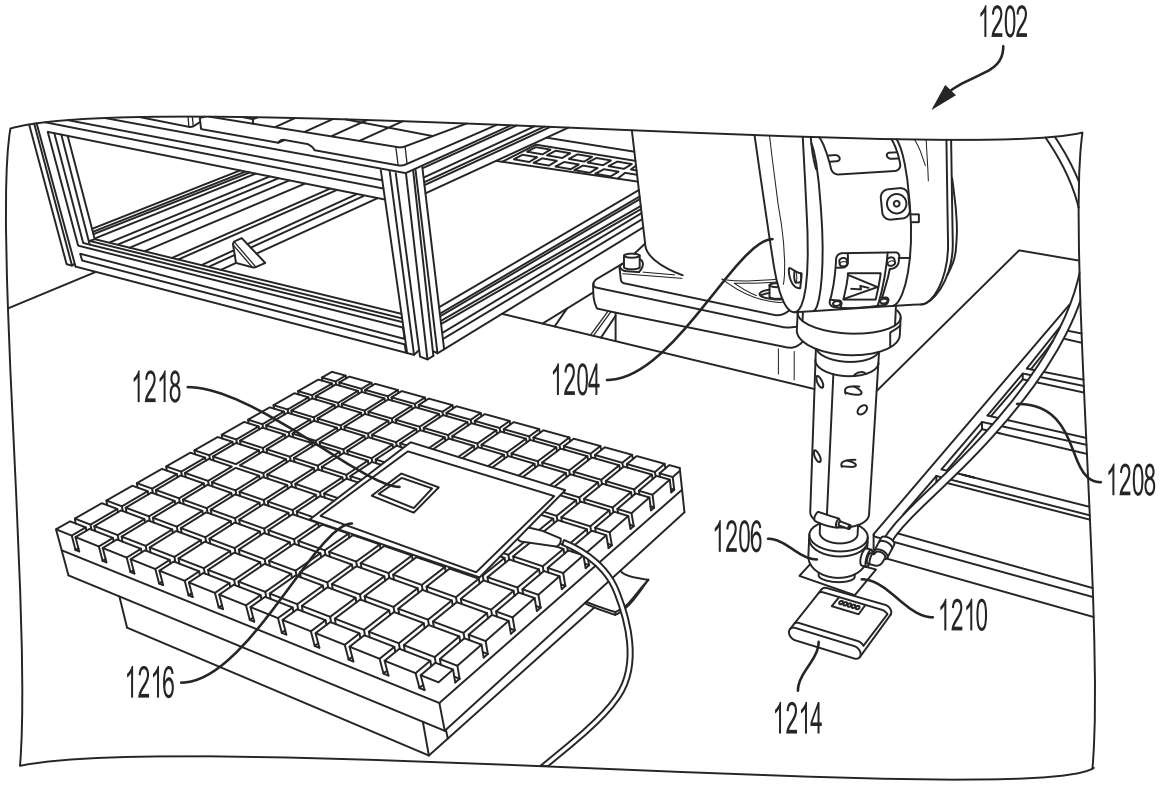

1202
1204
1218
1208
1206
1210
1216
1214

FIG. 17

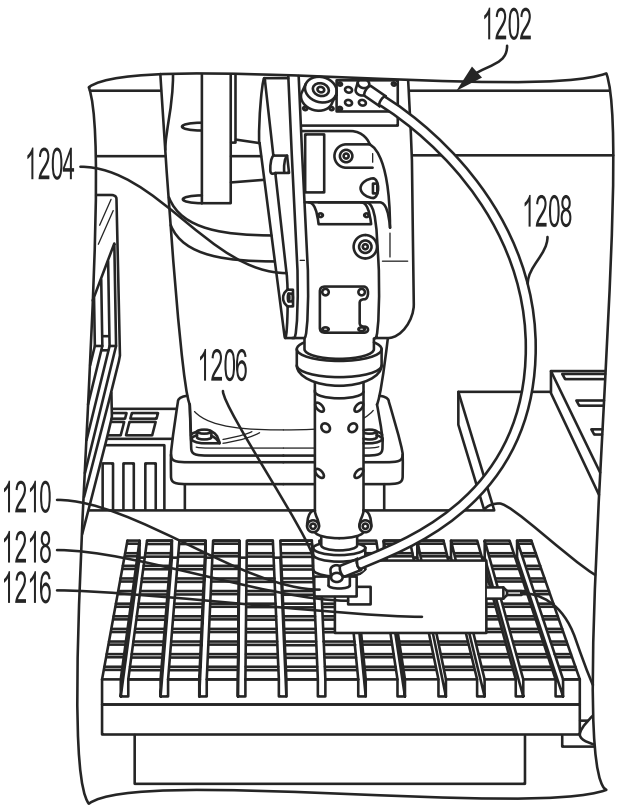



FIG. 18A

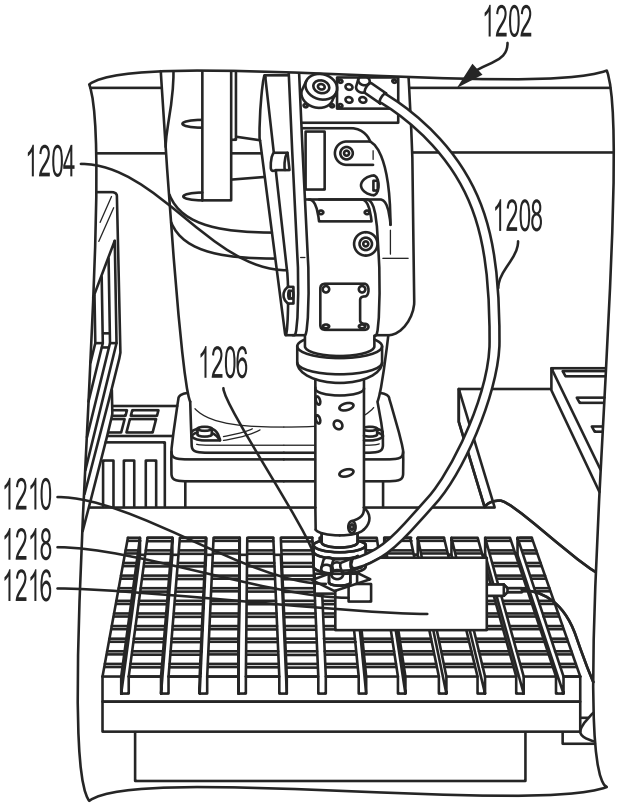



FIG. 18B

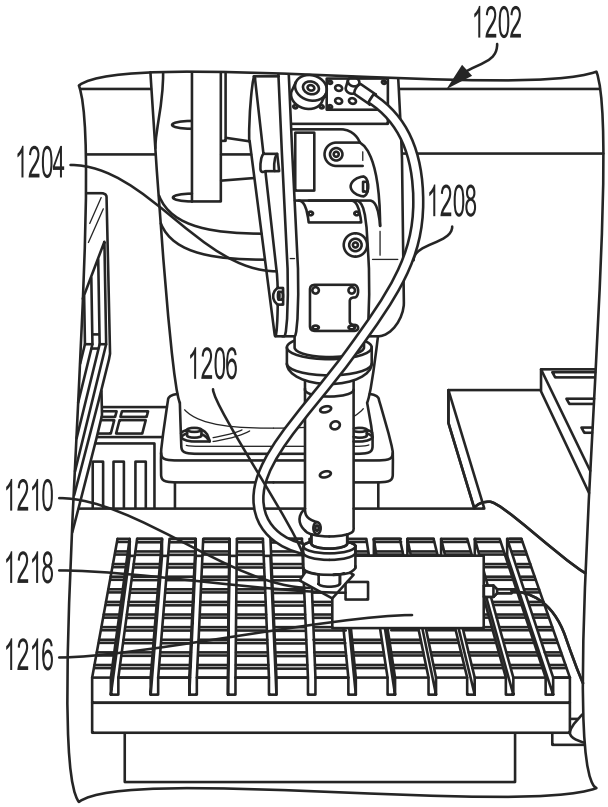



FIG. 18C

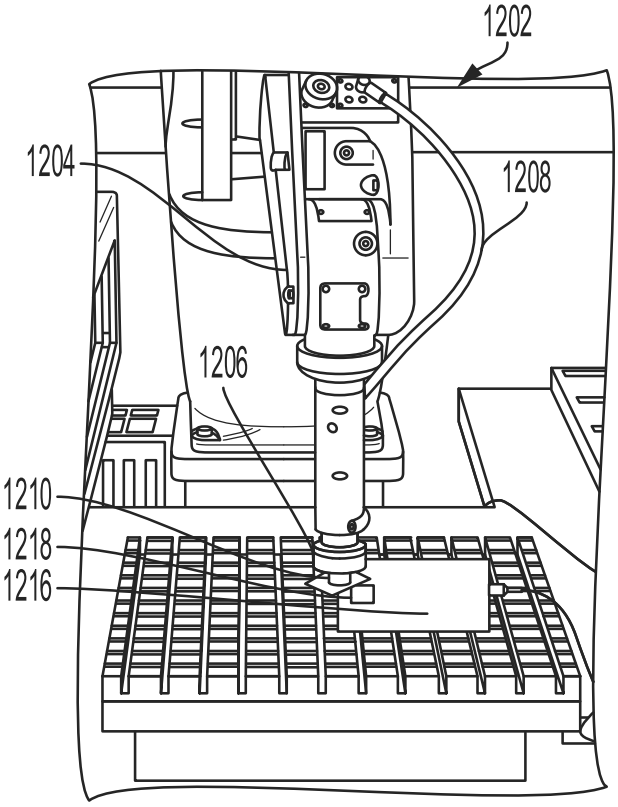



FIG. 18D

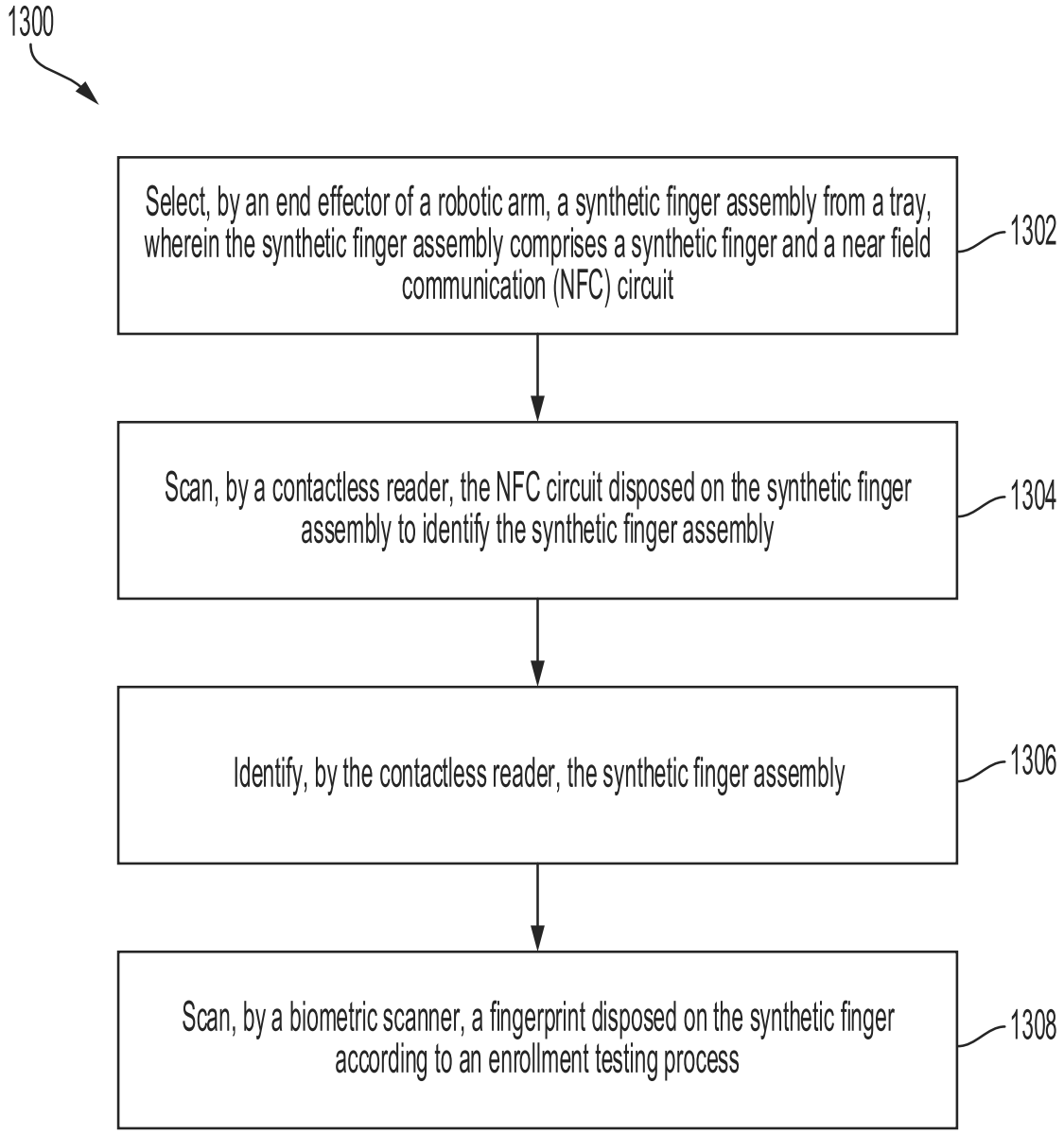

1300
Select, by an end effector of a robotic arm, a synthetic finger assembly from a tray, wherein the synthetic finger assembly comprises a synthetic finger and a near field communication (NFC) circuit
1302
Scan, by a contactless reader, the NFC circuit disposed on the synthetic finger assembly to identify the synthetic finger assembly
1304
Identify, by the contactless reader, the synthetic finger assembly
1306
Scan, by a biometric scanner, a fingerprint disposed on the synthetic finger according to an enrollment testing process
1308

FIG. 19

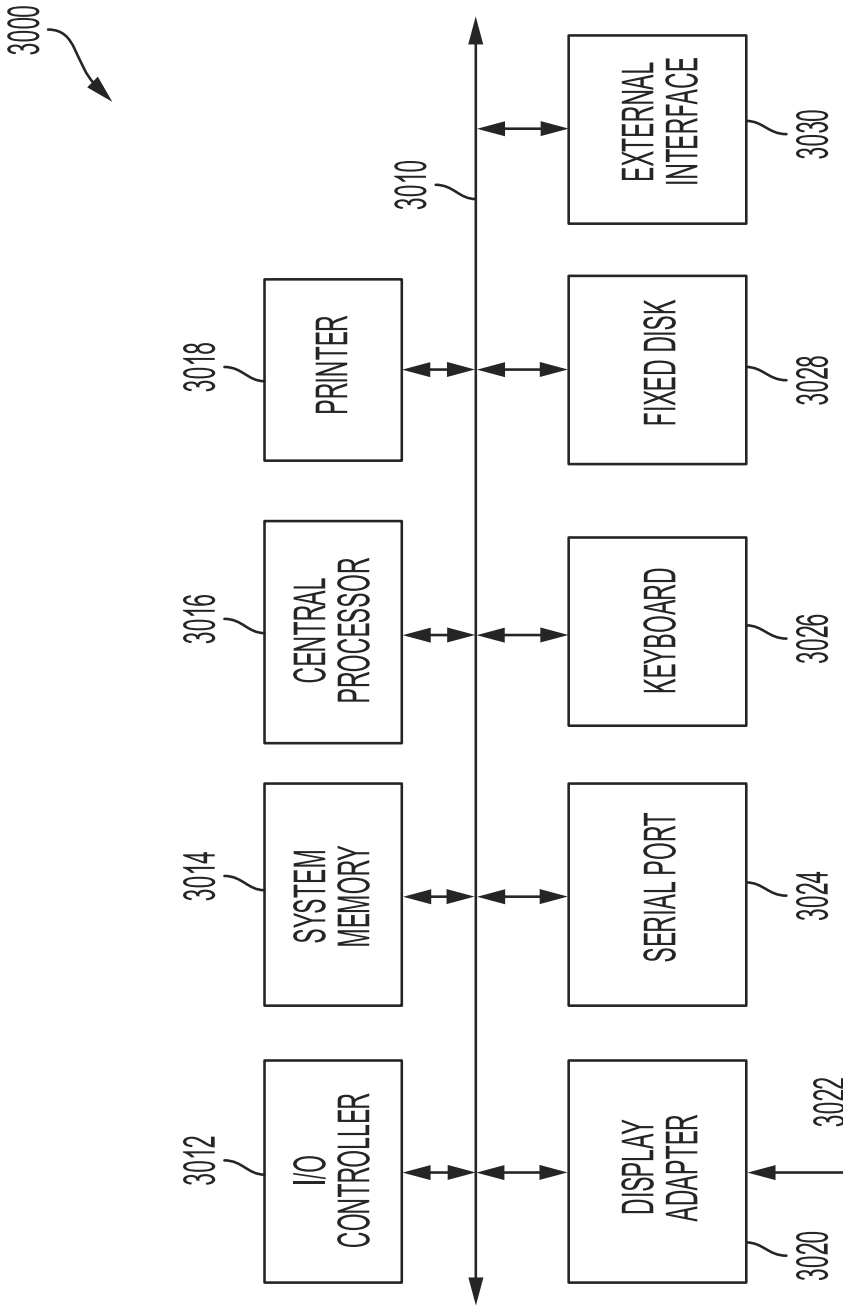

3000
3010
3012
I/O CONTROLLER
3014
SYSTEM MEMORY
3016
CENTRAL PROCESSOR
3018
PRINTER
3020
DISPLAY ADAPTER
3022
MONITOR
3024
SERIAL PORT
3026
KEYBOARD
3028
FIXED DISK
3030
EXTERNAL INTERFACE

FIG. 20