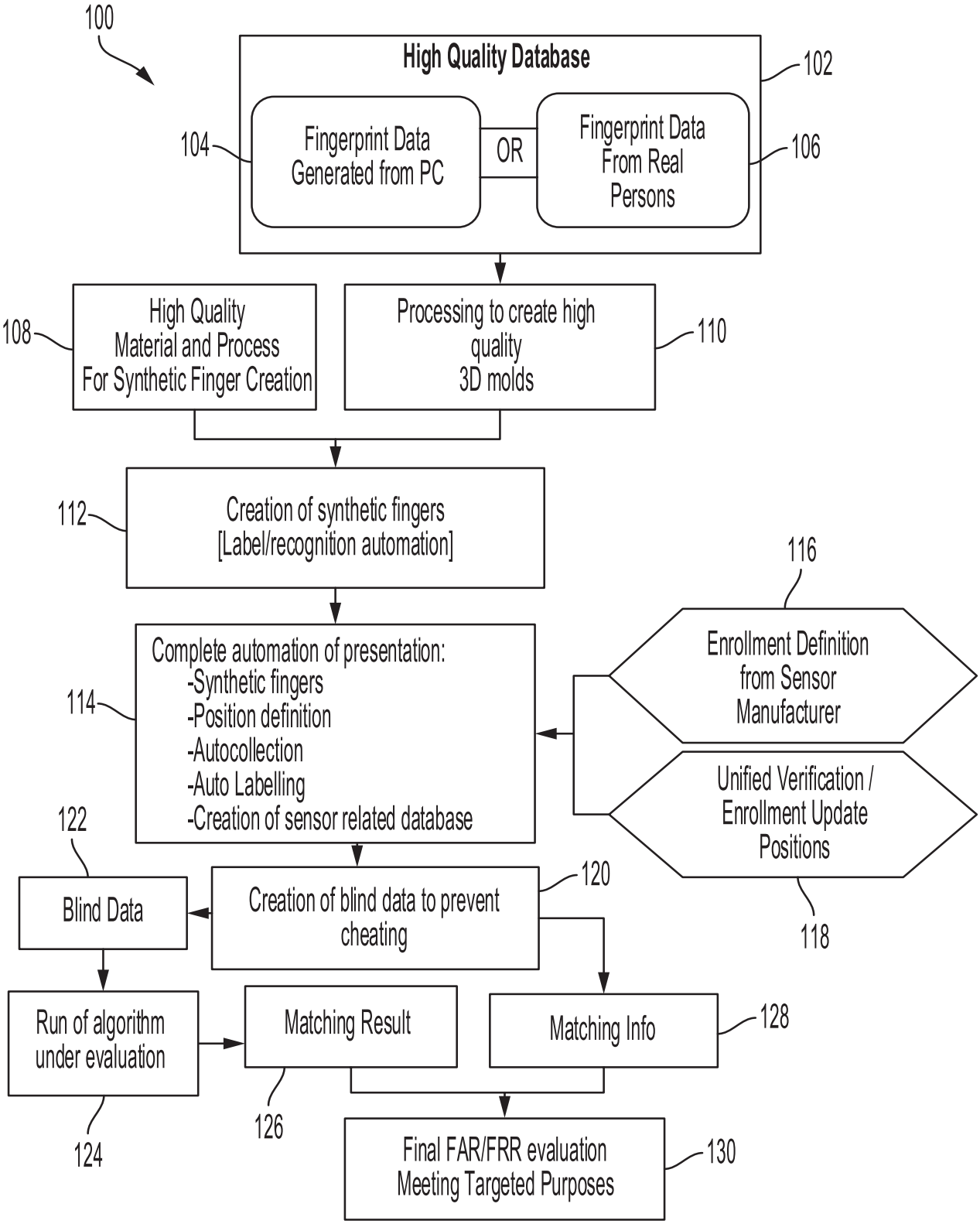

100
High Quality Database
102
104
Fingerprint Data Generated from PC
OR
Fingerprint Data From Real Persons
106
108
High Quality Material and Process For Synthetic Finger Creation
Processing to create high quality 3D molds
110
112
Creation of synthetic fingers [Label/recognition automation]
116
Complete 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

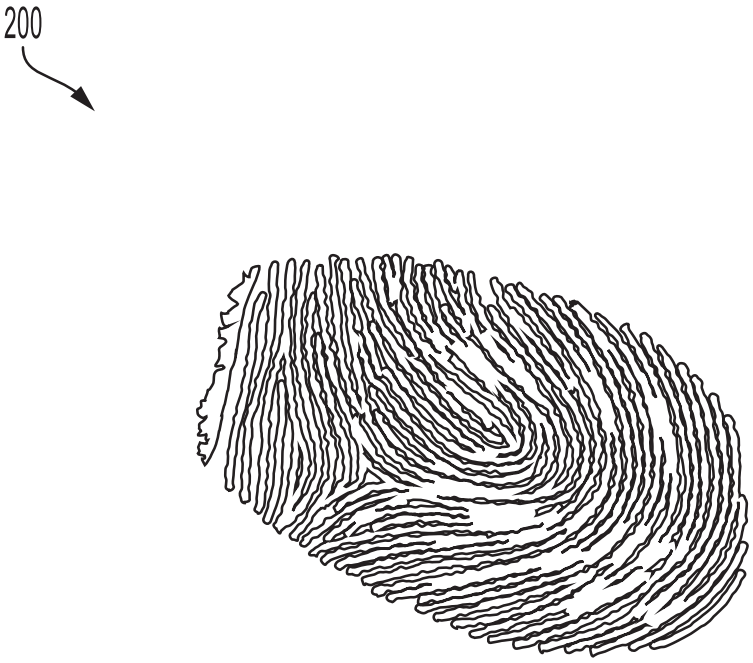


FIG. 2

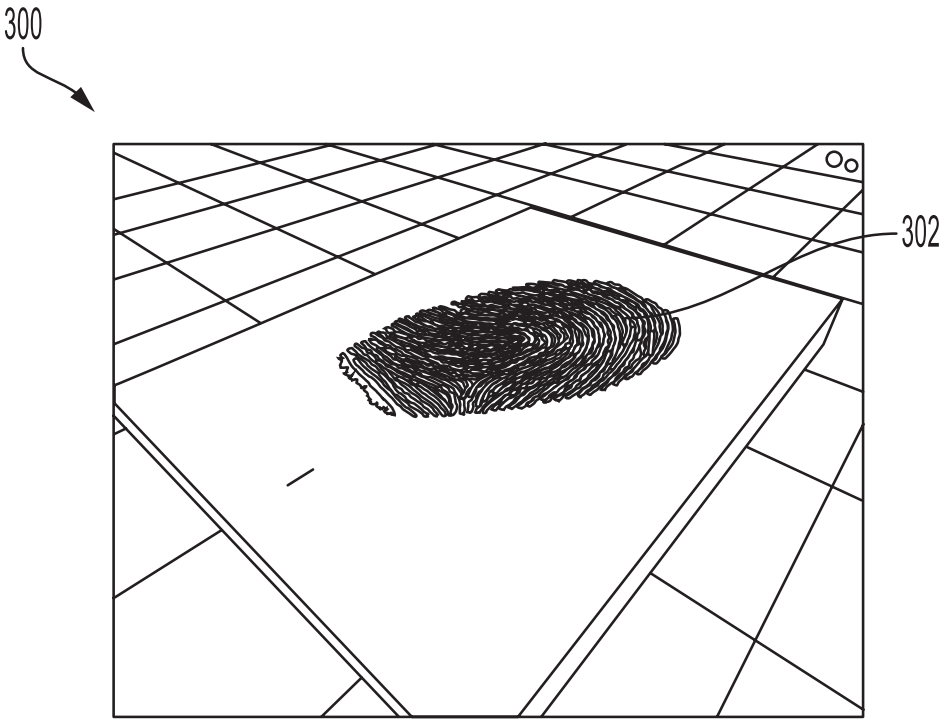


FIG. 3

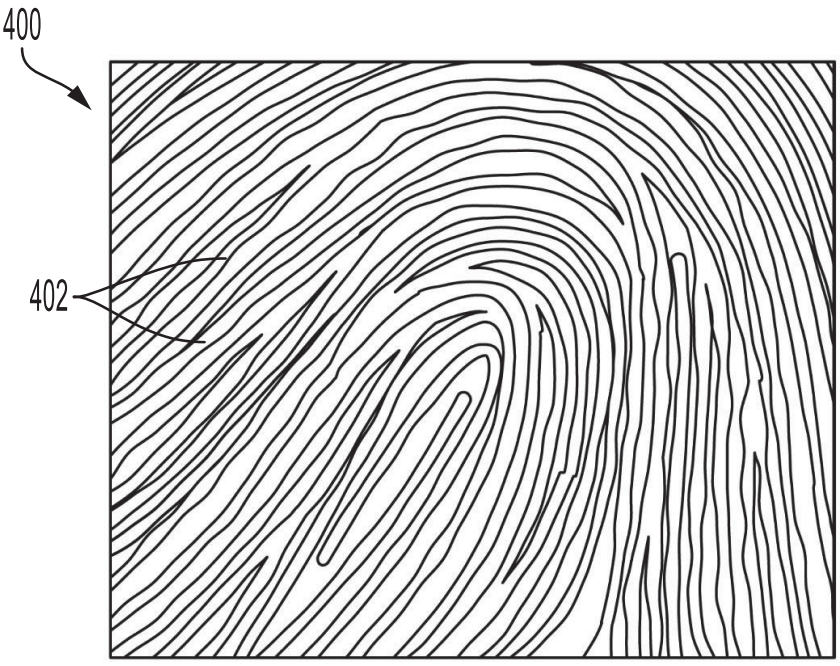


FIG. 4

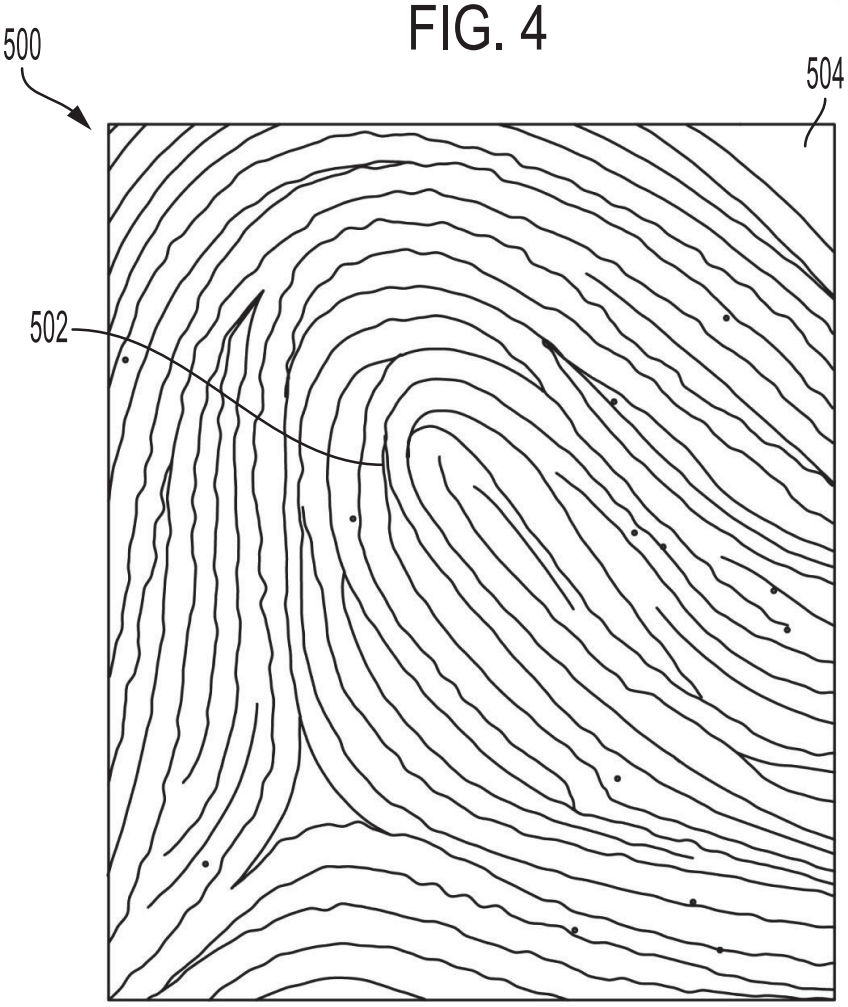


FIG. 5

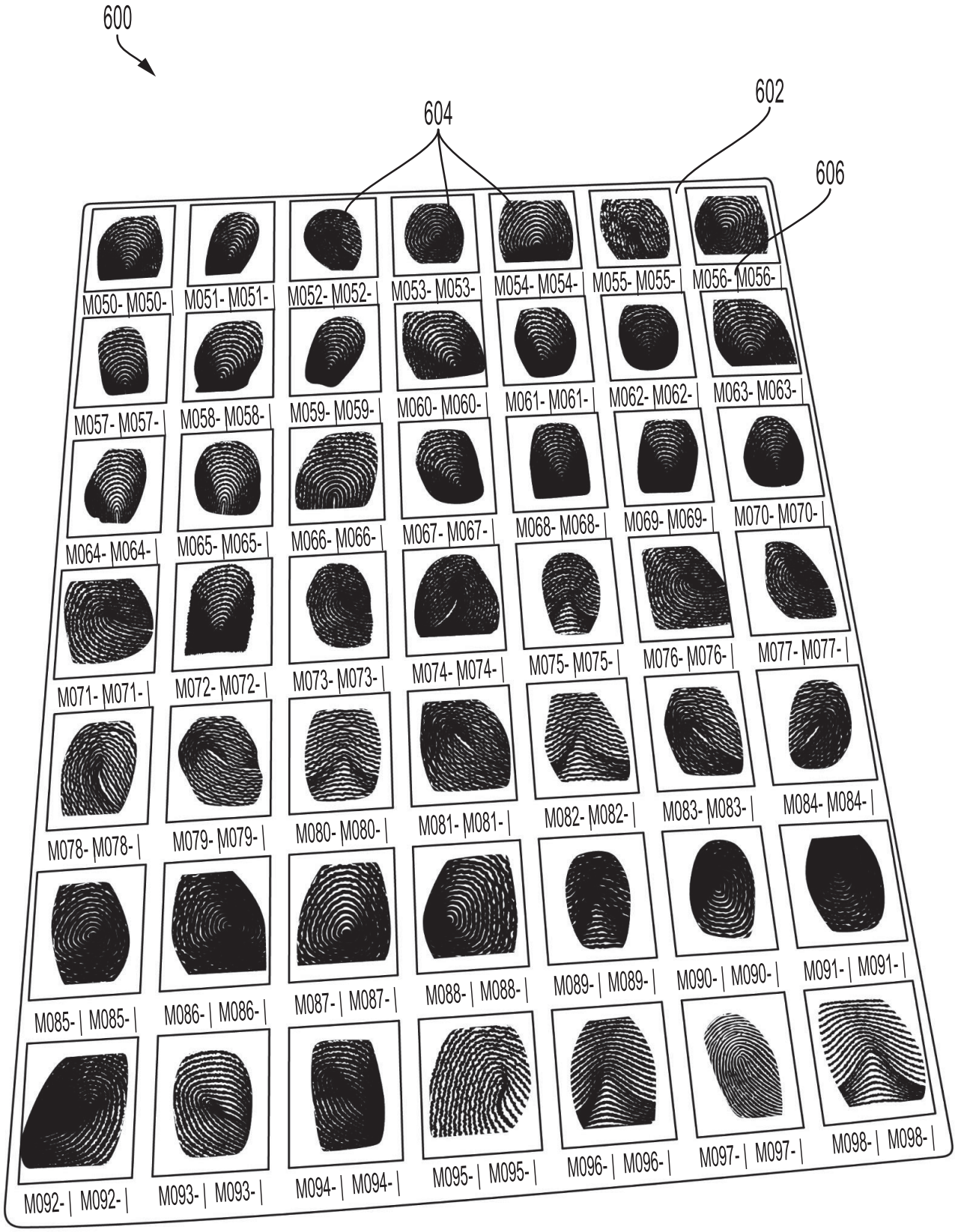

600
602
604
606
M050- M050-
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M098- M098-

FIG. 6

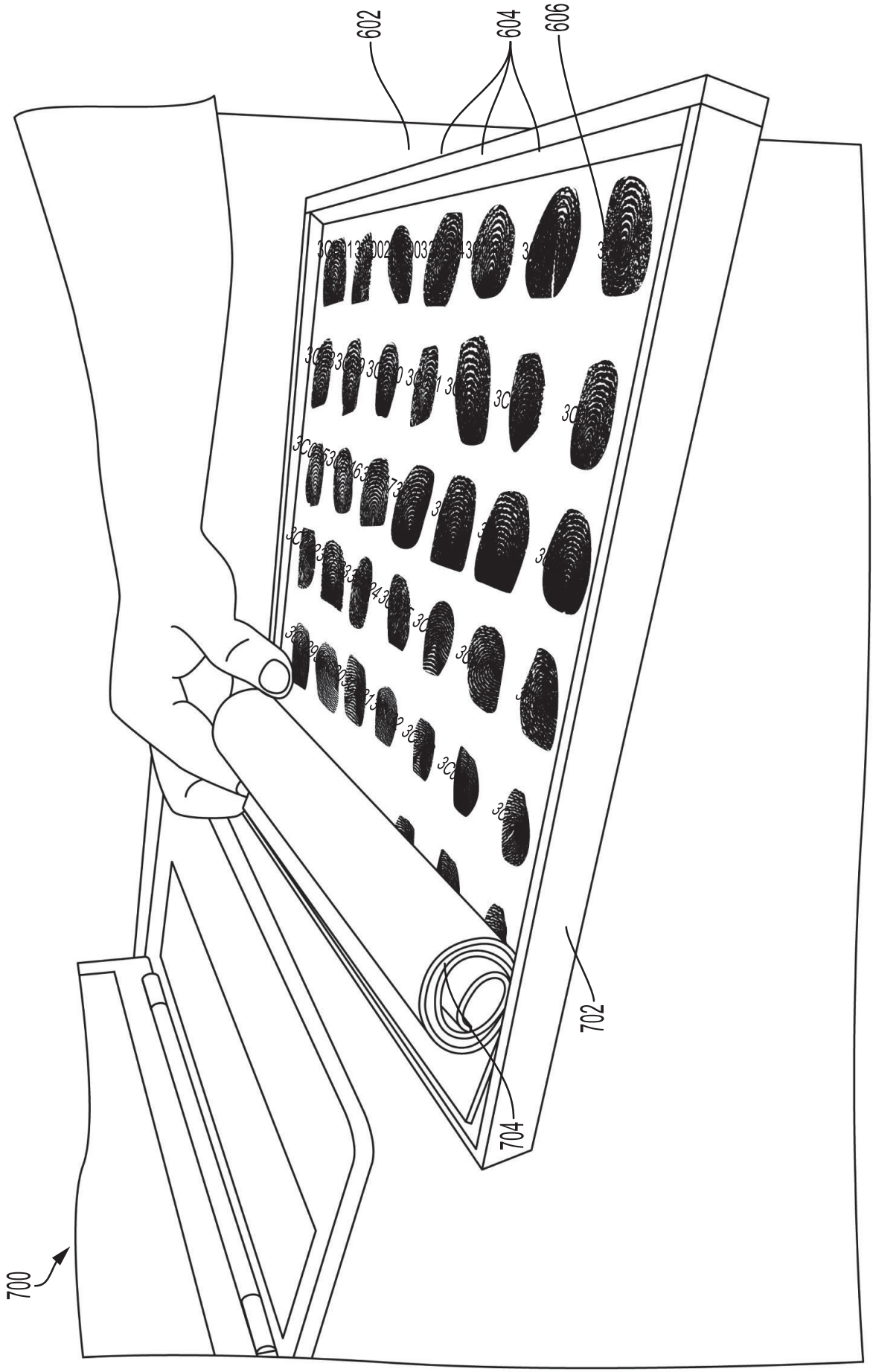


FIG. 7

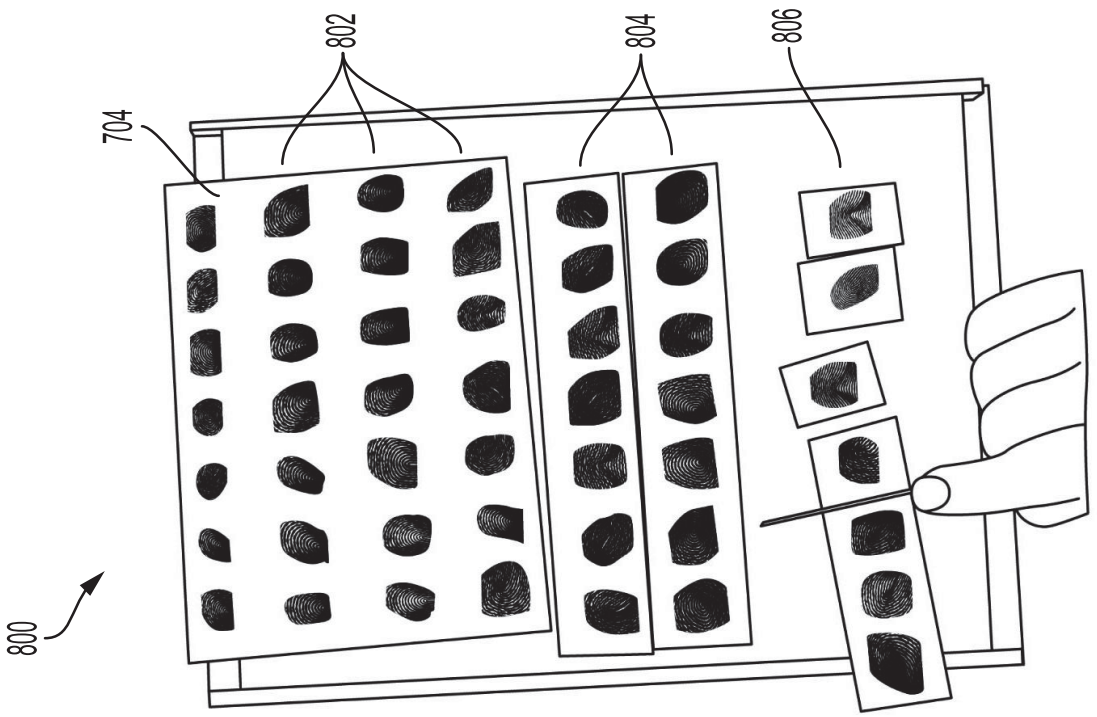


FIG. 9

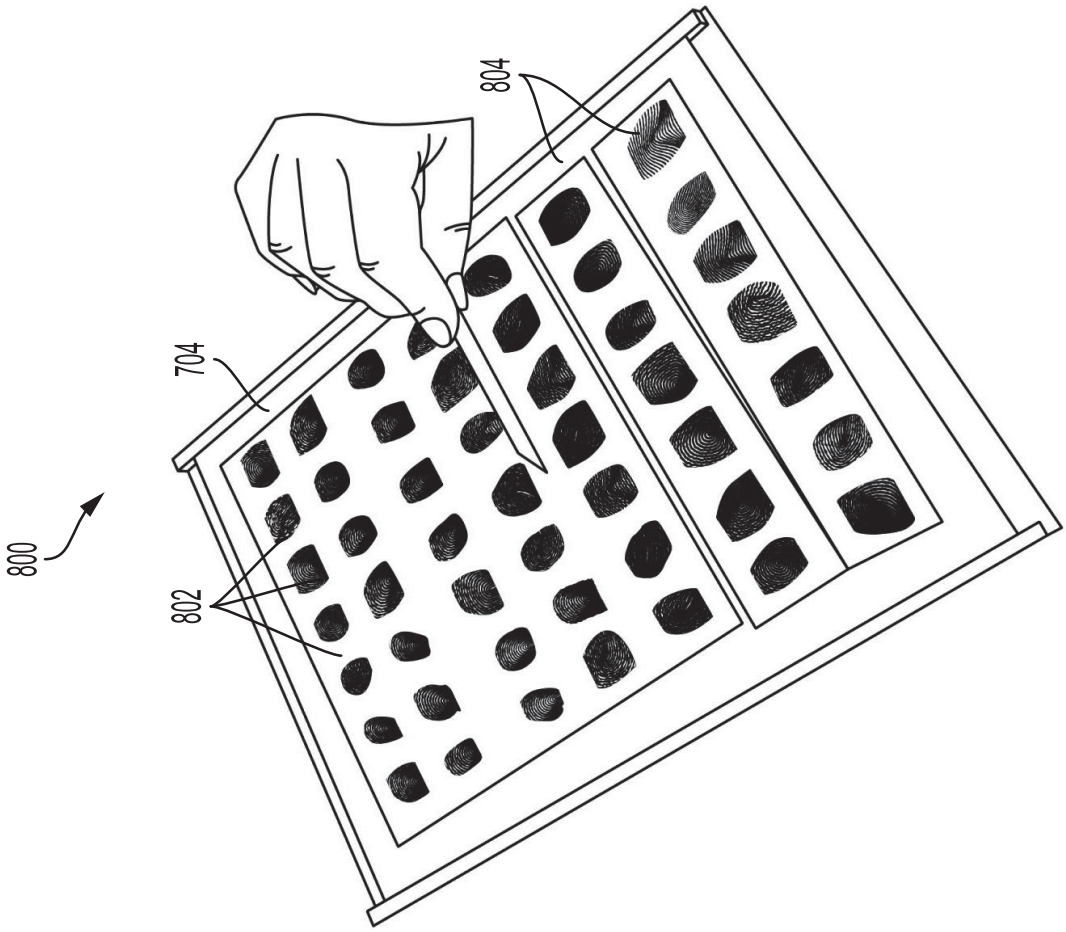


FIG. 8

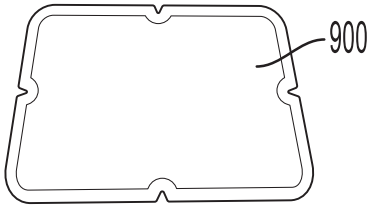


FIG. 10A

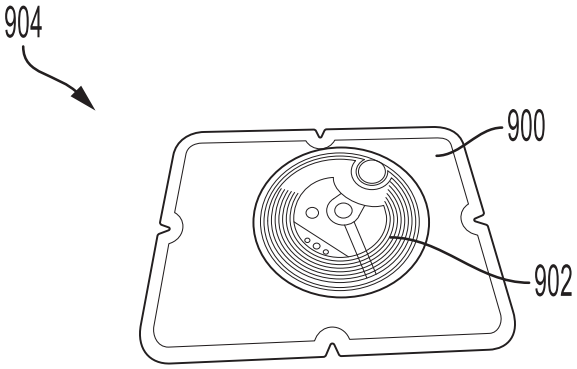


FIG. 10B

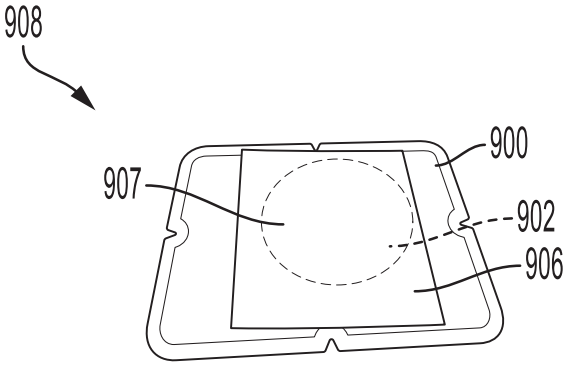


FIG. 10C

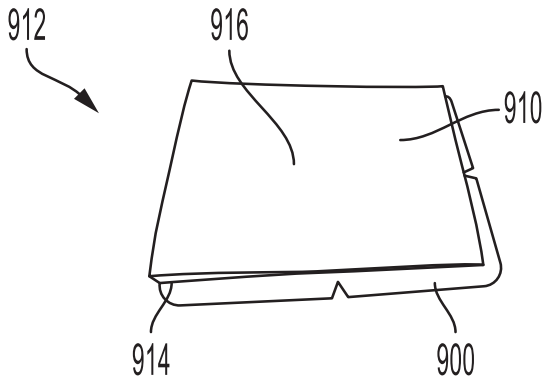


FIG. 10D

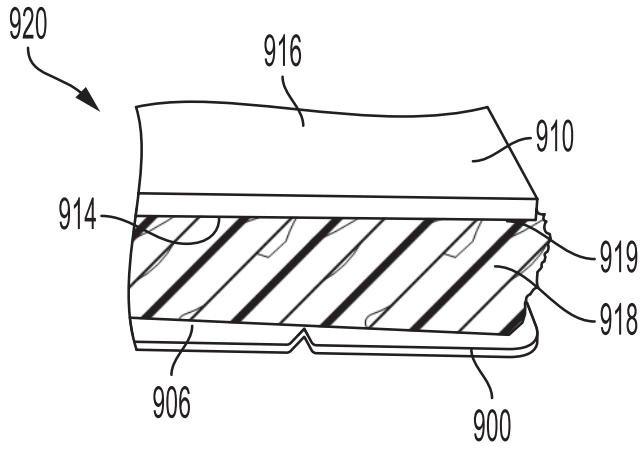


FIG. 10E

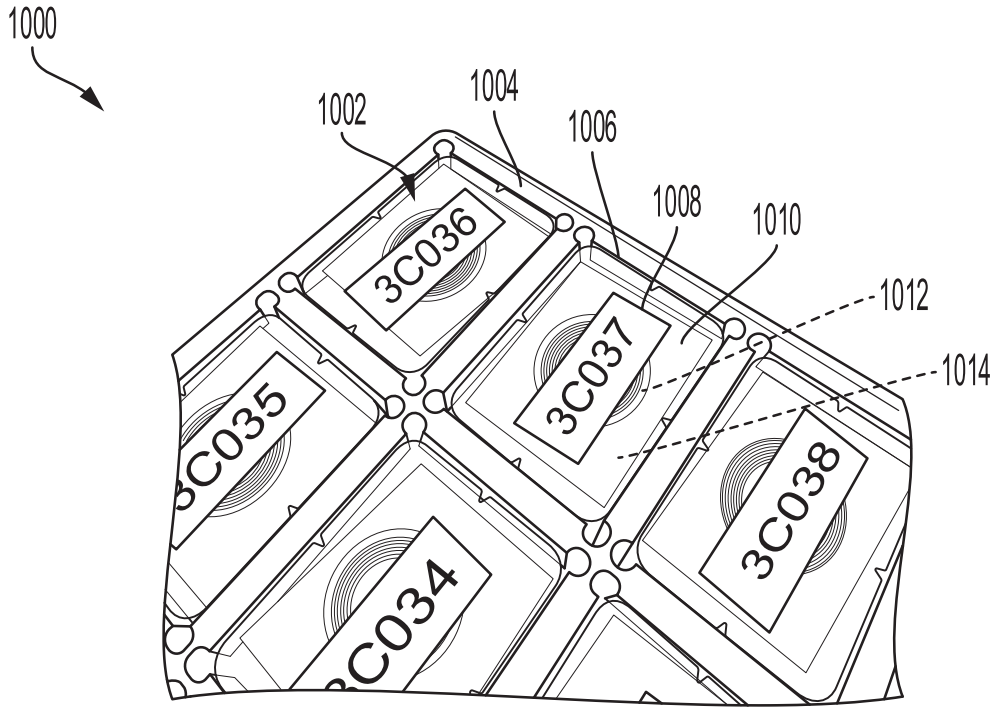

1000
1002
1004
1006
1008
1010
1012
1014
3C036
3C037
3C035
3C038
3C034

FIG. 11

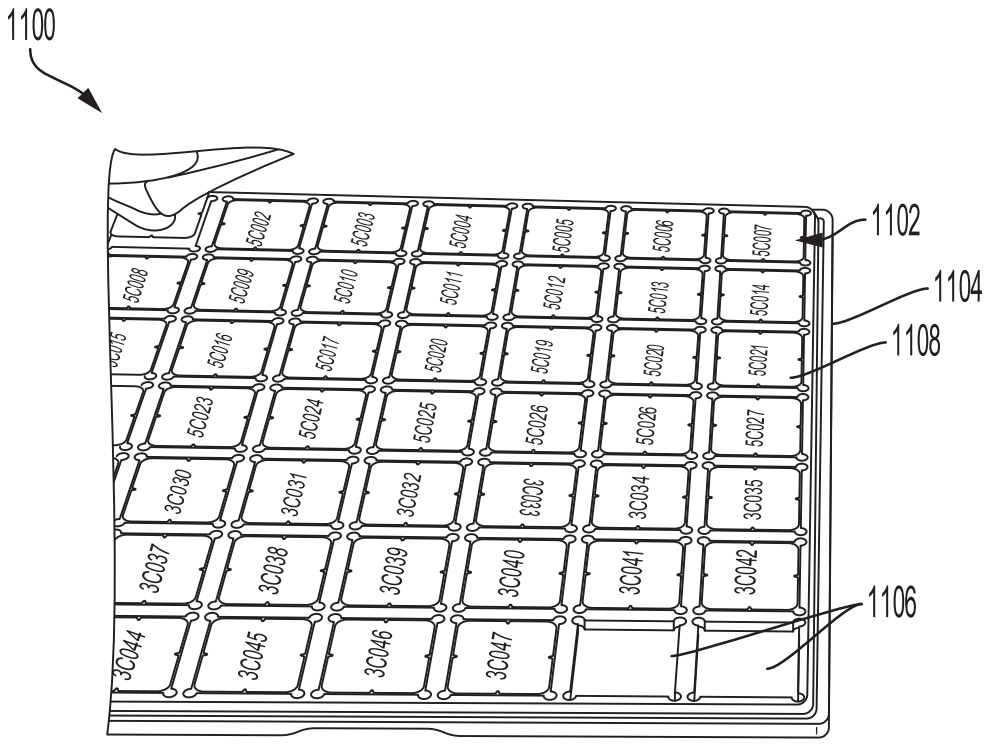

1100
1102
1104
1108
1106

FIG. 12

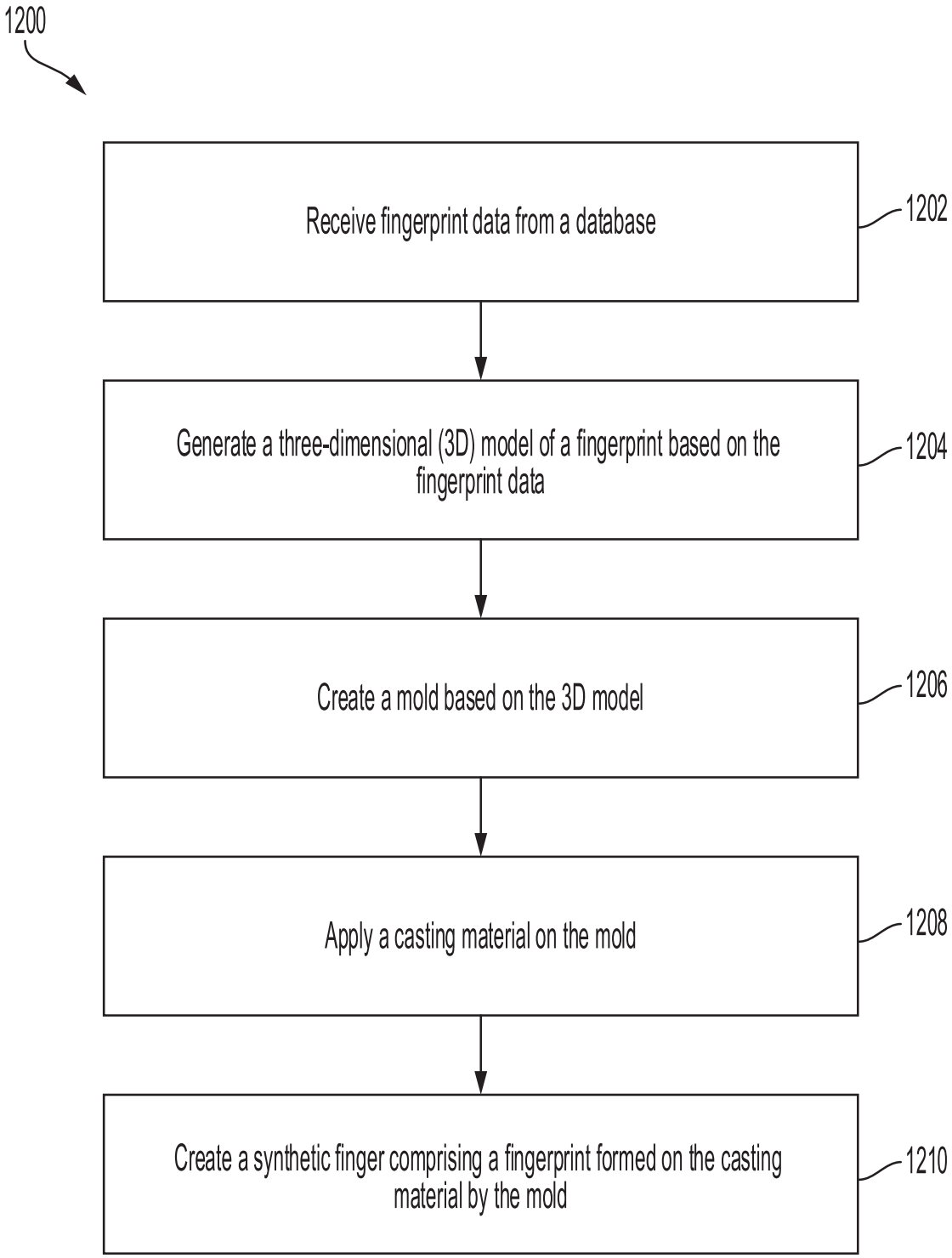

1200
Receive fingerprint data from a database
1202
Generate a three-dimensional (3D) model of a fingerprint based on the fingerprint data
1204
Create a mold based on the 3D model
1206
Apply a casting material on the mold
1208
Create a synthetic finger comprising a fingerprint formed on the casting material by the mold
1210

FIG. 13

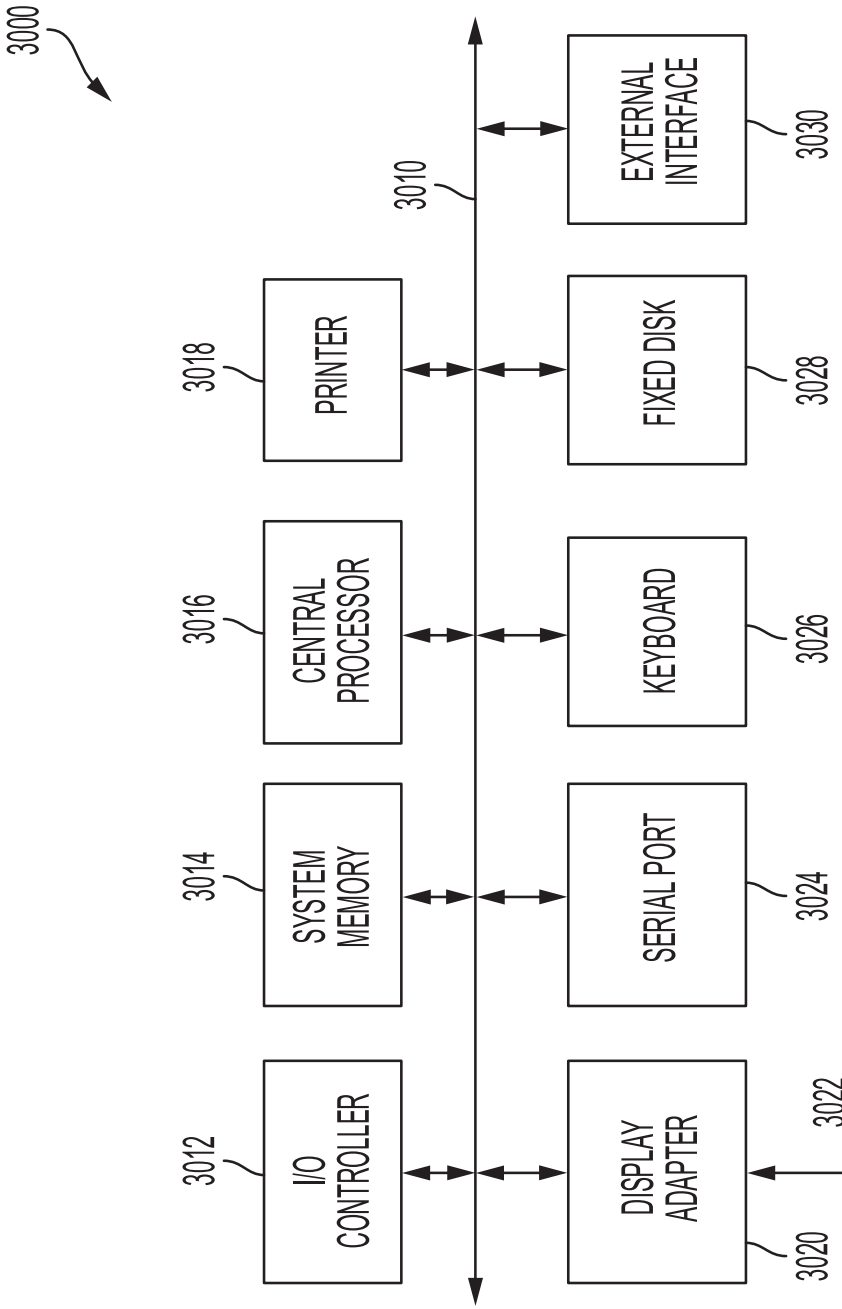

3000
3010
3012
I/O CONTROLLER
3014
SYSTEM MEMORY
3016
CENTRAL PROCESSOR
3018
PRINTER
3020
DISPLAY ADAPTER
3022
MONITOR
3024
SERIAL PORT
3026
KEYBOARD
3028
FIXED DISK
3030
EXTERNAL INTERFACE

FIG. 14