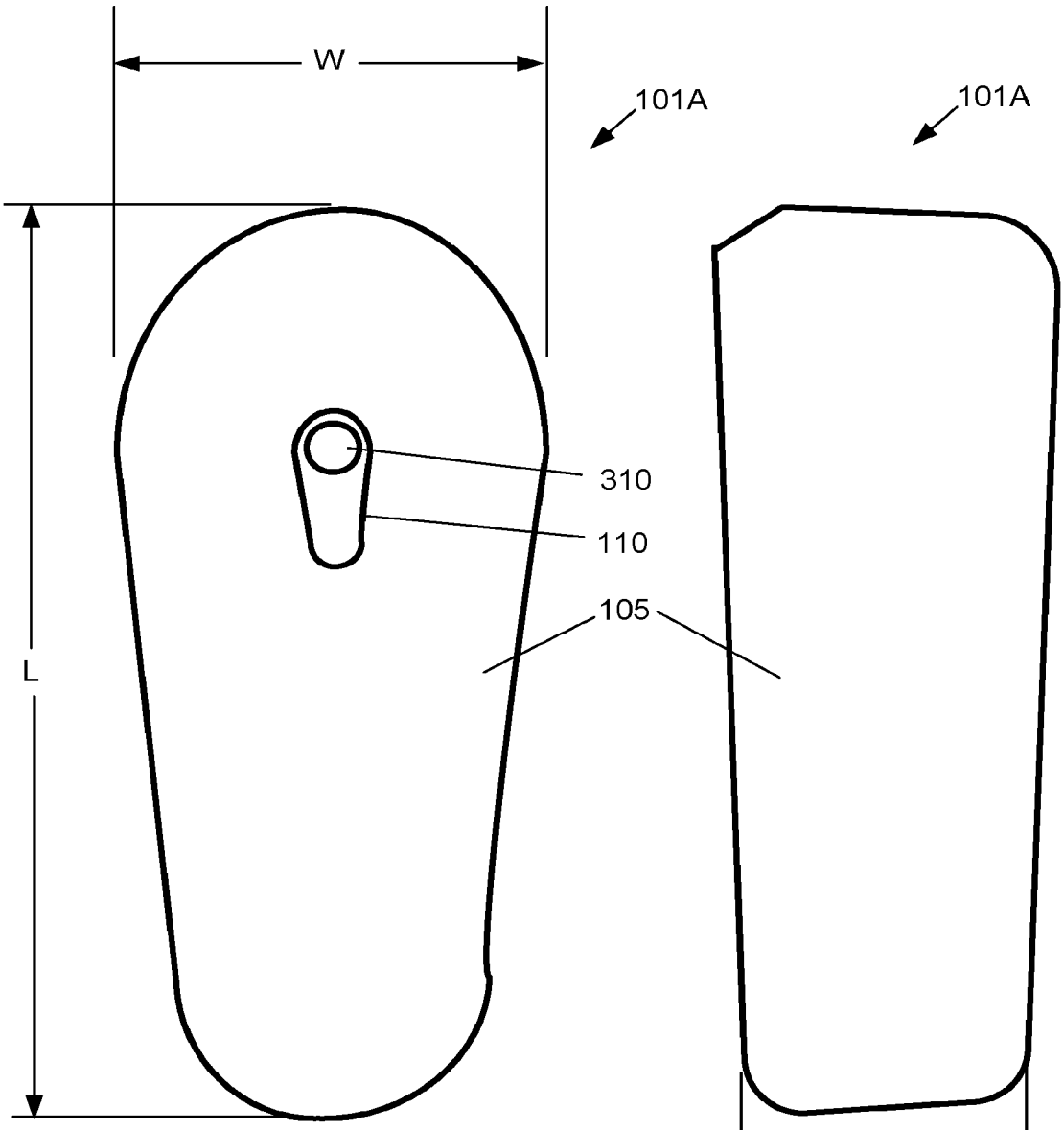


FIG. 1A

FIG. 1B

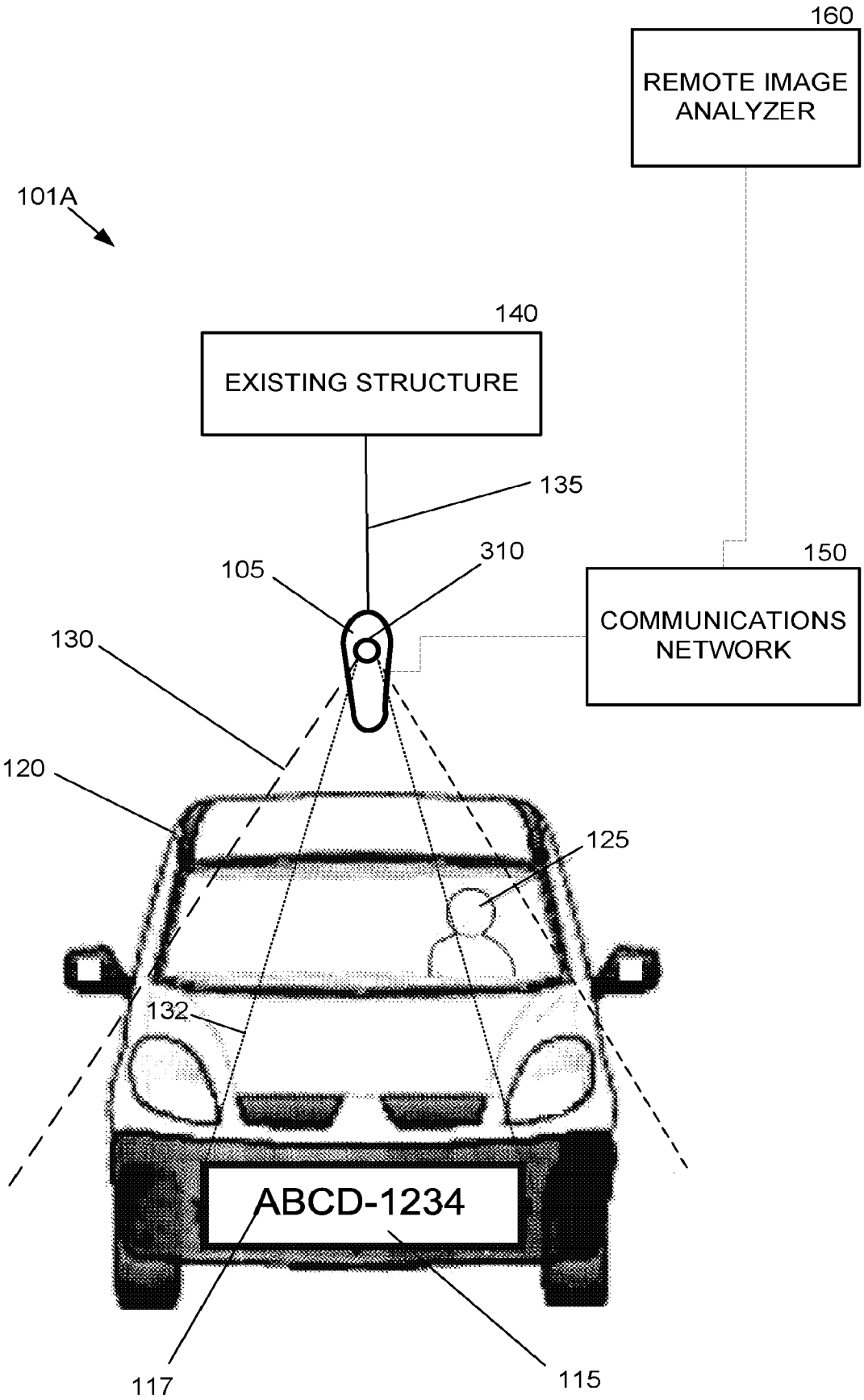

160
REMOTE IMAGE ANALYZER
101A
140
EXISTING STRUCTURE
135
105
310
150
COMMUNICATIONS NETWORK
130
120
125
132
ABCD-1234
117
115

FIG. 1C

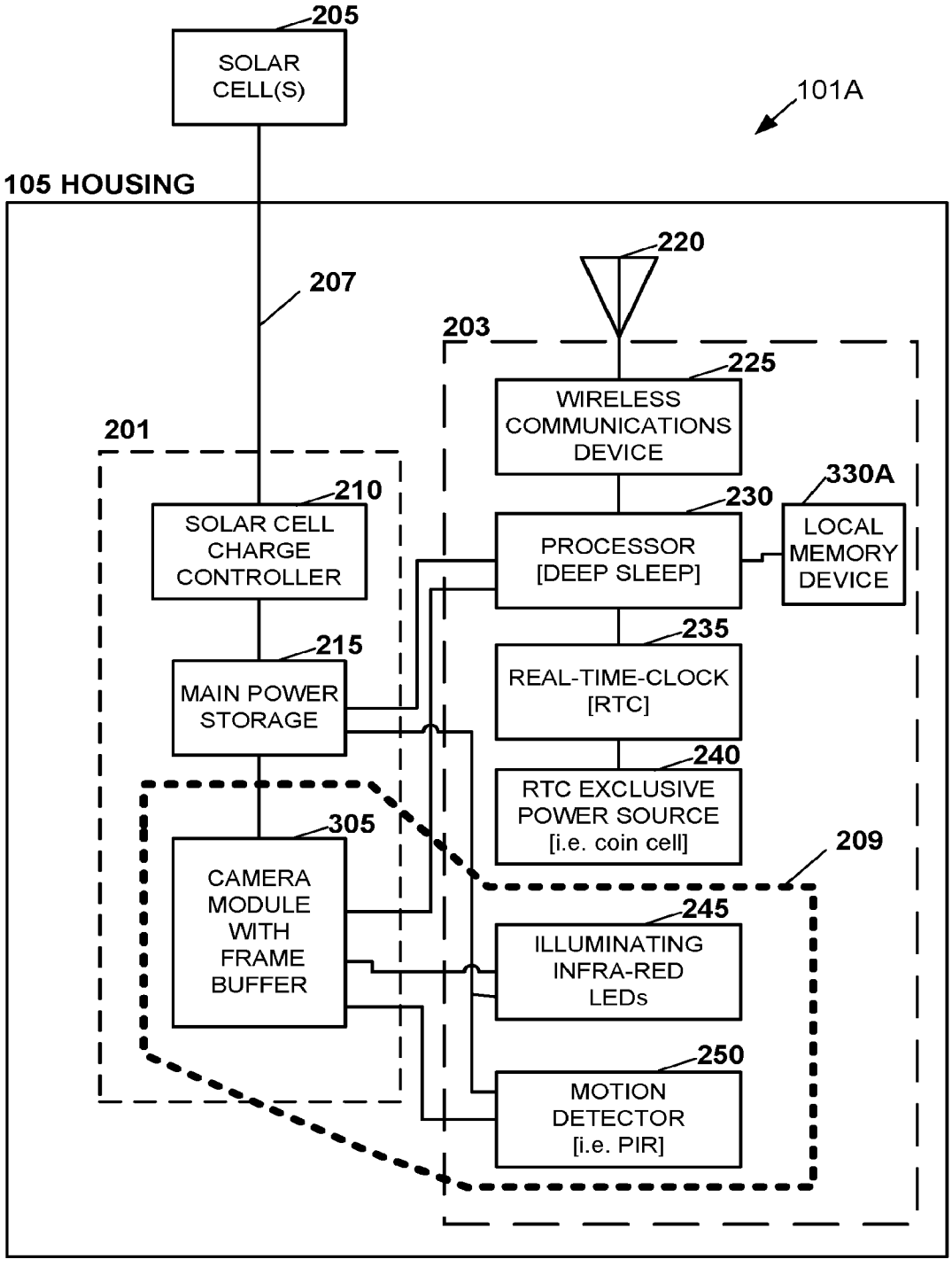

205
SOLAR CELL(S)
101A
105 HOUSING
220
207
203
225
WIRELESS COMMUNICATIONS DEVICE
201
210
SOLAR CELL CHARGE CONTROLLER
230
PROCESSOR [DEEP SLEEP]
330A
LOCAL MEMORY DEVICE
215
MAIN POWER STORAGE
235
REAL-TIME-CLOCK [RTC]
240
RTC EXCLUSIVE POWER SOURCE [i.e. coin cell]
305
CAMERA MODULE WITH FRAME BUFFER
209
245
ILLUMINATING INFRA-RED LEDs
250
MOTION DETECTOR [i.e. PIR]

FIG. 2

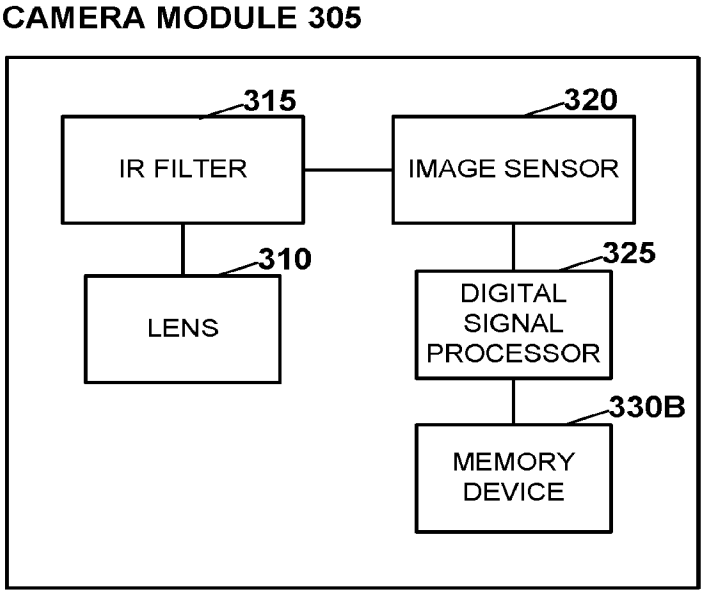

CAMERA MODULE 305
315
IR FILTER
320
IMAGE SENSOR
310
LENS
325
DIGITAL SIGNAL PROCESSOR
330B
MEMORY DEVICE

FIG. 3

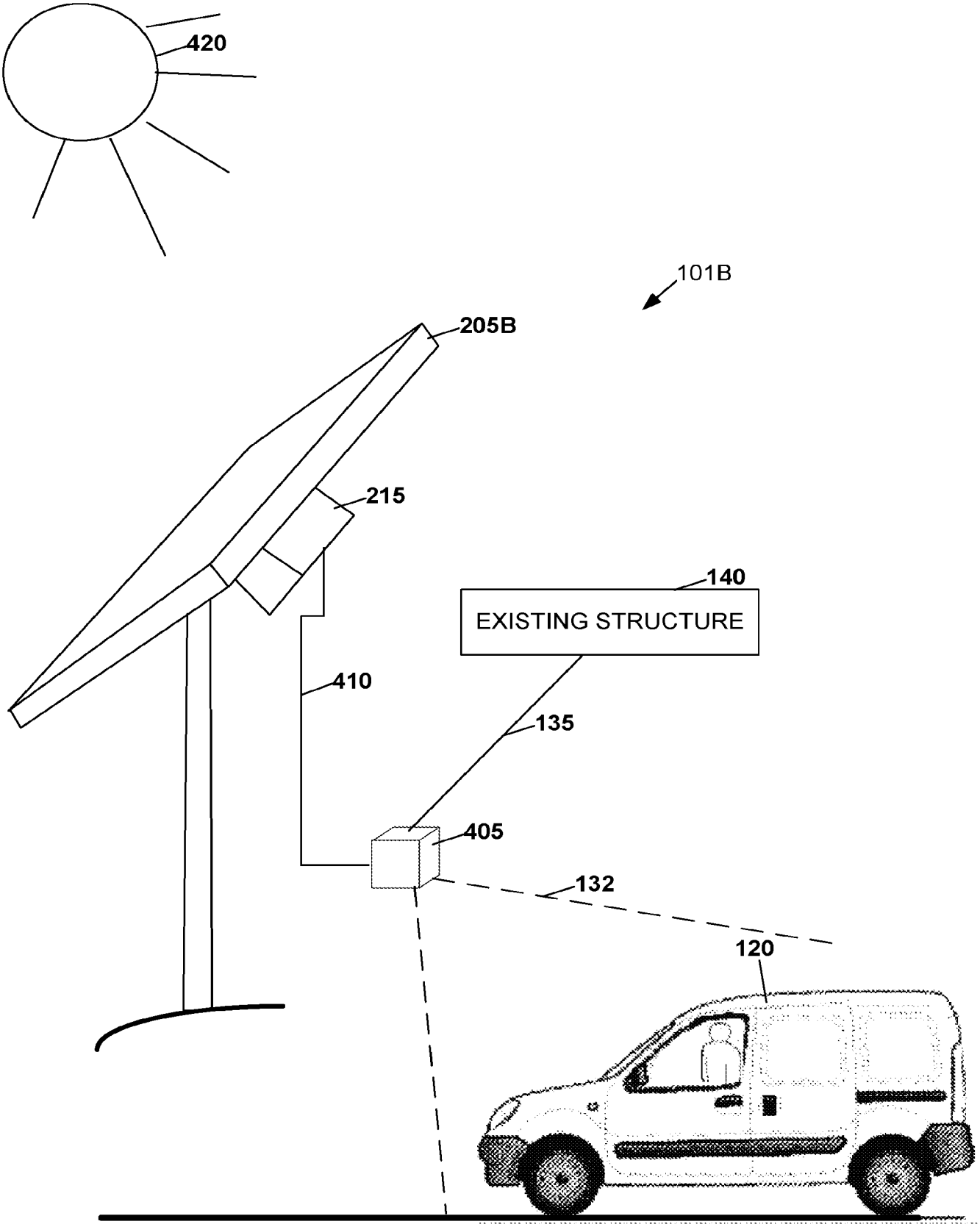


FIG. 4

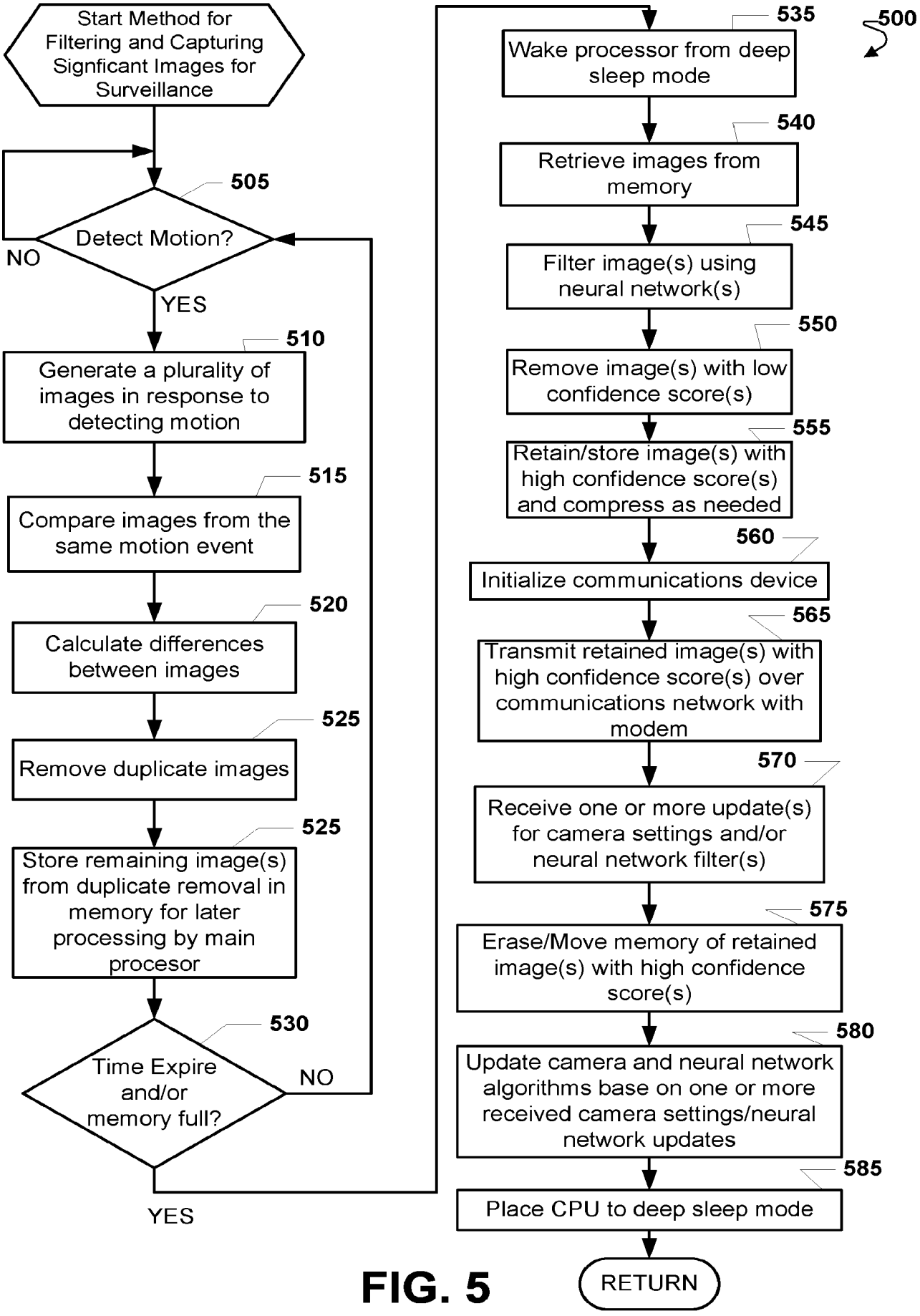

Start Method for Filtering and Capturing Signficant Images for Surveillance
505
Detect Motion?
NO
YES
510
Generate a plurality of images in response to detecting motion
515
Compare images from the same motion event
520
Calculate differences between images
525
Remove duplicate images
525
Store remaining image(s) from duplicate removal in memory for later processing by main procesor
530
Time Expire and/or memory full?
NO
YES
535
Wake processor from deep sleep mode
540
Retrieve images from memory
545
Filter image(s) using neural network(s)
550
Remove image(s) with low confidence score(s)
555
Retain/store image(s) with high confidence score(s) and compress as needed
560
Initialize communications device
565
Transmit retained image(s) with high confidence score(s) over communications network with modem
570
Receive one or more update(s) for camera settings and/or neural network filter(s)
575
Erase/Move memory of retained image(s) with high confidence score(s)
580
Update camera and neural network algorithms base on one or more received camera settings/neural network updates
585
Place CPU to deep sleep mode
RETURN
500

FIG. 5

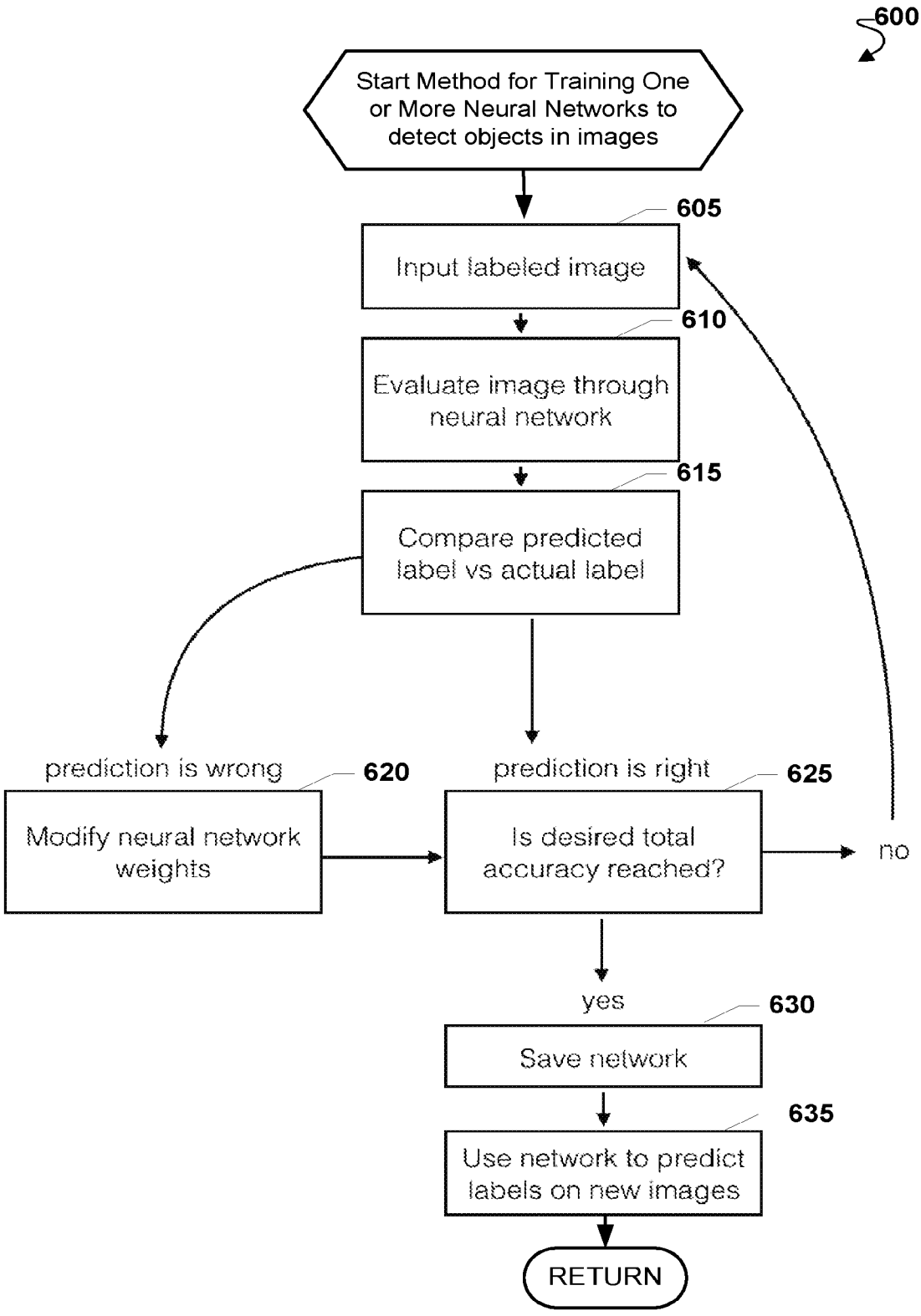

600
Start Method for Training One or More Neural Networks to detect objects in images
605
Input labeled image
610
Evaluate image through neural network
615
Compare predicted label vs actual label
prediction is wrong
620
Modify neural network weights
prediction is right
625
Is desired total accuracy reached?
no
yes
630
Save network
635
Use network to predict labels on new images
RETURN

FIG. 6