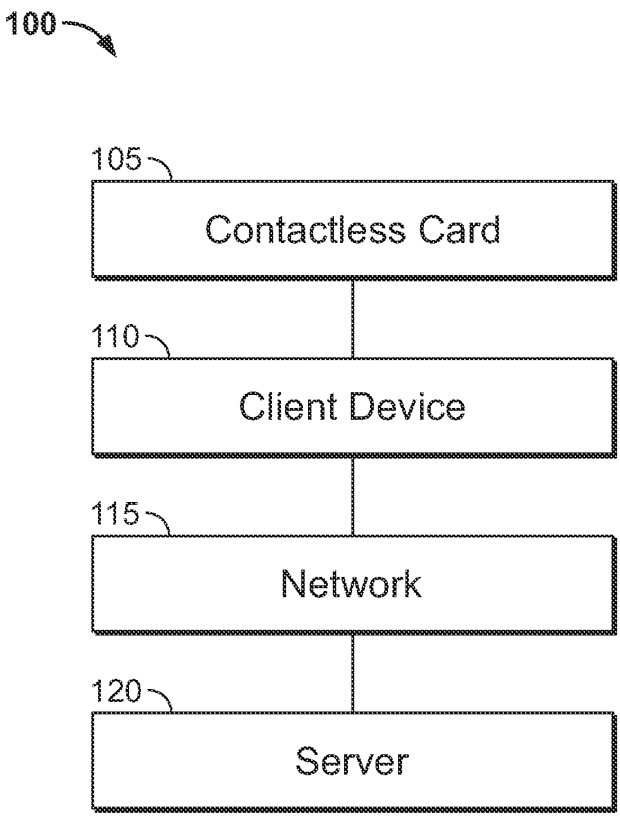

100
105
Contactless Card
110
Client Device
115
Network
120
Server

FIG. 1A

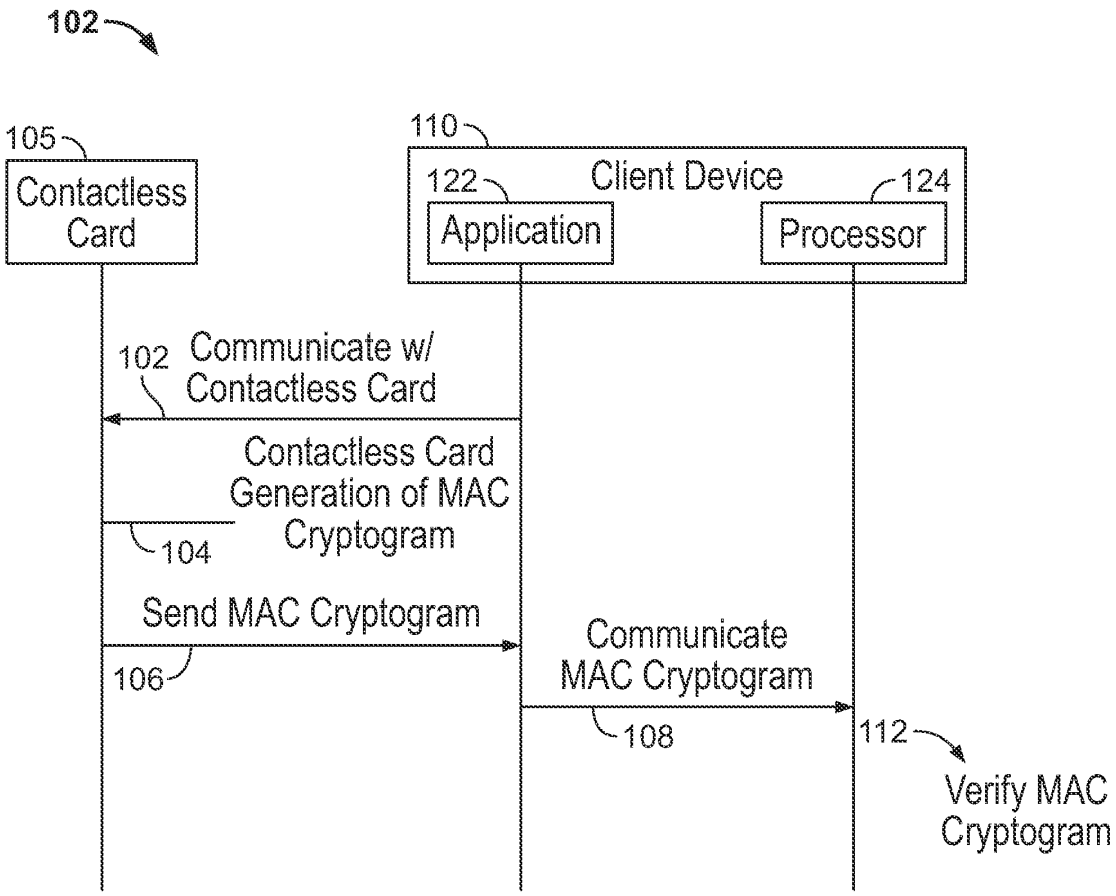

102
105
Contactless Card
110
Client Device
122
Application
124
Processor
102
Communicate w/ Contactless Card
Contactless Card Generation of MAC Cryptogram
104
Send MAC Cryptogram
106
Communicate MAC Cryptogram
108
112
Verify MAC Cryptogram

FIG. 1B

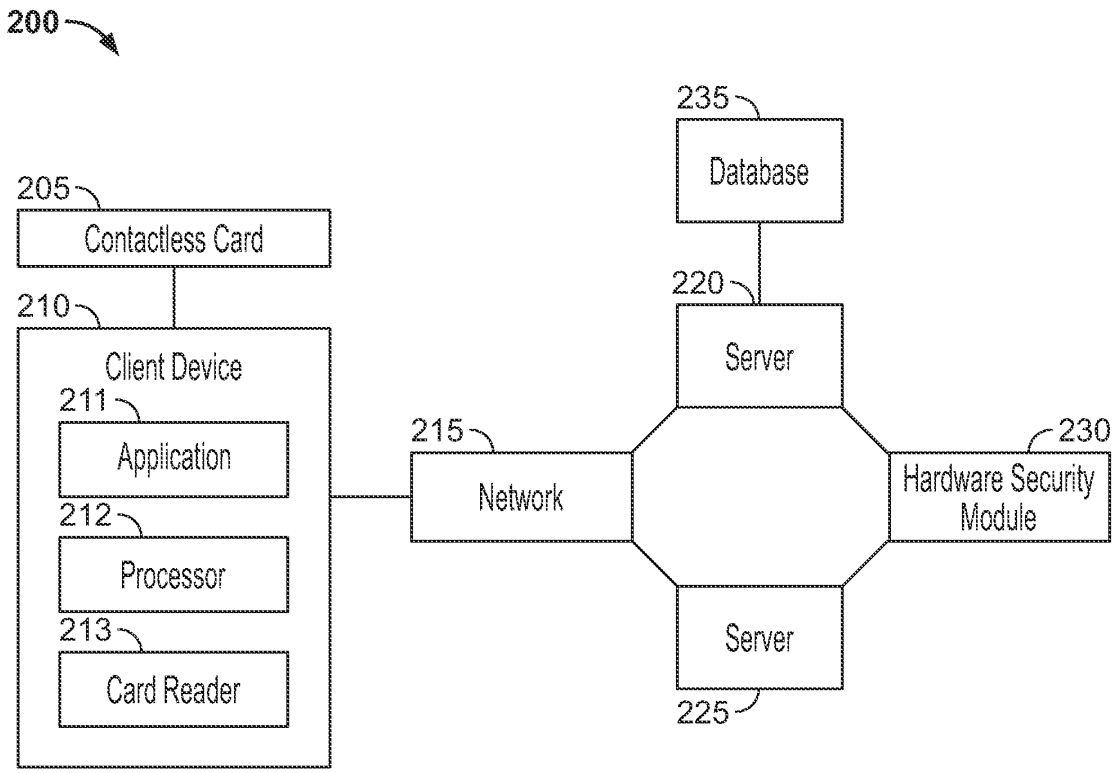

200
235
Database
205
Contactless Card
220
Server
210
Client Device
211
Application
215
Network
230
Hardware Security Module
212
Processor
213
Card Reader
Server
225

FIG. 2

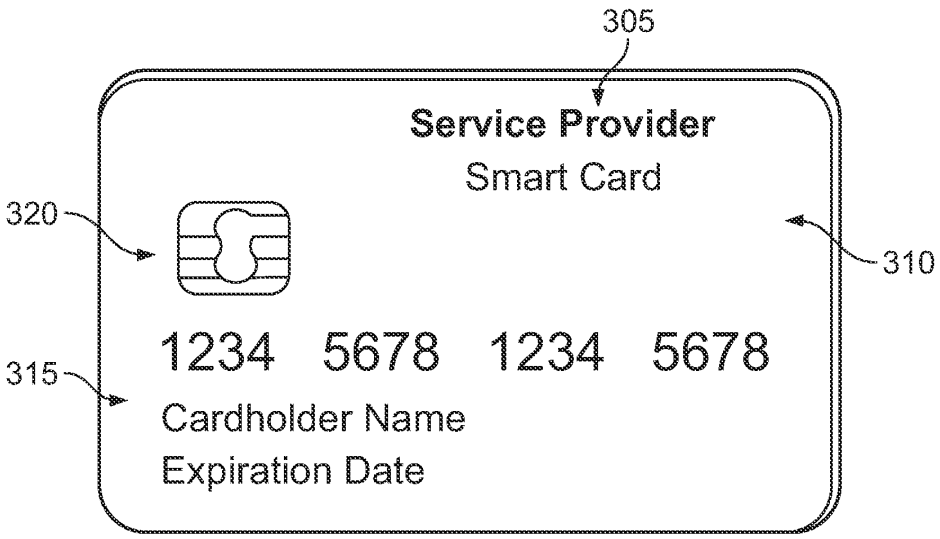

305
Service Provider
Smart Card
320
310
1234 5678 1234 5678
315
Cardholder Name
Expiration Date

FIG. 3A

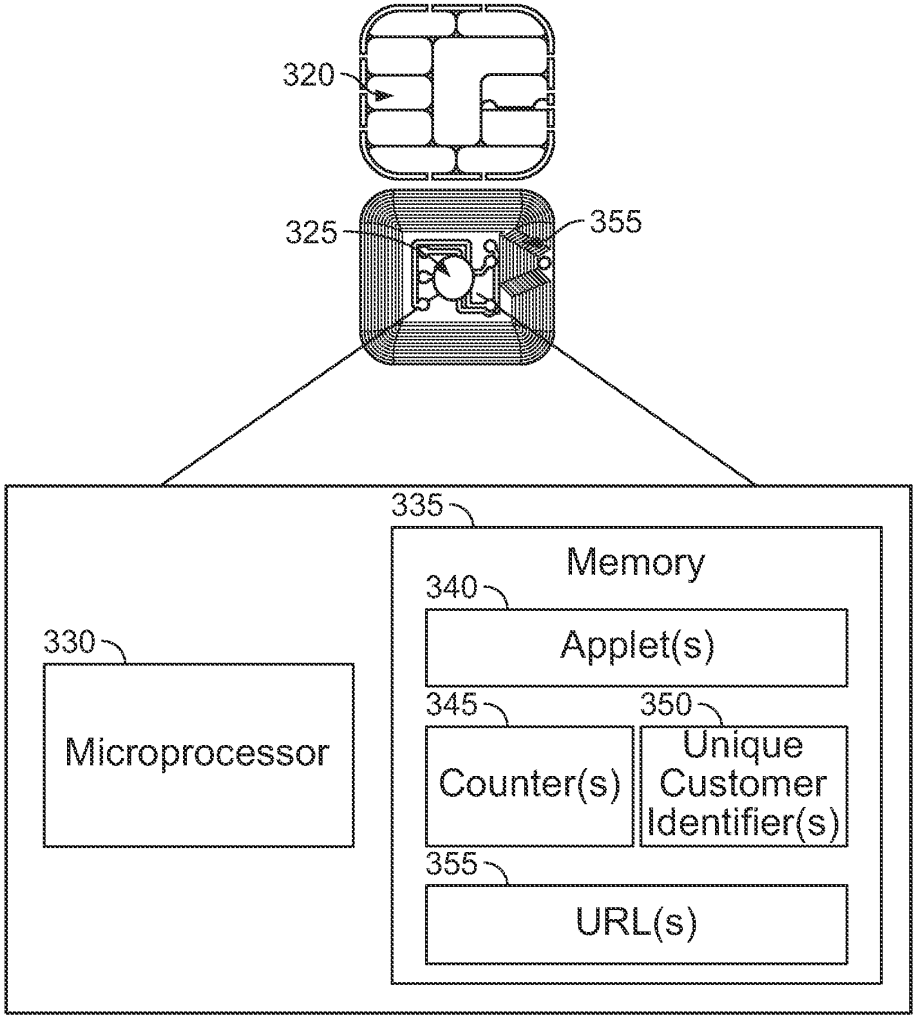

320
325
355
335
Memory
340
Applet(s)
330
Microprocessor
345
350
Counter(s)
Unique Customer Identifier(s)
355
URL(s)

FIG. 3B

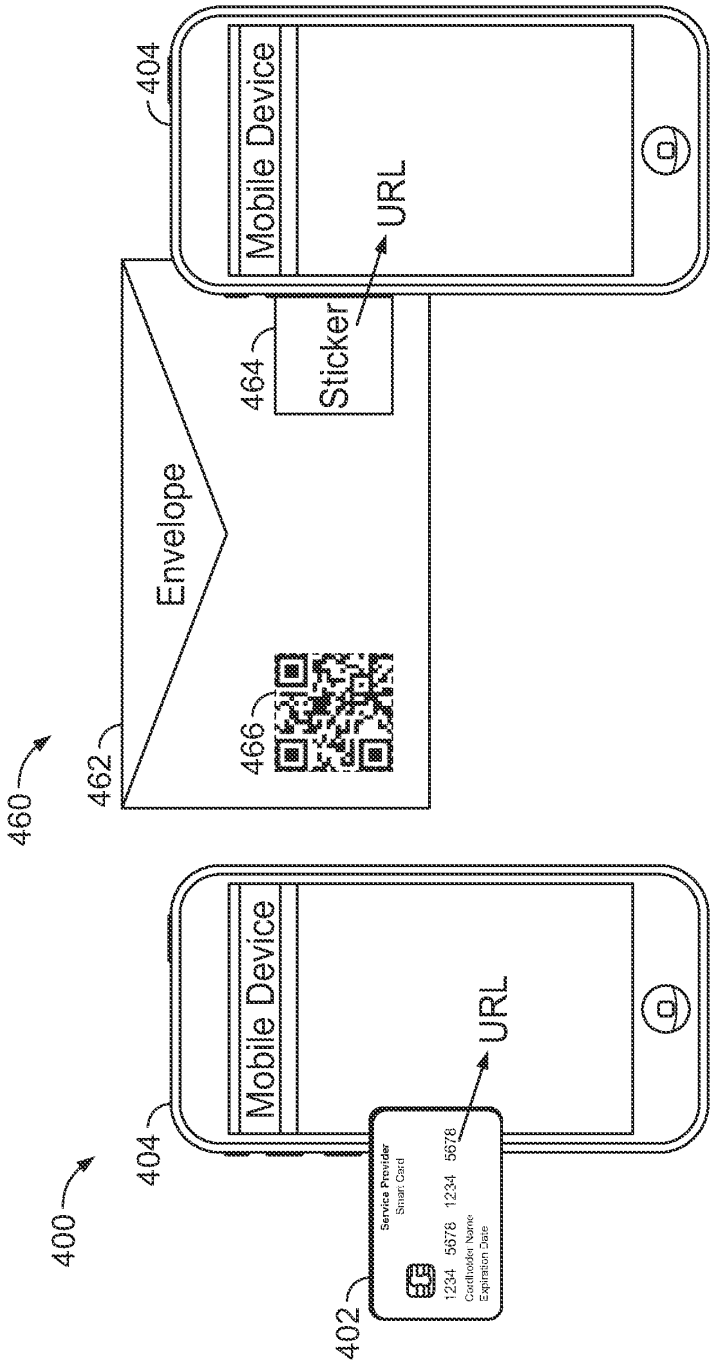

400
402
404
Mobile Device
URL
Service Provider
Smart Card
1234 5678 1234 5678
Cardholder Name
Expiration Date
460
462
Envelope
464
Sticker
URL
466
404
Mobile Device
URL

FIG. 4

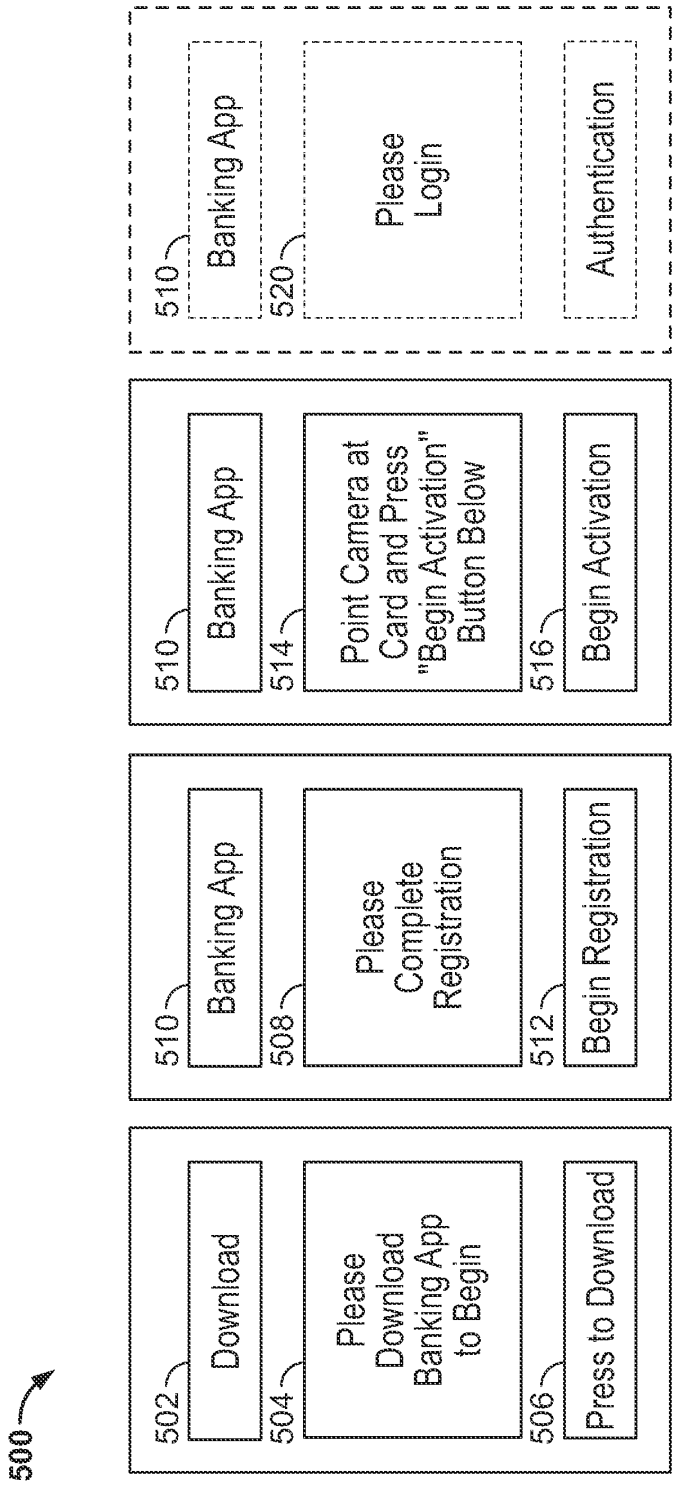

500
502
Download
504
Please Download Banking App to Begin
506
Press to Download
510
Banking App
508
Please Complete Registration
512
Begin Registration
510
Banking App
514
Point Camera at Card and Press "Begin Activation" Button Below
516
Begin Activation
510
Banking App
520
Please Login
Authentication

FIG. 5

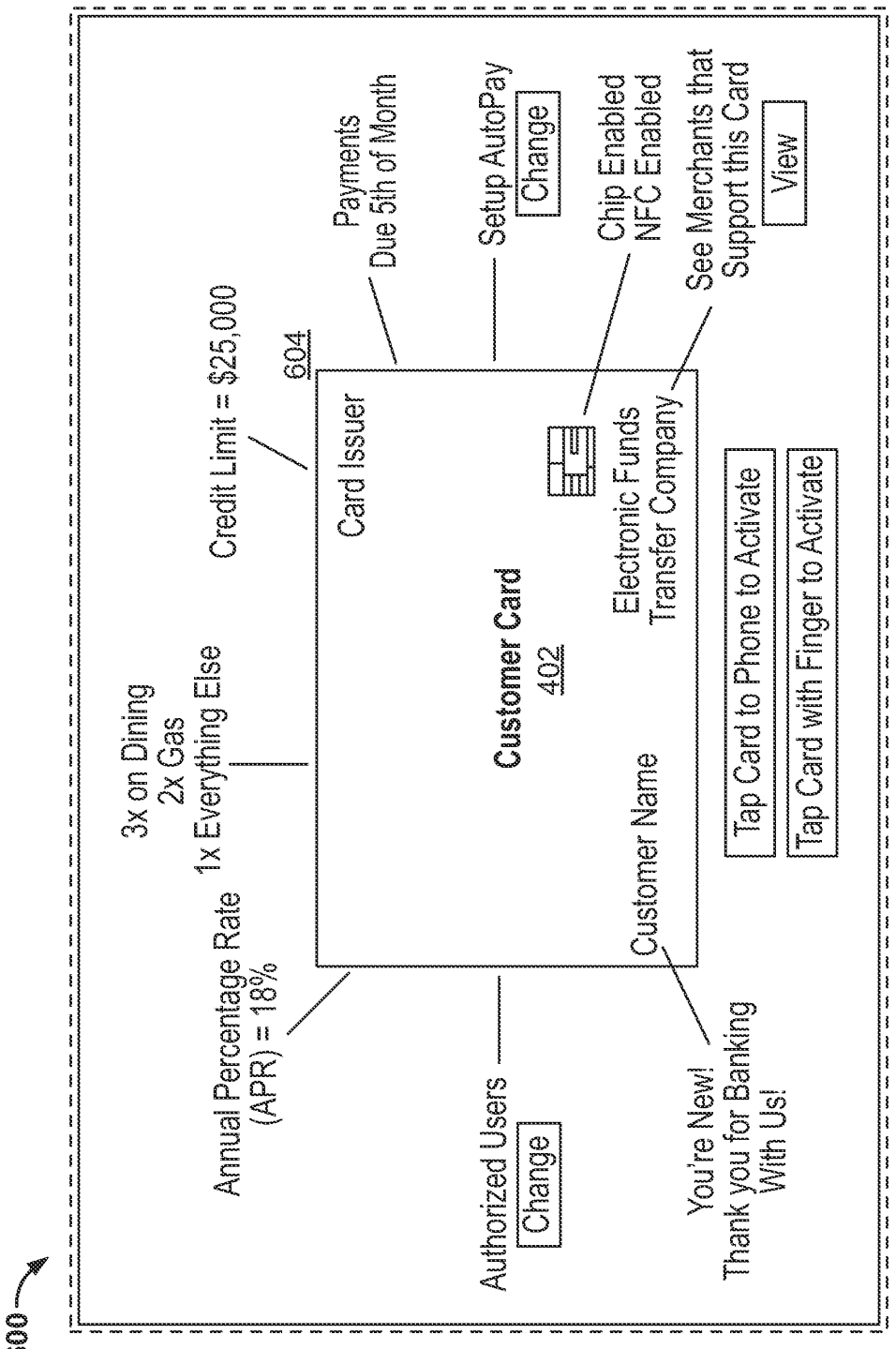

600
3x on Dining
2x Gas
1x Everything Else
Annual Percentage Rate
(APR) = 18%
Credit Limit = $25,000
604
Card Issuer
Payments
Due 5th of Month
Setup AutoPay
Change
Chip Enabled
NFC Enabled
See Merchants that
Support this Card
View
Customer Card
402
Electronic Funds
Transfer Company
Customer Name
Tap Card to Phone to Activate
Tap Card with Finger to Activate
Authorized Users
Change
You're New!
Thank you for Banking
With Us!

FIG. 6

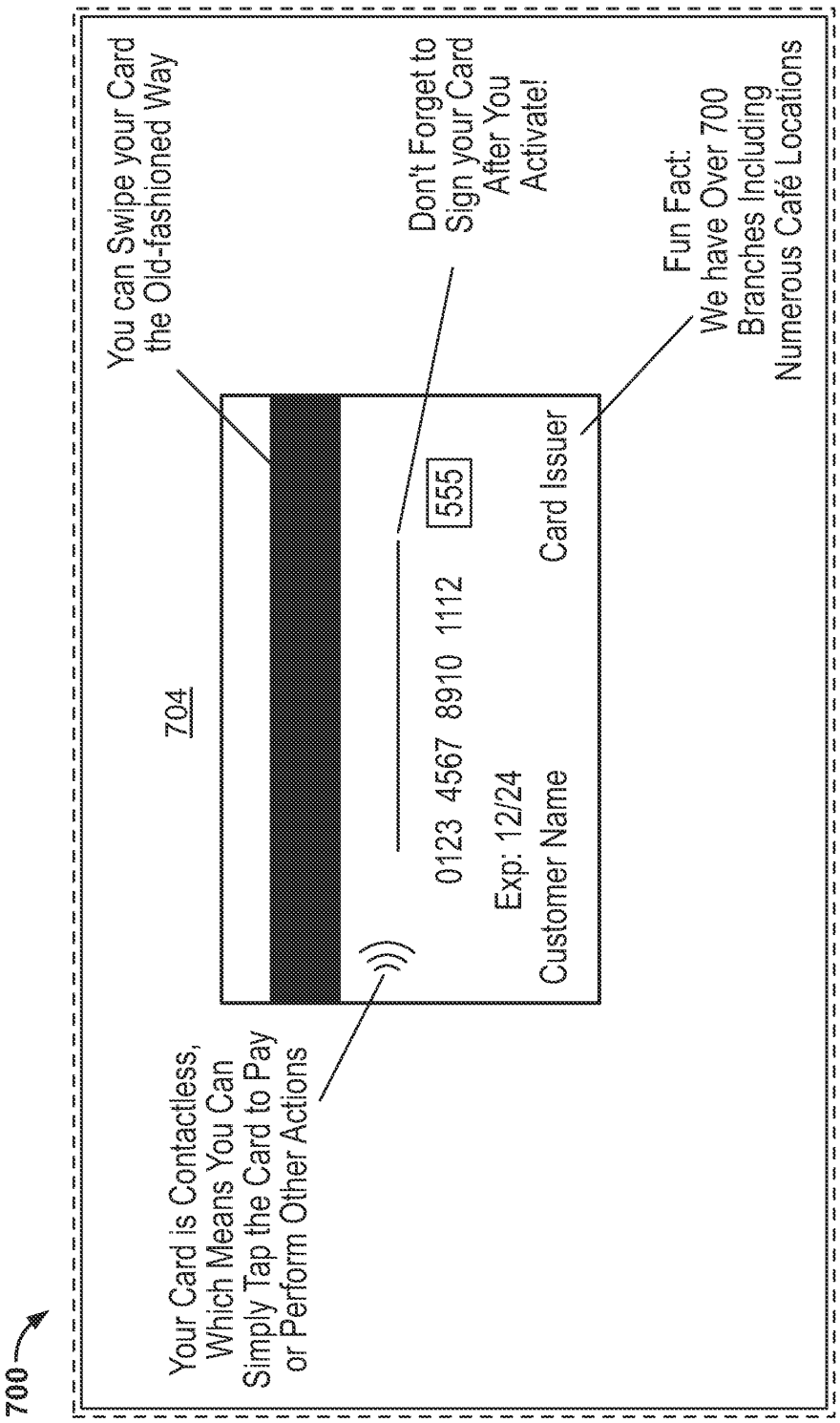

700
You can Swipe your Card the Old-fashioned Way
Don't Forget to Sign your Card After You Activate!
Fun Fact: We have Over 700 Branches Including Numerous Café Locations
Your Card is Contactless, Which Means You Can Simply Tap the Card to Pay or Perform Other Actions
704
0123 4567 8910 1112
555
Exp: 12/24
Customer Name
Card Issuer

FIG. 7

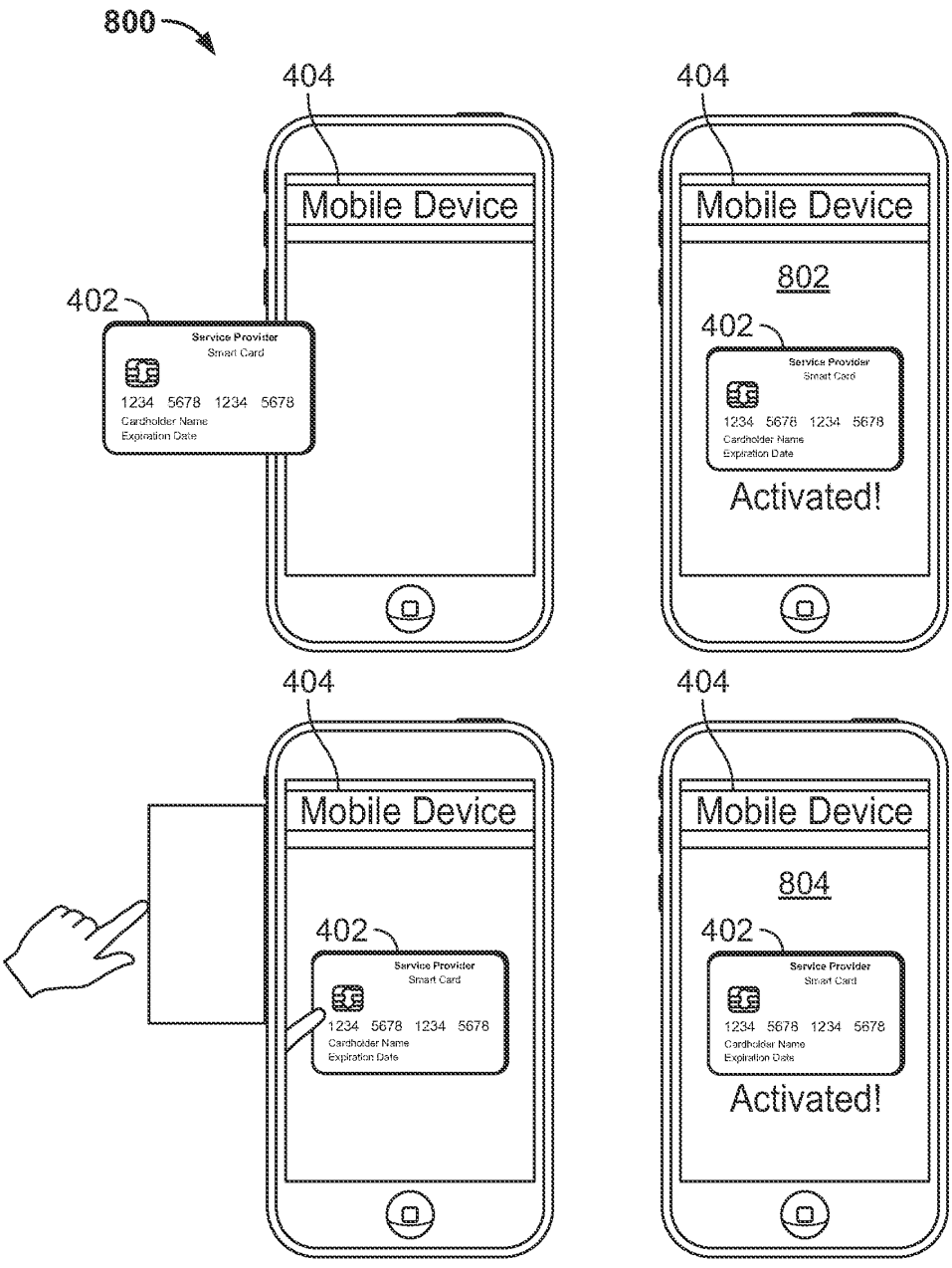

800
404
Mobile Device
402
Service Provider
Smart Card
1234 5678 1234 5678
Cardholder Name
Expiration Date
404
Mobile Device
802
402
Service Provider
Smart Card
1234 5678 1234 5678
Cardholder Name
Expiration Date
Activated!
404
Mobile Device
402
Service Provider
Smart Card
1234 5678 1234 5678
Cardholder Name
Expiration Date
404
Mobile Device
804
402
Service Provider
Smart Card
1234 5678 1234 5678
Cardholder Name
Expiration Date
Activated!

FIG. 8

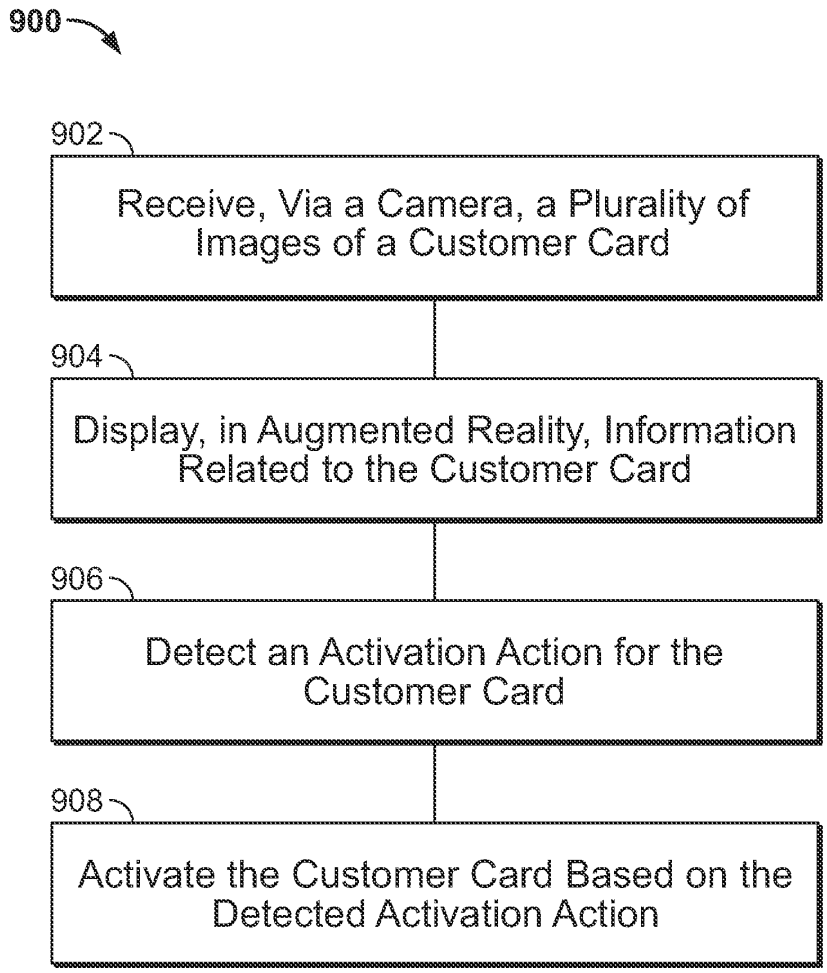

900
902
Receive, Via a Camera, a Plurality of Images of a Customer Card
904
Display, in Augmented Reality, Information Related to the Customer Card
906
Detect an Activation Action for the Customer Card
908
Activate the Customer Card Based on the Detected Activation Action

FIG. 9