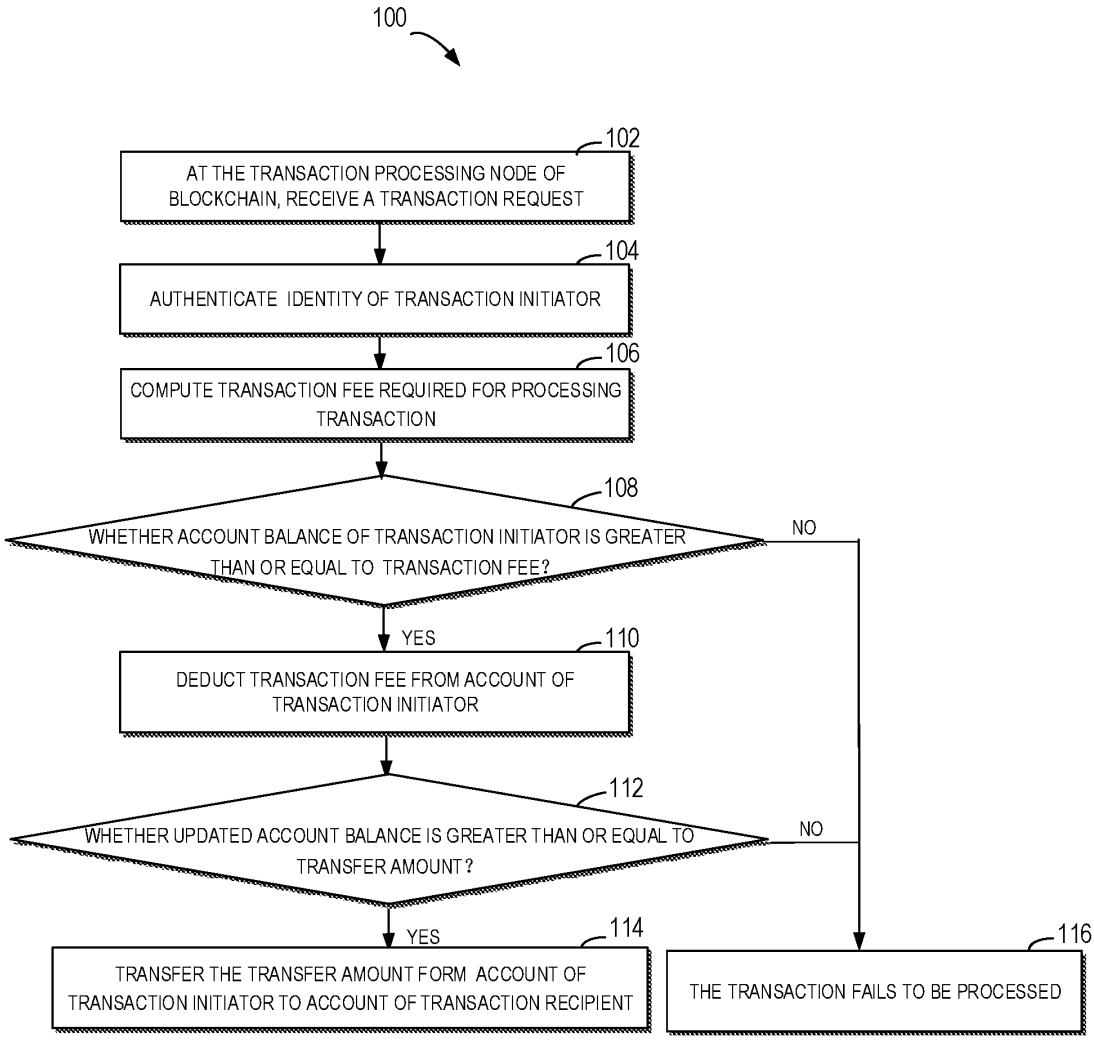

100
102
AT THE TRANSACTION PROCESSING NODE OF BLOCKCHAIN, RECEIVE A TRANSACTION REQUEST
104
AUTHENTICATE IDENTITY OF TRANSACTION INITIATOR
106
COMPUTE TRANSACTION FEE REQUIRED FOR PROCESSING TRANSACTION
108
WHETHER ACCOUNT BALANCE OF TRANSACTION INITIATOR IS GREATER THAN OR EQUAL TO TRANSACTION FEE?
NO
YES
110
DEDUCT TRANSACTION FEE FROM ACCOUNT OF TRANSACTION INITIATOR
112
WHETHER UPDATED ACCOUNT BALANCE IS GREATER THAN OR EQUAL TO TRANSFER AMOUNT?
NO
YES
114
TRANSFER THE TRANSFER AMOUNT FORM ACCOUNT OF TRANSACTION INITIATOR TO ACCOUNT OF TRANSACTION RECIPIENT
116
THE TRANSACTION FAILS TO BE PROCESSED

FIG.1

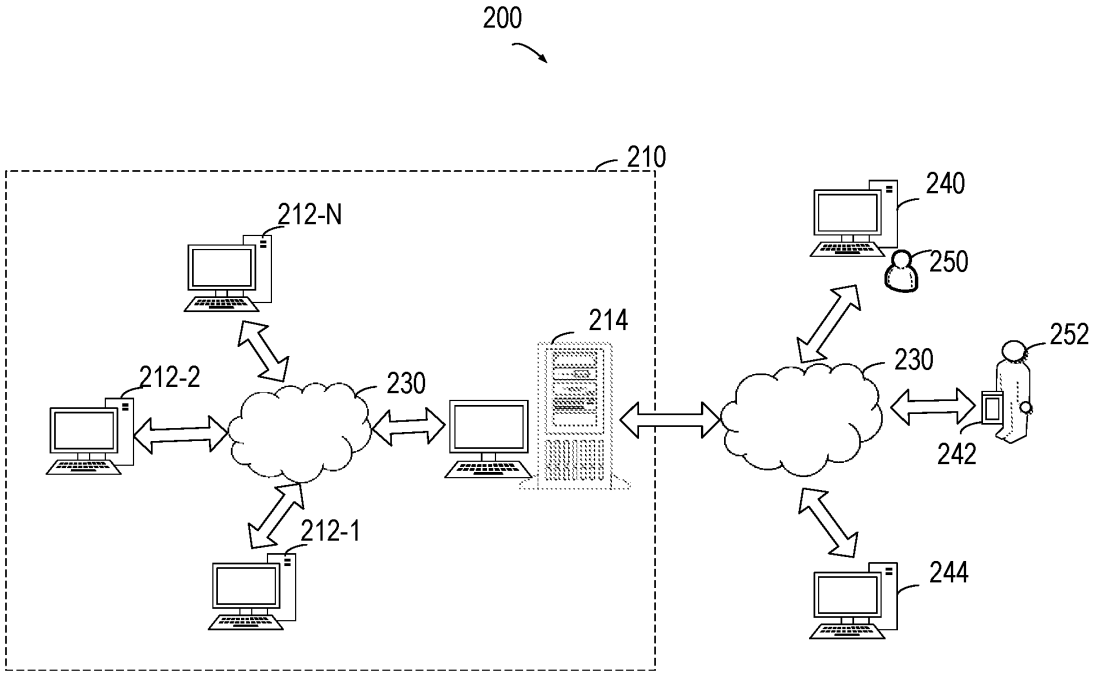


FIG.2

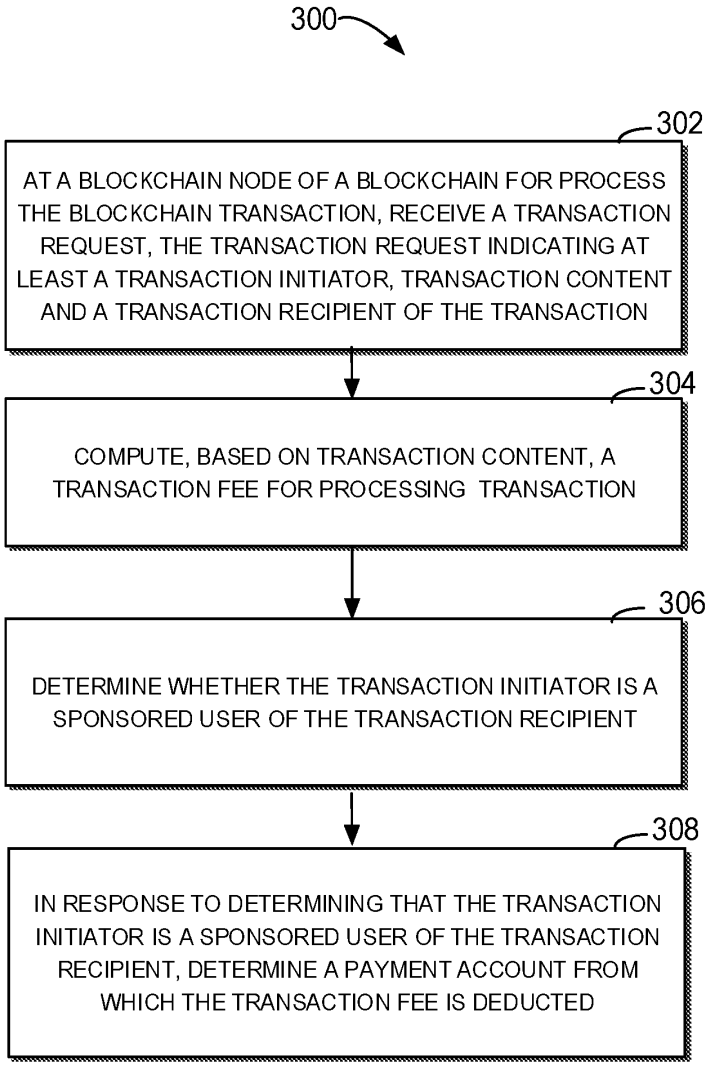

300
302
AT A BLOCKCHAIN NODE OF A BLOCKCHAIN FOR PROCESS THE BLOCKCHAIN TRANSACTION, RECEIVE A TRANSACTION REQUEST, THE TRANSACTION REQUEST INDICATING AT LEAST A TRANSACTION INITIATOR, TRANSACTION CONTENT AND A TRANSACTION RECIPIENT OF THE TRANSACTION
304
COMPUTE, BASED ON TRANSACTION CONTENT, A TRANSACTION FEE FOR PROCESSING TRANSACTION
306
DETERMINE WHETHER THE TRANSACTION INITIATOR IS A SPONSORED USER OF THE TRANSACTION RECIPIENT
308
IN RESPONSE TO DETERMINING THAT THE TRANSACTION INITIATOR IS A SPONSORED USER OF THE TRANSACTION RECIPIENT, DETERMINE A PAYMENT ACCOUNT FROM WHICH THE TRANSACTION FEE IS DEDUCTED

FIG.3

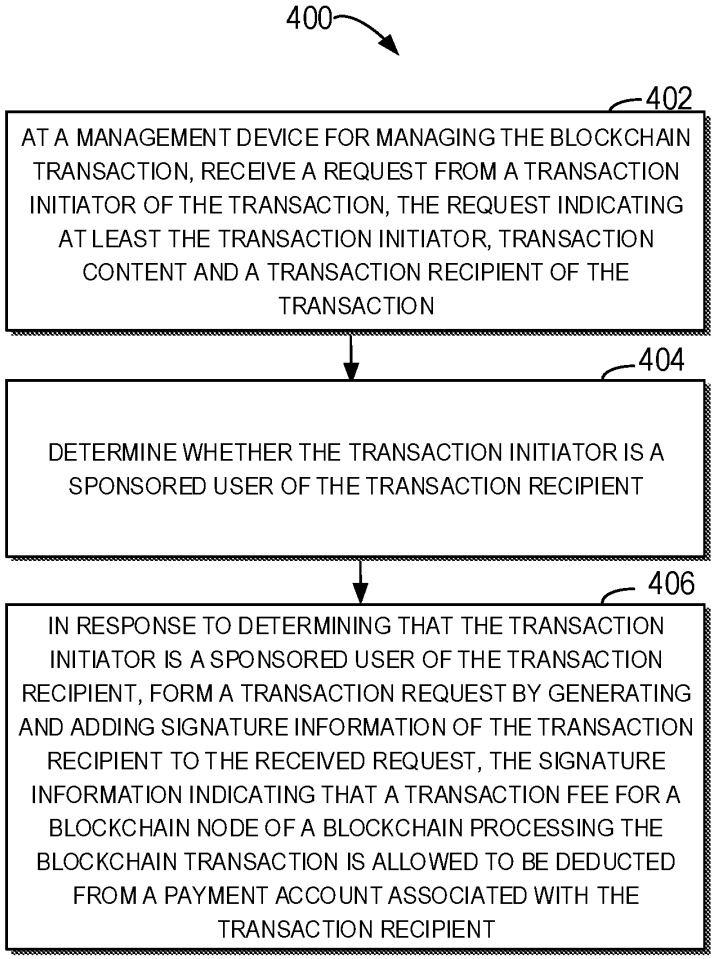

400
402
AT A MANAGEMENT DEVICE FOR MANAGING THE BLOCKCHAIN TRANSACTION, RECEIVE A REQUEST FROM A TRANSACTION INITIATOR OF THE TRANSACTION, THE REQUEST INDICATING AT LEAST THE TRANSACTION INITIATOR, TRANSACTION CONTENT AND A TRANSACTION RECIPIENT OF THE TRANSACTION
404
DETERMINE WHETHER THE TRANSACTION INITIATOR IS A SPONSORED USER OF THE TRANSACTION RECIPIENT
406
IN RESPONSE TO DETERMINING THAT THE TRANSACTION INITIATOR IS A SPONSORED USER OF THE TRANSACTION RECIPIENT, FORM A TRANSACTION REQUEST BY GENERATING AND ADDING SIGNATURE INFORMATION OF THE TRANSACTION RECIPIENT TO THE RECEIVED REQUEST, THE SIGNATURE INFORMATION INDICATING THAT A TRANSACTION FEE FOR A BLOCKCHAIN NODE OF A BLOCKCHAIN PROCESSING THE BLOCKCHAIN TRANSACTION IS ALLOWED TO BE DEDUCTED FROM A PAYMENT ACCOUNT ASSOCIATED WITH THE TRANSACTION RECIPIENT

FIG. 4

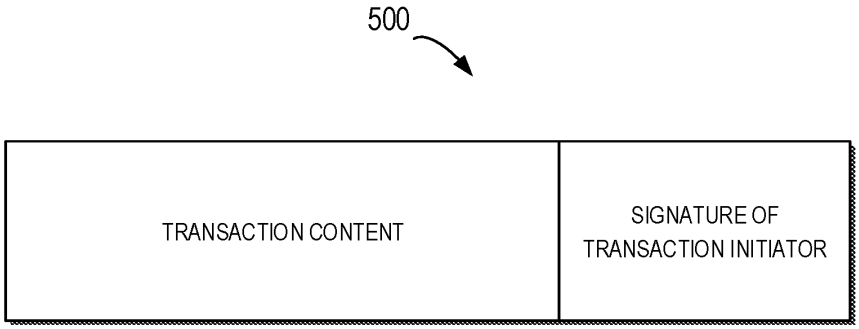

500
TRANSACTION CONTENT
SIGNATURE OF TRANSACTION INITIATOR

FIG. 5

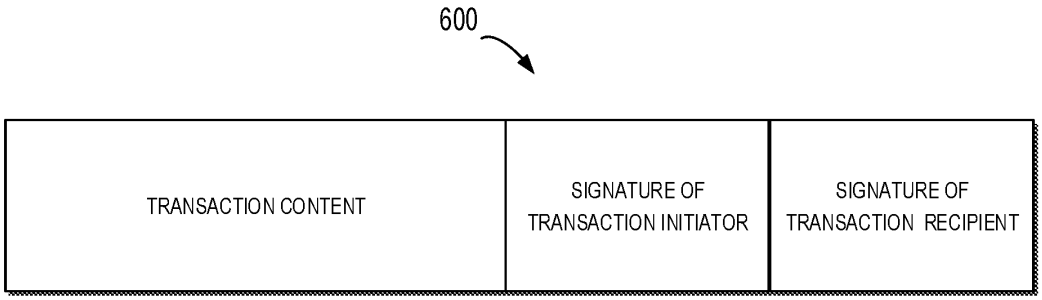

600
TRANSACTION CONTENT
SIGNATURE OF TRANSACTION INITIATOR
SIGNATURE OF TRANSACTION RECIPIENT

FIG. 6

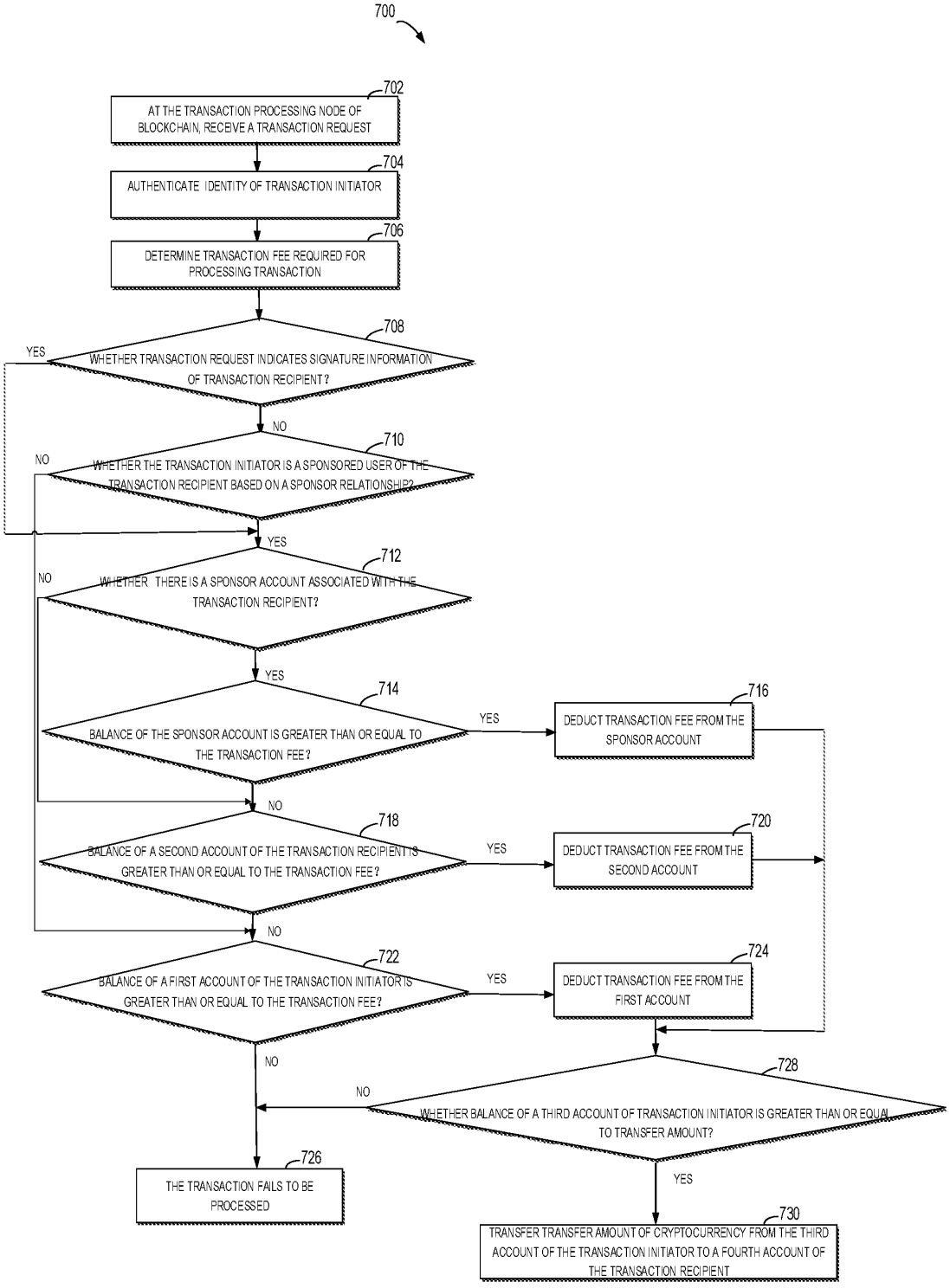

700
702
AT THE TRANSACTION PROCESSING NODE OF BLOCKCHAIN, RECEIVE A TRANSACTION REQUEST
704
AUTHENTICATE IDENTITY OF TRANSACTION INITIATOR
706
DETERMINE TRANSACTION FEE REQUIRED FOR PROCESSING TRANSACTION
708
WHETHER TRANSACTION REQUEST INDICATES SIGNATURE INFORMATION OF TRANSACTION RECIPIENT?
YES
NO
710
WHETHER THE TRANSACTION INITIATOR IS A SPONSORED USER OF THE TRANSACTION RECIPIENT BASED ON A SPONSOR RELATIONSHIP?
NO
YES
712
WHETHER THERE IS A SPONSOR ACCOUNT ASSOCIATED WITH THE TRANSACTION RECIPIENT?
NO
YES
714
BALANCE OF THE SPONSOR ACCOUNT IS GREATER THAN OR EQUAL TO THE TRANSACTION FEE?
YES
716
DEDUCT TRANSACTION FEE FROM THE SPONSOR ACCOUNT
NO
718
BALANCE OF A SECOND ACCOUNT OF THE TRANSACTION RECIPIENT IS GREATER THAN OR EQUAL TO THE TRANSACTION FEE?
YES
720
DEDUCT TRANSACTION FEE FROM THE SECOND ACCOUNT
NO
722
BALANCE OF A FIRST ACCOUNT OF THE TRANSACTION INITIATOR IS GREATER THAN OR EQUAL TO THE TRANSACTION FEE?
YES
724
DEDUCT TRANSACTION FEE FROM THE FIRST ACCOUNT
NO
728
WHETHER BALANCE OF A THIRD ACCOUNT OF TRANSACTION INITIATOR IS GREATER THAN OR EQUAL TO TRANSFER AMOUNT?
NO
YES
726
THE TRANSACTION FAILS TO BE PROCESSED
730
TRANSFER TRANSFER AMOUNT OF CRYPTOCURRENCY FROM THE THIRD ACCOUNT OF THE TRANSACTION INITIATOR TO A FOURTH ACCOUNT OF THE TRANSACTION RECIPIENT

FIG. 7

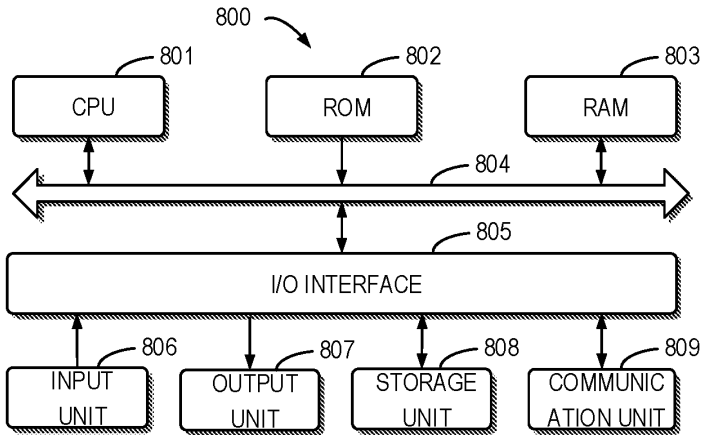

800
801
CPU
802
ROM
803
RAM
804
805
I/O INTERFACE
806
INPUT UNIT
807
OUTPUT UNIT
808
STORAGE UNIT
809
COMMUNIC ATION UNIT

FIG. 8