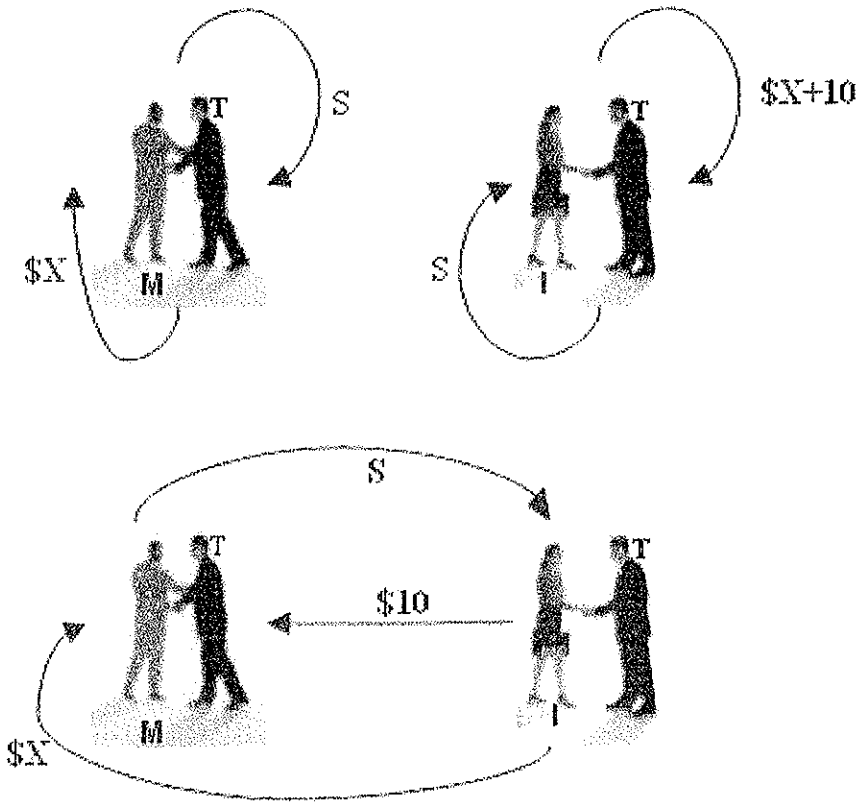


FIG. 1

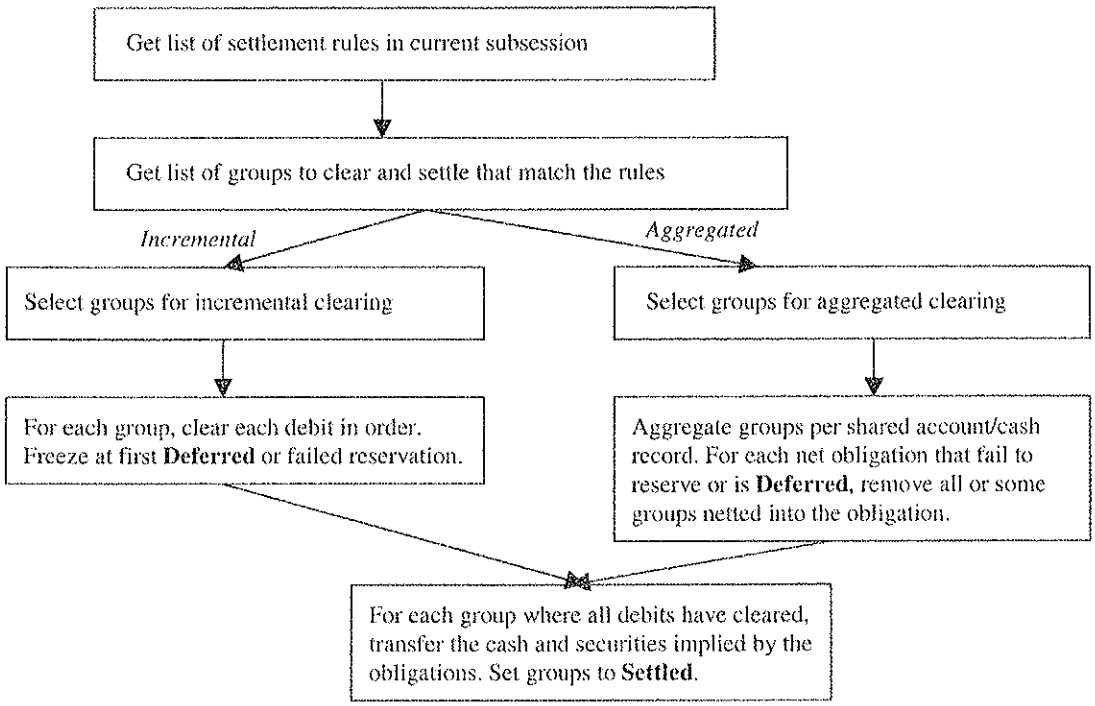

Get list of settlement rules in current subsession
Get list of groups to clear and settle that match the rules
Incremental
Aggregated
Select groups for incremental clearing
Select groups for aggregated clearing
For each group, clear each debit in order. Freeze at first **Deferred** or failed reservation.
Aggregate groups per shared account/cash record. For each net obligation that fail to reserve or is **Deferred**, remove all or some groups netted into the obligation.
For each group where all debits have cleared, transfer the cash and securities implied by the obligations. Set groups to **Settled**.

FIG. 2

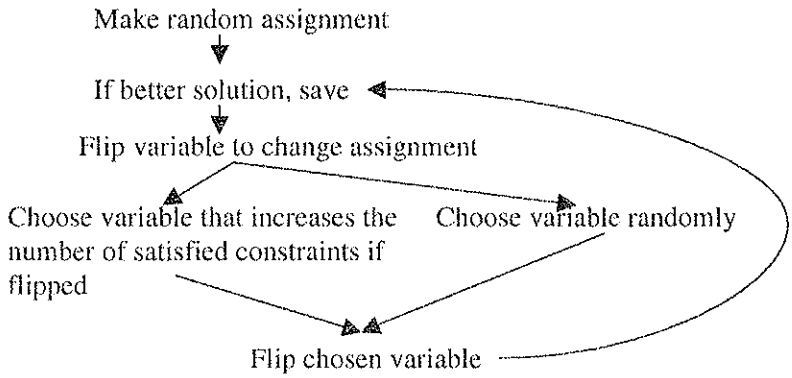

Make random assignment
If better solution, save
Flip variable to change assignment
Choose variable that increases the number of satisfied constraints if flipped
Choose variable randomly
Flip chosen variable

FIG. 3

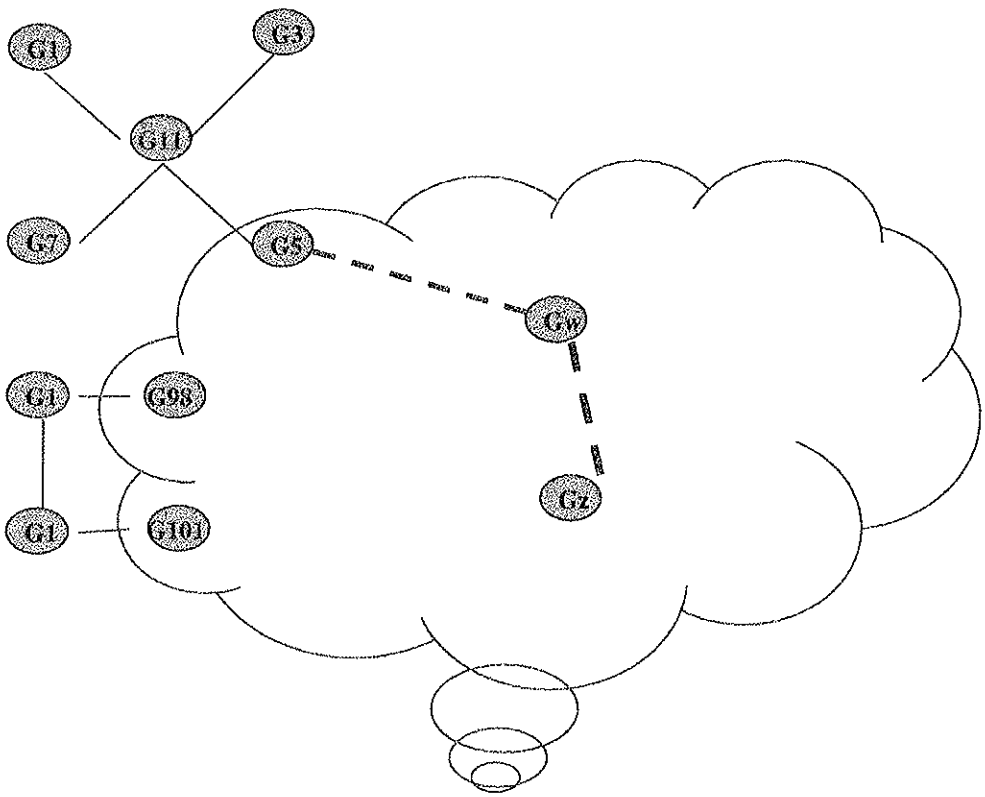

G1
G3
G11
G7
G5
G98
G101

FIG. 4

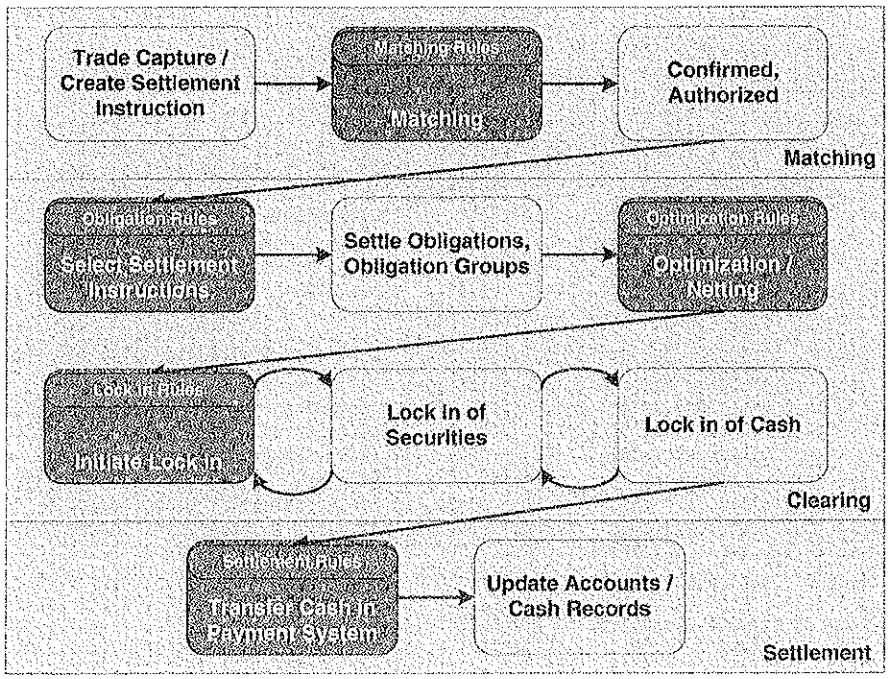

Trade Capture / Create Settlement Instruction
Matching Rule
Matching
Confirmed, Authorized
Matching
Obligation Rules
Select Settlement Instructions
Settle Obligations, Obligation Groups
Optimization Rules
Optimization / Netting
Lock-in Rules
Initiate Lock-in
Lock in of Securities
Lock in of Cash
Clearing
Settlement Rules
Transfer Cash in Payment System
Update Accounts / Cash Records
Settlement

FIG. 5

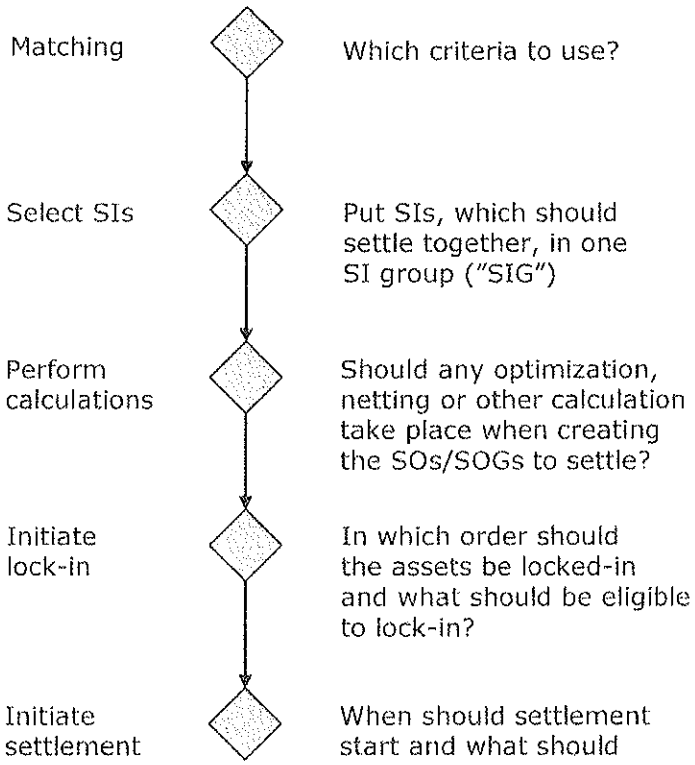

Matching
Which criteria to use?
Select SIs
Put SIs, which should settle together, in one SI group ("SIG")
Perform calculations
Should any optimization, netting or other calculation take place when creating the SOs/SOGs to settle?
Initiate lock-in
In which order should the assets be locked-in and what should be eligible to lock-in?
Initiate settlement
When should settlement start and what should happen if it fails?

FIG. 6

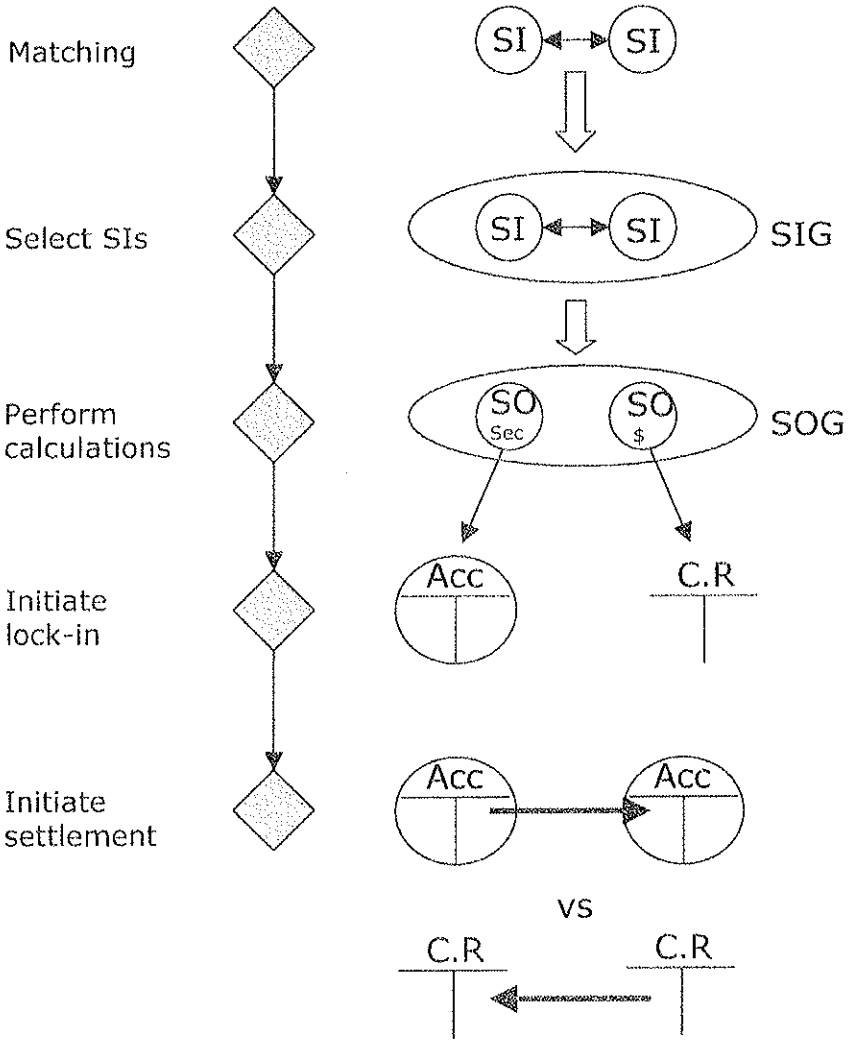

Matching
Select SIs
Perform calculations
Initiate lock-in
Initiate settlement
SI
SI
SI
SI
SIG
SO
Sec
SO
$
SOG
Acc
C.R
Acc
Acc
vs
C.R
C.R

FIG. 7

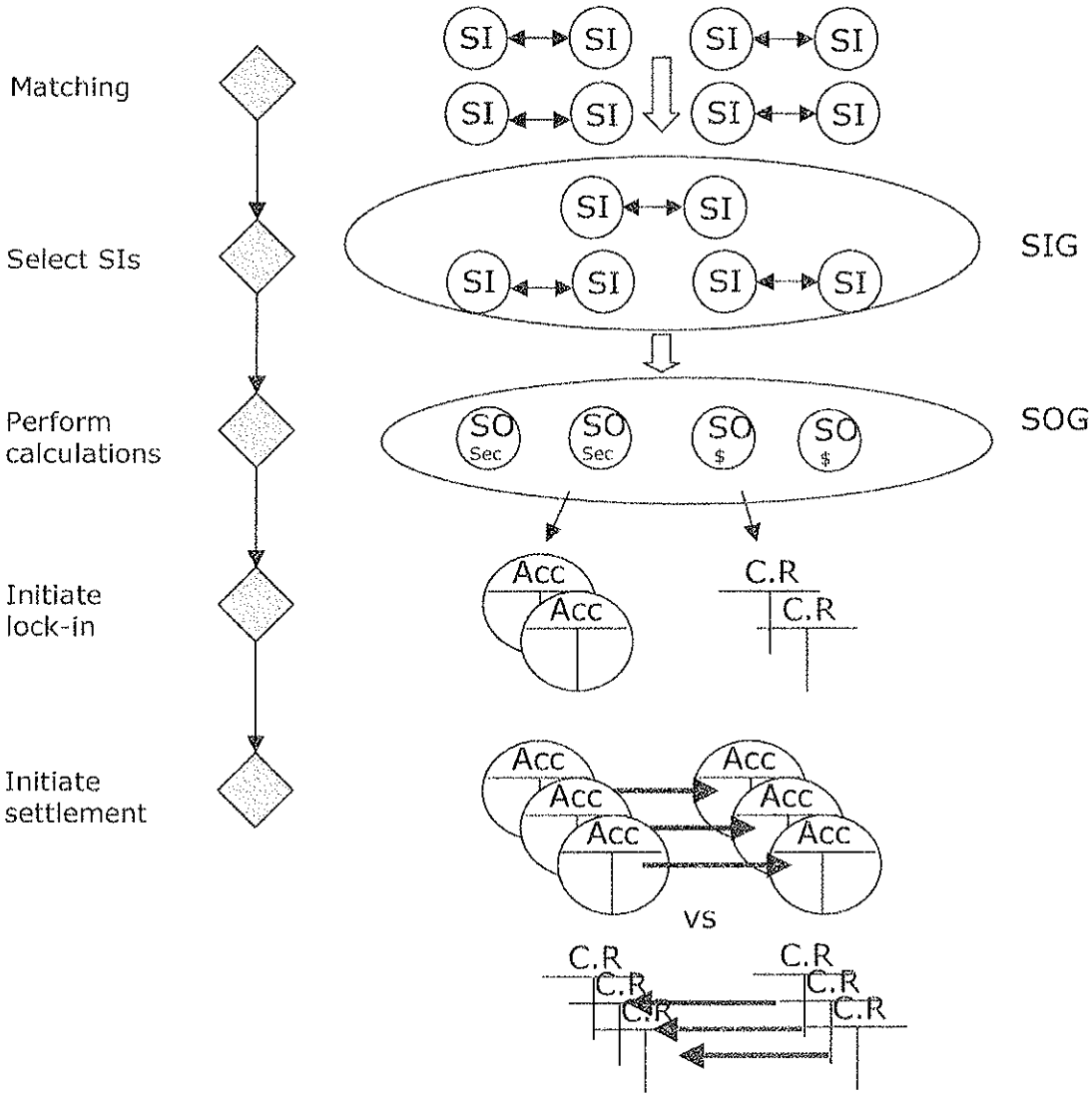

Matching
Select SIs
Perform calculations
Initiate lock-in
Initiate settlement
SI
SIG
SO
Sec
$
SOG
Acc
C.R
vs

FIG. 8

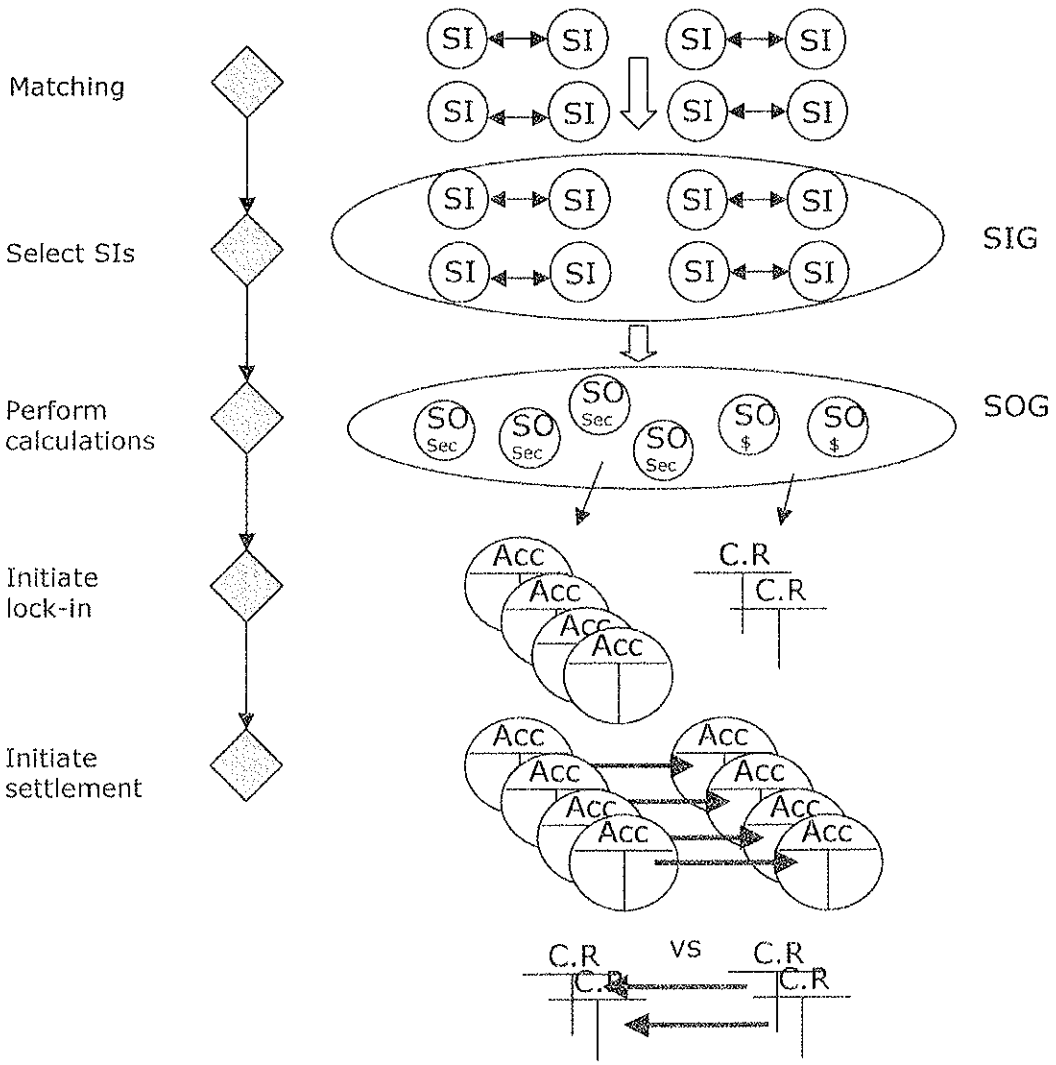

Matching
Select SIs
Perform calculations
Initiate lock-in
Initiate settlement
SI
SIG
SO
Sec
$
SOG
Acc
C.R
VS

FIG. 9

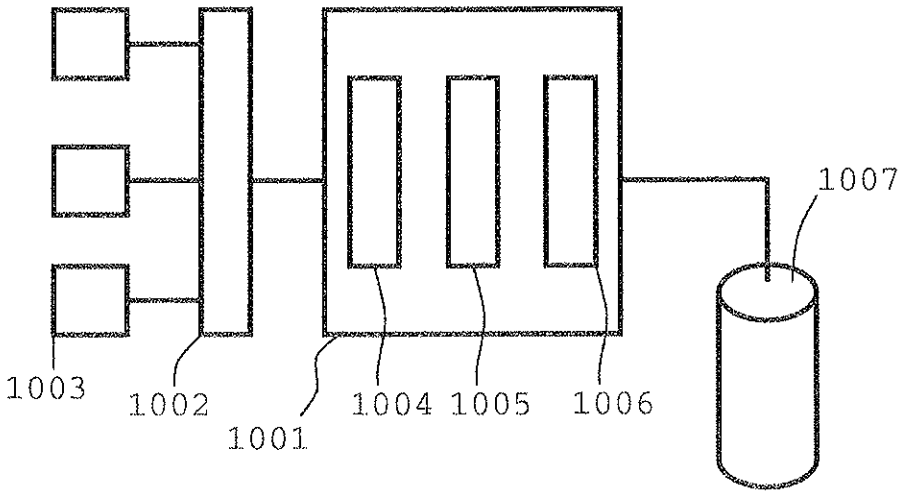

1007
1003
1002
1001
1004
1005
1006

FIG. 10

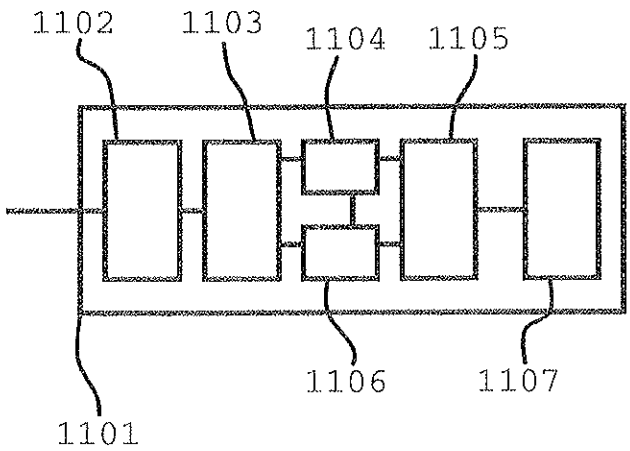

1102
1103
1104
1105
1106
1107
1101

FIG. 11