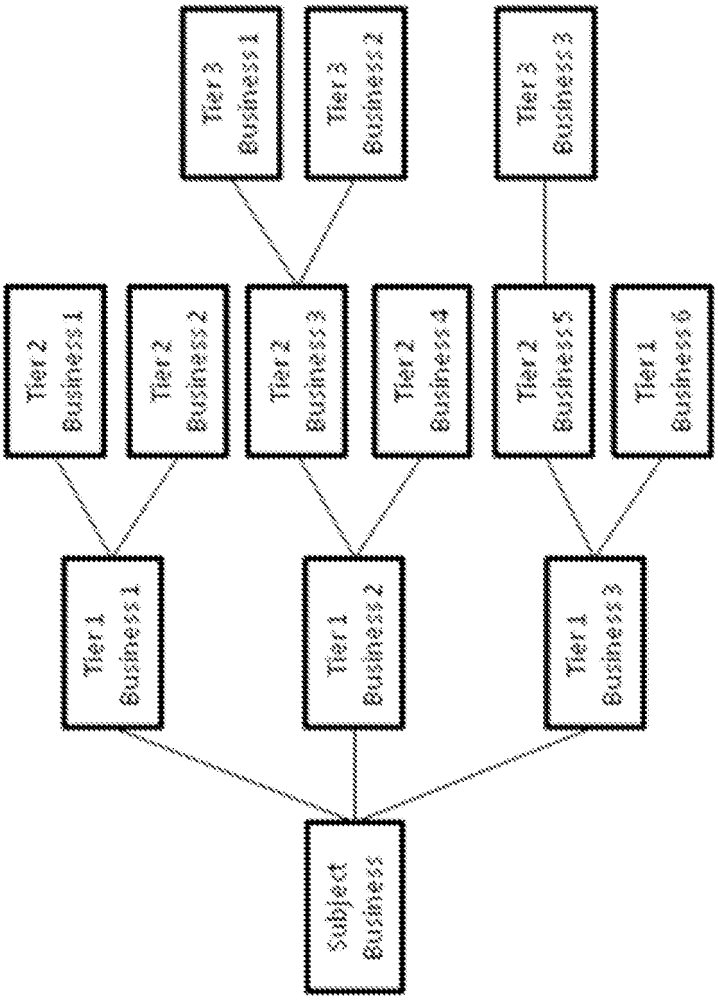

Tier 3 Business 1
Tier 3 Business 2
Tier 3 Business 3
Tier 2 Business 1
Tier 2 Business 2
Tier 2 Business 3
Tier 2 Business 4
Tier 2 Business 5
Tier 1 Business 6
Tier 1 Business 1
Tier 1 Business 2
Tier 1 Business 3
Subject Business

FIG. 1

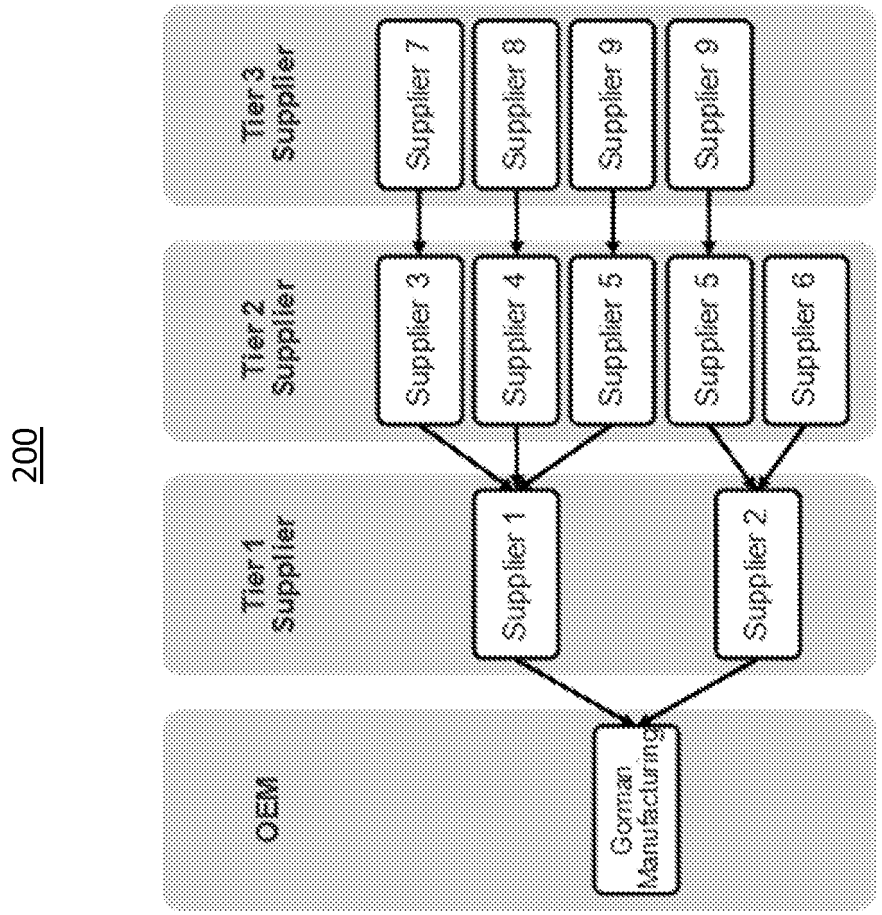

200
OEM
Tier 1 Supplier
Tier 2 Supplier
Tier 3 Supplier
Gorman Manufacturing
Supplier 1
Supplier 2
Supplier 3
Supplier 4
Supplier 5
Supplier 5
Supplier 6
Supplier 7
Supplier 8
Supplier 9
Supplier 9

FIG. 2

TABLE 3
Calculation of Within Tier Indexes for Supplier 1

| Tier 1 | SER of entity in Tier 1 | SER of entities in Tier 2 | Industry Tier 2 | CF of entities in Tier 2 | SER of entities in Tier 3 | Industry Tier 3 | CF of entities in Tier 3 |
|---|---|---|---|---|---|---|---|
| Supplier 1 | 2 | 5 | Manufacturing | 1.5 | 1 | Manufacturing | 1.5 |
| | | 3 | Finance | 0.5 | 6 | Services | 1 |
| | | 8 | Wholesales | 1 | 4 | Telecom | 0.5 |
| Within Tier Index: 2 | | Within Tier Index: 5.7 =(5*1.5+3*0.5+8*1)/(1.5+0.5+1) | | | Within Tier Index: 3.2 =(1*1.5+6*1+4*0.5)/(1.5+1+0.5) | | |

FIG. 3

TABLE 4

Calculation of SCRI for Supplier 1

| Tier 1 | SER of entity in Tier 1 | SCRI |
|---|---|---|
| Supplier 1 | 2 | 3.1 = 2*0.6+5.7*0.25+3.2*0.15 |

FIG. 4

TABLE 5
Calculation of Within Tier Indexes for Supplier 2

| Tier 1 | SER of entity in Tier 1 | SER of entities in Tier 2 | Industry Tier 2 | CF of entities in Tier 2 | SER of entities in Tier 3 | Industry Tier 3 | CF of entities in Tier 3 |
|---|---|---|---|---|---|---|---|
| Supplier 2 | 2 | 8 | Wholesales | 1 | 4 | Telecom | 0.5 |
| | | 1 | Manufacturing | 1.5 | | | |
| Within Tier Index: 2 | | Within Tier Index: 3.8 =(8*1+1*1.5)/(1+1.5) | | | Within Tier Index: 4 | | |

FIG. 5

TABLE 6

Calculation of SCRI for Supplier 2

| Tier 1 | SER of entity in Tier 1 | SCRI |
|---|---|---|
| Supplier 2 | 2 | 2.8 = 2*0.6+3.8*0.25+4*0.15 |

FIG. 6

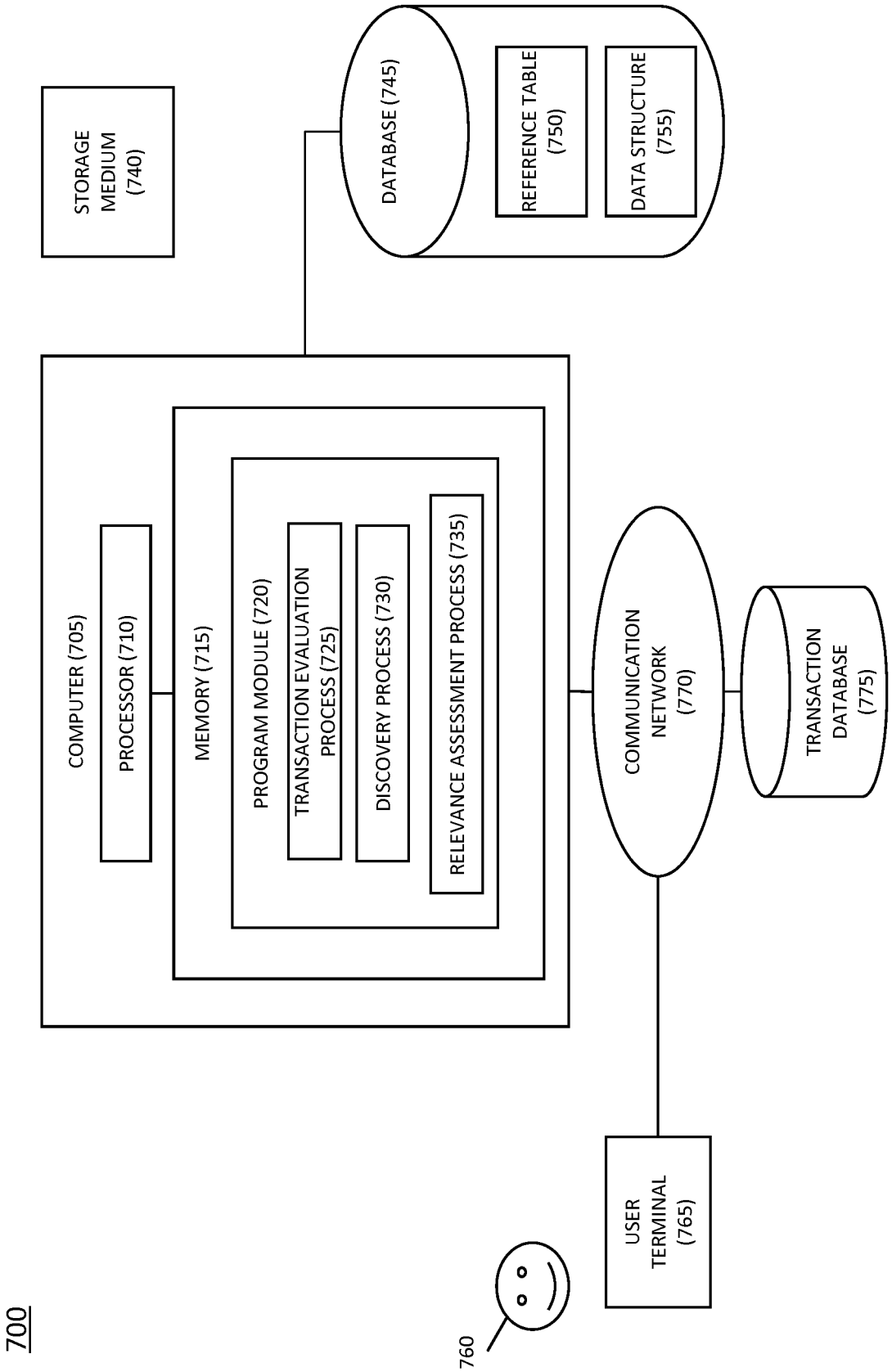

700
STORAGE MEDIUM (740)
DATABASE (745)
REFERENCE TABLE (750)
DATA STRUCTURE (755)
COMPUTER (705)
PROCESSOR (710)
MEMORY (715)
PROGRAM MODULE (720)
TRANSACTION EVALUATION PROCESS (725)
DISCOVERY PROCESS (730)
RELEVANCE ASSESSMENT PROCESS (735)
COMMUNICATION NETWORK (770)
TRANSACTION DATABASE (775)
760
USER TERMINAL (765)

FIG. 7

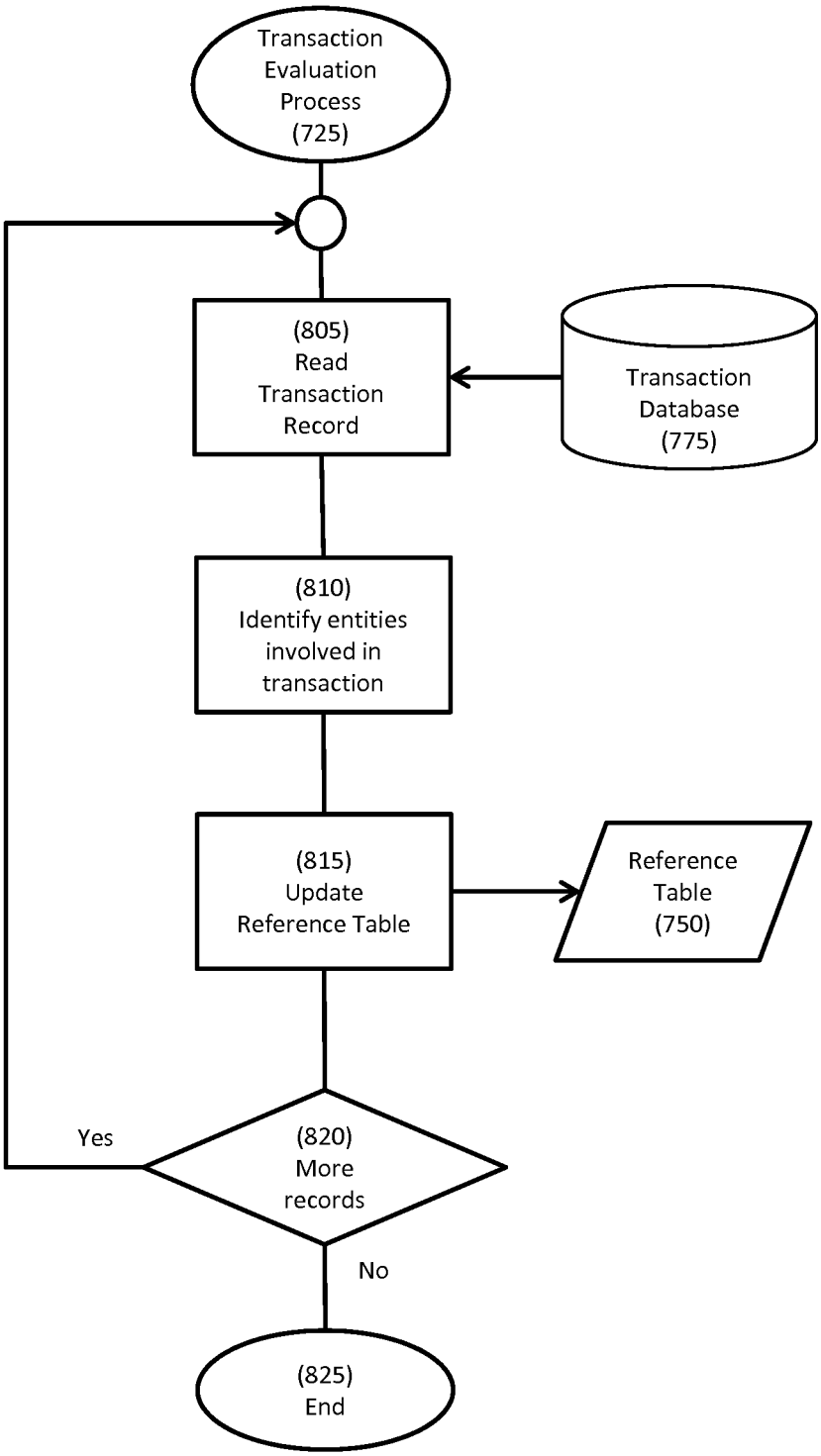

Transaction Evaluation Process (725)
(805) Read Transaction Record
Transaction Database (775)
(810) Identify entities involved in transaction
(815) Update Reference Table
Reference Table (750)
(820) More records
Yes
No
(825) End

FIG. 8

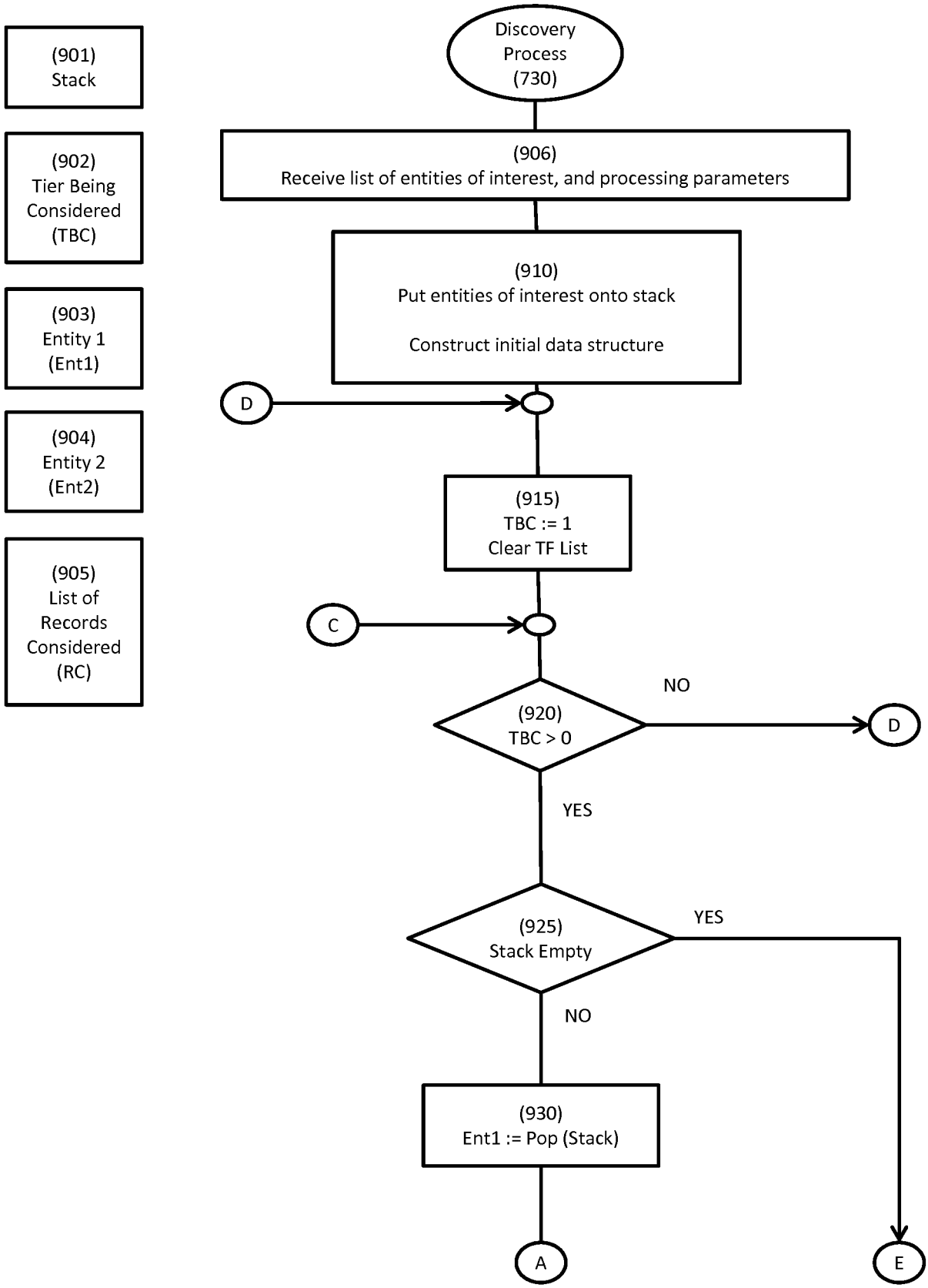

(901)
Stack
(902)
Tier Being
Considered
(TBC)
(903)
Entity 1
(Ent1)
(904)
Entity 2
(Ent2)
(905)
List of
Records
Considered
(RC)
Discovery
Process
(730)
(906)
Receive list of entities of interest, and processing parameters
(910)
Put entities of interest onto stack
Construct initial data structure
D
(915)
TBC := 1
Clear TF List
C
(920)
TBC > 0
NO
D
YES
(925)
Stack Empty
YES
NO
(930)
Ent1 := Pop (Stack)
A
E

FIG. 9A

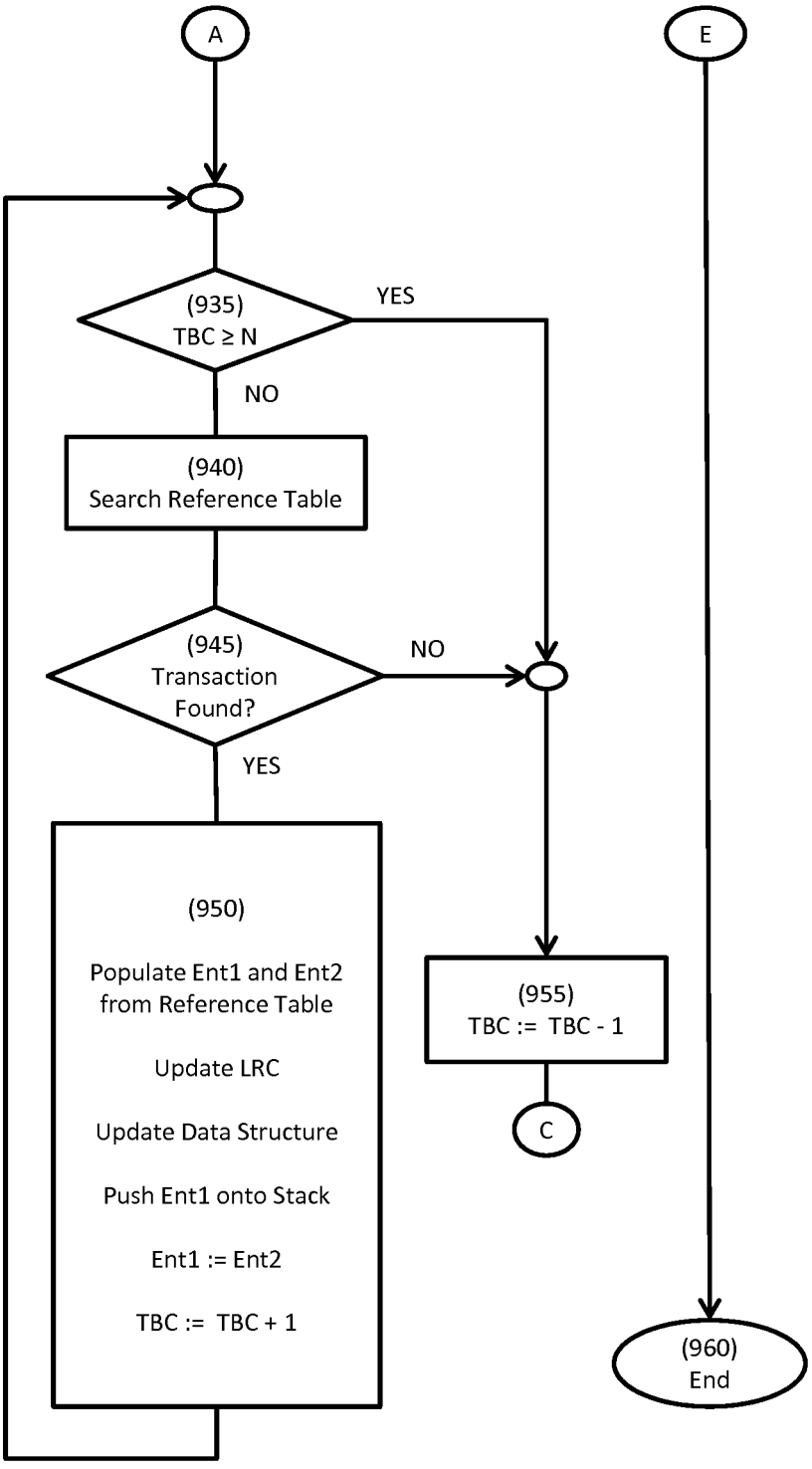

A
E
(935)
TBC ≥ N
YES
NO
(940)
Search Reference Table
(945)
Transaction
Found?
NO
YES
(950)
Populate Ent1 and Ent2
from Reference Table
Update LRC
Update Data Structure
Push Ent1 onto Stack
Ent1 := Ent2
TBC := TBC + 1
(955)
TBC := TBC - 1
C
(960)
End

FIG. 9B

STATE TABLE 1000

N = 3

| State | Stack 901 | TBC 902 | Ent1 903 | Ent2 904 | Structure 755 | LRC 905 |
|---|---|---|---|---|---|---|
| 1001 | S2, S1 | x | x | x | FIG. 11A | x |
| 1002 | S2, S1 | 1 | x | x | FIG. 11A | 0 |
| 1003 | S2 | 1 | S1 | x | FIG. 11A | 0 |
| 1004 | S2, S1 | 2 | S3 | S3 | FIG. 11B | 1 |
| 1005 | S2, S1, S3 | 3 | S7 | S7 | FIG. 11C | 1, 6 |
| 1006 | S2, S1, S3 | 2 | S7 | S7 | FIG. 11C | 1, 6 |
| 1007 | S2, S1 | 2 | S3 | S7 | FIG. 11C | 1, 6 |
| 1008 | S2, S1 | 1 | S3 | S7 | FIG. 11C | 1, 6 |

FIG. 10

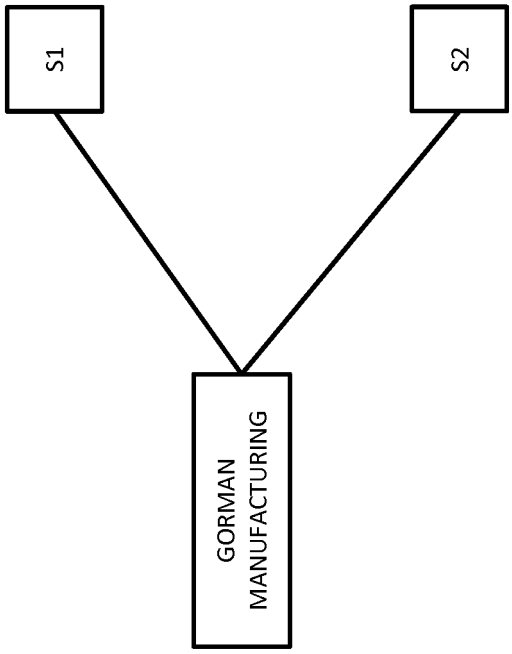



FIG. 11A

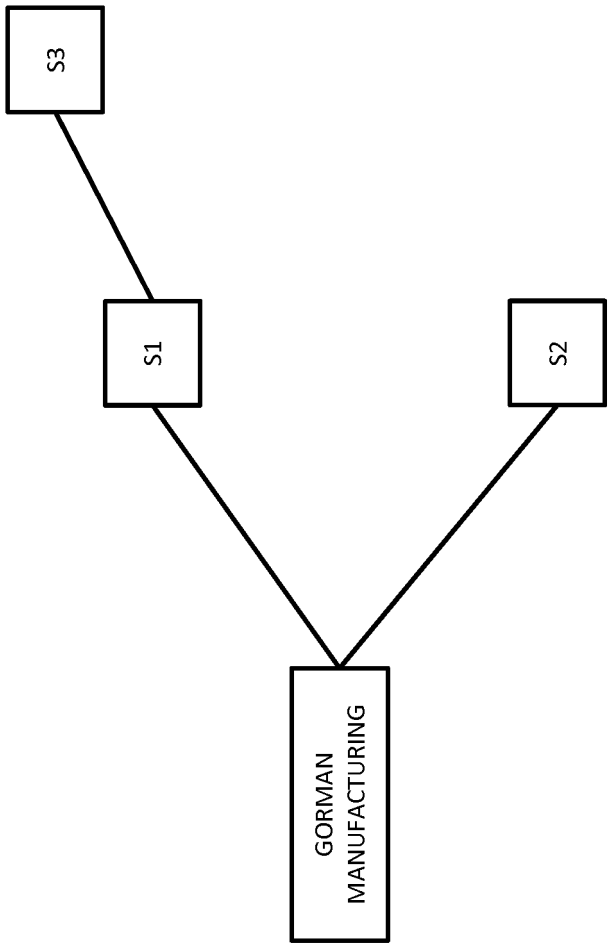



FIG. 11B

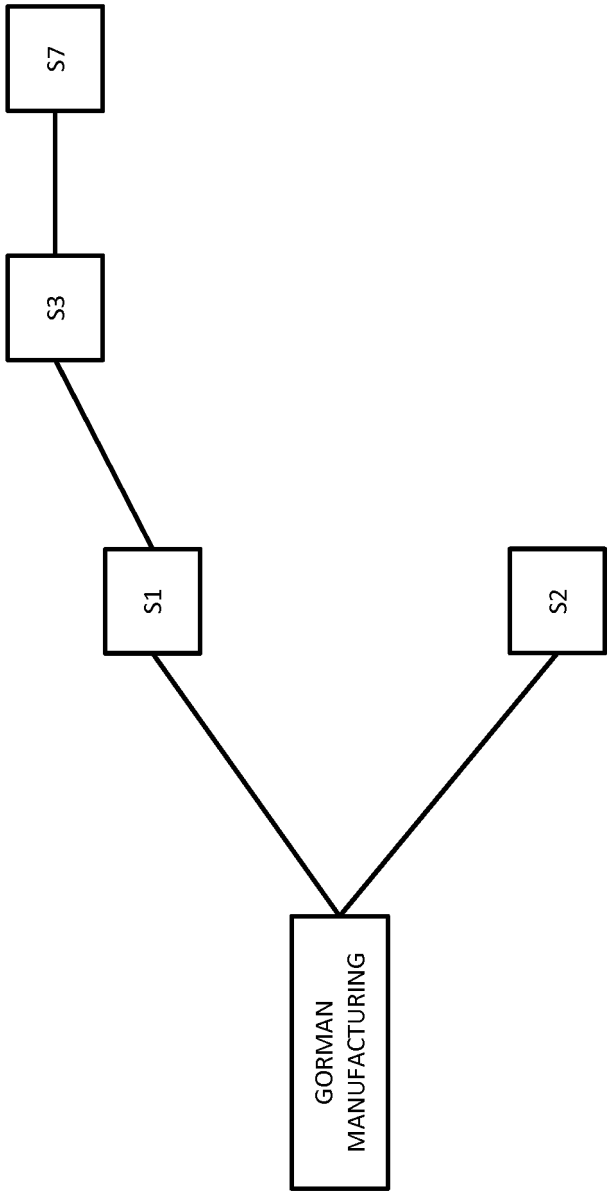



FIG. 11C

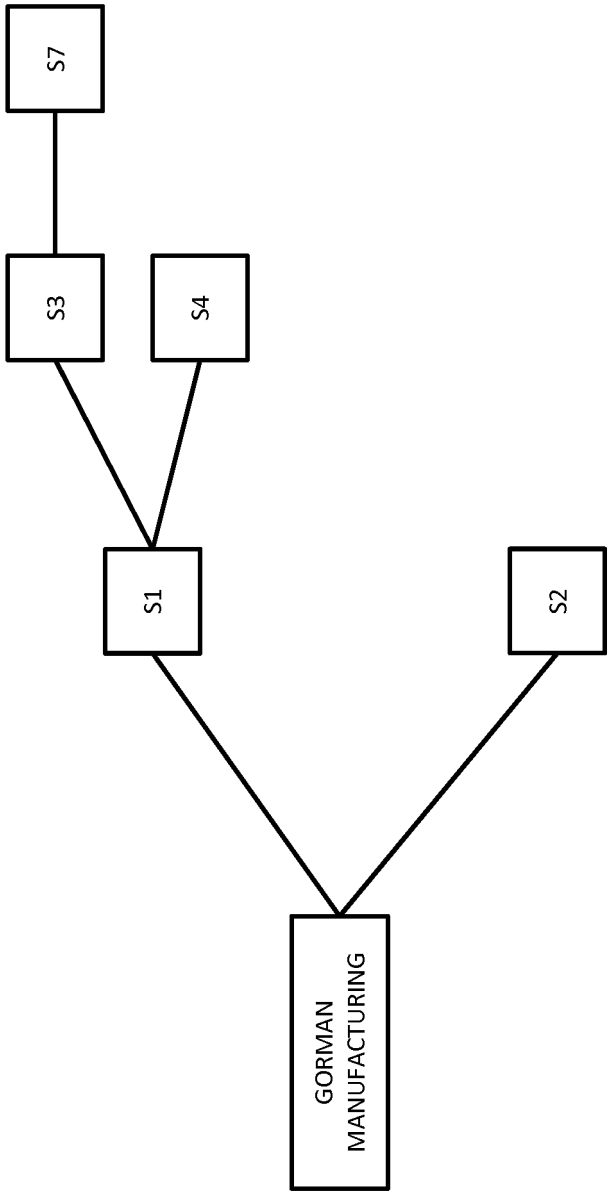



FIG. 11D

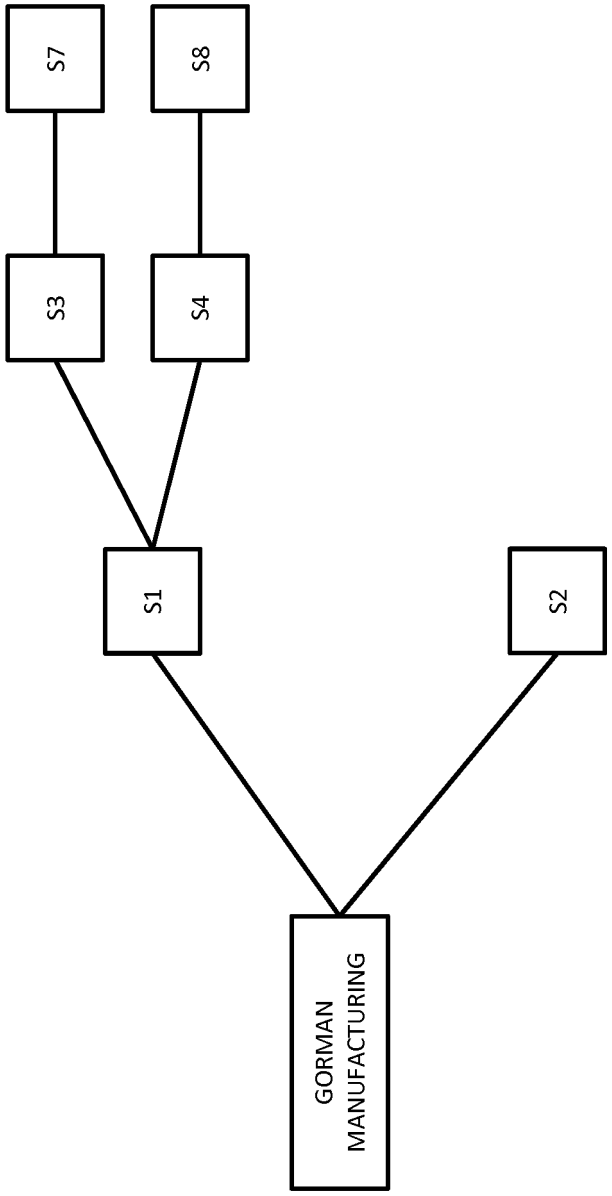



FIG. 11E

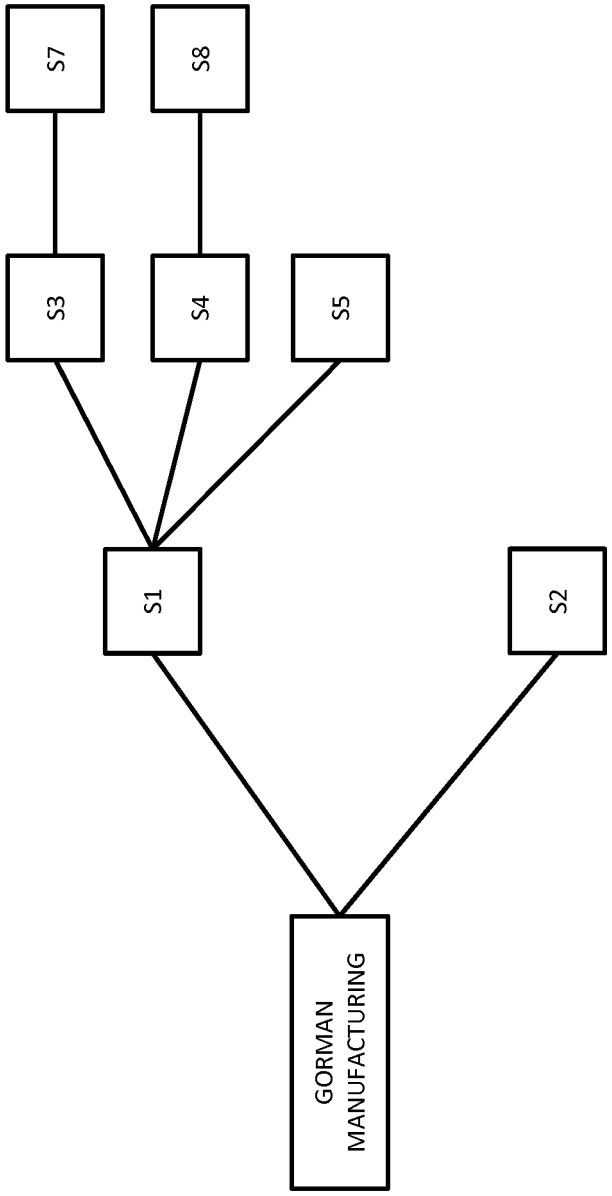



FIG. 11F

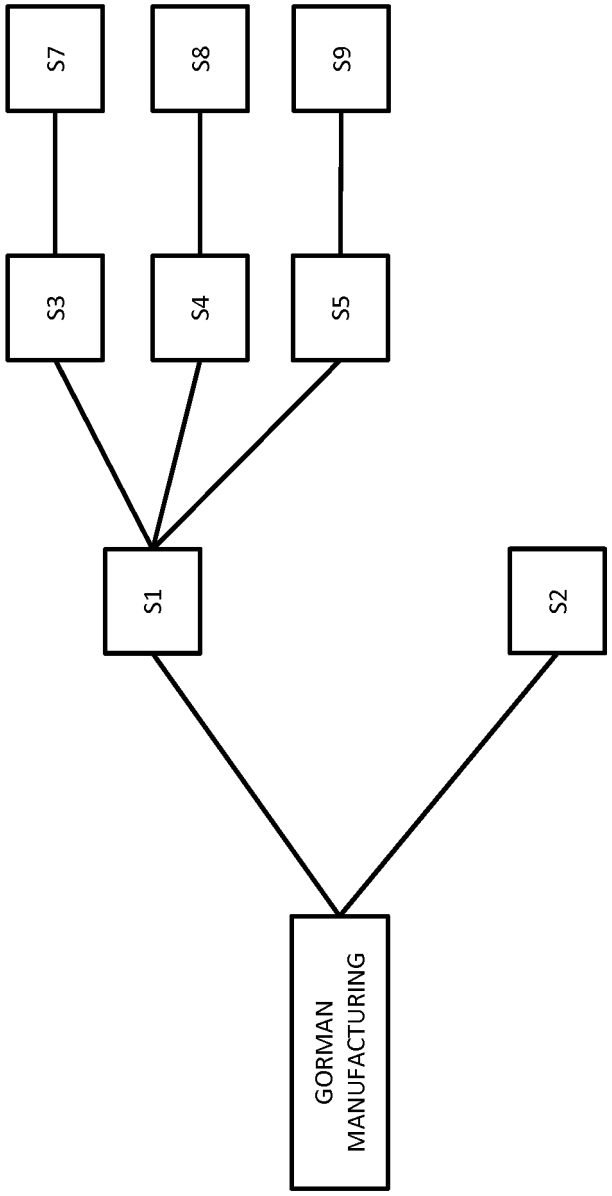



FIG. 11G

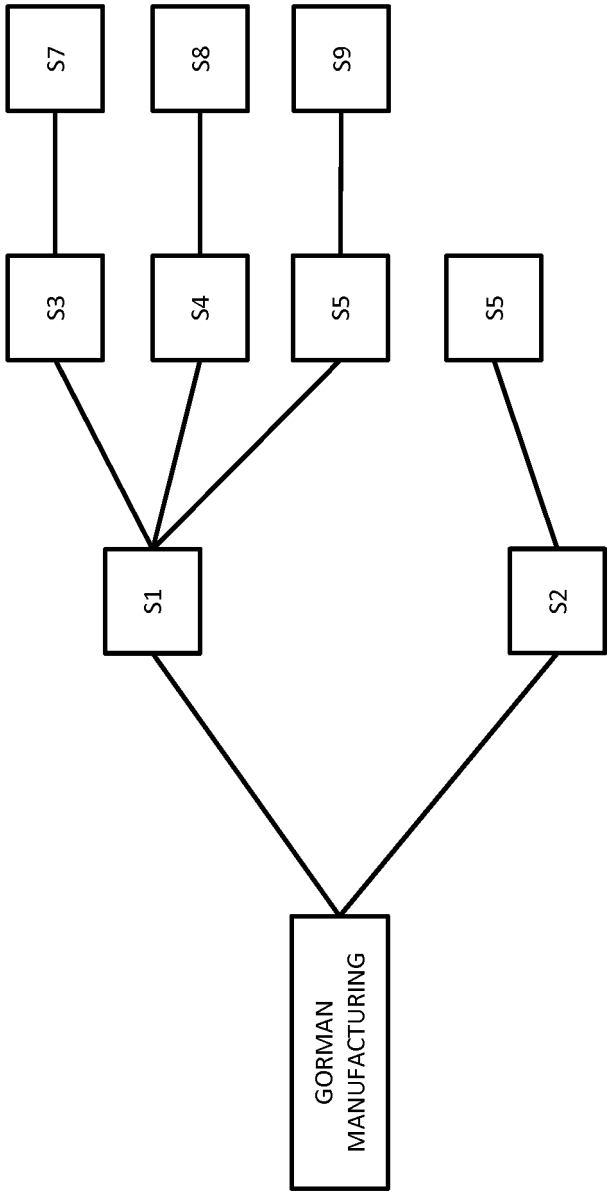



FIG. 11H

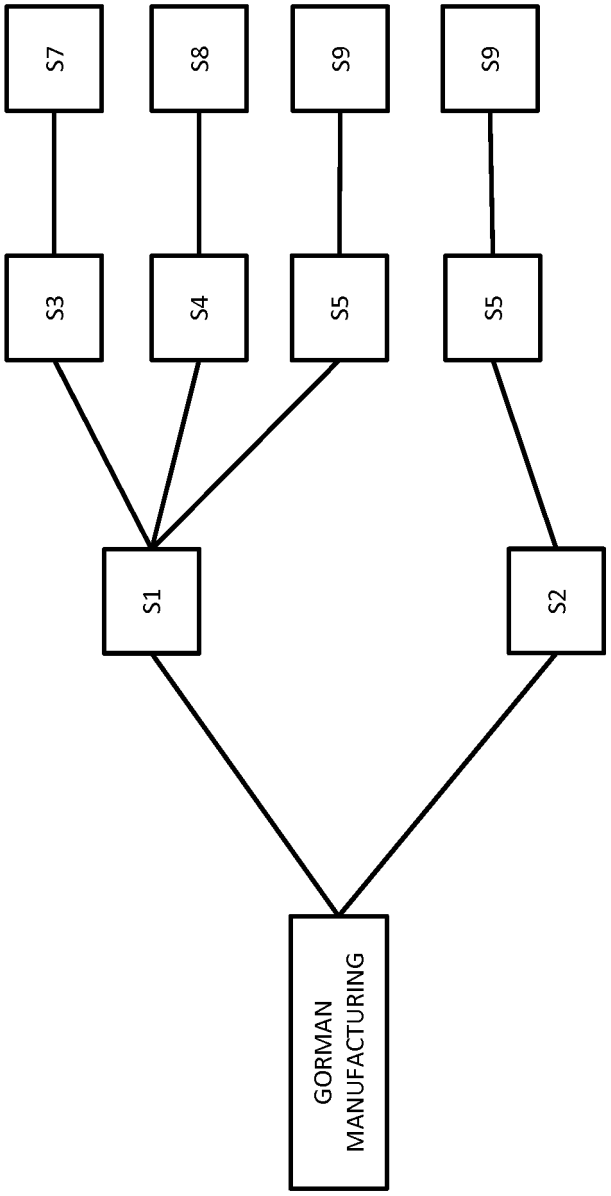



FIG. 11I

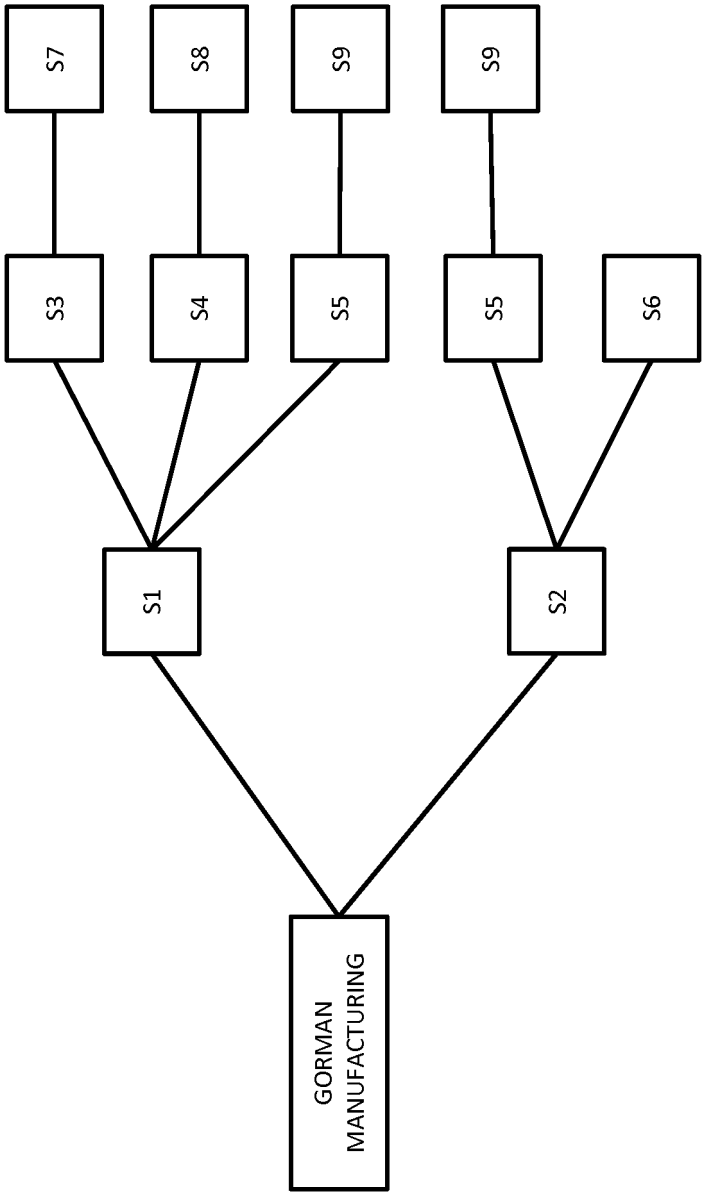



FIG. 11J