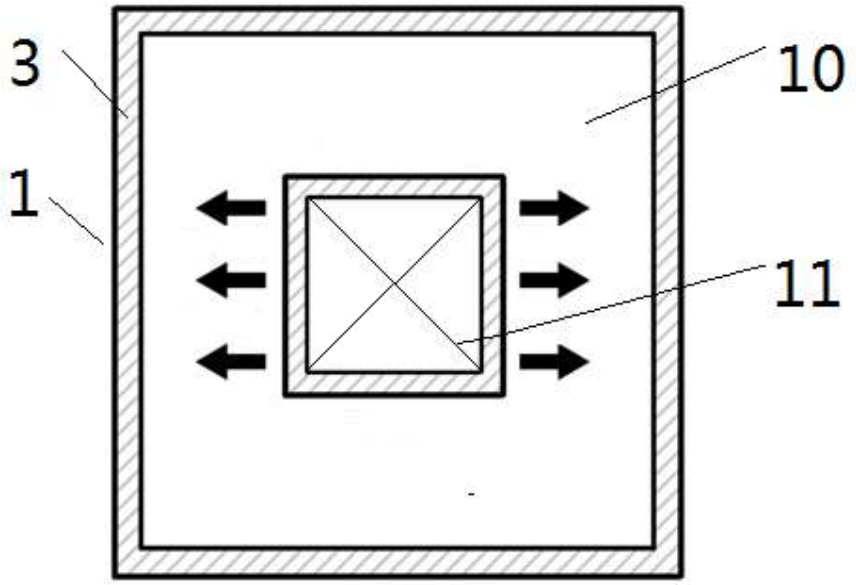


FIG. 1

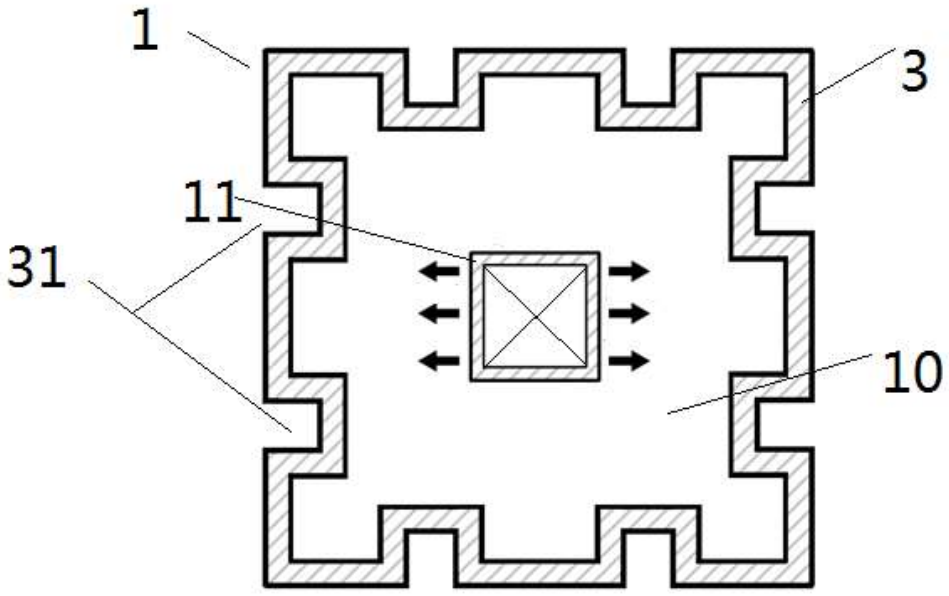


FIG. 2

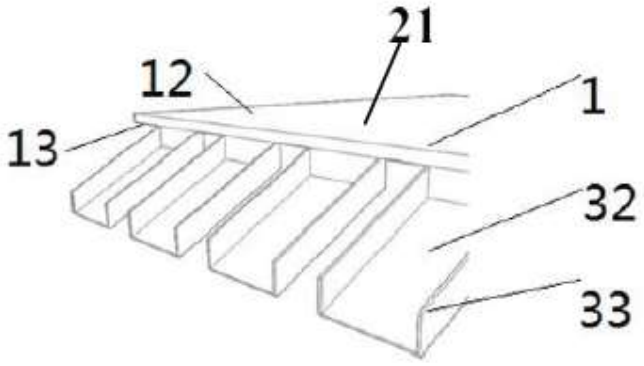


FIG. 3A

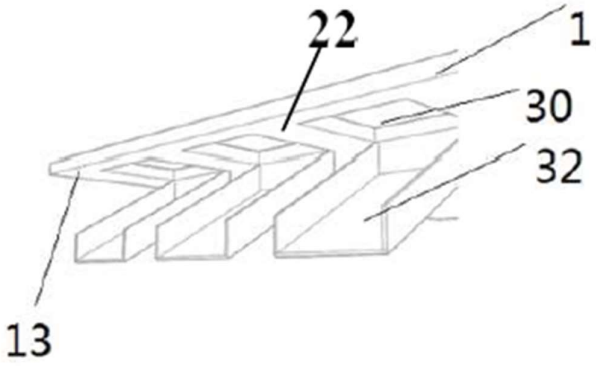


FIG. 3B

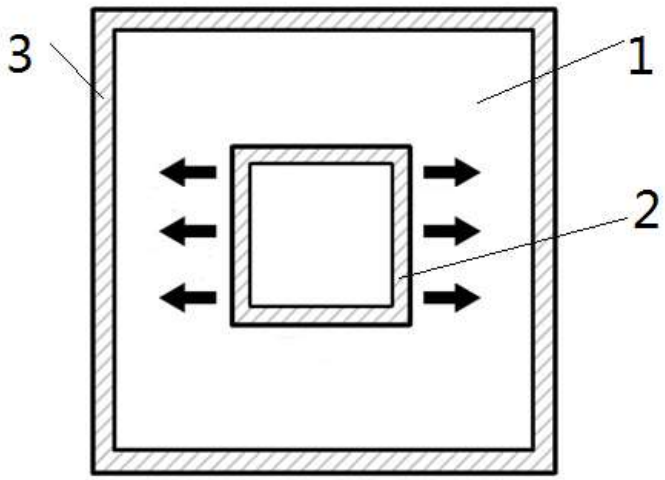


FIG. 4

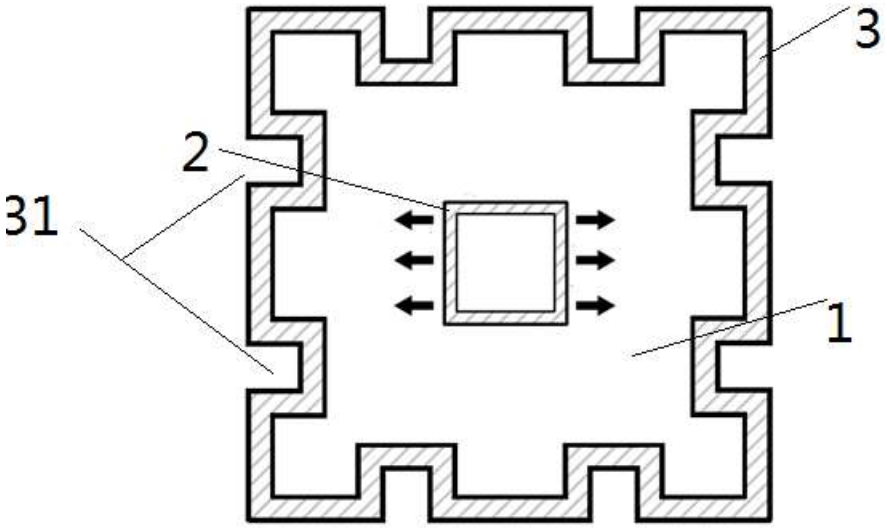


FIG. 5

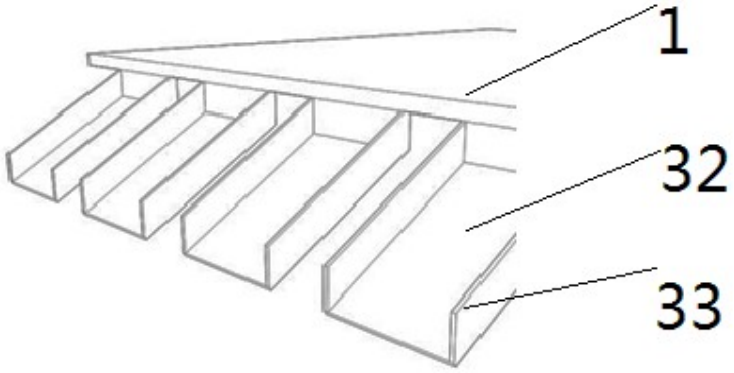


FIG. 6A

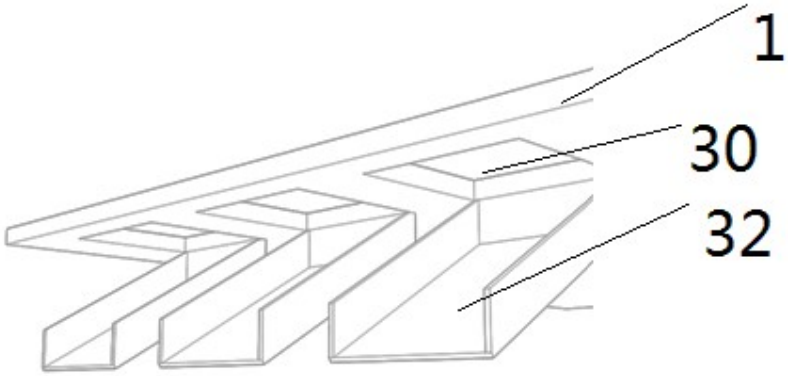


FIG. 6B

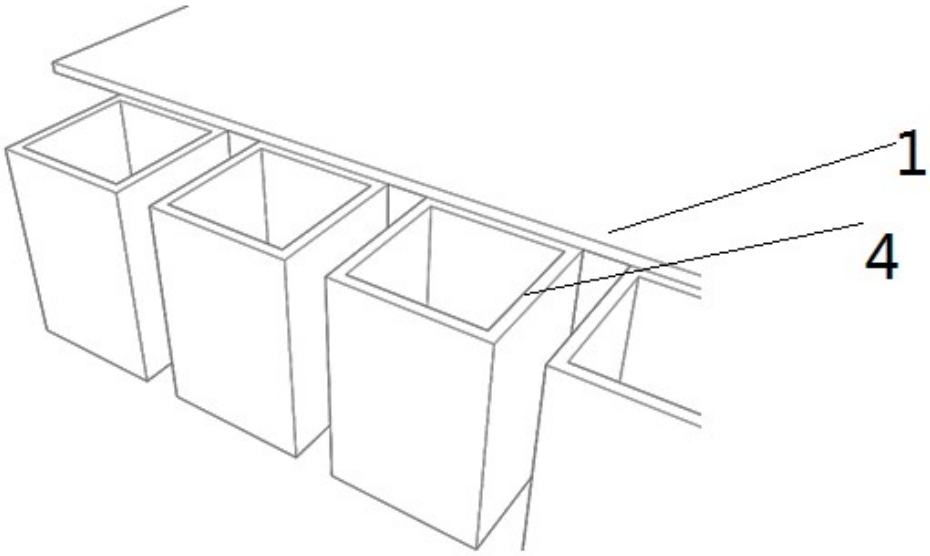

1
4

FIG. 7

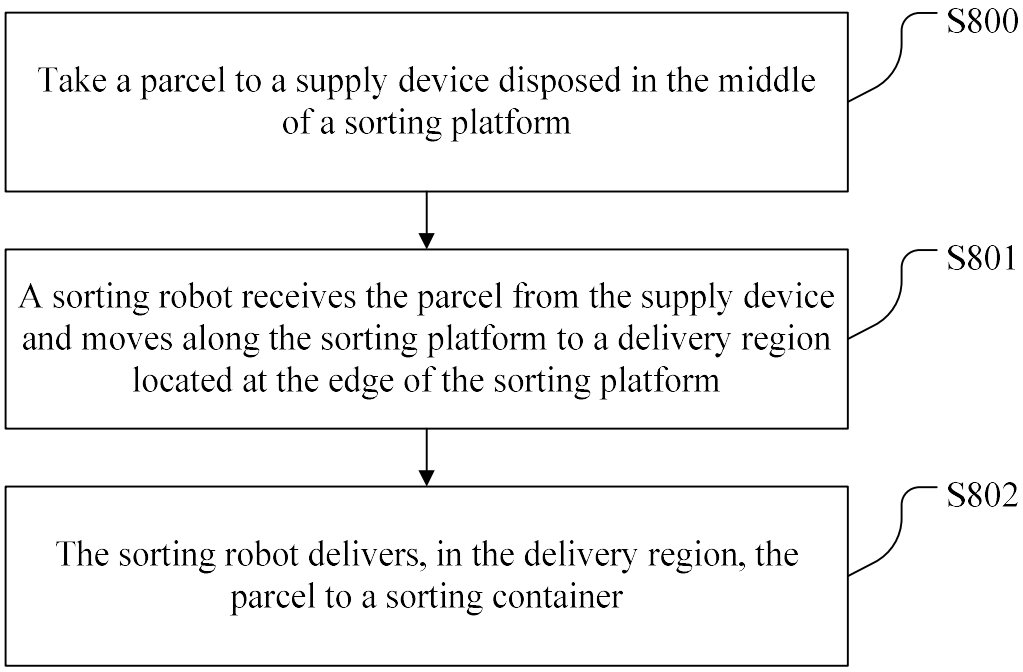

Take a parcel to a supply device disposed in the middle of a sorting platform
S800
A sorting robot receives the parcel from the supply device and moves along the sorting platform to a delivery region located at the edge of the sorting platform
S801
The sorting robot delivers, in the delivery region, the parcel to a sorting container
S802

FIG. 8

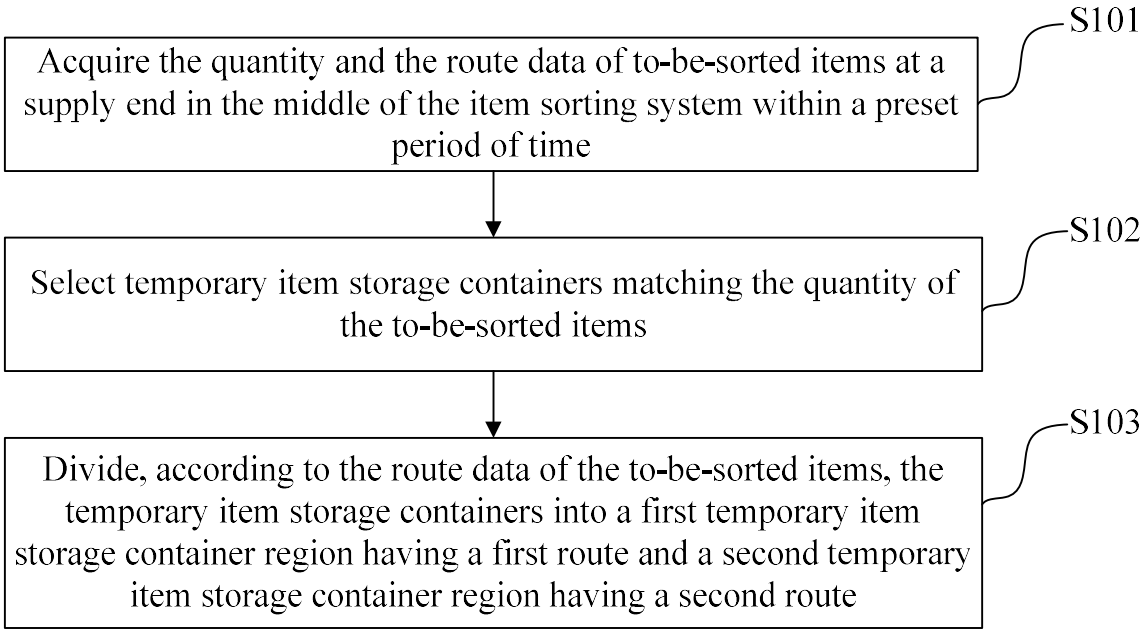

S101
Acquire the quantity and the route data of to-be-sorted items at a supply end in the middle of the item sorting system within a preset period of time
S102
Select temporary item storage containers matching the quantity of the to-be-sorted items
S103
Divide, according to the route data of the to-be-sorted items, the temporary item storage containers into a first temporary item storage container region having a first route and a second temporary item storage container region having a second route

FIG. 9

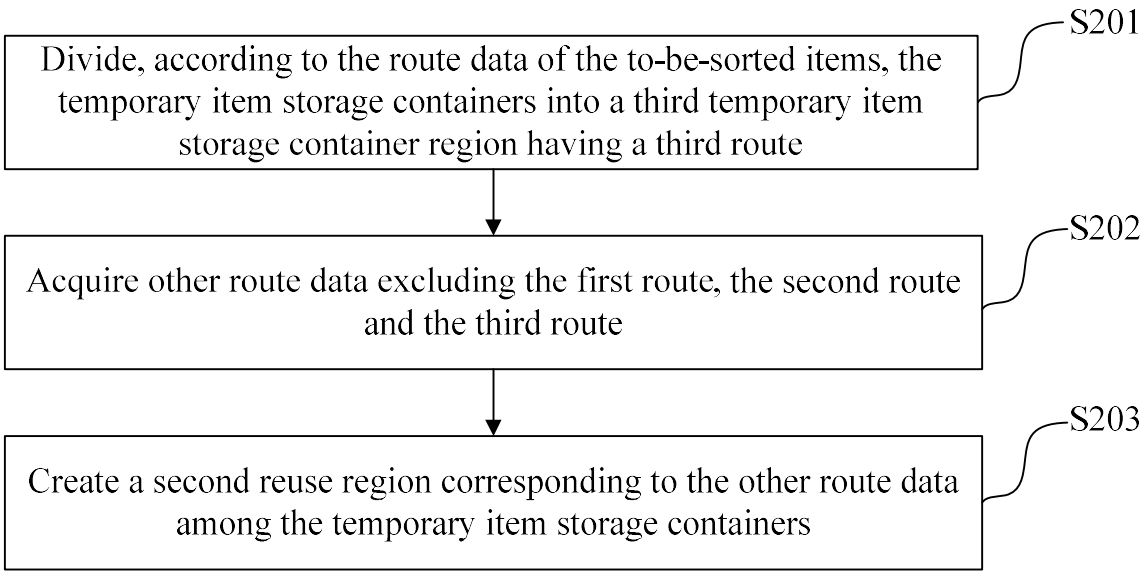

S201
Divide, according to the route data of the to-be-sorted items, the temporary item storage containers into a third temporary item storage container region having a third route
S202
Acquire other route data excluding the first route, the second route and the third route
S203
Create a second reuse region corresponding to the other route data among the temporary item storage containers

FIG. 10

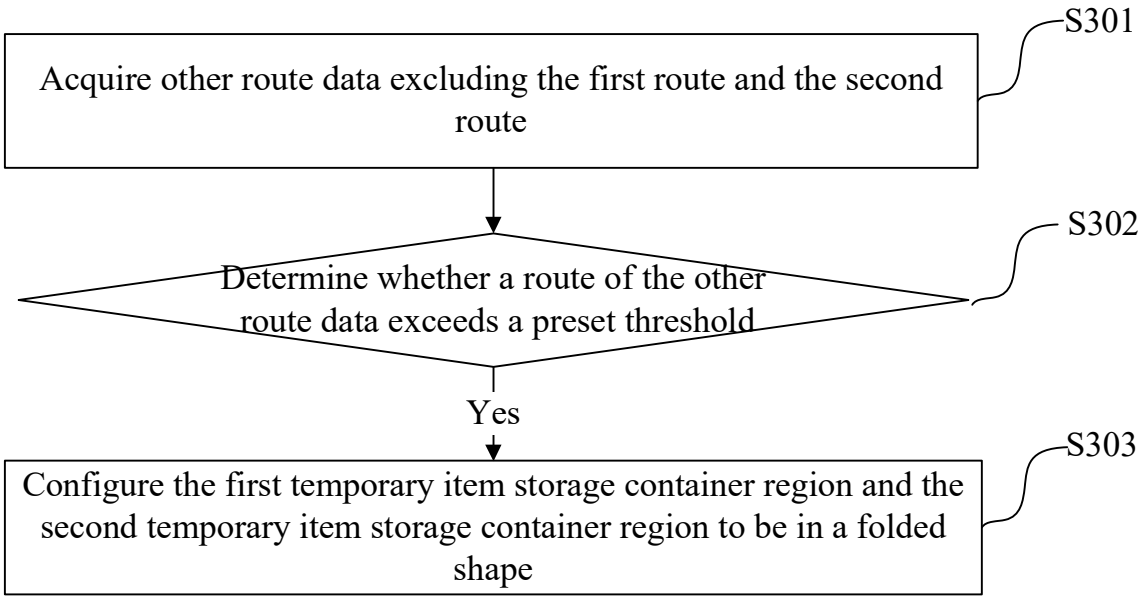

Acquire other route data excluding the first route and the second route
S301
Determine whether a route of the other route data exceeds a preset threshold
S302
Yes
Configure the first temporary item storage container region and the second temporary item storage container region to be in a folded shape
S303

FIG. 11

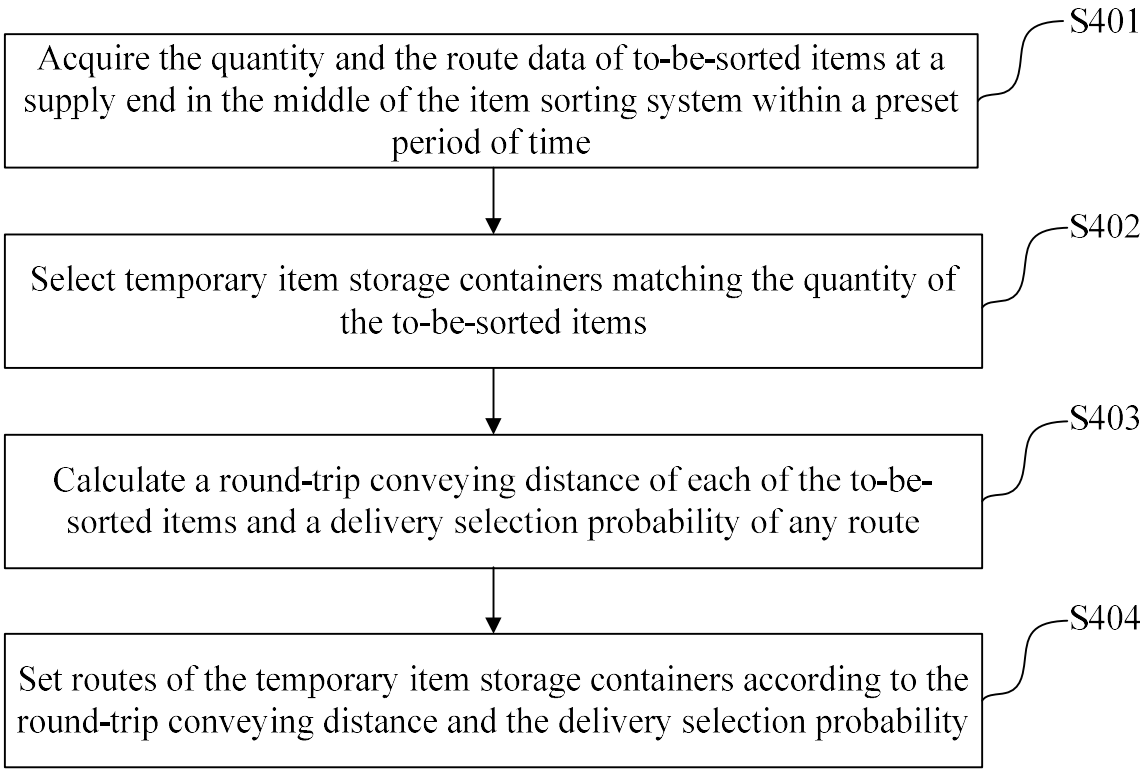

Acquire the quantity and the route data of to-be-sorted items at a supply end in the middle of the item sorting system within a preset period of time
S401
Select temporary item storage containers matching the quantity of the to-be-sorted items
S402
Calculate a round-trip conveying distance of each of the to-be-sorted items and a delivery selection probability of any route
S403
Set routes of the temporary item storage containers according to the round-trip conveying distance and the delivery selection probability
S404

FIG. 12

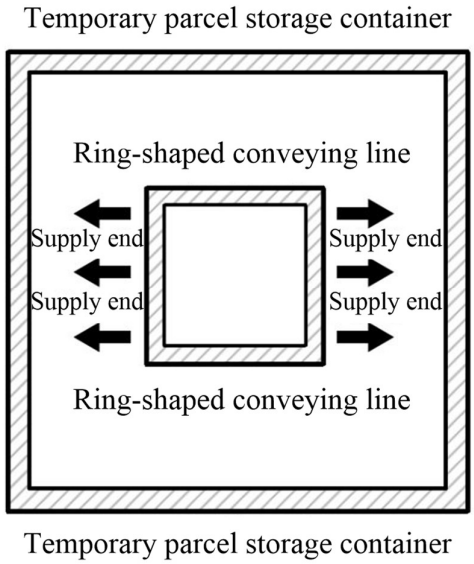


FIG. 13

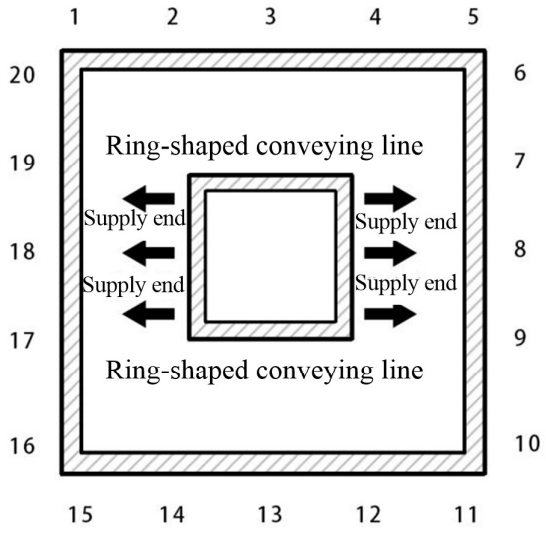


FIG. 14A

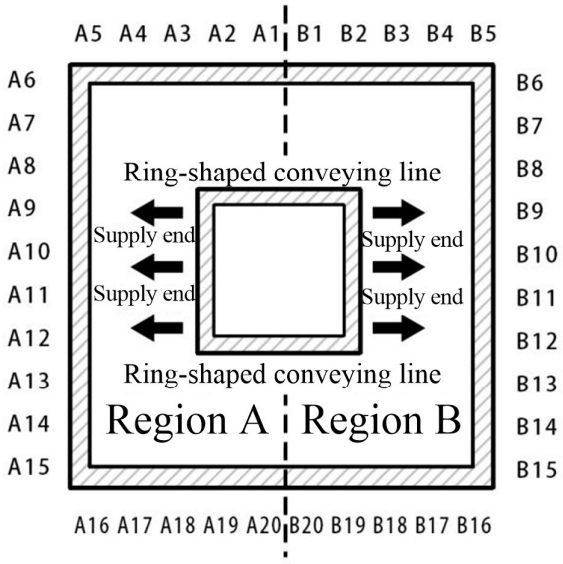


FIG. 14B

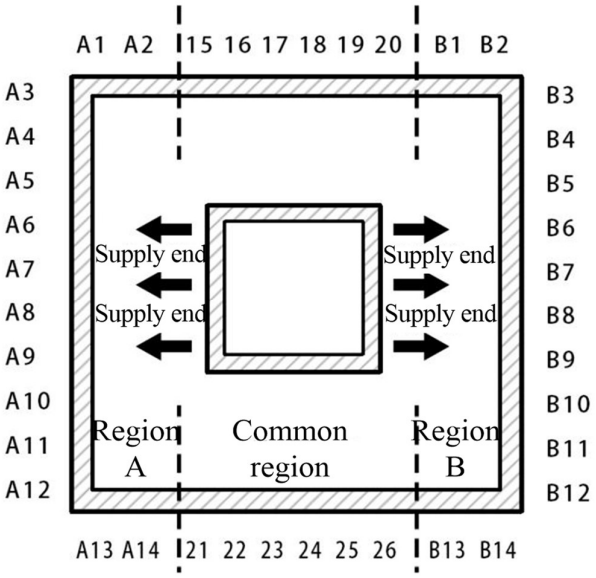

A1 A2 15 16 17 18 19 20 B1 B2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
Supply end
Supply end
Supply end
Supply end
Region A
Common region
Region B
A13 A14 21 22 23 24 25 26 B13 B14

FIG. 15

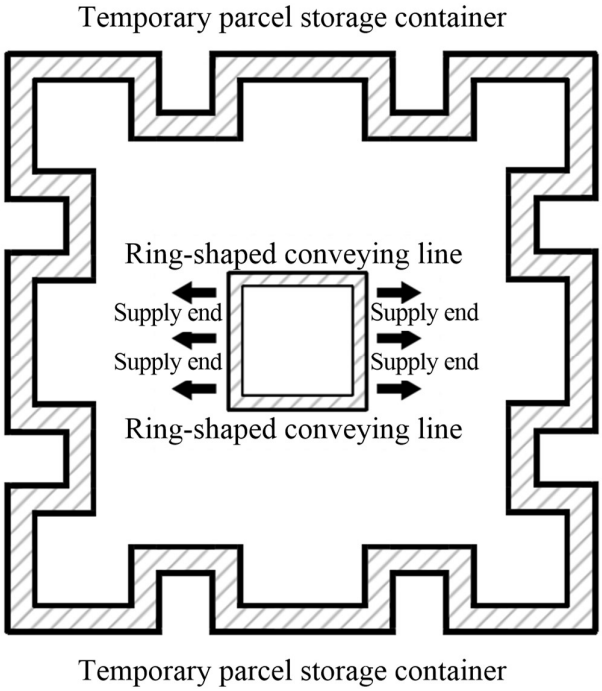

Temporary parcel storage container
Ring-shaped conveying line
Supply end
Supply end
Supply end
Supply end
Ring-shaped conveying line
Temporary parcel storage container

FIG. 16

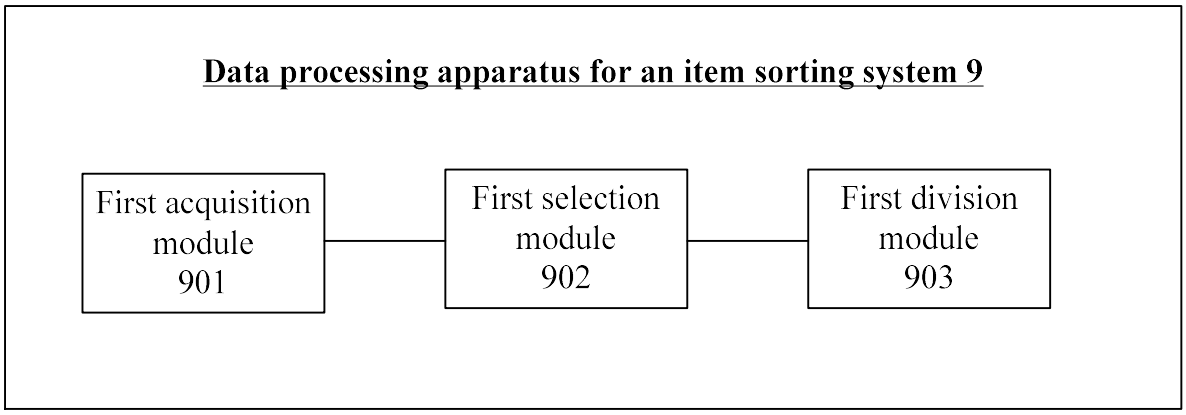


FIG. 17

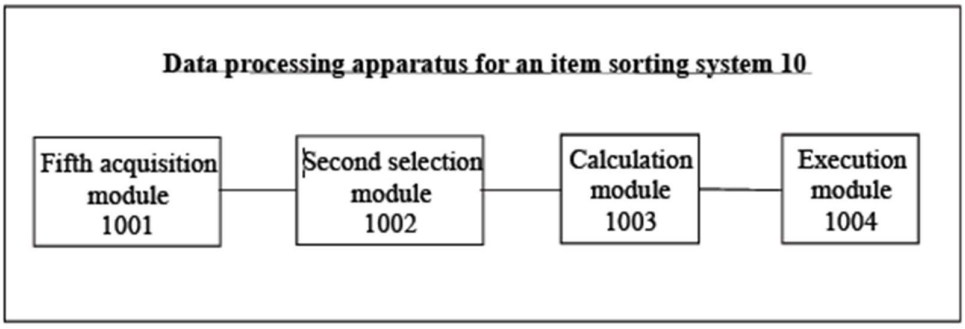


FIG. 18

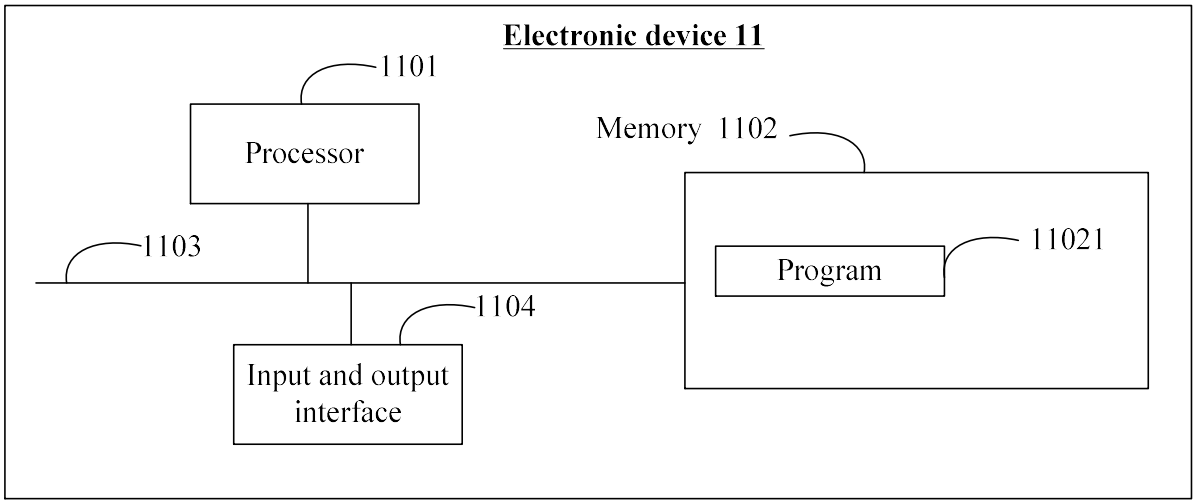


FIG. 19