

July 9, 1929.

M. W. THOMPSON

1,720,106

DISTRIBUTING SYSTEM

Filed Aug. 3, 1927

4 Sheets-Sheet 1

Fig. 1.

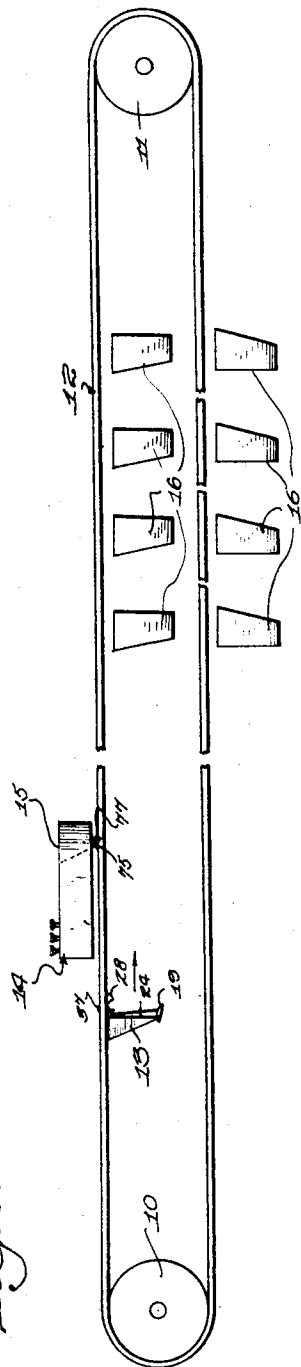
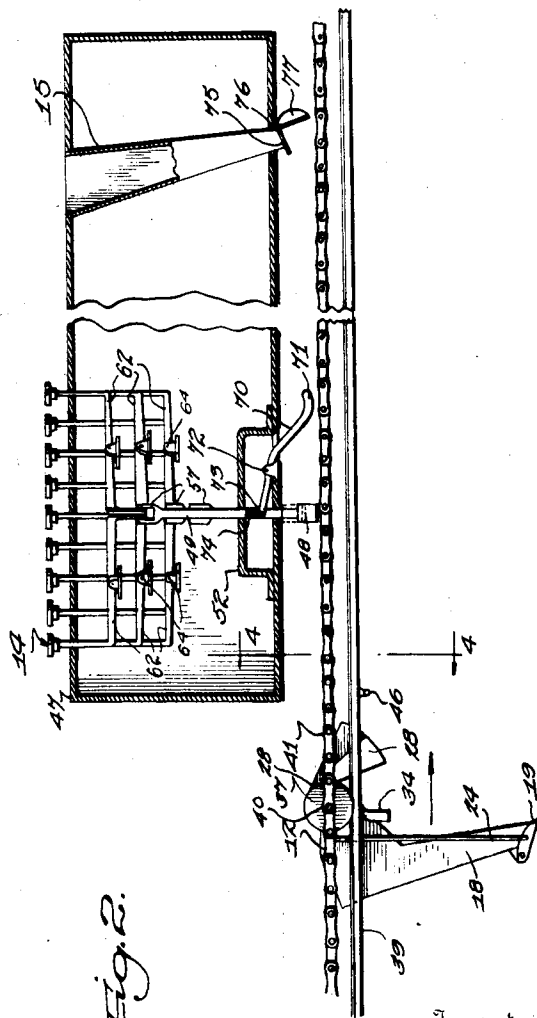


Fig. 2.



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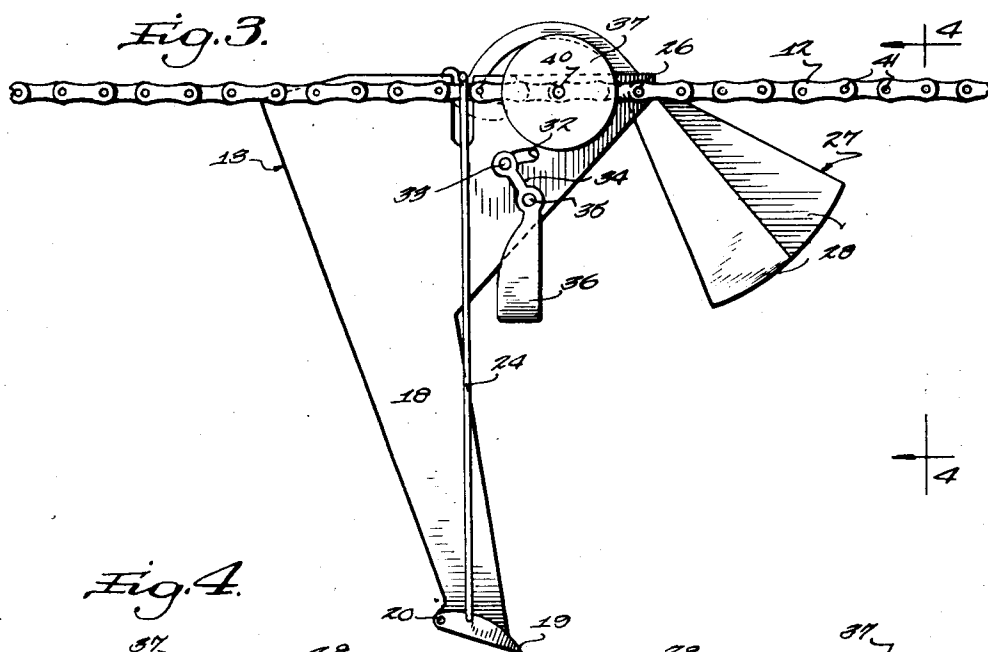
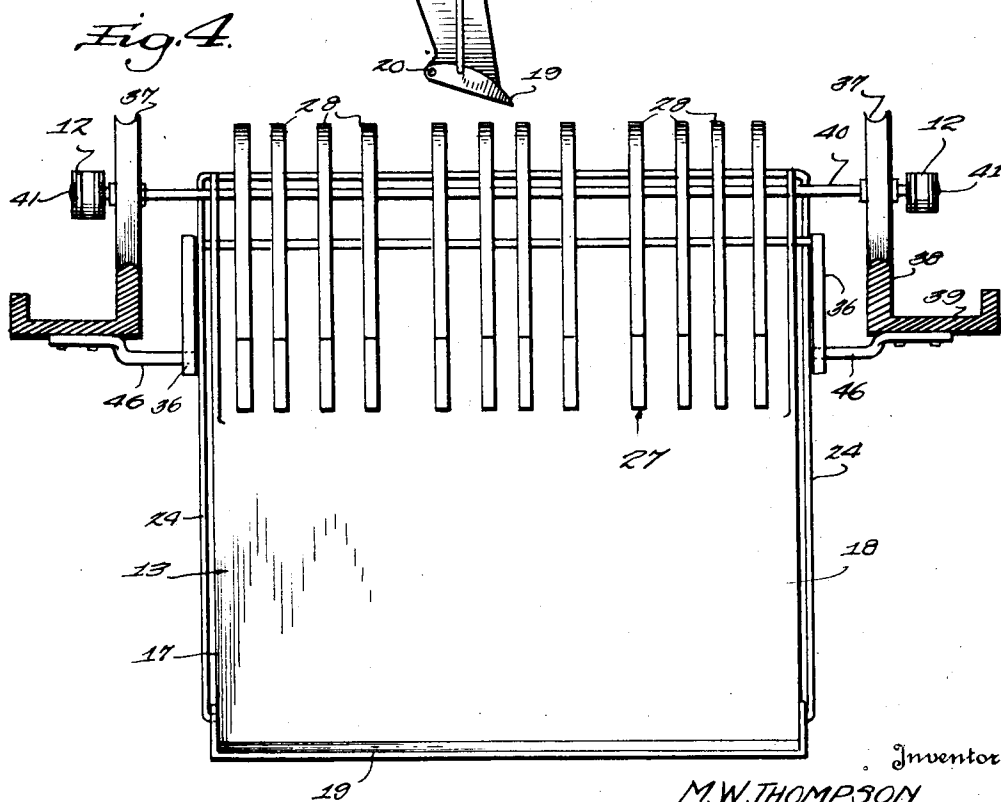
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4 Sheets-Sheet 2



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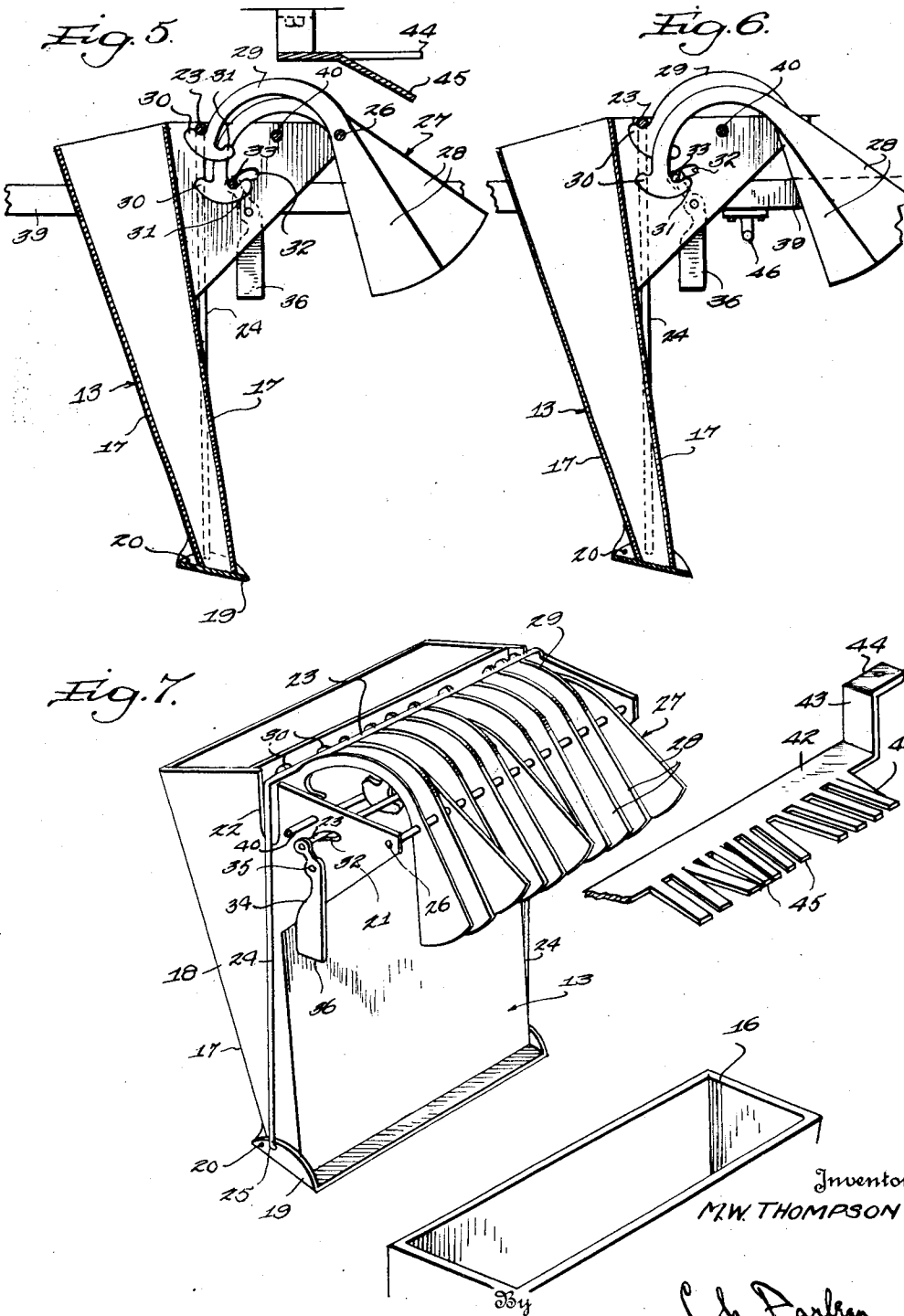
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DISTRIBUTING SYSTEM

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Fig. 8.

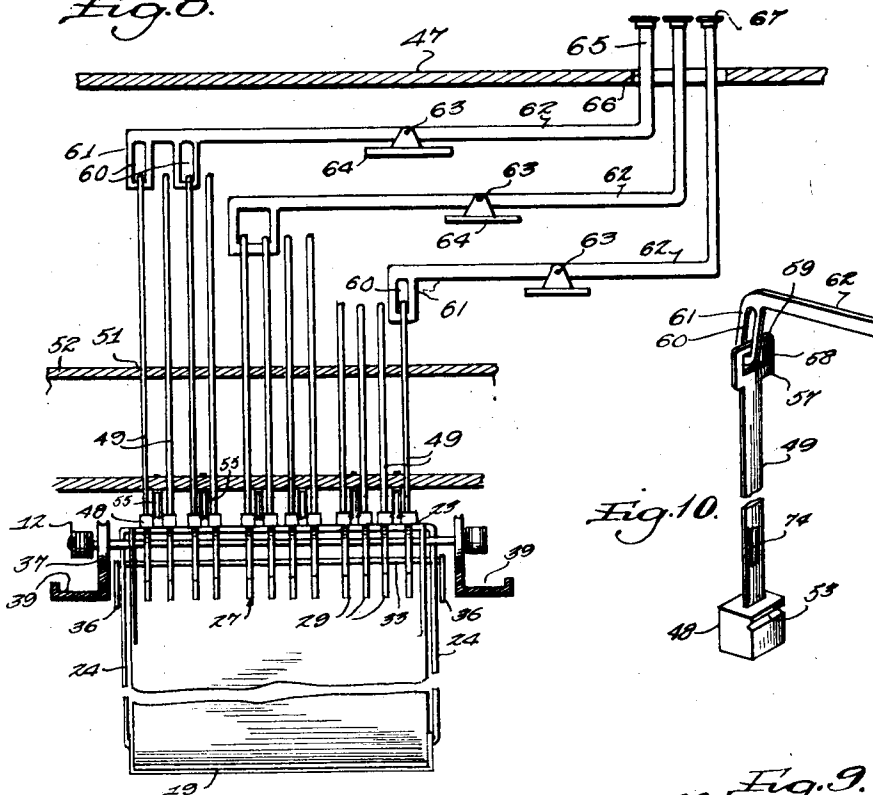


Fig. 10.

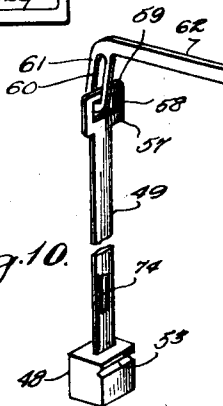


Fig. 9.

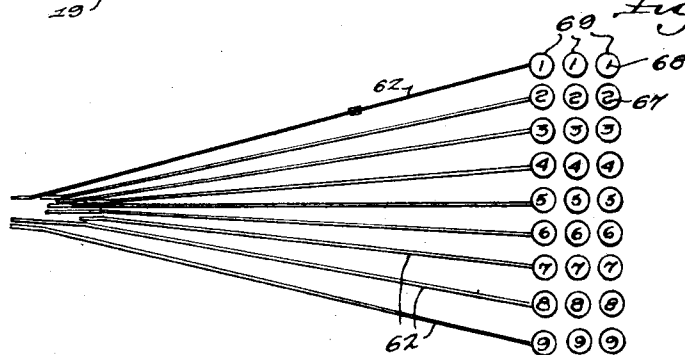
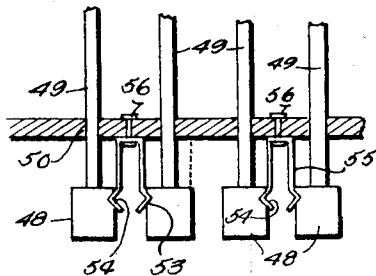


Fig. 11.



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DISTRIBUTING SYSTEM.

Application filed August 3, 1927. Serial No. 210,360.

This invention relates to distributing systems.

An important object of the invention is to provide novel means for distributing articles such as letters, parcels, etc., from a central point to selected discharge points.

A further object is to provide a novel system of distribution including a conveyor having an article carrier connected thereto and adapted to receive articles from a central distributing station, the article carrier being adapted to discharge the articles at selected points.

A further object is to provide a novel article carrier associated with the system and provided with a gate or door adapted to be opened to discharge the article therefrom, novel means being employed for holding the door in closed position until it reaches the selected discharge point.

A further object is to provide a system of the character referred to wherein each of the discharge points is provided with suitable operating mechanism set by combinations and adapted to release suitable mechanism on the carrier normally holding the door closed, such mechanism being adapted to be set by combination according to the desired point of discharge.

A further object is to provide a carrier of the character referred to provided with a plurality of levers or similar devices any one or more of which is adapted to hold the door in closed position, suitable mechanism being provided for rendering certain of said levers in inoperative position whereby trip devices at the selected discharge point may operate the remaining levers to permit the door to open and thus discharge the articles therefrom.

A further object is to provide a novel keyboard mechanism in setting the levers or other holding devices of the carrier, passage of the carrier beyond the point at which the levers are set being adapted to return the setting mechanism to normal position.

A further object is to provide novel trip mechanisms arranged at the various discharge points for tripping the holding devices of the carrier, the setting mechanism being provided with operating keys having suitable indicia whereby an operator may operate the keys to set the door holding mechanism in such a manner that it will be released to open the door when the carrier reaches a predetermined discharge point.

A further object is to provide novel devices for setting the door holding levers of the character and to provide means for holding the setting mechanism in any selected position until the carrier has passed therebeneath so as to render it unnecessary for the operator to hold down the keys corresponding to the selected discharge point.

A further object is to provide a loading hopper or similar device beneath which the carrier is adapted to pass, the latter device being adapted to open a door in the hopper as it passes therebeneath whereby the articles will be discharged from the hopper to the carrier to be delivered thereby to a selected discharge point.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawings I have shown one embodiment of the invention. In this showing, Figure 1 is a diagrammatic view of the system,

Figure 2 is a central vertical sectional view through the distributing apparatus and associated elements,

Figure 3 is a side elevation of the carrier and a portion of the conveyor chain,

Figure 4 is a section on line 4—4 of Figure 3,

Figure 5 is a transverse sectional view through the dispatching apparatus, parts being shown in elevation,

Figure 6 is a plan view of the operating keys of the dispatching apparatus and associated elements,

Figure 7 is a fragmentary sectional view of a portion of the selecting mechanism,

Figure 8 is a detail perspective of one of the selecting devices and associated elements.

Figure 9 is a vertical sectional view of the carrier taken on a plane parallel to the conveyor chains adjacent one of the discharge points,

Figure 10 is a similar view taken adjacent the lever resetting device, and

Figure 11 is a perspective view of the carrier and associated parts.

In Figure 1 of the drawings I have diagrammatically illustrated the layout of the system. Referring to this figure the numerals 10 and 11 designate a pair of wheels about which pass parallel chains 12 supporting a carrier 13 therebetween. The carrier is provided with mechanism to be described by means of which articles may be carried

therein and dumped therefrom, in a manner to be described. The carrier is adapted to pass beneath a setting device 14 which determines the discharge point at which articles are to be released from the carrier. After passing the setting device the carrier then passes beneath a hopper 15 from which articles are discharged in the carrier to be conveyed thereby. After the carrier passes around the wheels 11, it continues on to a plurality of receivers 16 which are adapted to receive articles discharged from the carrier, the receiver into which the articles are discharged at each trip of the carrier being determined by the setting device. As stated, Figure 1 illustrates the system diagrammatically, and it will be apparent that the system is not in any way limited to the particular arrangement shown but may be employed for conveying articles over relatively long distances, between floors of a building, etc. The apparatus is particularly adapted for distributing mail in post offices to facilitate the shipment thereof. The carrier 13 is illustrated in detail in Figures 3 to 7 inclusive. Referring to these figures the numeral 17 designates front and rear walls connected at their edges by side walls 18 and defining the body of the carrier. The lower end of the body is normally closed by a door or gate 19 pivotally connected thereto as at 20. The upper portions of the side walls 18 are extended to one side of the body of the carrier as at 21 and are provided in their upper portions with vertically extending slots 22. A transverse rod 23 extends across the body and is movable downwardly into the slots 22 in a manner to be described. This rod is provided with depending arms 24 which are pivotally connected to the door 19 as at 25. It will be apparent that when the rod 23 moves downwardly, the door 19 is adapted to open to discharge articles from the carrier.

A transverse shaft 26 extends between the extremities of the portions 21 of the side wall to pivotally receive a plurality of levers each of which is indicated as a whole by the numeral 27. Each lever is provided with an outer relatively heavy end or weighted portion 28 and inwardly of the shaft 26, each lever is curved inwardly and downwardly as at 29. The inner extremity of the curved portion 29 of each lever terminates in a pair of hooks 30 and 31, the former being adapted to engage the transverse rod 23, as clearly shown in Figure 5. The extended portions 21 are further provided with arcuate slots 32 through which a transverse lock rod 33 extends. This rod is secured at its outer end to trip levers 34 pivotally connected to the extensions 21 of the body as at 35. The lower ends of the trip levers are weighted as at 36 to normally maintain the lock rod 33 in the lower or inner portion of the slot 32, as indicated in Figures 3 and 5. The hooks 31 of

the holding levers 27 are adapted to be arranged beneath the locking rod 33 under certain conditions to be described.

The carrier is provided at opposite sides with wheels 37 adapted to run upon flanges 38, carried by rails 39. In the form of the system illustrated in Figure 1, a pair of the rails 39 preferably is employed for supporting the carrier in the upper and lower runs of the chains 12, as will become apparent. The wheels 37 are mounted upon shaft 40 which extends outwardly beyond the wheels and is connected to the chains 12, as at 41. It will be apparent that the chains 12 are adapted to be driven in any suitable manner to cause the carrier 13 to travel about the wheels 10 and 11.

Means to be described are employed for moving the inner ends of certain of the holding levers downwardly whereby the hooks 31 thereof will engage the locking rod 33. It will be apparent that the weight arms 28 of the remaining levers will support the transverse rod 23 to hold the door 19 in closed position. The weight arms referred to are preferably of such weight that only a single lever need be left in operative position to hold the door 19 closed, as will be apparent. Such of the levers as remain in operative position must be swung downwardly at their inner ends to permit the door to open, and any suitable combination of levers may be employed for each receiving device 16. Referring to Figure 7 the numeral 42 designates a transverse plate having its ends turned upwardly as at 43 and then outwardly as at 44 for connection with a suitable support. Each plate 42 is preferably formed of sheet steel and is provided at one edge with tongues 44 corresponding in number and arrangement to the levers 27 and normally lying in the plane of the associated plate. One of the plates 42 is arranged over each receiver 16 and certain of the tongues 44 thereof are bent downwardly as at 45 depending upon the levers 27 to be actuated to permit the door 19 to open. It will be apparent that the downwardly projecting tongues 45 are arranged in the path of travel of the curved portions 29 of the holding levers which are in operative position when the carriage travels in the direction of the arrow, as shown in Figure 5. If any other combination of tongues 45 are employed, the levers remaining in operative position will not be actuated to open the door 19, as will be understood.

The setting device is adapted to be operated to determine which combination of levers 27 are to remain in operative position for the next trip of the carrier, and obviously after the carrier has been set for one combination and has discharged articles into the corresponding receiver, it is necessary to reset all of the levers 27 in order that the setting device may render one or more of them opera-

tive and the remainder inoperative. Accordingly a pair of trips 46 are secured to the lower rails 39 and project inwardly therefrom adjacent the setting device, as the carrier approaches the latter, (see Figures 2 and 4). The inner ends of the trip members 46 are arranged in the path of travel of the weights 36 of the levers 34 and are adapted to swing the latter to move the lock rod 33 to the forward portions of the slots 32, and thus release the lock rod from the hooks 31. When the hooks 31 are thus released, the inner ends of the locking levers swing upwardly whereupon all of the hooks 30 will engage beneath the transverse rod 23. The carriage then passes beneath the setting mechanism which determines which of the locking levers are to remain in operative position.

The setting device is illustrated in Figures 2 and 8 to 11 inclusive. This device preferably includes a casing 47 beneath which are arranged a plurality of lever actuating blocks 48 corresponding in number and arrangement to the levers 27. Each of these blocks is mounted upon an upwardly extending preferably flat rod 49 journaled in an opening 50 formed in the bottom of the casing 47 and in an opening 51 formed in a bearing plate 52 spaced above the bottom of the casing. One of the selecting devices just described is shown in Figure 10 of the drawings. It will be noted that one side of each block 48 is provided with a preferably V-shaped groove 53 and the groove of each adjacent pair of blocks preferably face each other, as shown in Figure 11. These grooves are adapted to be engaged by the V-shaped lower ends 54 of substantially U-shaped springs 55, these springs being secured to the bottom of the casing 47 as at 56. The upper end of each rod 49 is provided with an enlarged head 57 having a slot 58 therein. These slots form upper cross members 59 which are adapted to engage in slots 60 formed in depending arms 61 carried by key levers 62. As shown in Figure 8, the locking levers and operating means therefor are divided into groups of fours, and one set of key levers 62 is employed for each group of rods 49. The levers 62 of each group are pivotally connected as at 63 to brackets 64 supported by the casing 47. The outer end of each lever 62 extends upwardly as at 65 and passes through a slot 66 formed in the top of the casing 47. The upper end of each upturned end 65 is provided with a key 67 having suitable indicia 68 thereon. The keys 67 are arranged in three columns 69 as shown in Figure 9, and each column of keys controls one group of rods 49. Each of the keys is provided in its inner end with one or more slots 60 to receive the cross bar or bars 59 of one or more rods 49, as illustrated in Figure 8. For instance, one of the bars 62 of each group may be provided with a single slot 60 to operate one rod 49, another two slots to operate the

first two rods, another two slots to operate the first and third rods of each group, and so on. It will be apparent that the rods 49 are arranged in a plane transverse to the columns 69 of the operating keys, and accordingly the levers 62 of these keys preferably converge as shown in Figure 9 to permit the inner ends of the levers to be suitably connected to the upper ends of the rods 49. In the drawings I have illustrated twelve of the rods 49 and associated locking levers 27, and it will be apparent that a great number of combinations may be obtained by employing suitable keys 67. Where it is desired to discharge articles at a relatively small number of receiving stations it will be apparent that a smaller number of the levers 27 and operating means therefor may be employed. Each block 48 is adapted to be moved upwardly to the dotted line position shown in Figure 11 upon depression of one or more of the keys 67, this upward movement taking place against the tension of one of the arms of one spring 55, the block being held in its upper position by the action of the spring, as will be apparent. The levers 27 corresponding to the blocks 48 thus elevated will not have their positions altered but will remain in operative positions with their hooks 30 in engagement with the rods 23. The curved portions 29 of all of the remaining levers 27 will be moved downwardly whereby their hooks 31 will engage beneath the rod 33 and be held in inoperative position.

From the foregoing it will be apparent that the keys 67 may be operated at any desired time to determine which of the levers 27 will remain in operative position when the carrier case passes beneath the selecting mechanism, and the springs will hold the selecting blocks 48 in the positions thus determined. After the carrier has passed beneath the setting mechanism in the manner described, it is desirable to return the key controlled mechanism to normal position. Referring to Figure 2, the numeral 70 designates a pair of levers having curved lower ends 71 arranged in the path of travel of the carrier supporting wheels 37. These levers extend through suitable slots formed in the bottom of the casing 47 and are pivotally connected to the latter as at 72. A transverse rod 73 is connected between the inner ends of the levers 70 and this rod operates in a slot 74 formed in each of the rods 49.

Articles to be conveyed are placed in the hopper 15 which may be arranged at any suitable point adjacent the setting mechanism, and is illustrated in Figure 2 as projecting through the casing thereof. The hopper is open at its top to receive articles and is normally closed at its lower end by a door 75 pivotally connected thereto as at 76. Weights 77 maintain the door in closed position and are arranged in the path of travel of the car-

rier supporting wheels 37 whereby the latter are adapted to swing the weight upwardly to open the door when the carrier is arranged beneath the hopper 15.

5 The operation of the system is as follows: For the purpose of illustration only one of the carriers 12 has been illustrated in the drawings, but as will be explained, any desired number of the carriers may be employed. 10 As each carrier approaches the setting mechanism the trips 46 engage the weight arms 36 of the levers 34 and swing the locking rod 33 to the opposite ends of the slots 32, thus releasing the hooks 31 and permitting the inner 15 ends of the corresponding levers 27 to swing upwardly until their hooks 30 engage beneath the bar 23. The carrier then passes beneath the setting mechanism certain of the blocks 48 of which will have been elevated according 20 to the receiver to which it is desired to convey an article from the hopper 15. The levers 27 corresponding in arrangement to the elevated blocks 48 will not be affected thereby and will remain in operative position with 25 their hooks 30 in arrangement with the transverse rod 23. All the remaining blocks 48 will contact with the curved ends 29 of the corresponding levers 27, and these curved ends will be swung downwardly to cause the 30 hooks 31 thereof to engage beneath the locking rod 33. The curved lower faces of the hooks 31 displace the rods 33, and the weights 36 thereof swing the rod back to engaging position, as shown in Figure 5. The carrier 35 then passes from beneath the setting mechanism and the wheels of the carrier elevating the lower curved ends 71 of the levers 70 thus depressing the rod 73 and returning all of the rods 49 and associated blocks 48 to lower or 40 normal position. These elements are then ready to be reset by suitably operating the keys 67. The rod 73 is normally arranged in the upper portions of the slots 74 and thus any of the rods 49 may be depressed without 45 affecting the resetting mechanism.

After passing the resetting mechanism the wheels 37 of the carrier engage the weights 77, thus swinging these elements upwardly and forwardly and opening the door 75. The 50 article previously placed in the hopper 15 will fall downwardly into the carrier to be conveyed thereby. The weights 77 are adapted to return the door 75 to closed position when released by the wheels of the carrier. 55 The chains 12 continue to convey the carrier until the latter successively passes the receiving devices 16. Each of these devices is provided with an operating plate 42 and as the receiver passes beneath each plate the downwardly bent tongues 45 thereof will depress 60 the corresponding levers 27 which are in operative position. The depression of these levers is not sufficient to cause the hooks 31 thereof to engage beneath the rods 33, and accordingly the levers return to normal posi-

tion after passing beneath each plate 42. If 70 the tongues 45 of the first plate 42 beneath which the carrier passes do not correspond to the levers 27 which are in operative position, at least one of these levers will remain in operative position as the carrier passes beneath 75 the plate 42, and as previously stated, the weight of only one lever 27 is necessary to hold the door 19 closed. Thus the carrier passes beneath successive plates 42 until the 80 plate corresponding to the desired receiver is reached whereupon all of the levers 27 which are in operative position will be moved to inoperative position thus permitting the door 19, rod 17 and arms 24 to move downwardly by gravity and discharge articles into 85 the proper receiver 16. After an article is thus discharged from the carrier, the latter continues to move back to the loading station where the operations described are repeated. 85

The keys 67 are preferably numbered as shown in Figure 9, and each receiver is preferably given a number corresponding to the combination of the downwardly bent tongues 45 or its operating plate 42. Thus one receiver may be given the number "123" and 90 when the operator desires that an article be conveyed to this receiver, he will depress key No. 1 of the first column of keys, key No. 2 of the second column, and key No. 3 of the third 95 column. Thus a combination of rods 49 and blocks 48 will be elevated corresponding to the combination of the downwardly bent tongues 49 of the receiver to which the article is to be conveyed. The operator thus readily 100 may determine the proper keys 67 to depress to cause the article to be discharged in the proper receiver.

The apparatus is adapted for use in several 105 ways. For instance, it may be used for conveying large numbers of articles to desired receiving points, in which case the articles to be distributed will be sorted according to the receiving stations for which they are intended, and groups of the articles simultaneously 110 may be placed in the hopper 15 whereby all may be delivered at one time by one trip of a carrier. The system is particularly designed however, for such uses as the distribution of 115 charge tickets for long distance telephone calls. When so employed, it will be apparent that the system acts both as a sorting and a conveying means. To operate the mechanism for this purpose, the operator places one 120 ticket at a time in the hopper 15 and properly operates the keyboard, whereupon the next carrier passing beneath the keyboard will be set by the mechanism thereof, will receive the ticket from the hopper, and will deliver it to 125 its proper receiver. Thus the keyboard will be set for each ticket and the tickets will be properly distributed to their respective receivers. When the apparatus is so employed it obviously is preferred that a considerable 130 number of carriers be employed in order that

the sorting and distributing of the tickets may take place rapidly. The use of the apparatus for sorting charge tickets for long distance telephone calls greatly minimizes the time necessary for this work. It will be apparent that the invention is not in any way limited to the use of a plurality of receivers but is completely operative with a single receiver.

10 It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. A distributing system comprising a carrier adapted to receive articles to be distributed, a door normally closed to retain the articles in said carrier, a substantially inverted U-shaped door retaining member connected at its ends to said door, a plurality of levers pivotally connected intermediate their ends to said carrier and having portions normally arranged beneath the base portion of said retaining member to hold said door in closed position, each of said levers including a weighted portion tending to hold it in normal position, latch means on said carrier adapted to engage said portions of the levers to hold them in inoperative position out of engagement with said retaining member, a receiver, means for conveying said carrier past said receiver, and means associated with said receiver for actuating the levers in operative position to release said retaining member and permit said door to open.

2. Apparatus constructed in accordance with claim 1 provided with means for selectively placing said levers in inoperative position prior to the passage of said carrier by said receiver.

3. Apparatus constructed in accordance with claim 1 wherein the means for actuating the levers comprises a plate provided with a plurality of projecting tongues normally arranged in the plane of said plate and adapted to be selectively bent out of said plane to be arranged in the path of travel of and to contact with the levers arranged in operative position.

4. Apparatus constructed in accordance with claim 1 provided with means adapted to release all of said levers from inoperative position after said carrier has passed said receiver.

5. Apparatus constructed in accordance with claim 1 wherein said levers are provided with upwardly projecting portions adjacent the portions normally engaging said retaining member, and a plurality of key controlled members normally arranged in the path of

travel of said upwardly projecting portions and adapted to be moved out of normal position by selective operation of the keys.

6. Apparatus constructed in accordance with claim 1 wherein said levers are provided with upwardly projecting portions adjacent the portions normally engaging said retaining member, a plurality of setting members corresponding in arrangement to and normally arranged in the path of travel of the upwardly projecting portions of said levers, said setting members being adapted to contact with said levers to move them to inoperative position, and means for selectively moving said setting members out of normal position.

7. Apparatus constructed in accordance with claim 1 wherein said levers are provided with upwardly projecting portions adjacent the portions normally engaging said retaining member, a plurality of setting members corresponding in arrangement to and normally arranged in the path of travel of the upwardly projecting portions of said levers, said setting members being adapted to contact with said levers to move them to inoperative position, means for selectively moving said setting members out of normal position, and resilient means for retaining said setting members out of normal position after they have been moved therefrom by said last named means.

8. Apparatus constructed in accordance with claim 1 wherein said levers are provided with upwardly projecting portions adjacent the portions normally engaging said retaining member, a plurality of setting members corresponding in arrangement to and normally arranged in the path of travel of the upwardly projecting portions of said levers, said setting members being adapted to contact with said levers to move them to inoperative position, means for selectively moving said setting members out of normal position, resilient means for retaining said setting members out of normal position after they have been moved therefrom by said last named means, and means actuated by said carrier after it moves past said setting members for returning the latter to normal position.

9. Apparatus constructed in accordance with claim 1 wherein said levers are provided with upwardly projecting portions adjacent the portions normally engaging said retaining member, a plurality of setting members corresponding in arrangement to and normally arranged in the path of travel of the upwardly projecting portions of said levers, said setting members being adapted to contact with said levers to move them to inoperative position, means for selectively moving said setting members out of normal position, resilient means for retaining said setting members out of normal position after they

have been moved therefrom by said last named means, means actuated by said carrier after it moves past said setting members for returning the latter to normal position, a hopper, and a door normally closing the bottom of said hopper and having a portion arranged in the path of travel of a portion of said carrier whereby the latter is adapted to open said door after it has passed the means for returning said setting members to normal position.

10. A distributing system comprising a plurality of receivers, a traveling carrier to move in proximity to said receivers and having a closure element, a supporting element connected with the closure element and adapted to hold it in the closed position, a plurality of gravity operated members mounted upon the carrier and adapted when in the active position to engage with the supporting element to close the closure element, each gravity operated member when in the active position being capable of retaining the closure element in the closed position, locking means to engage with the gravity operated members when they are shifted to the inactive position, a setting device to shift selected gravity operated members to the inactive position for interlocking engagement with the locking means, and trip means arranged in co-operative relation to each receiver and adapted to shift selected gravity operated member or members from the active position toward the inactive position without effecting an interlocking engagement between the same and said locking means.

11. A distributing system comprising a plurality of receivers, a traveling carrier to move in proximity to said receivers and having a closure element, a supporting element connected with the closure element and adapted to hold it in the closed position, a plurality of automatic members mounted upon the carrier and adapted to move to the active position to engage with the supporting element to close the closure element, each automatic member when in the active position being capable of retaining the closure element in the closed position, locking means to engage with the automatic members when they are shifted to the inactive position, a setting device to shift selected automatic members to the inactive position for interlocking engagement with the locking means, and trip means arranged in co-operative relation to each receiver and adapted to shift selected automatic member or members from the active position toward the inactive position without effecting an interlocking engagement between the same and said locking means.

12. A distributing system comprising a traveling carrier for movement to a plurality of delivery points, a closure element for the carrier, an actuating element connected

with the closure element and adapted to retain the same in the closed position, a plurality of movable members mounted upon the carrier and adapted when in the active position to co-operate with the actuating element to retain the closure element in the closed position, each movable member when in the active position being capable of retaining the closure element in the closed position, locking means to engage with the movable members when they are shifted to the inactive position, a setting device having movable trip members arranged in the path of travel of selected movable members to shift the same to the inactive position for interlocking engagement with the locking means, and trip means for each delivery point and arranged in the path of travel of selected movable member or members to shift the same from the active position toward the inactive position without effecting an interlocking engagement between the same and said locking means.

13. A distributing system comprising a traveling carrier for movement to a plurality of delivery points, a closure element for the carrier, an actuating element connected with the closure element and adapted to retain the same in the closed position, a plurality of movable members mounted upon the carrier and adapted when in the active position to co-operate with the actuating element to retain the closure element in the closed position, each movable member when in the active position being capable of retaining the closure element in the closed position, locking means adapted to have interlocking engagement with selected movable members when they are shifted sufficiently to the active position, and trip means for each delivery point and arranged in the path of travel of selected movable member or members to shift the same from the active position toward the inactive position without effecting an interlocking engagement between the same and said locking means.

14. A distributing system comprising a traveling carrier for movement to a plurality of delivery points, a gravity operated closure element for the carrier, a supporting element connected with the closure element and adapted when held in the raised position to retain the closure element in the closed position, a plurality of levers having their ends weighted so that they swing to the active position for engagement with the supporting element, each lever when in the active position being capable of retaining the closure element closed, means adapted to have interlocking engagement with the levers when they are shifted to the inactive position for retaining the same in such inactive position, and trip means for each delivery point adapted to swing selected lever or levers remaining in the active position to-

ward the inactive position without effecting an interlocking engagement between the same and the locking means.

15. A distributing system comprising a traveling carrier for movement to a plurality of delivery points, a gravity operated closure element carried by the carrier, a supporting element connected with the closure element, a plurality of levers pivoted upon the carrier and having their rear ends weighted and their forward ends provided with parts adapted for active engagement with the supporting element when the levers have their forward ends in the raised position, locking means adapted for interlocking engagement with the forward end of the levers when they are shifted to the inactive lowered position, and trip means for each delivery point and adapted to engage selected active lever or levers to shift the same toward the inactive position.

16. A distributing system comprising a traveling carrier, a gravity operated closure element for the same, a supporting element connected with the closure element, a plurality of levers pivoted upon the carrier and having their ends weighted so that their opposite ends swing upwardly, said opposite ends having extensions to engage beneath the supporting element and also having a locking extension, a movable locking element adapted to engage over the locking extensions when the corresponding ends of the levers are moved downwardly, and means to move the ends of selected levers downwardly.

17. A distributing system comprising a traveling carrier, a gravity operated closure

element for the same, a supporting element connected with the closure element, a plurality of levers pivoted upon the carrier and having their ends weighted so that their opposite ends swing upwardly, the opposite end of each lever being provided with a head having a forward inclined face and a holding extension and a locking extension, the holding extension being adapted for engagement beneath the supporting element, a transversely movable locking rod arranged in the path of travel of each inclined face and adapted to engage above each locking extension, pivoted weight means mounted upon the carrier and supporting the rod, and means to swing the free ends of the levers downwardly.

18. A distributing system comprising a traveling carrier, a gravity operated closure element of the same, a supporting element connected with the closure element, a plurality of levers pivoted upon the carrier and having their ends weighted so that their free ends swing upwardly, said free ends having cam portions, each cam portion being provided with a head having a holding extension to engage beneath the supporting element and a locking extension, said head having a forward inclined face, a laterally shiftable locking device mounted upon the carrier and adapted to engage over the locking extensions when the free ends of the levers are swung downwardly, and trip means arranged in the path of travel of the cam portions of the lever or levers.

In testimony whereof I affix my signature.
MILTON W. THOMPSON.