

Sept. 24, 1929.

W. SURDAM

1,729,600

DISTRIBUTING CONVEYER

Filed Dec. 1, 1928

2 Sheets-Sheet 1

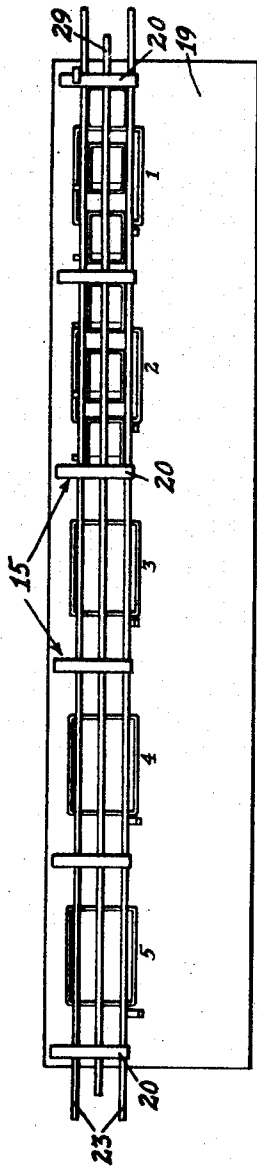


Fig. 1.

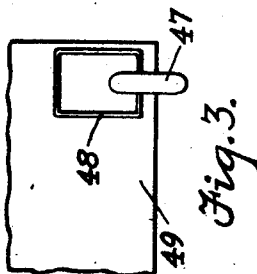


Fig. 3.

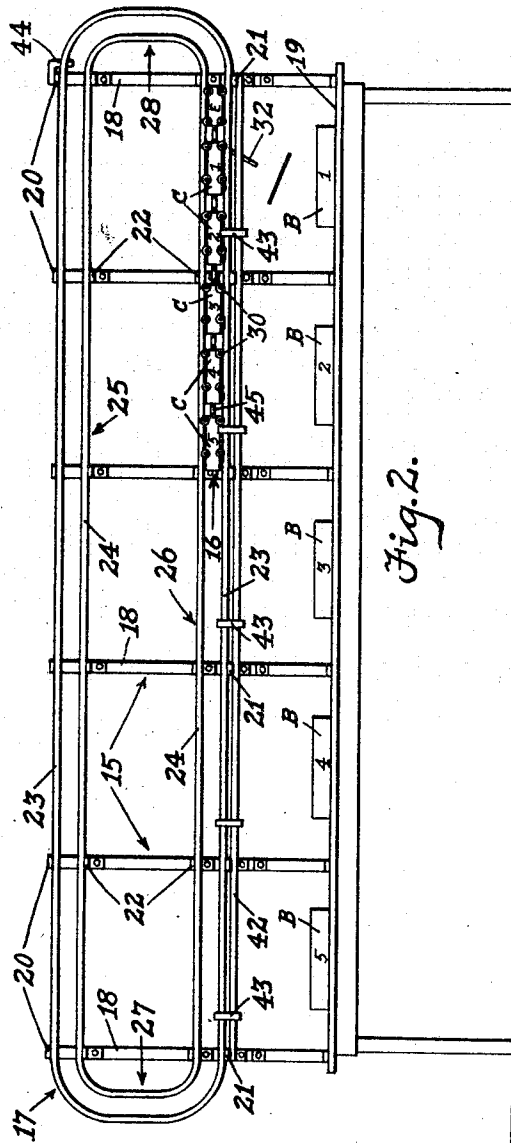
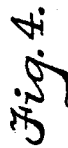
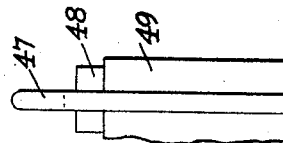


Fig. 2.



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2 Sheets-Sheet 2

Fig. 6.

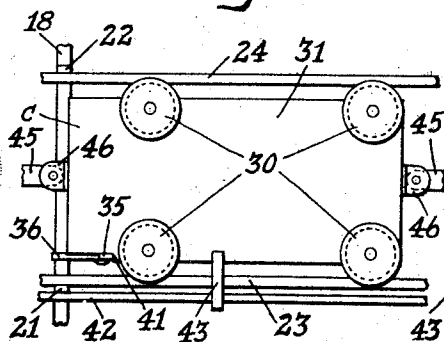


Fig. 7.

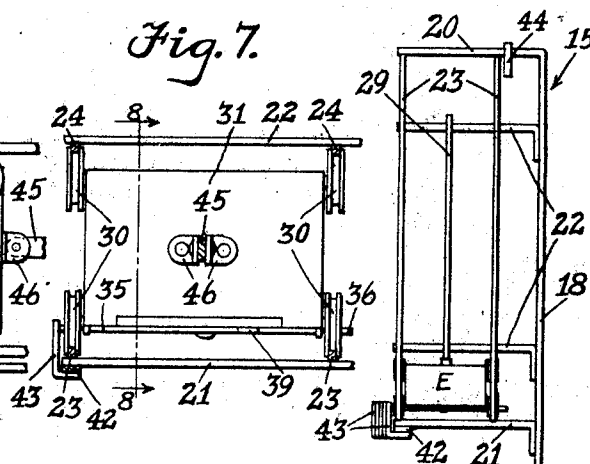


Fig. 5.

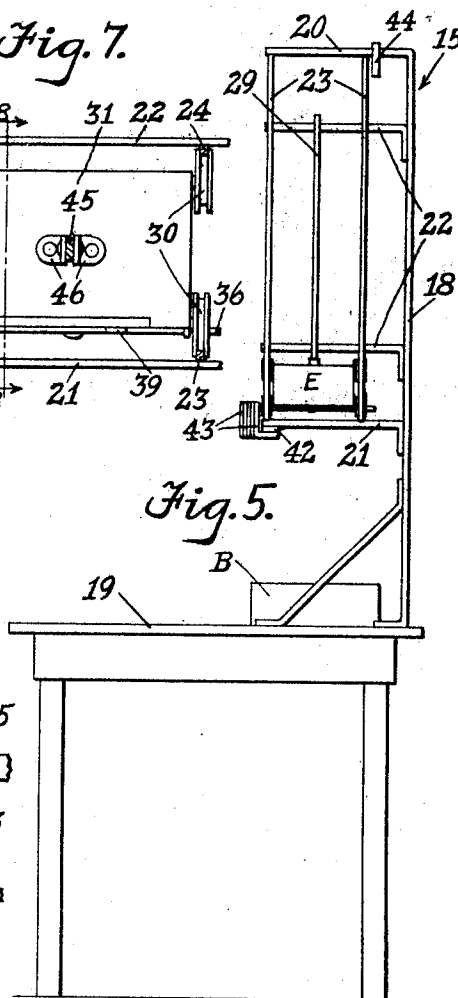


Fig. 8.

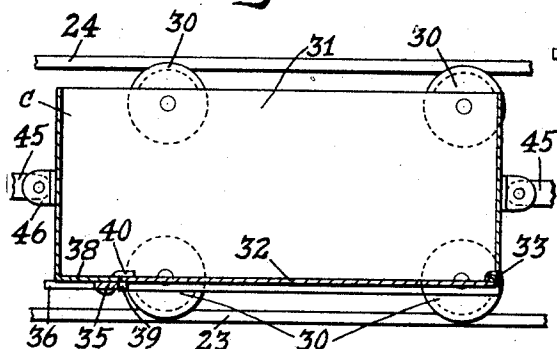
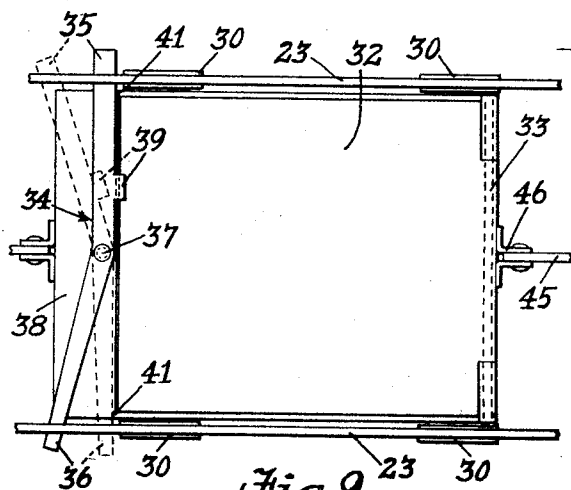
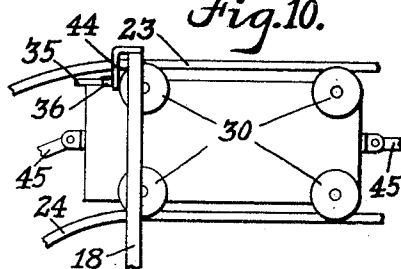


Fig. 9.

Fig. 10.



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DISTRIBUTING CONVEYER

Application filed December 1, 1928. Serial No. 323,104.

My invention relates to telegraph office equipment and more particularly to a carrier or conveyer device for use on the transmitting operators' table in a telegraph office.

5 In large telegraph offices, where a considerable number of operators are employed in sending the messages which come in over the receiving counter, the operating room is usually separated from the receiving office
10 and the sheets bearing the received messages are sent to the operating room through a pneumatic tube system or similar device, and are delivered at the desk of a tube attendant. The tube attendant immediately distributes
15 them, or directs their distribution by assistants, to the various transmitting operators in their several positions at the table, so as to equalize the work.

The primary object of my invention is to
20 provide a conveyer device whereby the tube attendant, in the operating room of a telegraph office, may distribute the sheets bearing the messages received for transmission to the different positions of the operators'
25 table without leaving his desk and without the help of assistants.

A further object is to provide a mechanical conveyer for carrying messages and the like
30 which may be mounted on a counter or a long table.

A further object is to provide a distributing conveyer whereby messages and the like may be delivered at different positions along
35 a counter or table.

Other objects and advantages will appear hereinafter, and while I show herewith and will describe a preferred form of construction, I desire it to be understood that I do not
40 limit my invention to such preferred form but that various changes and adaptations may be made therein without departing from the spirit of my invention as hereinafter claimed.

Referring to the drawings which accompany this specification and form a part
45 thereof,

Fig. 1 is a plan view of a telegraph operators' table of five positions, having a conveyer embodying the principles of my invention mounted thereon.

Fig. 2 is a front view, in elevation, of the table and conveyer as shown in Fig. 1.

Fig. 3 is a fragmentary plan view of a tube attendant's desk and the delivery end of a pneumatic tube carrier system leading
55 thereto.

Fig. 4 is a view in elevation of the desk and tube parts shown in Fig. 3.

Fig. 5 is an enlarged right end view of the operators' table and conveyer device shown
60 in Fig. 2.

Fig. 6 is an enlarged front side view of a segment of the lower track section and one of the cars or carriers running thereon.

Fig. 7 is a right end view of the track segment and car shown in Fig. 6, this being
65 also the front end view of the car.

Fig. 8 is a longitudinal sectional view, further enlarged, of the car shown in Figs.
70 6 and 7, the section being taken on line 8—8 of Fig. 7.

Fig. 9 is an under side view of the car shown in Fig. 8.

Fig. 10 is a rear side view somewhat reduced of the car shown in Fig. 6, just after
75 having made the turn onto the upper track section and about to have its restoring lever operated by the restoring post.

Considering the drawings more in detail it will be seen that my conveyer device consists, in general, of a supporting framework
80 15 adapted to be mounted on a table or counter and a train of connected cars or carriers 16, one for each operator's position, adapted to travel in a four-rail endless track system
85 which is attached to the supporting frame. The train is adapted to be pulled around the track system by a small engine E equipped with a motor (not shown) of the type used for running toy trains by electric power taken
90 from a lighting circuit. The power connections, excepting the extra rail in the track system, have been omitted, as unnecessary, because of their well known features.

Supporting frame 15 consists of a series of regularly spaced uprights 18 attached to the
95 table top 19 and having overhanging arms 20 formed on their upper ends. A lower arm 21 and two intermediate arms 22, arranged in parallel spaced relation to arms 20 and to
100

each other, are secured to each upright 18. The two outer rails 23 are attached to arms 20 and 21 and the two inner rails 24 are attached to arms 22. Track system 17 thus
 5 formed is vertically disposed having a straight upper section 25, a straight lower section 26, a left end down-turn section 27 and a right end up-turn section 28. A third inner rail 29, adapted to supply electrical cur-
 10 rent to the engine, is attached to arms 22 between inner rails 24 and is insulated from said arms 22 in the usual way.

The engine E and each car C is provided with eight wheels 30 adapted to run on rails
 15 23 and 24, four on each of the two pairs, in such a manner that they are securely held within the track system, between the four rails. Each car or carrier is made in the form of a rectangular box-like body 31, open
 20 at the top and provided with a loose bottom section or door 32, hinged at the front end as at 33. The wheels 30 are attached to the sides of the body. A transversely disposed lever 34 with a tripping arm 35 projecting
 25 beyond the front side and a restoring arm 36 projecting beyond the rear side of the car body, is pivotally attached at approximately its middle point, as at 37 to the under side of a fixed bottom section 38 provided at the rear
 30 end of the car, adjacent the free end of door 32. Tripping arm 35, of lever 34, is provided with a retaining lug 39 adapted to slip under the free end of door 32, so as to hold it closed until the lever is actuated to release
 35 it. A stop lip 40, adapted to serve as a door stop is fixed on the upper side of bottom section 38 of the car body.

Tripping arms 35, of levers 34, on the several cars in the train, are made of unequal
 40 length, that on the front car of the train being the shortest and that of each succeeding car being a trifle longer than that of the preceding one. Restoring arms 36 of levers 34 are of equal length on all the cars. Stop should-
 45 ers 41, adapted to limit the swing of lever 34, are formed on each side of the car by cutting away that portion of the body sides which project below bottom section 38.

A supporting bar 42 is fixed to lower arms
 50 21 of the supporting frame, directly under the front outer rail 23 of lower section 26 of the track system and posts 43 are attached to bar 42 in such a manner that they extend upwardly therefrom into the path of trip-
 55 ping arms 35, there being one post at each operator's position. Each successive post, from the first to the last positions, is offset from front rail 23 a trifle further than the
 60 preceeding one, in accordance with the differing lengths of tripping arms 35, each post being thus adapted to operate the tripping arm of a different car. A restoring post 44 is fixed, on arm 20 of the end support, adja-
 65 cent end section 28 of the track system,

so as to project downwardly into the path of restoring arms 36.

The engine E and the several cars C¹, C², C³, C⁴ and C⁵ are connected together by links
 45 pivotally attached to lugs 46 fixed on the ends thereof, thus forming a flexible train
 70 adapted to travel continuously around the track system. Receiving baskets B¹, B², B³, B⁴ and B⁵ are placed on the table directly under lower section 26 of the track system, at
 75 corresponding operators' positions, each basket being placed adjacent and in advance of the post 43 at that position.

The operators' positions and corresponding
 80 cars having been numbered as indicated in Figs. 1 and 2, the operation of my distributing conveyer may be described as follows:

The sheets bearing the telegrams to be transmitted, which have been delivered
 85 through the pneumatic tube 47 into the receiving basket 48, at the tube attendant's desk 49, are removed by the tube attendant and dropped into one of the cars C¹ to C⁵ as the train enters lower section 26 of the track sys-
 90 tem and moves toward the far end of the table. If the operator at position 1, for instance, is to handle the telegram the sheet is dropped into C¹ and as this car passes post
 95 43 of position 1, arm 35 on C¹ is tripped by contact with it, so that lever 34 is swung into the position indicated in dotted lines in Fig. 9. The free end of door 32, being released by
 100 the withdrawal of lug 39 from under it, swings downwardly by its own weight and permits the sheet to fall into basket B¹. As the train proceeds on its course and C¹ turns
 105 upwardly in end section 28, door 32 closes automatically and, as C¹ becomes inverted in upper section 25, restoring arm 36 of lever 34 makes contact with restoring post 44
 110 which swings it back into the retaining position shown in full lines in Fig. 9.

Each of the several cars in the train oper-
 115 ates in the same way to deliver sheets at a particular position, for, though all the tripping arms are operated in the course of each circuit of the train, the arrangement is such that none of them can be operated before it
 120 has reached its proper position. While I have shown equipment for a table of only five positions, by way of illustration, it is evident that my distributing conveyer is espe-
 125 cially useful in large offices having operators' tables with many more positions.

Having thus illustrated and described my
 130 invention, I claim:

1. A distributing conveyer for telegraph
 135 offices comprising a framework adapted to be mounted on a table top; a four-rail track system fixed to said framework; a train of
 140 connected carriers mounted in said track system so as to run continuously therein; a hinged door in the bottom of each carrier of said train; means for holding said doors
 145 closed until each of said carriers has reached

a certain position of the table, and means for operating said holding means to permit said doors to swing downwardly when said carriers have arrived at their proper positions.

5 2. A distributing conveyer for telegraph offices comprising a framework adapted to be mounted on a table top; an endless four-rail track system fixed to said framework so as to be vertically disposed in spaced relation to the table top; a train of open carriers
10 mounted in said track system so as to run continuously therein; a downwardly opening door in the bottom of each of said carriers, said door being hinged at its front end;
15 a lever under the rear end of each of said carriers adapted to hold said door closed; a series of posts fixed to said framework at spaced positions along the track system, said posts corresponding in number to said carriers
20 and levers and each post of the series being adapted to trip a different one of said levers, so as to release one of said doors and permit it to open, and a restoring post fixed to said framework so as to restore said levers
25 to their holding positions.

3. In combination with a telegraph operators' table having a multiplicity of positions, a framework mounted on the table top; a four-rail endless track system fixed to said
30 framework so as to be vertically disposed in spaced relation to the table top; a train of connected carriers, equal in number to the table positions, mounted in said track system, said train being adapted to travel continuously therein; a door in the bottom of
35 each of said carriers, hinged at the front end thereof; a lever under the rear end of each of said carriers adapted to hold said door closed; means fixed to said framework
40 at each table position for tripping said lever of the carrier for that position, and means fixed to said framework for restoring all of said levers to their holding positions.

4. In a conveyer system for telegraph offices, an endless four-rail, vertically disposed
45 track system; a connected train of open carriers mounted in said track system and adapted to be driven therein continuously; a door in the bottom of each of said carriers
50 hinged at the front end thereof; a lever under the rear end of each of said carriers adapted to hold said door closed; a series of posts, corresponding in number to said carriers, each adapted to trip said lever of a different carrier and thus to permit its door to
55 open downwardly, and a restoring post adapted to restore said levers of all said carriers to their holding positions.

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