P. M. HASSLER AND A. H. NELLER.

TRACK FOR OVERHEAD CARRIERS.

APPLICATION FILED APR. 3, 1920.

1,345,851.

Patented July 6, 1920.

2 SHEETS—SHEET 1.

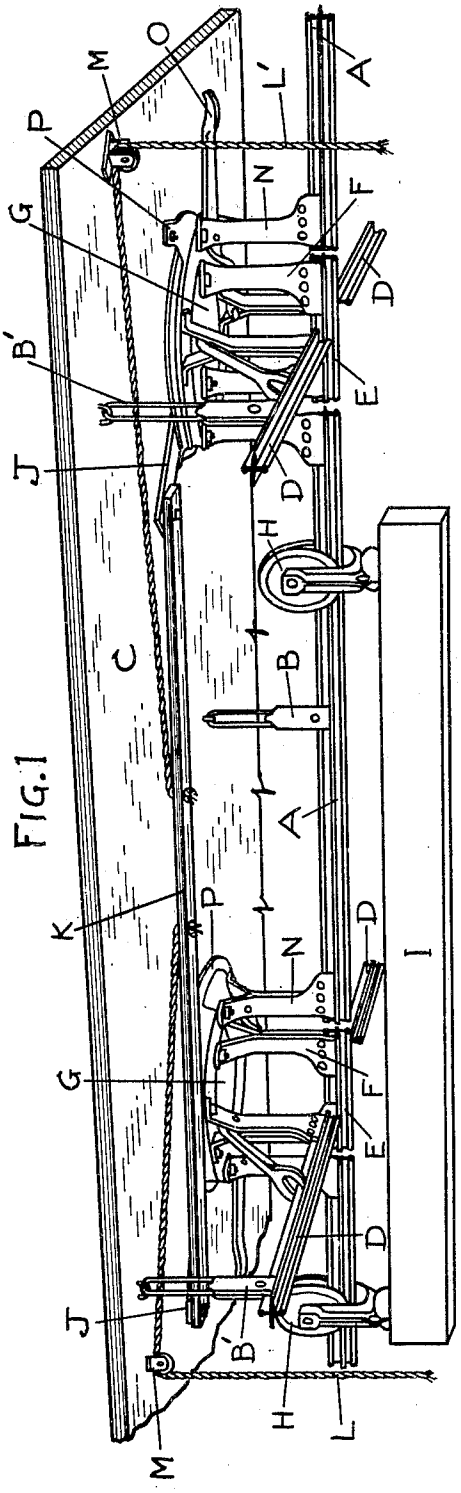


FIG. 1

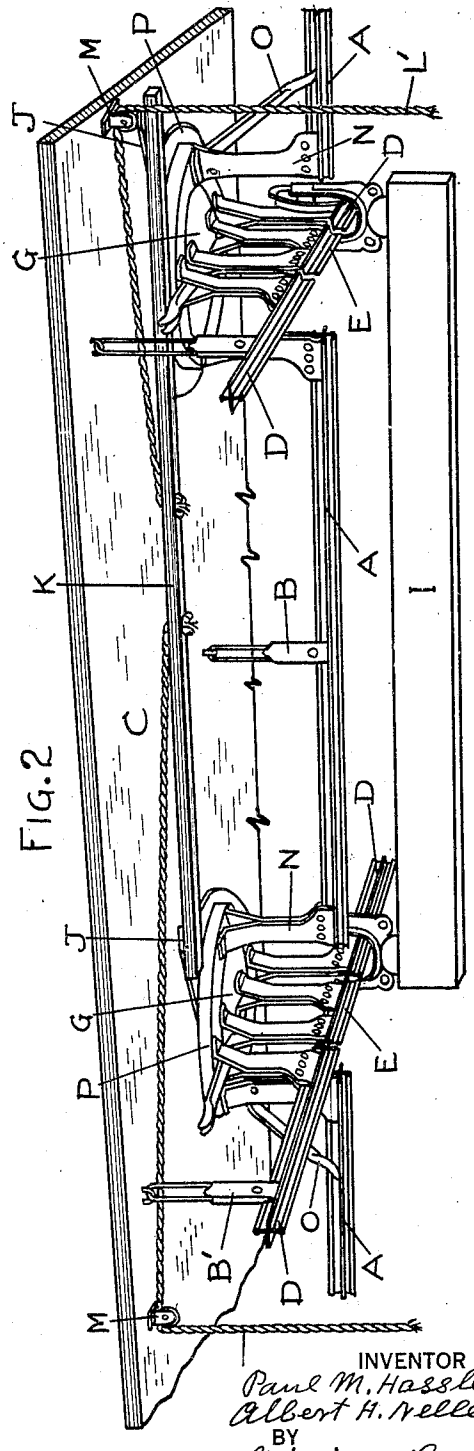


FIG. 2

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2 SHEETS—SHEET 2.

FIG. 3

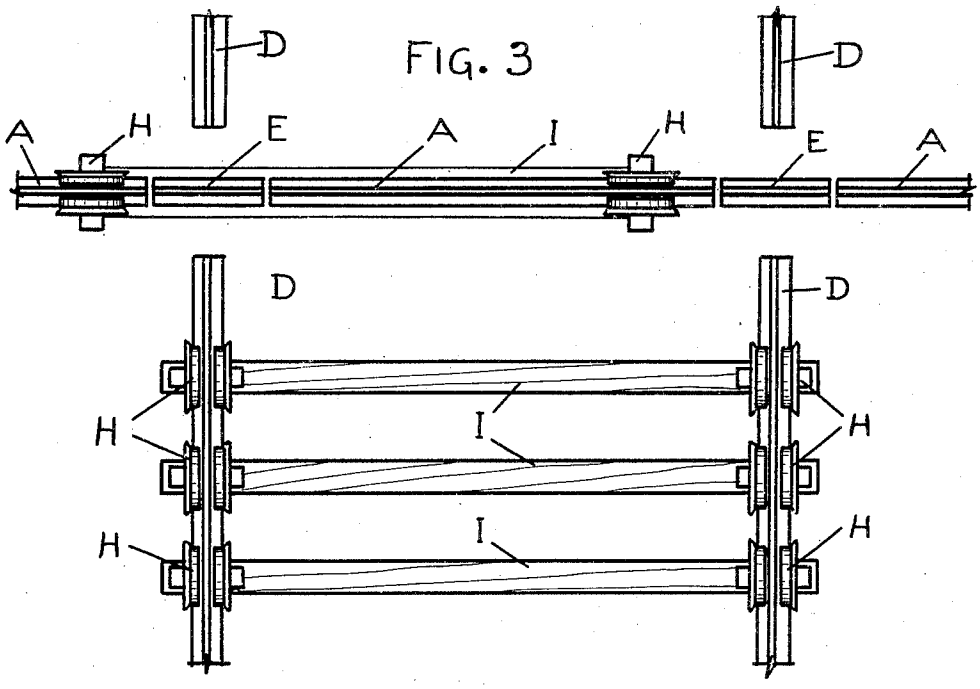
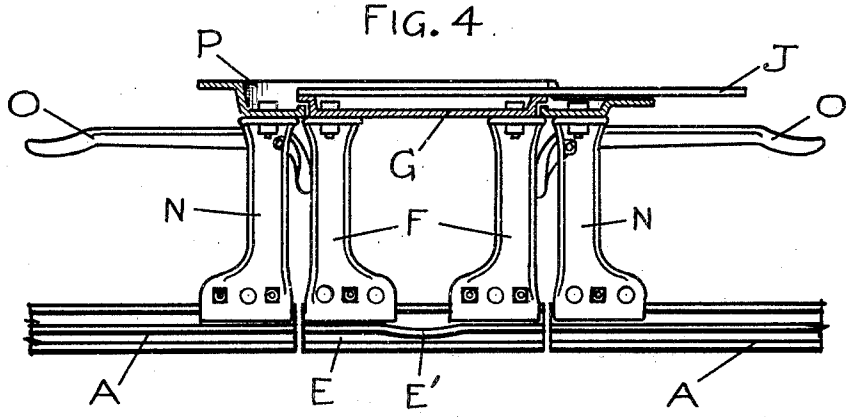


FIG. 4.



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UNITED STATES PATENT OFFICE.

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TRACK FOR OVERHEAD CARRIERS.

1,345,851. Specification of Letters Patent. Patented July 6, 1920.

Application filed April 3, 1920. Serial No. 370,955.

To all whom it may concern:

Be it known that we, PAUL M. HASSLER and ALBERT H. NELLER, citizens of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Tracks for Overhead Carriers, of which the following is a specification.

Our invention relates to that class of overhead tracks on which a carrier comprising a plurality of separate trolleys connected together by an extended horizontally disposed bar, may be switched from one track to another, and it consists of a combination and arrangement of parts whereby the carrier may be switched from a single main track to two or more cross tracks disposed at an angle to the main track, by means moving the switches in unison for each set of trolleys, whereby the carrier may be moved sidewise on the cross tracks instead of endwise, as it runs on the main track. Also, of other features described in this specification and set forth in the claims.

In the accompanying drawings forming part of this specification, Figure 1 is a perspective, showing a main track with a portion of a carrier having two sets of separate trolleys connected together by an extended bar mounted thereon, and two cross tracks arranged at an angle to the main track, the construction embodying our invention. Fig. 2 is the same, showing the carrier portion switched on to the cross tracks and arranged to be moved sidewise thereon. Fig. 3 is a plan view showing several portions of carriers bunched on the cross tracks. Fig. 4 is an enlarged detail view which will be hereafter explained.

Referring to the drawings A represents a main track which is connected to an overhead support C, which may be the ceiling of a building, by means of a series of hangers, such as B. D represents a couple of cross tracks in horizontal alinement with the main track and connected to the overhead support by a series of hangers B'. The cross tracks are spaced a certain distance apart and are supported in positions parallel to each other.

Where the cross tracks intersect the main track there are open spaces in which switch sections E are mounted by hangers F secured to suitable overhead supports, such as the plates G, and are adapted to be rotated one-quarter way around, so that the switch sections E may be alternately alined with the main track and with the cross tracks, the operation of each individual switch section, and the switch plate to which it is connected, being similar to that of the switch section and the switch plate shown in Patent No. 1,020,046, granted to Albert H. Neller March 12, 1912.

A pair of trolleys represented by H adapted to run on the tracks are connected together by a bar I of the proper length to hold the wheels of the trolleys the same distance apart as the central portions of the switch sections E and cross tracks D. These trolleys and the connecting bars form the basis of a carrier which may be constructed to suit requirements, the extendedly connected trolleys being portions of said carrier. The rotatable switch plates G are each provided with an outstanding lever J which levers are connected together by a shift bar K whereby the movement of the bar will simultaneously move the switch plates, and will cause the switch sections to simultaneously aline with either the main track A or the cross tracks D. A couple of switch cords L and L' are connected to the shift bar and are passed over guide pulleys M so as to extend down within reach of an operator.

The trolleys being on the main track, as shown in Fig. 1, are run along the track until the wheels are on the central portions of the switch sections E. To hold the wheels more securely in this position while the switch sections are being turned, it is preferable to dish the central portions of the switch sections to a certain extent, as shown in Fig. 4, which is an enlarged side view of one of the switch sections with its supporting hangers F and the adjoining ends of the main track A and its special end hangers N. The trolley wheels being run on to the dished portion E' of the switch section will stay there until pushed out of the dish.

To transfer the trolleys from the main track A to the cross tracks D, pull down on the trip cord L' until the switch levers J with the switch plates G, hangers F and switch sections E, assume the positions shown in Fig. 2. When in this position, the trolleys H and connecting bar I, with whatever carrier attachment may be connected thereto, may be run off sidewise on to the cross tracks in either direction required. In

this way a number of connected trolleys, forming a portion of, or the basis for a carrier, may be transferred from the main track and be bunched on the cross tracks as shown in Fig. 3.

To transfer the connected trolleys from the cross tracks to the main track, run the wheels of the trolleys on to the switch sections E when said sections are in the positions shown in Fig. 2. Then pull down on the switch cord L until the various parts of the switch mechanism assume the positions shown in Fig. 1. The connected trolleys may then be run on to the main portion of the track A. O represents safety stops which may be used to prevent the trolleys from running off the open ends of the track, as known to the art.

This invention is beneficial when it is desired to bunch a number of connected trolleys, with attachments connected thereto, in a compact space instead of stringing them out end to end on a single line of track, or on ordinary branch tracks connected therewith. Also in transferring a number of carriers from one floor to another in a building by means of two or more tracks mounted in parallel relation in an elevator and adapted to connect with similar tracks mounted on the different floors of the building.

The invention is also useful for other purposes where it is desirable to run carriers with connected trolleys sidewise on two or more parallel tracks and to bunch them in a limited compact space. Usually only two parallel tracks are employed, but more than two may be used by having extra trolleys attached to the connecting bar I and arranging them to run on the extra cross tracks. Fig. 4 also shows a stationary plate P which is connected to the overhead support, and on which the switch plate or turntable G is rotatably mounted, and to which the hangers N are attached. The invention is extremely simple and inexpensive and is thoroughly effective for the purpose intended.

What we claim is:

1. In tracks for overhead carriers, the combination of a main track, a plurality of cross-tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, a plurality of trolleys spaced apart to correspond with the cross-tracks and connected together in this relation by an extended horizontally disposed bar forming the basis of an overhead carrier adapted to run endwise upon the main track or sidewise upon the cross-tracks, a switch section at each intersection of the tracks adapted to receive and transfer the trolleys from the main track to the cross-tracks and vice versa, and means to simultaneously operate the switch-sections and to thereby effect the transfer of the trolleys in unison.

2. In tracks for overhead carriers, the combination of a main track, a plurality of cross-tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, a plurality of trolleys spaced apart to correspond with the cross-tracks and connected together in this relation by an extended horizontally disposed bar forming the basis of an overhead carrier adapted to run endwise upon the main track or sidewise upon the cross-tracks, a switch section at each intersection of the tracks adapted to receive and transfer the trolleys from the main track to the cross-tracks and vice versa, and means to connect the switch-sections together, whereby they may be simultaneously operated and the transfer of the trolleys simultaneously effected.

3. In a device of the character described, the combination of a main track, a plurality of cross-tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, a plurality of trolleys spaced apart to correspond with the cross-tracks and connected together in this relation by an extended horizontally disposed bar forming the basis of an overhead carrier adapted to run endwise upon the main track or sidewise upon the cross-tracks, a switch plate rotatably secured to an overhead support at each intersection of the tracks, a switch-section secured by hangers to each switch plate and means to connect the switch plates together, whereby they may be simultaneously rotated, and the switch-sections simultaneously alined with either the main track or the cross tracks and the trolleys simultaneously transferred from the one to the other.

4. In a device of the character described, the combination of a main track, a plurality of cross-tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, a plurality of trolleys spaced apart to correspond with the cross-tracks and connected together in this relation by an extended horizontally disposed bar forming the basis of an overhead carrier adapted to run endwise upon the main track or sidewise upon the cross-tracks, a switch plate rotatably secured to an overhead support at each intersection of the tracks, a switch-section secured by hangers to each switch plate, a lever affixed to each of the switch plates, and means to connect the levers, whereby the switch plates may be rotated in unison, and the switch sections simultaneously alined with either the main track or the branch tracks.

5. In a device of the character described, the combination of a main track, a pair of cross tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, an open space at each intersection of the tracks, a short section of

switch track, having its wheel supporting portions centrally dished, rotatably mounted in each open space and adapted to aline with the adjoining ends of the main track or with the adjoining ends of the adjacent cross track, a pair of connected trolleys spaced apart to correspond with the switch sections, and means to simultaneously rotate the switch sections so they will aline with the main track or with the adjacent cross tracks, whereby the connected trolleys may be transferred from the main track to the cross tracks and vice versa.

6. In a device of the character described, the combination of a main track, a pair of cross tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, an open space at each intersection of the tracks, a rotatable plate mounted above each open space, a short section of switch track carried by the rotatable plate and adapted to aline with the adjoining ends of the main track or with the adjoining ends of the adjacent cross tracks, a pair of connected trolleys adapted to run on the tracks and spaced apart to correspond with the switch sections, a projecting lever on each of the rotatable plates, a bar connecting the ends of the levers together and means for moving the connecting bar in opposite directions, whereby the plates may be rotated in opposite directions and the switch sections be alternately alined with the main track and the cross tracks, substantially as and for the purpose set forth.

7. In tracks for overhead carriers, the combination of a main track, a plurality of cross-tracks spaced apart parallel to each other and intersecting the main track in horizontal alinement, a plurality of sets of trolleys, each set being spaced apart to correspond with the cross-tracks and connected together in this relation by an extended horizontally disposed bar forming the basis of an overhead carrier adapted to run endwise upon the main track or sidewise upon the cross-tracks, said connected trolleys being adapted to be bunched on said cross-tracks, a switch section at each intersection of the tracks adapted to receive and transfer the trolleys from the main track to the cross-tracks and vice versa, and means to simultaneously operate the switch-sections and effect the transfer of the trolleys.

Fairfield, Iowa, March 31st, 1920.

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