

Dec. 19, 1933.

N. H. PREBLE

1,939,862

CONVEYER

Filed July 30, 1930

2 Sheets-Sheet 1

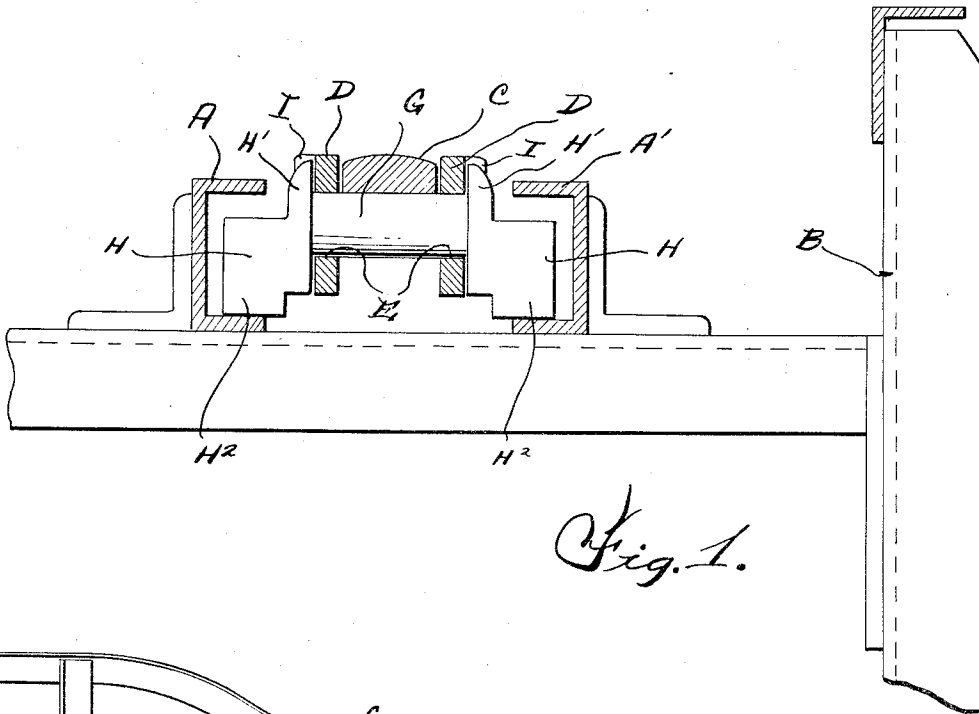


Fig. 1.

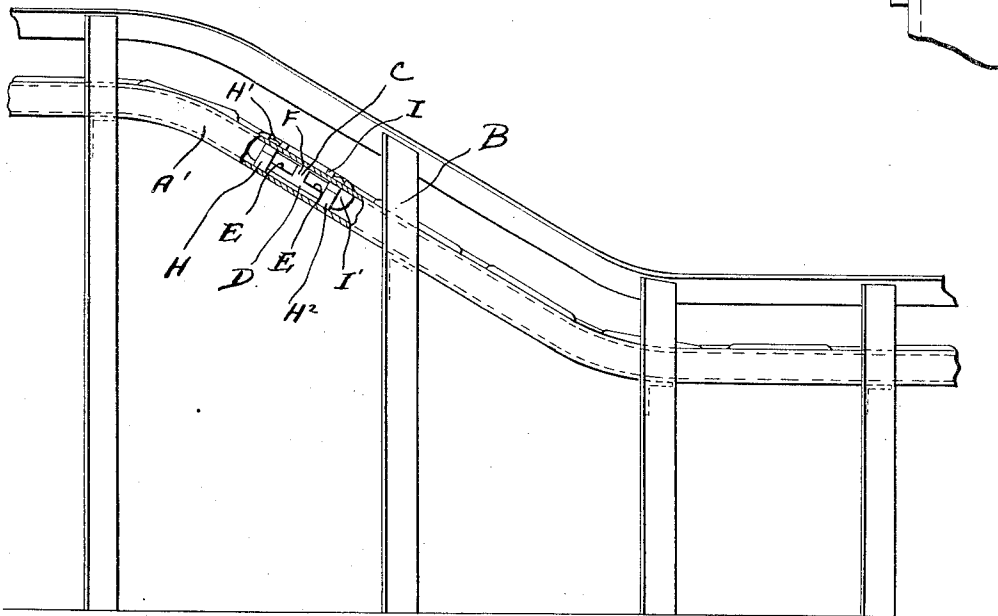


Fig. 2.

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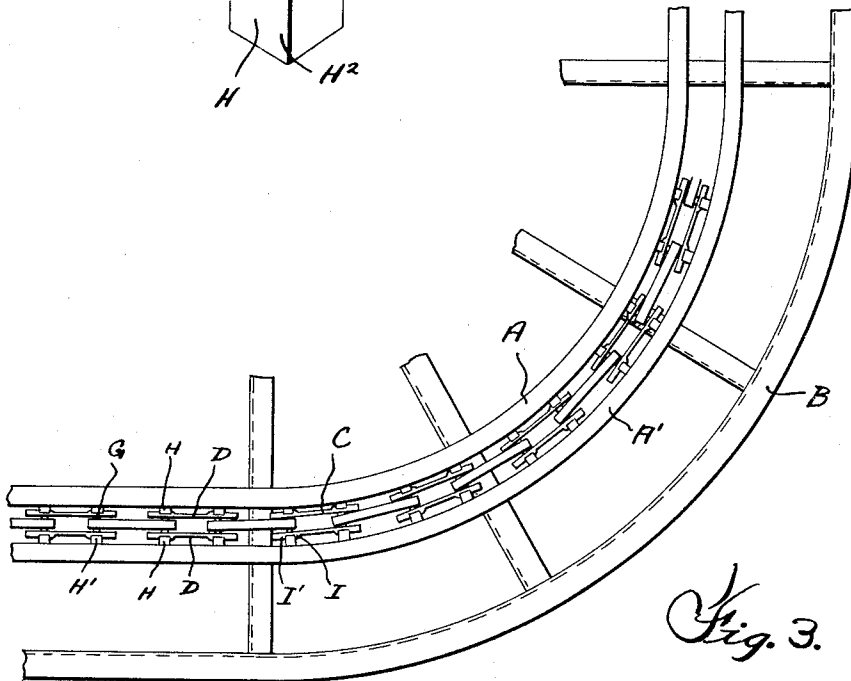
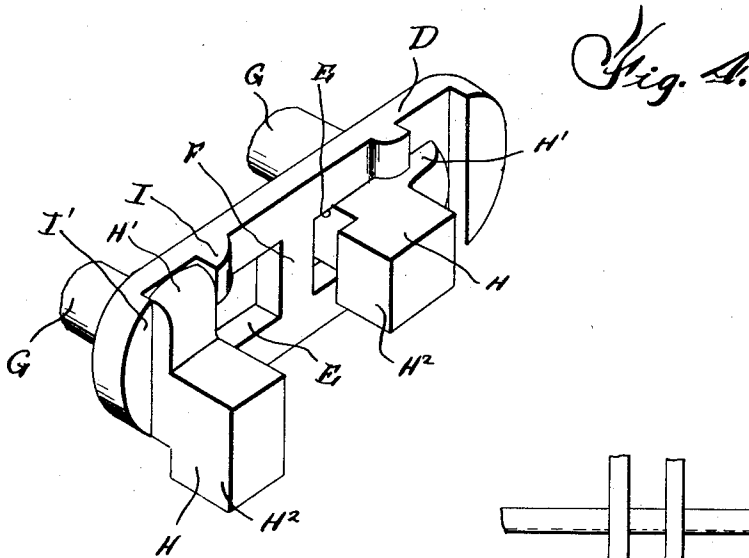
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UNITED STATES PATENT OFFICE

1,939,862

CONVEYER

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Mechanical Handling Systems, Incorporated,
Detroit, Mich., a corporation of Michigan

Application July 30, 1930. Serial No. 471,745

5 Claims. (Cl. 198—189)

The invention relates to conveyers designed for transporting loads through tortuous orbits and it is the object of the invention to obtain a simple construction which is adapted for changes in direction in different planes. To this end the invention consists in the novel construction, arrangement and combination of parts as herein-after set forth.

In the drawings:

10 Figure 1 is a cross section through a portion of my improved conveyer system;

Figure 2 is a side elevation thereof;

Figure 3 is a plan view thereof; and

15 Figure 4 is a perspective view of one of the carrier links showing the manner of assembling the elements thereof.

My improved conveyer comprises a track formed of spaced parallelly arranged channel bars having the channels opening inwardly towards each other and a link conveyer chain having laterally projecting lugs for engaging said channels to be guided thereby. In detail, A and A' are the channel track bars which are mounted upon any suitable supporting frame as indicated at B. These track bars may be longitudinally curved in any plane so long as they remain uniformly spaced and in parallel relation to each other. Thus as shown in Figure 2 the bars are curved in a vertical plane and in Figure 3 in a horizontal plane.

Guided by these track bars is a conveyer chain C. This chain is formed of a series of links including load supporting links constructed as follows: D are the side bars of the load supporting links which are formed with longitudinal slots E therein separated by a central cross bar F. G are pins cross connecting the side bars D and which are provided at their opposite ends with outwardly and downwardly projecting lugs H. 40 The lugs H are of such a cross section that they may be passed through the slots E when arranged in a horizontal plane or the longitudinal plane of said side bars. As indicated at the inner end of Figure 4 the pins are then turned through an angle of 90 degrees to engage the lugs with vertical slots in said side bars D which are of the same width as the width of the lug. As shown, these slots are formed by spaced guides I and I'. The lugs H are formed with portions H' extending 50 on opposite sides of the axis of the pin G to engage the guides I and I' for the outwardly extending portion H² which is off-set below the axis of said pin. This portion H² is adapted to engage the channel in the track bar A or A' with clearance sufficient to prevent binding but insuffi-

cient to permit of disengagement from the channels. Thus whatever the direction of the tracks A and A' the load supporting links are compelled to follow the same and the engagement of the lugs H² with the channels will support the load. 60 Also in case of an upward turn in the track the top portions of the lugs will bear upon the top flange of the channel, thereby preventing disengagement. The load links C are connected to each other by connecting links of any suitable 65 construction permitting of engagement after assembly of the pins G with the side bars D. It will be noted that by reason of the downward off-set of the lugs H² the top edges of the side bars D are raised above the top flanges of the tracks A and 70 A' so as to permit of cross bars between a pair of conveyer chains without interference with the tracks.

What I claim as my invention is:

1. A conveyer system comprising spaced parallelly arranged tracks, a conveyer chain therebetween having load supporting links, said links comprising longitudinally slotted side bars and cross pins having enlarged heads for engaging said tracks, said enlarged heads being restricted 80 in width and height to pass through said slots when arranged in the plane thereof and having downwardly off-set portions for engaging said tracks, to raise the upper edge of said side bars above the top of said channels, and guides on 85 said side bars for engaging with said heads when arranged in a vertical plane to hold the same from displacement.

2. A conveyer system comprising spaced parallelly-arranged tracks, a conveyer chain therebetween having load supporting links, cross pins connecting said links and having enlarged portions at the opposite ends thereof extending laterally beyond said links for retaining the same in assembled relation and for engaging 95 said tracks to support the links above the tracks.

3. A conveyer system comprising spaced parallelly-arranged tracks, a conveyer chain therebetween having load supporting links provided with longitudinally extending slots, cross pins 100 extending through said slots and having portions at the opposite ends thereof extending laterally beyond the links for connecting the latter together and for engaging said tracks to support the links above the tracks, and cooperating 105 engaging means upon the links and pins for retaining the portions aforesaid of the latter in fixed positions relative to the links.

4. A conveyer system comprising spaced parallelly-arranged tracks, a conveyer chain there- 110

between having load supporting links, said links comprising longitudinally slotted side bars and cross pins provided with heads having downwardly offset portions for engaging said tracks	
5 to support the chain from the latter and further having upwardly projecting extensions, said heads being restricted in width and height to pass through the slots when arranged in the plane thereof, and lateral projections upon the	
10 side bars of the chain for engaging opposite sides of the extension on the heads when the latter are arranged in a plane transverse to the plane aforesaid for holding the bars in assembled relation with the links.	
15 5. A conveyer system comprising laterally spaced track members, a conveyer chain there-	
	between having load supporting links comprising longitudinally slotted side bars, cross pins extending between the side bars and having enlarged heads restricted in width and height to dimensions determined to permit passage of the
	heads through the slots in the side bars when arranged in the plane thereof, said enlarged heads having portions extending below the lower edges of the links when said heads are in a plane transverse to the plane aforesaid for engaging the tracks to support the links above the
	latter, and guides on the side bars engageable with the enlarged heads for holding the same in the aforesaid transverse plane.
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75	150