

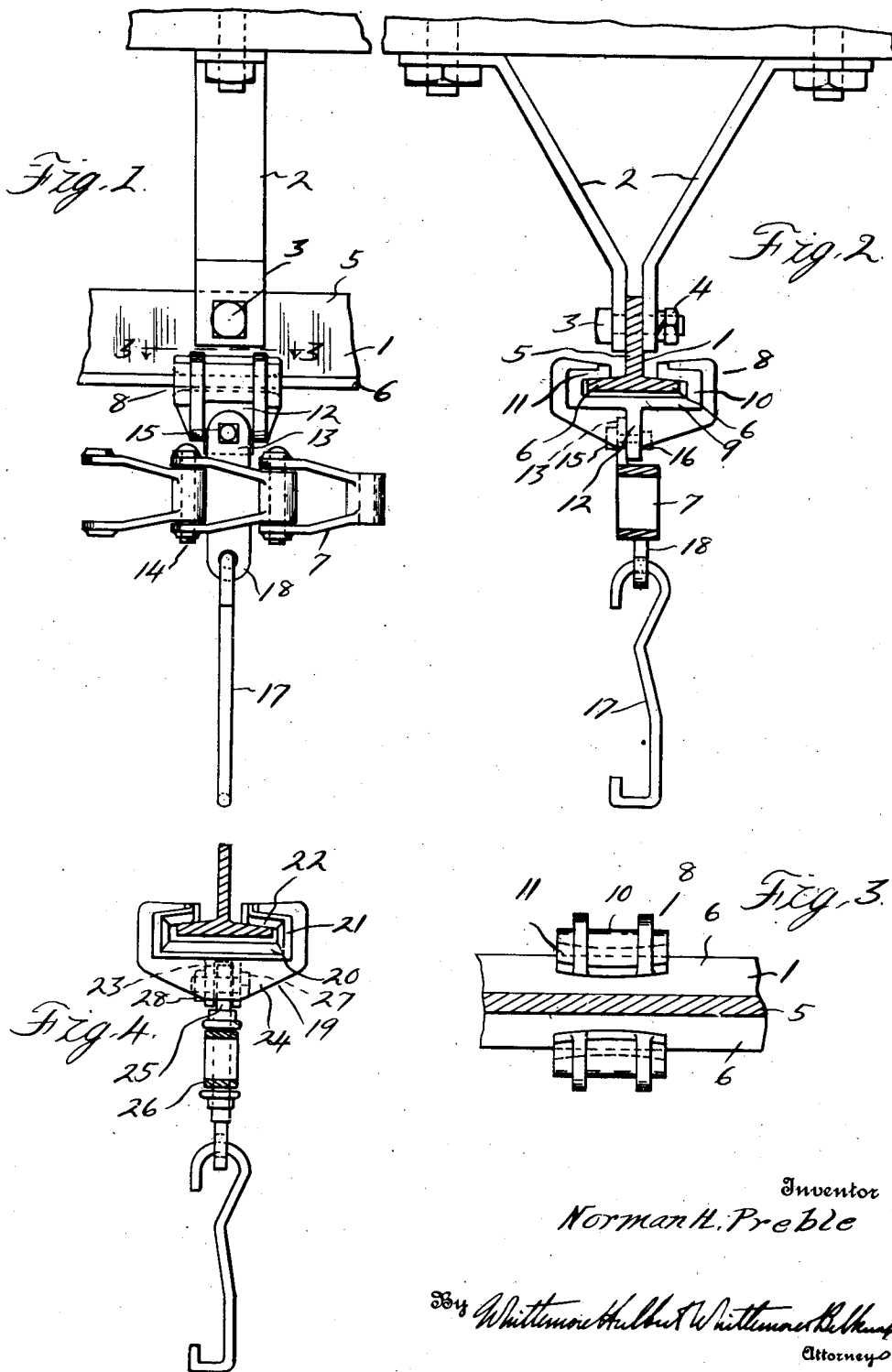
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CONVEYER

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UNITED STATES PATENT OFFICE.

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CONVEYER.

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The invention relates to conveyers and refers more particularly to that type having an overhead track. One of the objects of the invention is to simplify the construction of a conveyer and at the same time provide a conveyer which is practicable. Another object is to so construct the conveyer shoes that they may be readily advanced along a track, which is curved either in horizontal or vertical planes. With these as well as other objects in view, the invention resides in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:—

Figure 1 is a side elevation of a portion of a conveyer embodying my invention;

Figure 2 is an end elevation, partly in section, thereof;

Figure 3 is a cross section on the line 3—3 of Figure 1;

Figure 4 is a view similar to Figure 2, showing a modification.

The conveyer has the track 1, which is adapted to be supported at suitable points spaced longitudinally thereof by the bars 2, which are secured to the tracks by the bolts 3 and the nuts 4. The track, as shown, is an inverted T-bar having the web 5 and the aligned lateral flanges 6 at the lower edge of the web, the bars 2 being secured to the web.

The conveyer has the power connection 7, which extends below the track 1 and, as shown in the present instance is a power driven conveyer chain, the links of which are pivotally connected to provide for the necessary flexibility of the chain to take care of curves in the track, either horizontally or vertically. The conveyer also has the shoes 8 connected to the chain at longitudinally spaced points, but one shoe being shown in the present instance. Each shoe 8 has the lateral portions 9 extending longitudinally below the lateral flanges 6, the upwardly extending portions 10 at the outer ends of the lateral portions 9 and extending longitudinally of the edges of the flanges 6, and the lateral portions 11 extending inwardly from the upper ends of the upwardly extending portions and longitudinally above the flanges 6 and slidably supported upon the same. Each shoe further has the portion 12 depending from the lower lateral portions 9 and adapted to be secured to the upwardly extending ear 13 of the chain at-

tachment link 14 by means of the bolt 15 and the nut 16. 17 is a work carrier in the nature of a hook located beneath the shoe 8 and connected to the ear 18 depending from the attachment link 14. To facilitate movement of the shoe along the track when the latter is curved either in the horizontal or vertical planes, the front and the rear ends of the upwardly extending portions 10 of the shoe are flared and the front and the rear ends of the lower lateral portions 10 and the upper lateral portions 11 are also flared, the lengths of the bearing faces between the flared ends being sufficient to properly guide the shoe upon the track.

In the modification shown in Figure 4, the shoe is made up of the cooperating sections 19, which are alike. Each section has the lower lateral portion 20, the upwardly extending portion 21 and the upper lateral inwardly extending portion 22 corresponding to the portions 9, 10 and 11 of the shoe shown in Figures 1, 2 and 3. Each section also has the portion 23 depending from the lower lateral portion 20 and spaced from the depending portion of the other section when the two sections are secured together. Each section further has the front and the rear transverse walls 24 which are adapted to have edge to edge engagement when the sections are secured to each other. The attachment part 25 of the conveyer chain 26 extends upwardly between the depending portions 23 and between the front and the rear walls 24 and is secured to the sections by means of the bolt 27 and the nut 28, which secure the sections to each other. The work carrier may be carried by the shoe in much the same manner as the work carrier 17, shown in Figures 1 and 2.

What I claim as my invention is:

1. In a conveyer, the combination with a track and a conveyer power connection below said track, of a conveyer shoe formed in one piece having a portion connected to said power connection and another portion slidably mounted upon and depending from said track, and a work carrier beneath said shoe and carried thereby.

2. In a conveyer, the combination with a track, of a conveyer shoe having a portion integral therewith and slidably mounted upon said track and connected thereto, a power connection below said track having a part connected to and depending from said shoe,

and a work carrier suspended from said part.

3. In a conveyer, the combination with a track and a power chain below said track having an attachment link, of a shoe slidably mounted upon and having an interlocking connection with said track and depending therefrom, means connecting said shoe to said attachment link, and a work carrier beneath said shoe connected to said attachment link.

4. In a conveyer, the combination with a track having a lateral flange, of a conveyer shoe having a portion below said track, upwardly extending portions at opposite sides of said track, and an inwardly extending portion above said flange and slidably engaging the same, said upwardly extending portions and inwardly extending portion being flared at their front and rear ends, means connected to said shoe for advancing the same along said track, and a work carrier below and carried by said shoe.

5. In a conveyer, the combination with a track having a lateral flange, of a conveyer shoe having a portion below said flange and extending longitudinally thereof, upwardly extending portions at opposite sides of said track and extending longitudinally thereof, and an inwardly extending portion above said flange and extending longitudinally thereof and slidably engaging the same, all of said portions being flared at their front and rear ends, means connected to said shoe for advancing the same along said track, and a work carrier carried by said shoe.

6. In a conveyer, the combination with a track having aligned lateral flanges, a conveyer shoe having a portion below said flanges and extending longitudinally thereof, upwardly extending portions extending longitudinally of the edges of said flanges, and inwardly extending portions extending longitudinally above said flanges and slidably engaging the same, all of said portions being flared at their front and rear ends, a power connection below said track and connected to said shoe, and a work carrier beneath said shoe and carried thereby.

7. In a conveyer, the combination with a track having aligned lateral flanges, of a conveyer shoe having cooperating sections with portions extending longitudinally below said flanges, upwardly extending portions extending longitudinally of the edges of said flanges, and inwardly extending portions above and slidably engaging said flanges, all of said portions having flared front and rear ends, means for securing said sections together, means for advancing said shoe, and a work carrier beneath said shoe and carried by said shoe.

8. In a conveyer, the combination with a track having aligned lateral flanges, of a conveyer shoe having cooperating sections

with lateral portions extending longitudinally below said flanges, upwardly extending portions extending longitudinally at opposite edges of said flanges, and lateral portions extending longitudinally above and slidably engaging said flanges, said sections also having portions depending from said first-mentioned lateral portions, and transverse front and rear walls having edge to edge engagement, means extending through said depending portions for securing said sections together, means for advancing the said shoe, and a work carrier carried by said shoe.

9. In a conveyer, the combination with a track and a conveyer power connection below said track, of a conveyer shoe having a portion connected to said power connection and having upwardly extending portions curved longitudinally opposite the side edges of the track and terminating in inwardly extending arms slidably engaging the upper surface of the track.

10. In a conveyer, the combination with a track and a conveyer power connection below said track, of a conveyer shoe having a portion connected to said power connection and having another portion provided with spaced inwardly opening grooves adapted to slidably receive opposite edge portions of said track.

11. In a conveyer, the combination with a track having oppositely extending flanges and a conveyer power connection spaced from said track, of a conveyer shoe having a portion connected to said power connection and having other portions extending upwardly upon opposite sides of said flanges and provided with grooves adapted to slidably receive portions of said track flanges.

12. In a conveyer, the combination with a track having oppositely extending flanges and a conveyer power connection spaced from said track, of a conveyer shoe having a portion connected to said power connection and having upwardly extending portions provided with grooves adapted to slidably receive portions of said track flanges, the side walls of said grooves opposite the edge portions of the track flanges being curved longitudinally to facilitate movement of the shoe along the track.

13. In a conveyer, the combination with a track having oppositely extending flanges and a conveyer shoe having a depending lug connected to said power connection and having portions extending upwardly upon opposite sides of the track flanges and terminating in inwardly extending arms forming grooves for slidably receiving portions of said track flanges.

In testimony whereof I affix my signature.

NORMAN H. PREBLE.