

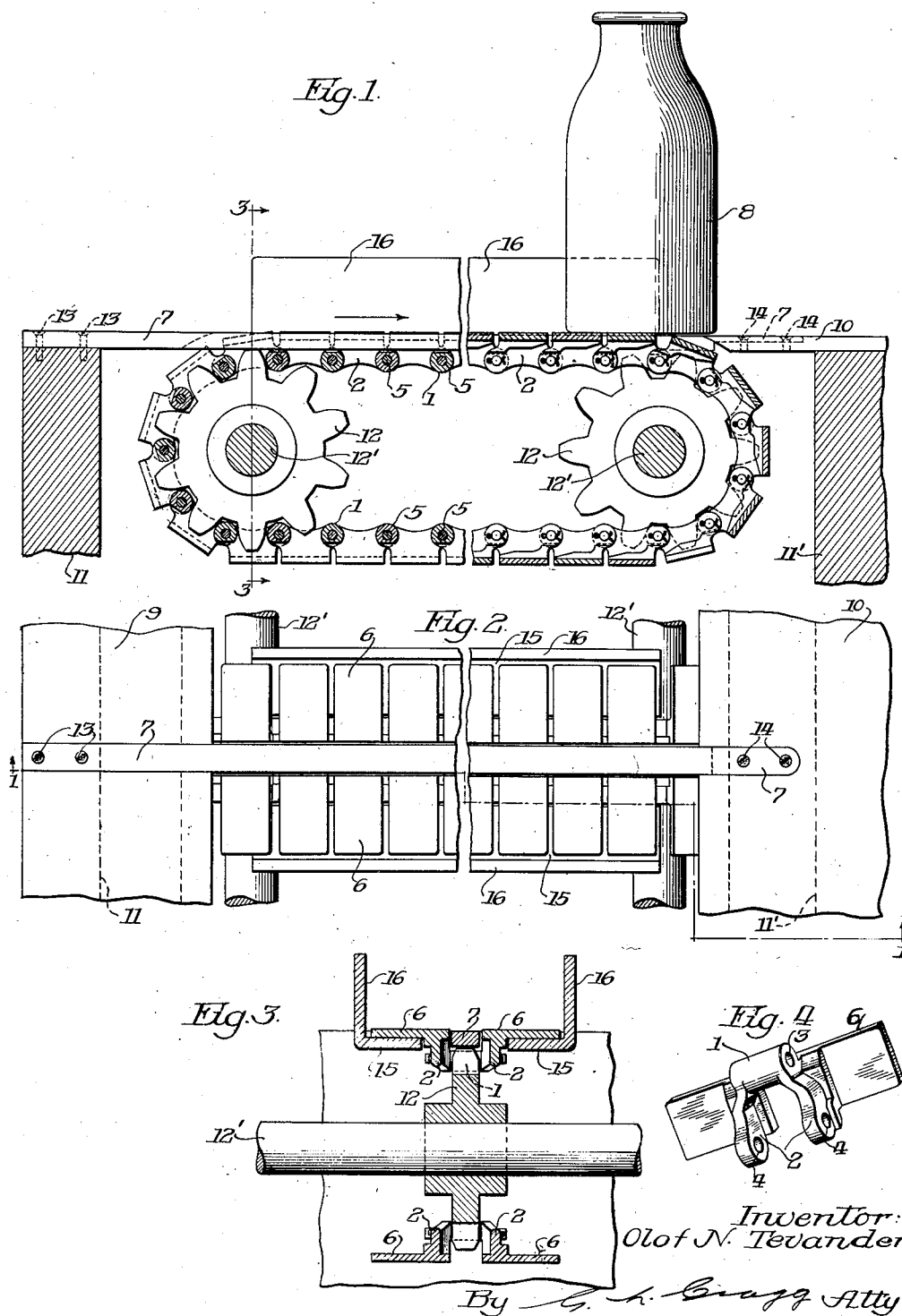
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CONVEYER

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CONVEYER.

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My invention relates to conveyers employing endless chains, such as sprocket chains which are passed over driving and idler sprocket wheels.

5 My invention is of particular utility in connection with conveyers that are used for conveying milk bottles that are filled and capped by machinery, though the invention is not to be limited to any particular use.
10 The milk bottles are supplied to the conveyer chain from a supply deck and are conveyed by the chain to the receiving deck. Owing to the cylindrical curvature of the bottles, they are apt to tilt sidewise of the chain into the spaces intervening between the decks and the chain and overlying the receiving and delivering bights of the chain. I overcome this defect by providing a bar which is in supporting relation to the bottles above one
15 and preferably above each bight of the chain, this bar being received in recesses that are provided in the outer sides of the links of the chain and which are aligned in the direction of the travel of the chain, the bar being
20 positioned to be received in said recesses in the links when the links are in the upper stretch of the chain.

The invention will be more fully explained in connection with the accompanying drawing in which Fig. 1 is a sectional elevation taken on line 1—1 of Fig. 2, a section of the chain being removed for lack of space and a bottle being shown on the chain; Fig. 2 is a plan view of the structure shown in Fig. 1, the bottle being omitted; Fig. 3 is a sectional view on line 3—3 of Fig. 1; and Fig. 4 is a perspective view of one of the links.

The conveyer chain illustrated is formed of links, each link being provided with a
40 U-shaped hinging knuckle having a base portion 1 and side portions 2 respectively provided with pintle receiving passages or holes 3 and 4. The base portion 1 of each knuckle is interposed between the side portions 2 of an adjacent knuckle with the hole 3 in register with the holes 4, a pintle 5 passing through these registering holes to place the adjacent knuckles in hinged connection. Each link includes two wings 6 which are
45 aligned transversely of the chain, these wings being integrally formed with the corresponding knuckle and being spaced apart in the zone of the bases of the knuckles and extending transversely of the chain laterally
50 beyond the knuckles, the spaces between the

wings of the various links being thus disposed in the zone of the knuckles to constitute a channel way which is sufficiently wide to receive an object supporting bar 7. The spaces between the wings of the links thus
60 constitute bar receiving recesses, the bar being positioned to be received in these recesses when the links are in the upper stretch of the chain and to overlie at least one bight of the chain and being preferably of a length to overlie both bights of the chain.

The bottles may be conveyed onto the chain from a supply deck 9 and may be delivered from the chain onto a receiving
70 deck 10, these decks being in line with the chain and preferably having their top faces slightly below the level of the top face of the chain. The decks are carried upon suitable supports 11, 11' between which the chain is
75 disposed together with the sprocket wheels 12, over which the chain passes, these sprocket wheels being carried upon shafts 12' and formed to receive the bases 1 of the hinging knuckles between their adjacent
80 teeth, one of these sprocket wheels being driven to drive the chain. The bar 7 is carried by the supports 11, 11' and received within recesses or openings formed in the decks in order that the top face of the bar
85 may be substantially flush with the top faces of the decks. Screws 13 serve to assemble the left end of the bar 7 directly with the underlying supports 11. The right end of the bar 7 is reduced in thickness and is seated within a recess formed in the deck 10 and is secured to this deck by means of screws
90 14. Suitably supported stationary ledges 15 are provided, one at each side of the chain, and underlie the outer ends of the wings 6 that are in the uppermost part of the chain, these ledges being positioned to hold these wings with their top faces slightly above the level of the decks, the bar 7 being of such thickness that its top face is
100 preferably slightly below the top face of the wings. These ledges are provided with upright continuations 16 between which the chain travels and which are spaced apart a distance to impart a straight line of travel to the bottles 8 that are being conveyed. From the construction illustrated, it is observed that the bar 7 overhangs the receiving and delivering bights of the chain so as to so
105 bridge the gaps between the decks and the

uppermost part of the chain that the bottles will not be apt to tilt sidewise as they are crossing these spaces.

Changes may be made without departing from the invention.

Having thus described my invention, I claim:

1. A conveyer chain including links having connecting hinges provided with U-shaped knuckles and pintles received by the bases and sides of said knuckles, each of said links including wing portions spaced apart in the zone of the bases of the knuckles of the hinges and extending laterally of the chain, in combination with two object supporting decks in line with the chain and respectively located at the bights of the chain; and an object supporting bar carried by said decks and positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain.

2. A conveyer chain including links having connecting hinges provided with U-shaped knuckles and pintles received by the bases and sides of said knuckles, each of said links including wing portions spaced apart in the zone of the bases of the knuckles of the hinges and extending laterally of the chain, in combination with an object receiving deck located at the delivering bight of the chain; and an object supporting bar carried by said deck and positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain.

3. A conveyer chain including links having connecting hinges provided with U-shaped knuckles and pintles received by the bases and sides of said knuckles, each of said links including wing portions spaced apart in the zone of the bases of the knuckles of the hinges and extending laterally of the chain, in combination with an object receiving deck located at the delivering bight of the chain; and an object supporting bar positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain and overlying the delivering bight of the chain.

4. A conveyer chain including links having connecting hinges, each of said links including wing portions spaced apart in the zone of the hinges and extending laterally of the chain, in combination with two object supporting decks in line with the chain and respectively located at the bights of the chain; and an object supporting bar carried by said decks and positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain.

5. A conveyer chain including links having connecting hinges, each of said links including wing portions spaced apart in the zone of the hinges and extending laterally of the chain, in combination with an object receiving deck located at the delivering

bight of the chain; and an object supporting bar carried by said deck and positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain.

6. A conveyer chain including links having connecting hinges, each of said links including wing portions spaced apart in the zone of the hinges and extending laterally of the chain, in combination with an object receiving deck located at the delivering bight of the chain; and an object supporting bar positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain and overlying the delivering bight of the chain.

7. A conveyer chain including links having recesses in their outer sides and aligned in the direction of travel of the chain, in combination with two object supporting decks in line with the chain and respectively located at the bights of the chain; and an object supporting bar carried by said decks and positioned to be received in said recesses in the links when the links are in the upper stretch of the chain.

8. A conveyer chain including links having recesses in their outer sides and aligned in the direction of travel of the chain, in combination with an object receiving deck located at the delivering bight of the chain; and an object supporting bar carried by said deck and positioned to be received in said recesses in the links when the links are in the upper stretch of the chain.

9. A conveyer chain including links having recesses in their outer sides and aligned in the direction of travel of the chain, in combination with an object receiving deck located at the delivering bight of the chain; and an object supporting bar positioned to be received in said recesses in the links when the links are in the upper stretch of the chain and overlying the delivering bight of the chain.

10. A conveyer chain including links having connecting hinges provided with U-shaped knuckles and pintles received by the bases and sides of said knuckles, each of said links including wing portions spaced apart in the zone of the bases of the knuckles of the hinges and extending laterally of the chain, in combination with an object supporting deck located at a bight of the chain; and an object supporting bar positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain and overlying said bight of the chain.

11. A conveyer chain including links having connecting hinges, each of said links including wing portions spaced apart in the zone of the hinges and extending laterally of the chain, in combination with an object supporting deck located at a bight of the

chain; and an object supporting bar positioned to be received in the spaces between said wings when the links are in the upper stretch of the chain and overlying said bight
5 of the chain.

12. A conveyer chain including links having recesses in their outer sides and aligned in the direction of travel of the chain, in combination with an object supporting deck

located at a bight of the chain; and an object supporting bar positioned to be received in said recesses in the links when the links are in the upper stretch of the chain and overlying said bight of the chain. 10

In witness whereof, I hereunto subscribe
my name. 15

OLOF N. TEVANDER.