

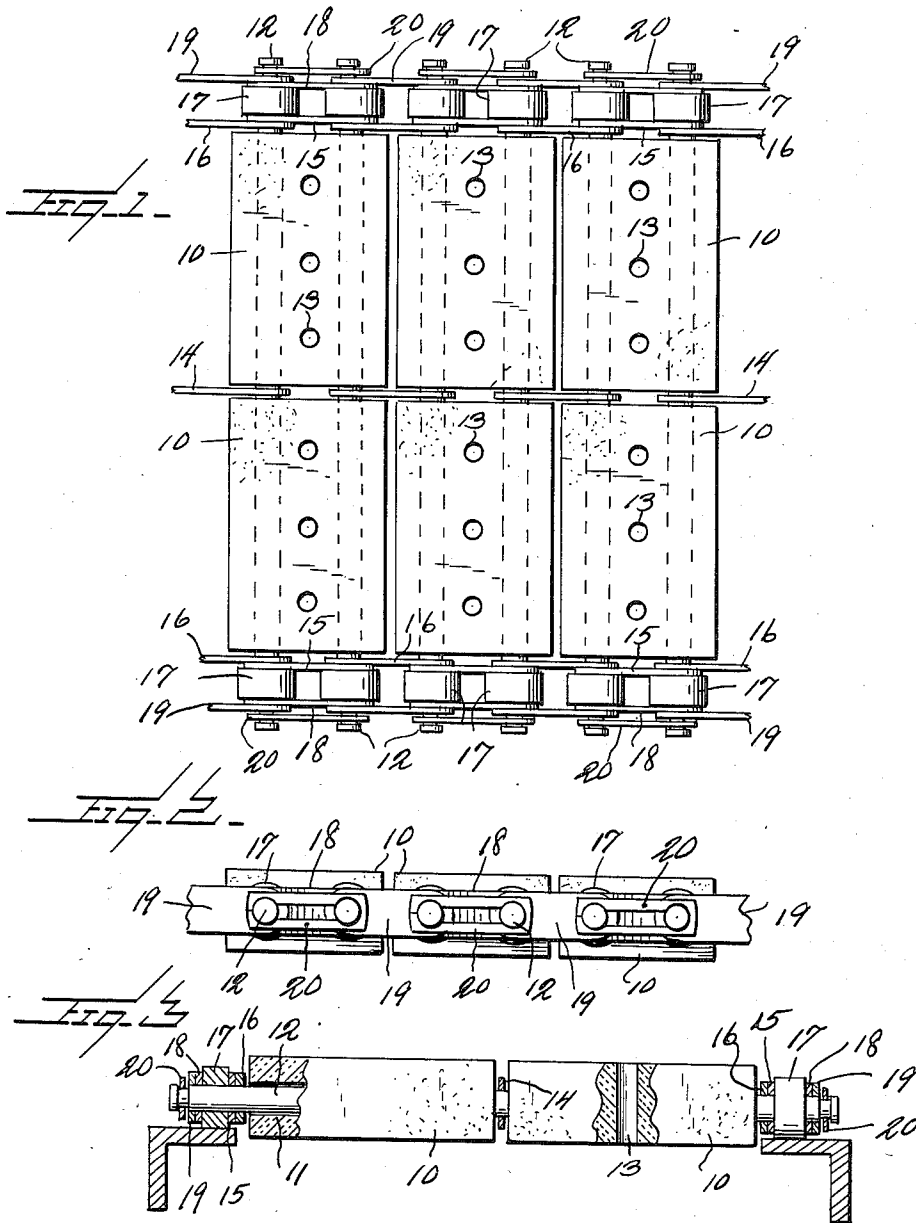
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CONVEYER FOR HOT BOTTLES

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CONVEYER FOR HOT BOTTLES

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4 Claims. (Cl. 198—195)

This invention relates to conveyers and particularly to conveyers for carrying hot glassware such, for instance, as bottles.

The present conveyers used for this purpose by manufacturers are composed of metallic links, metallic transverse rods and metallic spacing washers. These conveyers unless heated, are likely to check or split the bottles carried thereon and, therefore, the glass manufacturers are forced to burn gas or otherwise heat their conveyer belts in order to prevent this damage to the bottles.

The general object of the present invention is to provide a conveyer for hot bottles which is not open to the objection stated, which does not require to be heated and which consists of slabs or blocks of more or less refractory non-heat-conducting material supported by transverse rods which extend through the blocks and by links connecting the rod or rods of one block or blocks to the rod or rods of the next adjacent block or blocks.

Another object is to provide a conveyer of this character so constructed that it will not wear out the rails or other supports upon which the conveyer moves as do the conveyers at present in use.

A further object is to provide means whereby if any of the blocks are worn, that particular block may be readily disengaged from the conveyer chain and a new block inserted.

A further object is to provide a double-duty conveyer which may be reversed in case the blocks upon which the bottles rest become unduly worn.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawing wherein:

Fig. 1 is a top plan view of a conveyer constructed in accordance with my invention.

Fig. 2 is an end elevation thereof.

Fig. 3 is a transverse elevation partly in section and showing the rails for the conveyer.

Fig. 4 is an elevation of the clip.

Referring to the drawing, it will be seen that I have illustrated a portion of an endless conveyer and that in the form of conveyer which I have particularly illustrated, the chain is made up of a plurality of pairs of blocks 10, each block having adjacent its forward and rear edges a transversely extending bore 11 through which pins 12 pass. There are two of these pins 12 to each of the blocks 10. Between the bores 11, each block is formed with a plurality of perforations 13 extending through the block. The blocks 10 are spaced from each other or separated from each other by links 14 engaging the pins 12.

The pins project beyond the ends of the blocks and the pins of each block at each end are connected to each other by links 15 and connected to the pins of an adjacent block by means of the links 16. Outward of the links 15 rollers 17 are mounted upon the pins 12 and outward of these rollers, the pins 12 of each block are connected by links 18 similar to the links 15. Outward of the links 18, links 19 connect the pins of one pair of blocks to the pins of the next adjacent pair of blocks. The pins are held in place by a split spring clip 20 of thin metal, such as thin steel, these spring clips being capable of being readily pried off so that in case a link becomes broken or a block becomes broken or worn or otherwise damaged, the spring clip or clips may be pried off and another link or block or another pin be slipped into place. Thus the conveyer may be readily repaired at any time and at little cost.

While I have illustrated a pair of blocks 10, I do not wish to be limited to the number of blocks which may be arranged in transverse line with each other as there may be a greater number of blocks than two arranged in this transverse line or the conveyer might have only one relatively long block at each link of the conveyer.

The rollers 17 are adapted to be engaged by sprockets in the usual manner where endless chains are trained over sprocket wheels and these rollers also ride over the rails 21, as shown in Fig. 3, and if the conveyer top becomes worn down, the endless conveyer may be turned over, that is, inside out, and re-used, thus indefinitely extending the life of the conveyer.

The blocks 10 may be made of any heat insulating material which is sufficiently strong and sufficiently refractory, but I prefer to use for this purpose an asbestos compound called Transite made by the Johns-Manville Company. This composition may be readily pressed into shape or the blocks may be cut therefrom. The apertures 13 permit air to be blown up through the apertures to cool the bottles gradually and keep the bottles from getting out of shape while in transit. By having the bores 11 extending through the blocks 10, air spaces are formed extending transversely through these blocks, preventing the pins from warping out of shape and the conveyer from thus becoming out of shape. This is assisted by

the passages 13 through the blocks which tend to keep the blocks reasonably cool without, however, checking or splitting the hot glassware which is carried upon the conveyer.

- 5 While I have illustrated certain details of construction and a particular arrangement of parts which I have found to be thoroughly effective, I do not wish to be limited thereto except as defined in the appended claims.
- 10 Reference has been made in the specification to the wearing of the blocks 10 and to the fact that when such wear occurs, the blocks may be reversed or turned over so as to bring new supporting surfaces into service. In the art in which
- 15 the conveyer of the present invention is to be used, the hot bottles which are carried on top of the conveyer are frequently stopped at the end of the conveyer line by some means provided for holding the bottles until they can be removed
- 20 from the conveyer. This, naturally, sets up friction and causes wear of the surface of the conveyer. It will thus be seen that eventually the blocks 10 must be replaced or turned over and the novel means provided for supporting the blocks
- 25 permits such reversion or changing to be made without difficulty.

Due to the nature of the material of which the blocks are formed, the blocks will retain sufficient heat to prevent the checking or splitting of the

30 hot glassware as it is transferred to the conveyer, which occurs at the present time in the use of conveyers made of metal where means is not employed for keeping the metal at a raised temperature prior to the movement of the bottles onto

35 the conveyer.

What is claimed is:—

1. A conveyer for hot bottles, including blocks of refractory material approximately rectangular in cross-section and having flat outer faces, the blocks having bores extending longitudinally 5 through the blocks, transversely extending pins extending loosely through said blocks from end to end and housed within said bores and projecting from the ends of the blocks, links connecting the pins of adjacent blocks, and rollers carried on 10 said pins.

2. A conveyer for hot bottles including blocks of refractory material, transversely extending pins projecting from the ends of the blocks, links connecting the pins of adjacent blocks, and rollers carried on said pins, the blocks having air 15 passages extending therethrough from the upper surface to the lower surface of the block.

3. A conveyer for hot bottles, including a plurality of sets of blocks of refractory material, 20 transversely extending pins extending entirely through all of the blocks of each set, links connecting the pins of adjacent sets of blocks, and rollers carried on said pins.

4. A conveyer for hot bottles, including a 25 plurality of pairs of blocks of refractory material, the blocks of each pair being arranged in transversely aligned relation, a pair of transversely extending pins extending loosely through each pair of blocks, links disposed between the pairs 30 of blocks and connecting the pins of adjacent blocks, rollers carried on the projecting ends of the pins, and links connecting said pins with each other and with the pins of adjacent blocks.

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