Sept. 2, 1924. 1,506,780

S. B. SHERMAN

CONVEYER CHAIN

Filed March 5, 1923

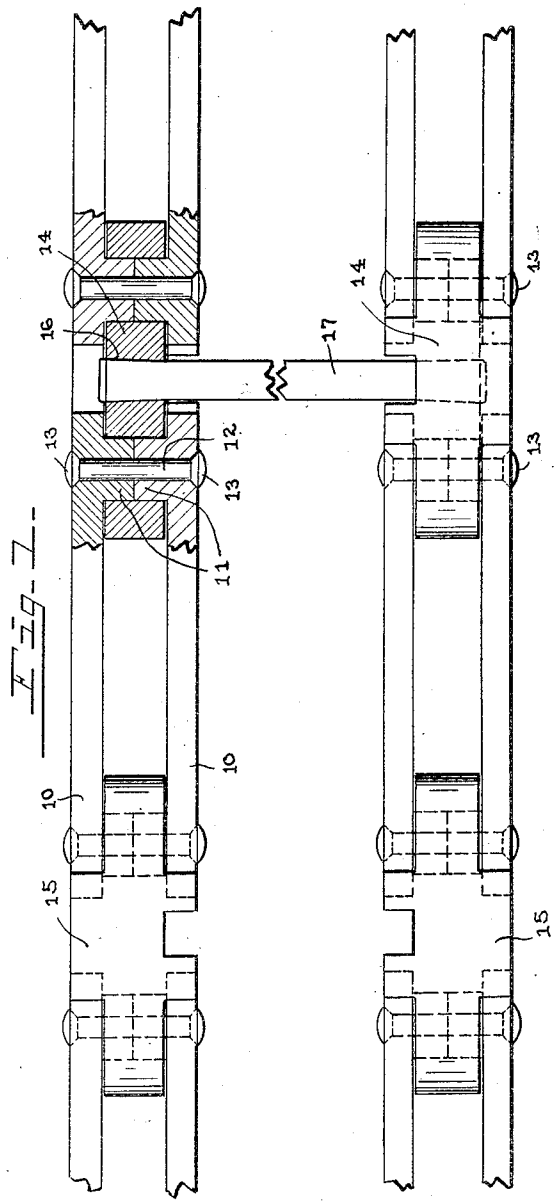


Fig. 1.

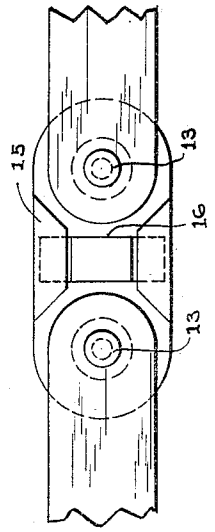


Fig. 2.

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UNITED STATES PATENT OFFICE.

STANLEY B. SHERMAN, OF RACINE, WISCONSIN.

CONVEYER CHAIN.

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To all whom it may concern:

Be it known that I, STANLEY B. SHERMAN, a citizen of the United States, and resident of Racine, in the county of Racine and State of Wisconsin, have invented new and useful Improvements in Conveyer Chains, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in conveyer chains and particularly to conveyer chains adapted for conveying coke and the like.

Conveyer chains used for this purpose are often subjected to severe strains under working conditions and frequently break down. Therefore unless the chain can be easily and quickly repaired considerable delay is experienced and inefficient operation results.

It is therefore the particular object of this present invention to provide a conveyer chain of this type which will be strong and durable and with which a rigid construction is obtained. Furthermore the arrangement of the parts is such that in the event of breakage the chain can be quickly and conveniently repaired by severing the heads of a few rivets whereupon the old parts can be quickly replaced and the chain can be made ready for use.

The invention therefore consists in the novel combination, construction, and arrangement of parts more fully hereinafter described and illustrated in the accompanying specification and drawings.

In the drawings;

Figure 1 is a top plan view of a portion of a conveyer chain constructed in accordance with this invention, certain parts being shown in section; and

Fig. 2 is a fragmentary side elevation thereof.

Referring now more particularly to the drawings wherein like reference characters indicate like parts, it will be noted that each link comprises a pair of link members 10 provided on each end with inwardly extending trunnions 11, the faces of which trunnions abut. Through these trunnions extend rivets 12, the ends 13 of which are upset so as to bind the parts together in the well-known manner.

For connecting the adjacent ends of a pair of links there are provided castings 14, the ends of which are recessed for the accommodation of the trunnions 11 whereby these trunnions form journals for the links. Each casting is so shaped as to permit of limited turning movement of the chain links therein. Each casting is further provided with filler portions 15 so shaped as to fill the spaces between the ends of the link members, as clearly shown in Fig. 2.

Each casting 14 is formed centrally thereof with a rectangular opening 16, which openings are of tapered formation tapering from the inner side of the casting outwardly, as clearly illustrated in Fig. 1. These openings 16 are adapted to receive cross bars or flights 17 which extend between the link members and are adapted to engage the material to be conveyed.

When these flight members are inserted within the casting the outer end portions thereof are upset by pounding to lock the parts securely together. As will be obvious in Fig. 1, a cross bar 17 may be provided for each pair of castings or at spaced intervals, as the occasion requires.

In use, if any of the parts become broken, the heads of the rivets are removed by severing or by knocking the same off, whereupon the links and castings may be disassembled and the broken or worn parts replaced.

Should any of the cross bars 17 become broken they can be easily knocked out of the casting by reason of the tapered formation of their ends. Should it be desired to remove the cross bars when the same have not been broken they can be severed intermediate the link members and both sections easily driven outwardly and a new cross bar put in position.

From the foregoing it will be obvious that there is provided a conveyer chain comprising relatively few parts and in which a relatively durable construction is obtained. Furthermore the arrangement of the parts is such that broken or worn parts may be easily and quickly replaced without causing any undue delay.

While the specific arrangement described and illustrated has been found to be satisfactory, it is not intended that this invention be unnecessarily limited but reservation is made to make such changes in the specific form illustrated as may come within the purview of the accompanying claims.

Having thus described the invention, what is claimed is:

1. In a conveyer chain of the class described, two lines of links, castings connecting the adjacent ends of the links of each line, said castings being provided with tapered openings and cross bars extending between each opposed pair of castings and wedged in said tapered openings.

2. In a conveyer chain of the class described, two spaced lines of conveyer links, castings pivotally connecting the adjacent ends of said links, said castings being provided with tapered apertures and flights extending between said castings, the ends of said flights being upset and wedged in said tapered openings.

3. A conveyer chain of the class described comprising two spaced lines of links, each link comprising a pair of link members, castings pivotally uniting the adjacent ends of said links. rivets for securing said link members to said castings and cross bars extending between opposed pairs of castings and secured to said castings by upsetting the ends of said cross bars.

4. In a conveyer chain of the class described, two spaced lines of links, each link comprising two link members provided with inwardly extending trunnion portions, castings formed with openings for receiving the trunnion portions of adjacent ends of the link members, rivets extending through said trunnions for securing said link members to said castings, said castings being provided with openings tapering toward the inner sides of said castings and cross bars extending between opposed pairs of castings and secured thereto by upsetting the ends of said cross bars in said tapered openings.

In testimony whereof, I affix my signature.

STANLEY B. SHERMAN.