

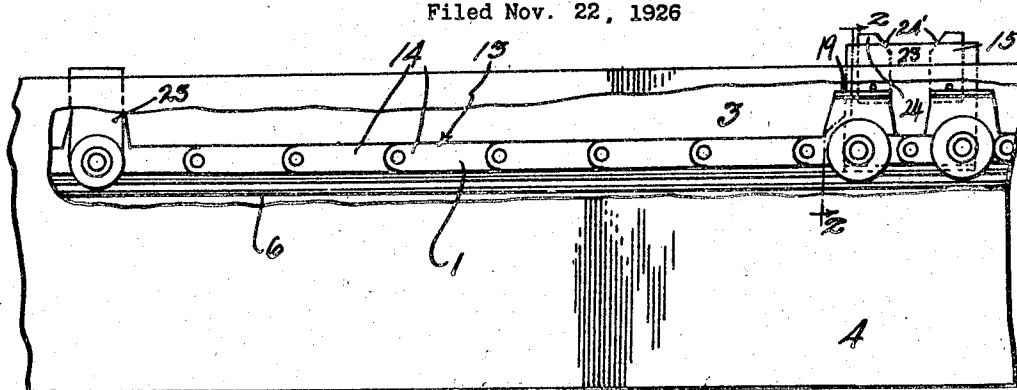
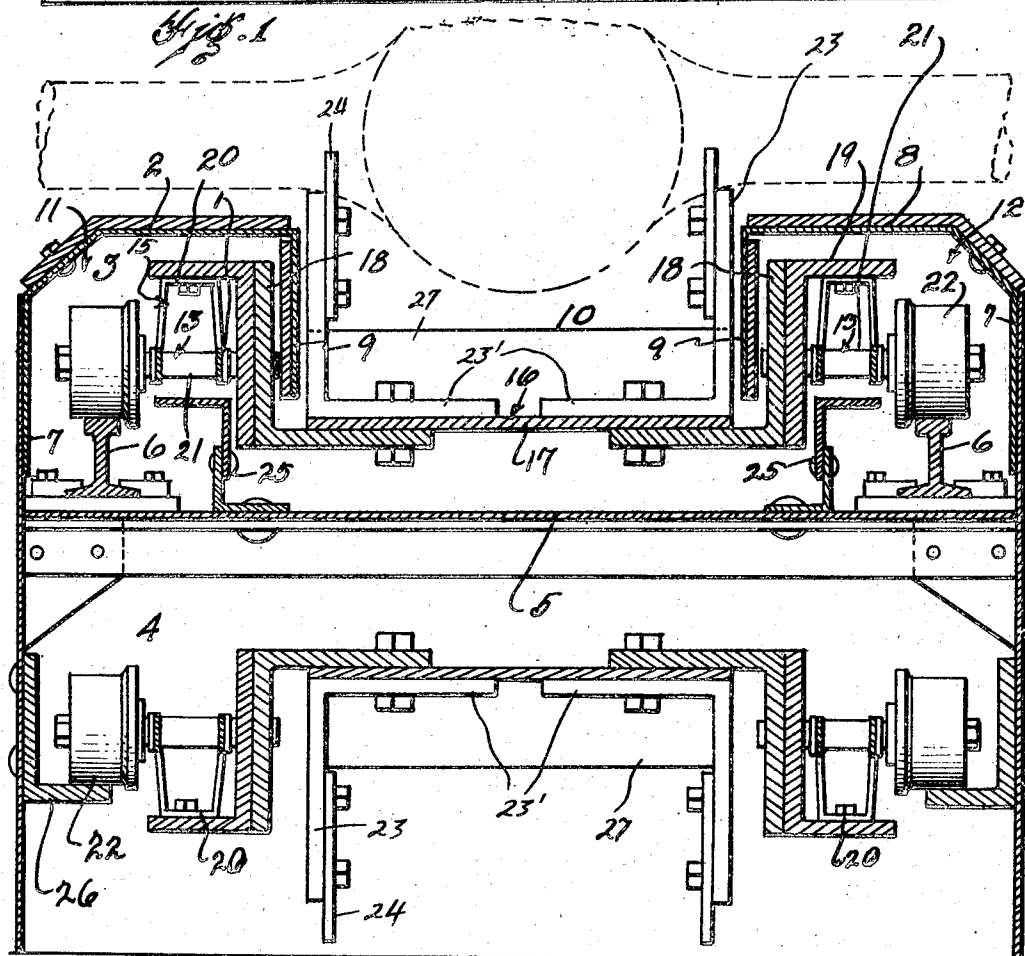
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PAINT GUARD FOR CONVEYERS

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PAINT GUARD FOR CONVEYERS

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This invention relates generally to endless conveyers and more particularly to paint guards or housings for such conveyers.

Heretofore it has been customary especially during the assembly of the chassis of automobiles, to apply paint to the frame work in a fine spray at a station along the assembly line. That part of the spray which does not fall upon the frame work comes into contact with the conveyer chains and rollers upon which the chassis travels, getting into the chain joints, rollers and tracks in such quantities that it is not long before the parts of the conveyer fail to function properly. Because of the sticky condition of the paint and the tendency to dry quickly one coat after another is built up upon the conveyer with the result that excessive loads are built up adding to the chain stress together with stresses on the driving machinery. This results in frequent breakdowns, thereby causing great losses in production.

With the present invention these objectionable features are entirely eliminated as I provide a paint guard or casing which completely seals the conveyer chains and associated parts from the paint spray, thereby preventing any serious damage thereto, as has heretofore been the case.

Further objects of the invention reside 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 my invention with a portion of the protective casing broken away.

Figure 2 is a section taken on line 2—2 of Figure 1.

Referring now to the drawings in which like characters of reference indicate like parts, the numeral 1 designates an endless conveyer and 2 a paint guard or housing enclosing and supporting said conveyer. As shown this housing is divided into upper and lower sections 3 and 4 respectively, by means of a plate 5 which supports the rails 6 upon which the upper portion of the conveyer travels.

The upper section 3 is provided with side

walls 7, top walls 8 and downwardly extending flanges 9 spaced a substantial distance apart from each other so as to form a central longitudinally extending open space 10 bordered by a pair of longitudinally extending housings 11 and 12. These housings are adapted to accommodate the conveyer chains 13 which for the most part are made of standard links 14. At intervals however, there are provided attachment members 15 in each chain for supporting trough-shaped cross bars 16 between the said chains.

As shown each cross bar consists of an exposed base portion 17, side walls 18 and laterally extending arms 19 which are adapted to be secured to the attachment members 15 within the casings 11 and 12. Each member 15 comprises a substantially U-shaped member 20, the base portion of which is preferably riveted to one of the laterally extending arms 19 of the cross bar 16, while the walls thereof are provided with openings within which is secured an axle 21. To one end of this axle is secured a roller 22 for supporting the conveyer upon the rail 6, while the other end of the axle is journaled in one of the side walls of the cross bar 16. Thus the side portions of each cross bar are doubly secured to one of the links 15 for producing a strong and rigid connection between the several parts.

While any type of article may be carried by the conveyer 1, in the present instance I have provided means for supporting the chassis of an automobile by the front and rear axles thereof. For supporting the rear axle, there is provided a pair of the attachment members 15 in each conveyer chain, this of course including a pair of the cross bars 16. As shown, a pair of upstanding supports 23 are positioned longitudinally of the conveyer and are provided with base portions 23' adapted to rest upon the base portions 17 of the cross bars 16 and are secured thereto in any suitable manner. Each support 23 is provided with a pair of positioning members 24 having their inner edges beveled as at 24' and cooperating to position the rear axle of the chassis upon the support 23 against movement.

It is therefore necessary to provide only one cross bar for the front axle of the chassis

and of course there will be no need for the positioning members 24 as those which are provided for the rear axle will be sufficient to hold the chassis in place upon the conveyer.

5 From the foregoing it will be apparent that all of the working parts of the conveyer are protected against the paint spray by the housings 11 and 12. However, in order to provide additional protection, I secure the members 10 25 to the plate 5 and extend the flanges 9 far enough down within the cross bars so as to overlap these members 25 and thereby doubly insure against any entrance of the paint to the conveyer parts.

15 The conveyer 1 may be of any convenient length and any number of pairs of attachment members 15 may be provided as is found necessary for carrying and supporting the chassis frames. As is also apparent different 20 types of supports 23 may be provided for carrying different articles to be painted.

The housings 11 and 12 are shown as consisting of channel-shaped members secured to the side walls of the upper section 3, but if 25 desirable they may be integrally connected to the walls 7. Likewise the cross bars 16 are shown as being composed of separate sections and they may be provided with vertically projecting portions 27 extending from the 30 outside edges thereof.

It is of course understood that after the chassis or other articles have been disposed of, the conveyer is returned through the lower section 4. As shown rails 26 are provided 35 upon which the rollers 22 are supported and the whole conveyer upon its return trip is protected from the paint spray by means of the side walls of the lower section 4 which are secured to the flooring of a building in any 40 suitable manner.

While it is believed that from the foregoing description, the nature and advantage of my invention will be readily understood, I desire 45 to have it understood, that I do not limit myself to what is herein shown and described and that such changes may be resorted to when desired as fall within the scope of the claims.

What I claim as my invention is:

50 1. In a conveyer, the combination with spaced longitudinally extending chains including substantially U-shaped attachment members, trough-shaped cross bars provided with laterally projecting arms extending 55 from the walls thereof and adapted to be secured to the base portions of said U-shaped attachment members, axles extending through said attachment members and cross bars, and rollers upon said axles.

60 2. In a conveyer, the combination with spaced longitudinally extending chains including attachment members, cross bars carried by said chains, axles extending through said attachment members and cross bars and 65 rollers upon said axles.

3. In a conveyer, the combination with a chain having a channel-shaped attachment member, of a work supporting bar having a portion secured to the base of said attachment member, and a portion extending at the side 70 thereof, an axle extending through said attachment member and the portion of said bar at the side thereof, a track, and a wheel upon said axle and running upon said track.

4. In a conveyer, the combination of spaced 75 longitudinally extending chains including attachment members, a work supporting cross bar secured to said attachment members, axles extending through said attachment members and cross bar, and rollers mounted upon said 80 axles.

5. In a conveyer, the combination of spaced longitudinally extending chains including attachment members, cross bars having their 85 end portions secured to said attachment members and their intermediate portions provided with work supporting means, axles extending through said attachment members and cross bars, rollers mounted upon said 90 axles, and longitudinally extending casings enclosing said conveyer chains, and the end portions of said cross bars.

6. In a conveyer, the combination of spaced longitudinally extending chains, cross bars 95 carried by said chains, axles extending through said chains and cross bars, and rollers mounted upon said axles.

7. In a conveyer, the combination of spaced longitudinally extending chains, work supporting cross bars carried by said chains, 100 axles extending through said chains and cross bars, rollers mounted upon said axles, and longitudinally extending casings enclosing said chains, rollers and the end portions of 105 said cross bars.

In testimony whereof I affix my signature.
HORACE H. MORGAN.

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