March 4, 1930. J. HUEBSCH 1,749,381

CONVEYER CARRIAGE

Filed July 5, 1927

Fig. 1

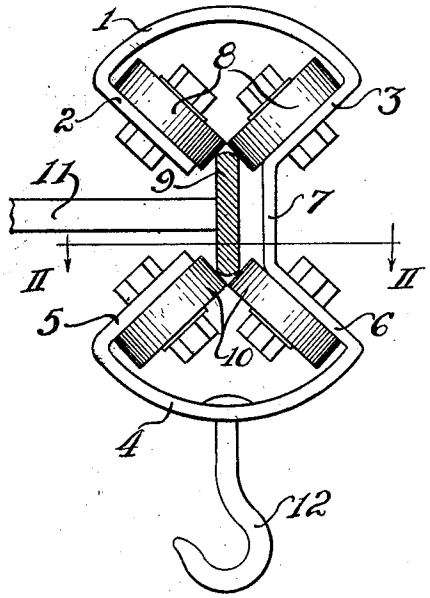


Fig. 2

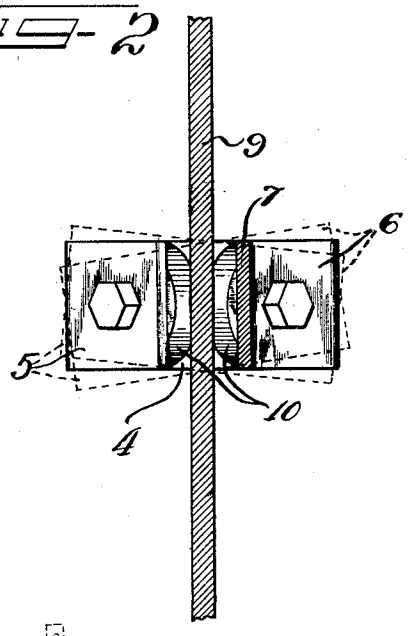


Fig. 3

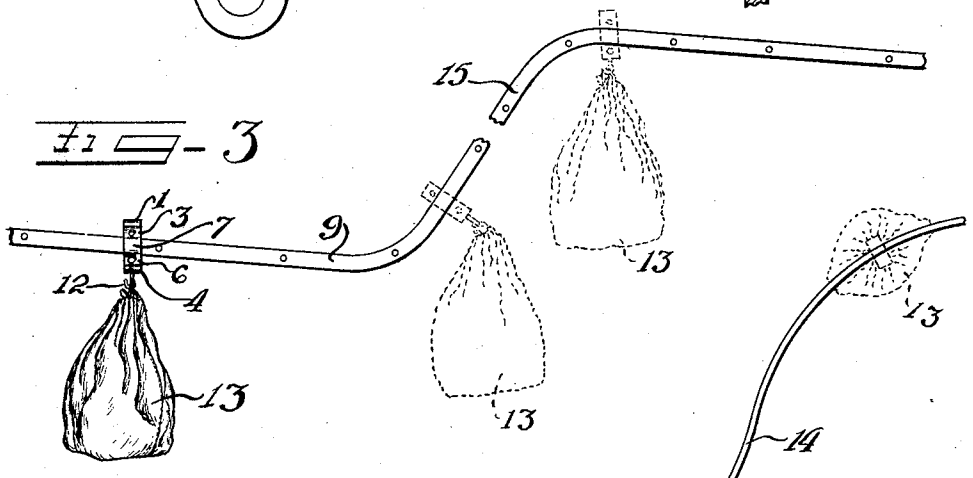
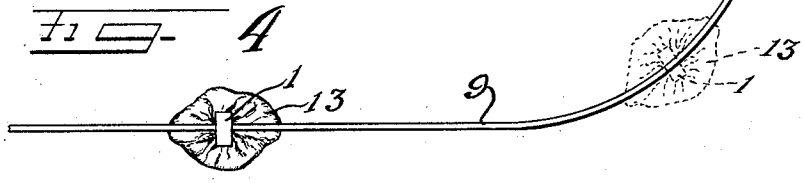


Fig. 4



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UNITED STATES PATENT OFFICE

JOSEPH HUEBSCH, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO HUEBSCH MFG. CO., A CORPORATION OF WISCONSIN

CONVEYER CARRIAGE

Application filed July 5, 1927. Serial No. 203,290.

In laundries or similar establishments where it is necessary to transfer bags of laundry or other articles from one place to another on the same floor or level or from one level to another, difficulties have been encountered due to the fact that the conveyer carriages at present in use are not constructed to permit said carriages to be conducted around curves in a conveyer rail or track and also up inclines from one elevation to another without said conveyer carriages binding or clamping the rail at either the curved or the upwardly inclined portions thereof.

This invention has been devised for the purpose of providing a conveyer carriage of the roller type which is adapted for use in traveling around curves in a conveyer rail without binding or clamping as well as being adapted for travel over upwardly inclined sections of a conveyer rail without any binding or locking action taking place between the conveyer carriage and the inclined sections of the rail.

It is an object of this invention to provide a conveyer carriage provided with a plurality of angularly disposed rollers permitting the conveyer carriage to be used on curved sections and inclined sections of a rail without any danger of said conveyer carriage binding or clamping against different portions of the rail during its travel thereover.

It is also an object of this invention to provide a conveyer carriage provided with a plurality of pairs of angularly disposed rollers adapted to engage the upper and lower edges of a conveyer rail or track without any binding action when the carriage travels around curves or upwardly over inclined portions of the conveyer rail.

It is an important object of this invention to provide an improved conveyer carriage of simplified and improved construction wherein a hook carrying frame has a plurality of pairs of inclined rollers mounted thereon to engage four edges of the rail without any danger of clamping or binding taking place between said rollers and rail when the carriage travels around curved or inclined sections of the rail.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawings.

This invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a front elevation of a conveyer carriage embodying the principles of this invention showing a sectional portion of the supporting rail on which the carriage is engaged.

Figure 2 is a sectional view of the conveyer carriage taken on line II—II of Figure 1 illustrating in dotted lines several different possible positions of the carriage with respect to the rail.

Figure 3 is an elevational view of a conveyer rail having an upwardly inclined section and illustrating different positions of a conveyer carriage while traveling over said rail.

Figure 4 is a top plan view of a curved section of a conveyer rail illustrating different positions of a conveyer carriage in its travel over said curved section of the rail.

As shown on the drawings:

The improved conveyer carriage embodying the principles of this invention is illustrated in details in Figures 1 and 2 and comprises a frame work or yoke constructed of strap metal or the like and consisting of a top section comprising an arcuate plate 1 and inwardly converging flanges 2 and 3. A bottom frame section comprising an arcuate plate 4 having integral converging flanges 5 and 6 formed thereon is integrally connected with the upper frame section by means of a connecting web or plate 7 which integrally unites the flanges 3 and 6 of the upper and lower frame sections, respectively. Rotatably mounted or journaled on the inner face of the upper frame section flanges 2 and 3 are a pair of rollers 8 disposed at substantially right angles to one another with the peripheries of said rollers positioned at an angle with one another adapted to be engaged on the two upper edges of a conveyer track or rail 9. Rotatably journaled on the inner faces of the flanges 5 and 6 of the lower flanged section of the carriage is a pair of

lower rollers 10 also disposed substantially at right angles with respect to one another to position the peripheries thereof at substantially right angles to permit the peripheries of said rollers to engage or track on the two lower edges of the conveyer track or rail 9, as clearly illustrated in Figure 1. The conveyer rail 9 is adapted to be supported on a supporting framework or bracket 11 of any desired construction. The improved conveyer carriage is adapted to be mounted in place upon the conveyer rail 9 by simply removing either one of the rollers from the flanges 2 or 5 of the framework. With the removal of one of said rollers it will be noted that the carriage may be readily engaged in place on the conveyer rail after which the removed roller is mounted back in position with the upper and lower pairs of rollers engaging the edges of the rail to hold the conveyer carriage in position thereon without any danger of accidental disengagement therefrom. The conveyer carriage may also be mounted in position upon the conveyer rail 9 by simply removing an end section of the rail and slipping the carriage in place. If desired, the lower edge or margin of the rail 9 may be provided with a notch at any desired point permitting the conveyer carriage to be readily mounted in place without requiring removal of any of the rollers. Supported on the middle portion of the arcuate plate 4 of the lower frame section is a hook member 12 on which a bag of laundry 13 or other article which is to be conveyed may be removably engaged to permit the bag of laundry to be transferred along the conveyer rail 9 from one place to another either on the same level or from one floor or elevation to another without any danger of the conveyer carriage binding or clamping against the rail at curved sections similar to 14 (Figure 4) or on upwardly inclined sections such as 15, illustrated in Figure 3.

The peculiar arrangement of the two groups of rollers 8 and 10 at an angle to the corners and edges of the rail 9 permit the conveyer carriage to have free movement on said rail 9 so that the carriage may be moved into different positions, such as the dotted line position illustrated in Figure 2. This novel arrangement of the rollers at an angle with respect to one another and with respect to the corners or edges of a conveyer rail provides a conveyer carriage of substantially a universal type permitting the conveyer carriage to not only be adapted for use as a gravity conveyer carriage, but permits the carriage or trolley to conveniently travel around curved sections 14 as well as upwardly over inclined sections leading from one elevation to another without any possible danger of the conveyer carriage clamping or locking on the irregular sections of the conveyer track or rail.

While the rollers are described as being positioned at substantially right angles to one another, it will, of course, be understood that said rollers may be mounted at any desired angle depending upon the type of rail which is to be used.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. A conveyer carriage comprising a framework having an opening in one side thereof, a carrier thereon, and a plurality of rollers rotatably mounted in said framework with the peripheries of said rollers positioned at an angle with respect to one another.

2. A conveyer carriage comprising a framework having a plurality of inclined sections forming a part thereof, a carrier on said framework, and a plurality of rollers rotatably mounted within the framework on said inclined sections with the peripheries of adjacent rollers positioned at an angle with respect to one another.

3. A conveyer carriage comprising a framework, a carrier thereon, and a plurality of pairs of rollers mounted within said framework with the rollers of each pair disposed at substantially right angles with respect to one another and with respect to the rollers of an adjacent pair.

4. The combination with a conveyer rail, of a conveyer carriage movably mounted thereon and comprising an open framework, and a plurality of pairs of rollers rotatably mounted in said framework adapted to track on the upper and lower longitudinal edges of said conveyer rail.

5. The combination with a conveyer rail, of a conveyer carriage engaged thereon, and four rollers rotatably mounted in said framework to permit the peripheries of said rollers to engage the four longitudinal edges of said conveyer rail.

6. A conveyer carriage of the class described comprising a pair of flanged sections, means for integrally connecting said sections one to the other to form a framework having an opening in one side thereof to permit mounting of the conveyer carriage, and a pair of rollers rotatably mounted in each of said flanged sections with the peripheries of said rollers positioned at an angle with respect to one another to permit each pair of rollers to have rolling contact with a pair of longitudinal edges of a conveyer rail.

7. A conveyer carriage comprising a framework having an opening in one side thereof to facilitate mounting of the carriage, a carrier supported on said framework, and two pairs of rollers rotatably mounted in said

framework with the rollers positioned to permit the four rollers to track on four of the longitudinal edges of a conveyer rail.

8. A conveyer carriage comprising a framework having four converging walls, a carrier on said framework, and a roller rotatably mounted on each of said walls, said rollers adapted to track on the four longitudinal edges of a conveyer rail.

9. The combination with a conveyer rail, of a conveyer carriage having an opening in one side thereof to facilitate mounting of the carriage around said rail, and rollers mounted in said carriage above and below said opening to track on the upper and lower longitudinal edges of the rail.

In testimony whereof I have hereunto subscribed my name at Milwaukee, Milwaukee County, Wisconsin.

JOSEPH HUEBSCH.