Dec. 4, 1923. 1,476,112

C. T. SMALL

CONVEYER

Original Filed Aug. 8, 1917

Fig.1.

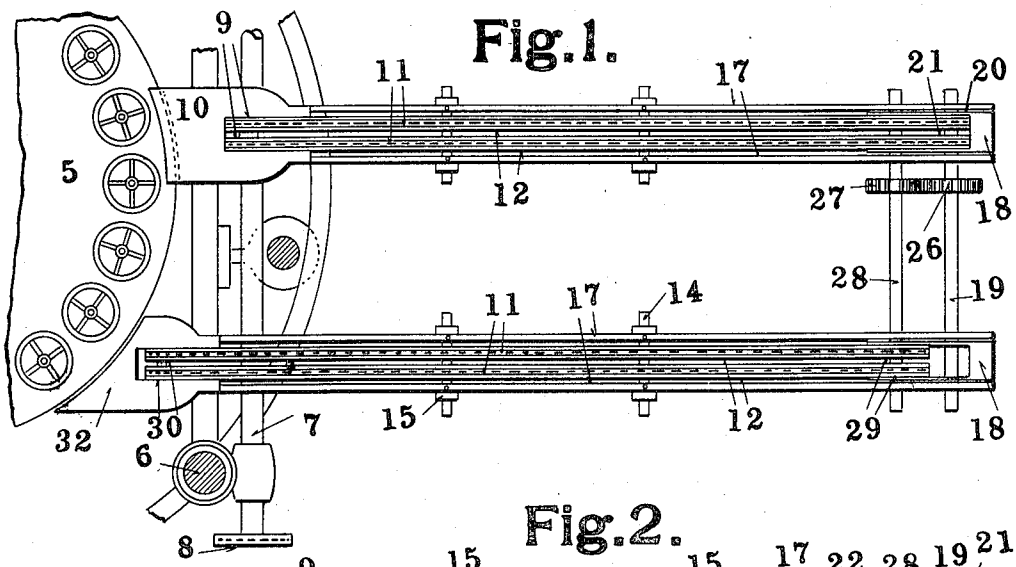


Fig.2.

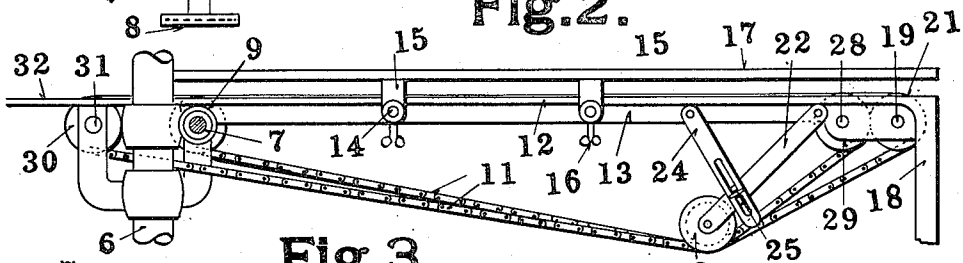


Fig.3.

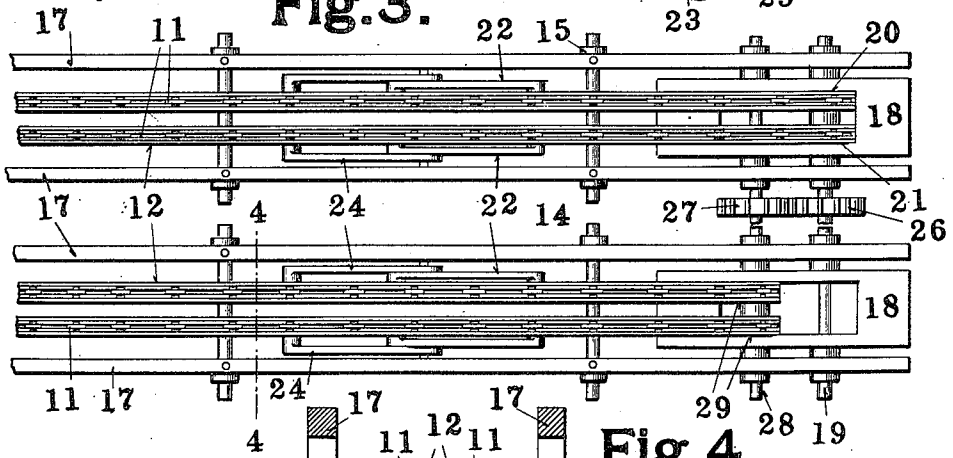
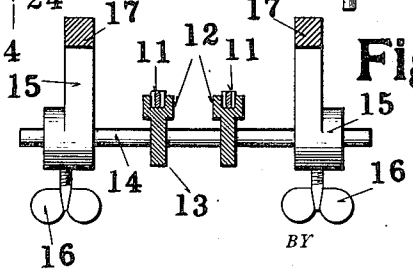


Fig.4.



WITNESS

W. H. Alexander.

INVENTOR.

C. T. SMALL

BY

C. E. Huffman

ATTORNEY.

Patented Dec. 4, 1923. 1,476,112

UNITED STATES PATENT OFFICE.

CHESLEY T. SMALL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO FIRST NATIONAL BANK IN ST. LOUIS, OF ST. LOUIS, MISSOURI.

CONVEYER.

Original application filed August 8, 1917, Serial No. 184,990. Divided and this application filed September 27, 1920. Serial No. 413,186.

To all whom it may concern:

Be it known that I, CHESLEY T. SMALL, a citizen of the United States of America, residing at the city of St. Louis, State of Missouri, United States of America, have invented certain new and useful Conveyers, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a conveyer and is particularly adapted for use in connection with a can filling machine such as that shown in my application No. 184,990, filed August 8, 1917, of which the present application is a division. It may, however, with or without modification, be adapted for various other purposes.

In the accompanying drawing which illustrates one form of conveyer made in accordance with my invention, Fig. 1 is a top plan view, Fig. 2 is a side elevation, Fig. 3 is an enlarged plan view of the outer end of the conveyer, and Fig. 4 is an enlarged section taken on the line 4—4 of Fig. 3.

5 indicates a rotary receptacle supporting table carried in frame work 6. Supported in the frame work 6 is a driving shaft 7 which may be actuated by a sprocket wheel 8, or by any other suitable gearing. Mounted on a driving shaft 7 are a pair of sprocket wheels 9 projecting upwardly through a landing plate 10. Passing around the sprocket wheels 9 are a pair of sprocket chains 11 forming the moving part of the right hand side or division of the conveyer. These sprocket chains 11 are arranged in channels formed in the upper faces of T-rails 12, projecting slightly above the same as shown in Fig. 4 of drawings. Passing through the vertical webs 13 of the T-rails 12 are cross bars 14. Upon each end of each of the cross bars 14 is adjustably mounted a bracket 15 secured in position by a thumb screw 16. Mounted on the brackets 15 are guide rails 17 projecting above the T-rails and adapted to hold the cans or other articles to be conveyed in proper position on the chains 11. By adjusting the brackets 15 the distance between the guide rails 17 may be varied to accommodate cans of varying diameter. The outer end of each side of the conveyer terminates in a support 18. Journaled in these supports 18 is a cross shaft 19 carrying at one end a pair of sprocket wheels 20 and 21. One of these sprocket wheels, preferably wheel 20, is rigidly mounted on the shaft 19 while the other is loosely mounted thereon so as to allow the slack of the two chains 11 to be independently adjusted. To accomplish this independent adjustment to the slack of the chains, I provide for each chain an arm 22 pivoted to the T-rail carrying said chain. This arm is provided at its outer end with an idler 23, bearing upon the lower part of the chain. The arm 22 is held in position by a slotted arm 25 which is connected to the said arm 22 by means of a thumb nut 25.

The cross shaft 19 is provided with a gear wheel 26 meshing with a gear wheel 27 on a shaft 28 mounted in the two supports 18. This shaft 28 is provided with a pair of sprocket wheels 29 rigidly secured thereto and adapted to drive the sprocket chains 11 of the left hand side or division of the conveyer. This second side or division of the conveyer is similar in construction to the first part above described, but terminates in wheels 30, which may be sprocket wheels or pulleys, and are carried on a shaft 31 mounted in the frame 6. The wheels 30 project through a landing plate 32.

In the operation of my device the cans or other articles to be conveyed to and from the machine are to be fed to the outer end of the right hand side or division of the conveyer. The cans are evenly carried owing to the uniform movement of the two sprocket chains 11 and are discharged from the landing plate 10 on to the rotary receptacle support 5. After being carried around the support 5 they are discharged on to the landing plate 32 by any suitable mechanism, not shown, and are then carried away from the machine to the left hand side or division of the conveyer.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a conveyer, the combination with a rail provided with a channel, of a sprocket chain in said channel and projecting above the same to receive an article to be conveyed, cross bars carried by said rail, and guide rails adjustably carried by said cross bars.

2. In a conveyer, the combination with a rail provided with a channel, of a sprocket chain in said channel and projecting above the same to receive an article to be conveyed, cross bars carried by said channel rail, brackets adjustably mounted on said cross bars, and guide rails supported from said brackets above said channel rail.

3. In a conveyer, the combination with a rail provided with a channel, of a sprocket chain in said channel, cross bars passing through said rail, guide rails supported by said cross bars, and a slack adjusting device depending from said channel rail.

4. In a conveyer, the combination with T-rail having a channel in its upper face, of a sprocket chain in said channel, cross bars passing through vertical web of said T-rail, and guide rails adjustably supported from said cross bars.

5. In a conveying device, the combination with a receptacle supporting table, of a driven shaft, a conveyer comprising a pair of sprocket chains driven from said shaft, a second conveyer also comprising a pair of sprocket chains, a second shaft supporting both chains of said first named conveyer but driven by one chain thereof only, and means for driving said second conveyer from said second shaft.

6. In a conveying device, the combination with a receptacle supporting table, of a driven shaft, a conveyer comprising a pair of sprocket chains driven from said shaft, a second conveyer, a second shaft supporting both chains of said first named conveyer but driven by one chain thereof only, and means for driving said second conveyer from said second shaft, said means including reversing gearing.

In testimony whereof, I have hereunto set my hand and affixed my seal.

CHESLEY T. SMALL.