

Dec. 11, 1923.

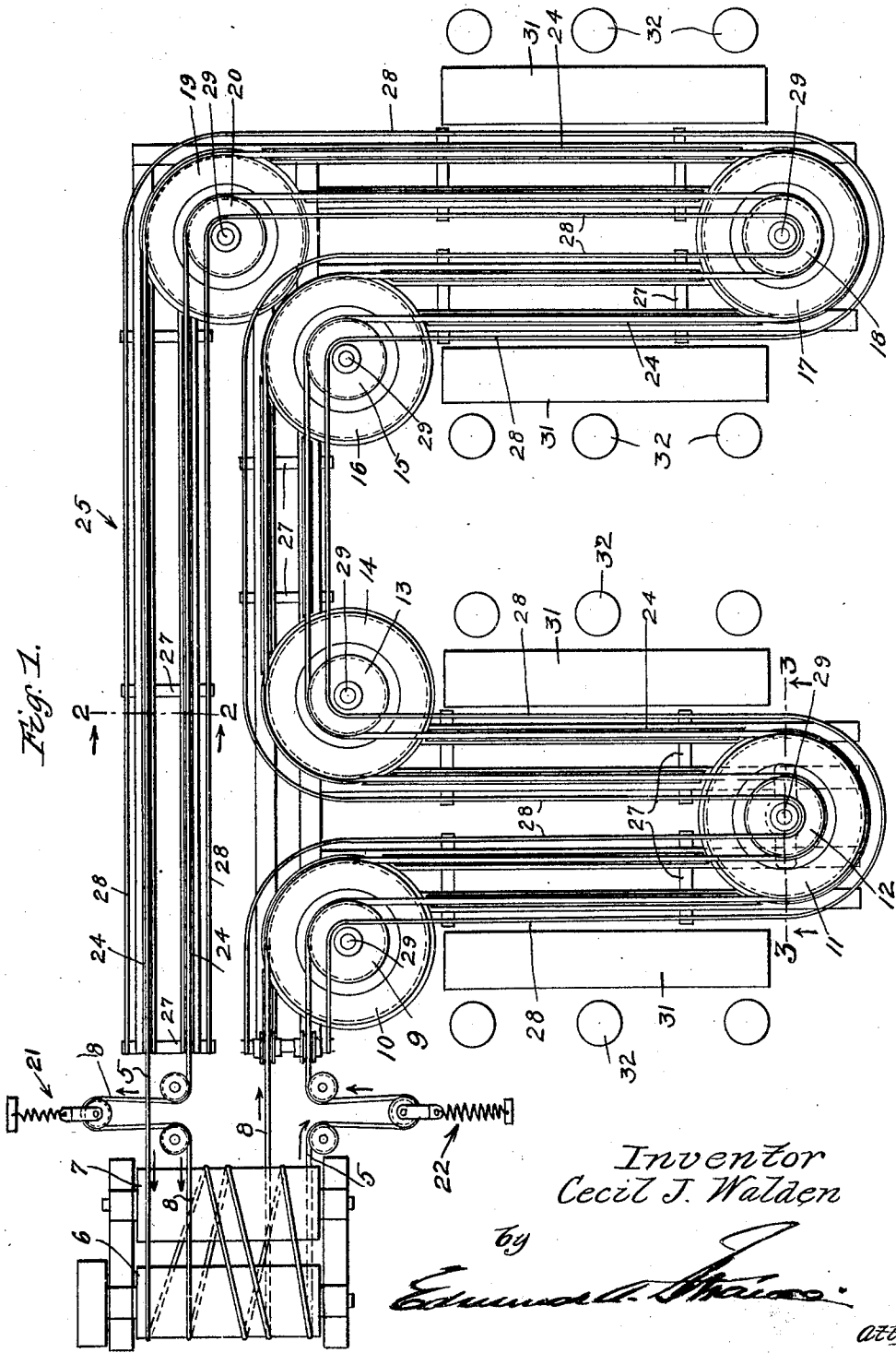
1,476,936

C. J. WALDEN

CONVEYER

Filed Nov. 21, 1921

2 Sheets-Sheet 1



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Fig. 2.

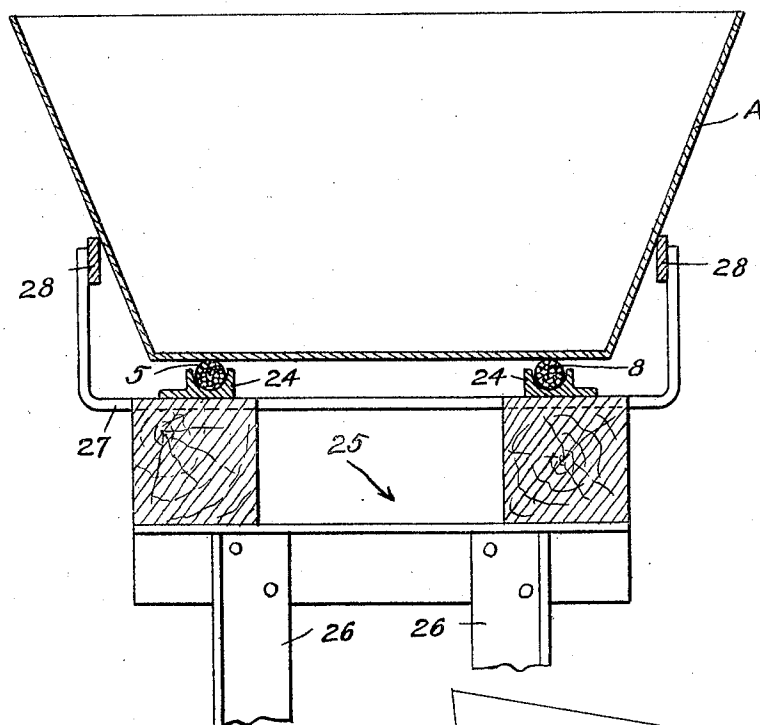
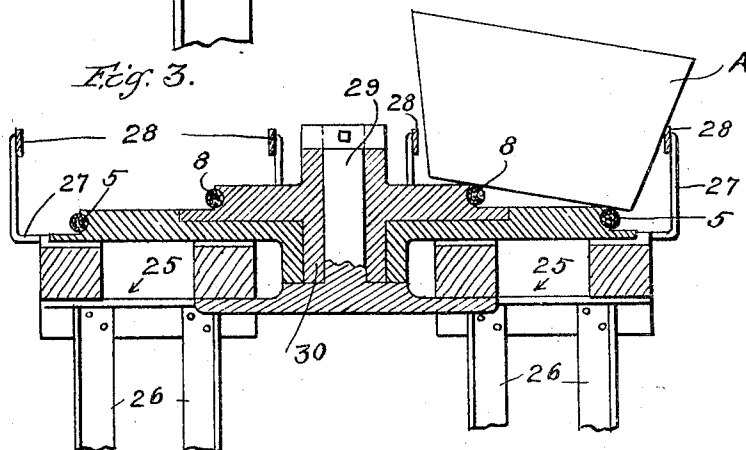


Fig. 3.



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UNITED STATES PATENT OFFICE.

CECIL J. WALDEN, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO ROYAL PACKING COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

CONVEYER.

Application filed November 21, 1921. Serial No. 516,872.

To all whom it may concern:

Be it known that I, CECIL J. WALDEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Conveyers, of which the following is a specification.

My invention relates to conveyers, and is particularly adapted to be used in packing houses, canneries and sorting rooms for conveying products in their various stages of manufacture to various stations throughout the plant.

A principal object of my invention is to provide a continuous conveying apparatus, that may conveniently be erected in packing or other plants, so that its path of travel may be directed in convenient directions, past sorting tables, storage bins and the like, so that goods or products may be conveniently and expeditiously handled.

A further object of my invention is to provide a conveyer whereby all complicated and expensive parts, such as link belts, flights, sprocket wheels, spur gears and other friction producing parts will be dispensed with, thus materially reducing the power consumption for the operating of the same.

Other objects of my invention will be more fully disclosed in the following description and illustrated in the accompanying drawings, in which:

Fig. 1 is a plan view showing one arrangement of my invention as it would appear when installed in a manufacturing plant.

Fig. 2 is an enlarged transverse sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged sectional view taken on the line 3—3 of Fig. 1.

Referring more specifically to the detailed construction of my invention, 5 represents an endless cable or rope adapted to be wound around the drive drums 6 and 7, which may be rotated by any source of power, and to be moved thereby continuously in one direction, and 8 represents another endless cable or rope spaced suitably apart from cable 5 and arranged parallel therewith, which is also wound around the drums 6 and 7 and moved thereby in unison with and at the same speed as cable 5.

The cables 5 and 8 form the movable part of the conveyer mechanism and the product or receptacle containing the product may

be placed thereon and carried thereby, and they may be directed in any desired direction or path throughout the factory in which they are located by merely guiding them around suitable sheaves.

An example of one manner in which the conveyer cables may be directed is illustrated in Fig. 1. When they are arranged in this manner the cables 5 and 8 extend from the drive drums 6 and 7 in parallel relation and pass respectively around the sheaves 9 and 10, 11 and 12, 13 and 14, 15 and 16, 17 and 18, 19 and 20, and thence again to the drums 6 and 7. Each of the cables 5 and 8 is provided with any well known self adjusting tightening mechanism, such for instance as is shown at 21 and 22.

The cables 5 and 8 are guided in and held from sagging by means of the grooved members 24 which are supported on a suitable framework 25 having the legs 26, and supported on said framework by means of the straps 27 are the guide rails 28 which are preferably disposed outwardly from and above each of the cables 5 and 8 and parallel therewith. By this construction it will be obvious that a product or container A may be placed on the cables 5 and 8 and between said guide rails, and thus be held from becoming displaced from the cables while in motion and when turning corners.

The various sheaves are journaled on studs 29 secured in any suitable manner to the framework 25, the smaller of the sheaves being mounted directly on said studs and nested into the upper surface of the larger of the sheaves which is journaled on the hub 30 of said smaller sheave.

By this construction each sheave of a pair is permitted to revolve independently of the other and at the same rate of travel of their peripheries in order that the cables may pass around them at a uniform speed.

In Fig. 1 of the drawings, sorting or reparting tables 31 and stools 32 are shown disposed adjacent certain laterals in the conveyer in order that the operator may conveniently prepare the work and place it when finished thereupon to be conveyed to its destination, or remove products therefrom as desired.

What I claim is:

1. A conveyer mechanism, comprising a pair of endless cable lengths disposed in a substantially horizontal plane and in par-

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allel relation adapted to be guided by sheaves over which they pass in various directions, means for moving each pair of said cable lengths in the same direction and at the same speed, guide rails disposed in parallel relation with said cable lengths, and means independent of said sheaves for supporting and guiding said cable lengths.

2. A conveyer mechanism, comprising a pair of endless cable lengths disposed in a substantially horizontal plane and in parallel relation, each of said cable lengths being guided around individual horizontally disposed sheaves arranged in pairs and adapted for revolution around a common center, and means for moving said cable lengths in the same direction and at the same speed.

3. A conveyer mechanism, comprising a pair of endless cables disposed in a substantially horizontal plane and in parallel relation, a pair of oppositely disposed guide rails arranged in parallel relation with said cables and disposed above and outwardly with respect to said cables, a plurality of horizontally disposed sheaves mounted to rotate and to guide said cables in various directions, means for moving said cables in

the same direction and at the same speed, means for preventing said cables from sagging, and means for automatically taking up the slack in said cables.

4. A conveyer mechanism, comprising two endless cables mounted on a plurality of direction changing sheaves, each of said cables being disposed in and travelling in a substantially horizontal plane and being spaced apart to form a cable runway, a pair of cylindrical driving drums, both of said cables passing around said drums and driven thereby, and means to rotate said drums.

5. A conveyer mechanism, comprising a pair of endless cables each horizontally disposed and spaced apart to form cable runways, a plurality of horizontally disposed sheaves around which said endless cables pass, said sheaves being arranged in pairs and each pair revolving on a common stud, and a cylindrical drum for driving said cables.

In witness that I claim the foregoing I have hereunto subscribed my name this 31st day of October, 1921.

C. J. WALDEN.