

C. R. WIECZORECK.
WRAPPING MACHINE.
APPLICATION FILED APR. 30, 1917.

1,319,982.

Patented Oct. 28, 1919.

Fig. 2.

Fig. 1.

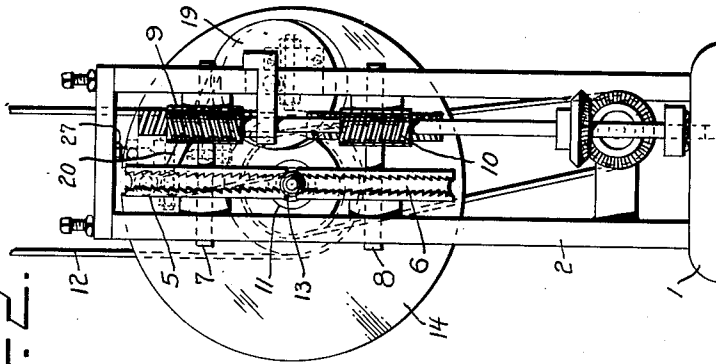
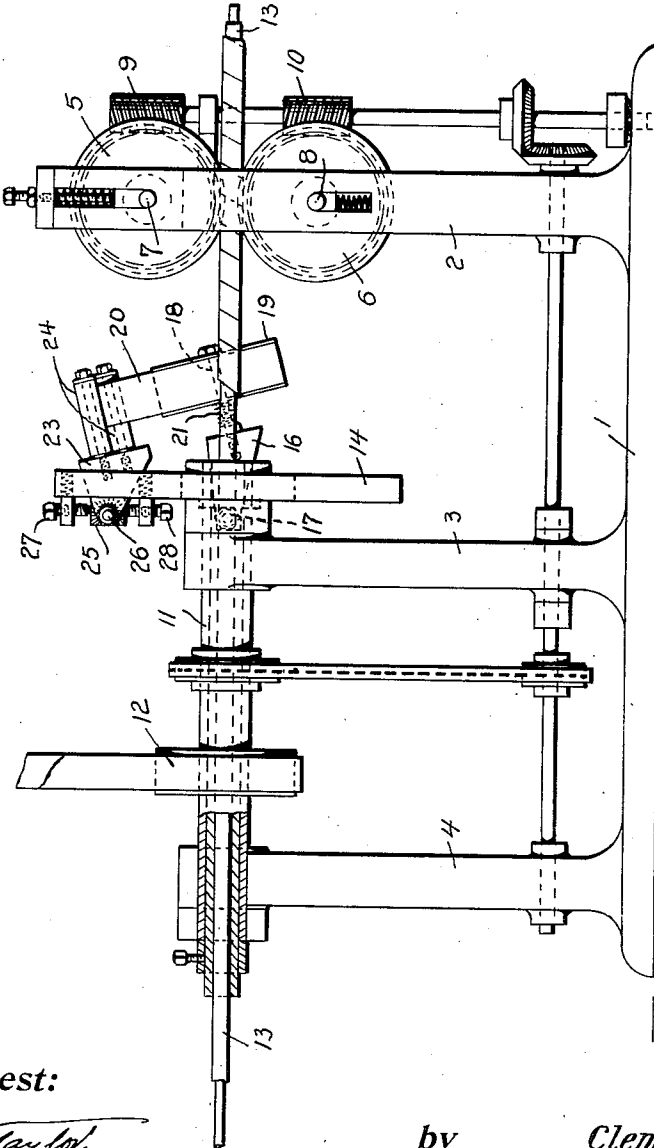
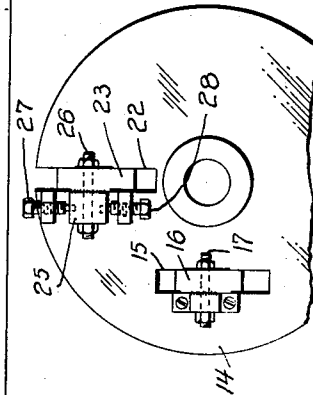


Fig. 3.

Attest:

S. L. Taylor

Inventor:

by *Clemens R. Wiczoreck,*
Ernest Hopkins his Atty.

UNITED STATES PATENT OFFICE.

CLEMENS R. WIECZORECK, OF UNION HILL, NEW JERSEY, ASSIGNOR TO PEERLESS RUBBER MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

WRAPPING-MACHINE.

1,319,982.

Specification of Letters Patent.

Patented Oct. 28, 1919.

Application filed April 30, 1917. Serial No. 165,388.

To all whom it may concern:

Be it known that I, CLEMENS R. WIECZORECK, a citizen of the United States, residing at Union Hill, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Wrapping-Machines, of which the following is a full, clear, and exact description.

This invention relates to wrapping machines and more particularly to a machine for providing a helical wrapping about articles of cylindrical and other form such as hose and the like.

The principal object of the invention is to devise a simple, efficient machine of the kind described adapted to operate rapidly to cover articles under uniform tension; to prevent wrinkling of the wrapping material as applied and to insure a complete tight covering of the article.

In the accompanying drawings wherein one of the possible embodiments of the invention is shown:—

Figure 1 represents a side elevation of the machine;

Fig. 2 represents an elevation of the delivery end thereof; and

Fig. 3 is a detail view showing the rotatable support for the feed rollers and the wrapping material.

Referring now to the drawings, the numeral 1 indicates the frame of the machine which includes uprights 2, 3 and 4. Mounted on the upright 2 adjacent the delivery-end of the machine is a device for passing the article to be wrapped through the machine. This device comprises toothed-rollers 5 and 6 adjustably mounted respectively on shafts 7 and 8 which are driven by worm gears 9 and 10. The worm members operating these gears are supported by an upright shaft adapted to be driven by a counter-shaft communicating through a chain and sprocket with a shaft 11 driven by an outside source of power here shown as a belt and pulley 12. The article 13, here shown as a length of hose, is driven through the machine by rollers 5 and 6 after the hose has been wrapped.

The tubular shaft 11 is mounted in bearings in the upper portions of uprights 3 and 4, and mounted on the end thereof beyond the upright 3 is a table 14 rotatable with the shaft, serving as a support for the wrapping material and feed device therefor.

Projecting through a slot 15 in the rotatable support 14 is a block 16 adjustably secured by the bolt 17 to the rear face of the support. Mounted upon a shaft 18 secured to the outer end of the block 16 beyond the front face of the support is a supply spool or holder 19 for wrapping material 20. The holder 19 is resiliently held by a spring 21 operating therebetween and the face of the block 16.

Projecting through a radial slot 22, extending from adjacent the center of the support 14 through the edge thereof, is a block 23 supporting a pair of feed rollers 24. The faces of the rollers are of rubber or material adapted to provide friction. Wrapping material in strip form is supplied from the holder between the friction rolls 24 and thence passes to the hose or other article being wrapped. The friction surfaces of the rollers prevent slack in the wrapping material and thus insure the wrapping of the article under a uniform tension.

The rollers are adapted to be adjusted rotatively in the plane of the wrapping material passing to the article and also reciprocatingly. Through the former adjustment the angle of delivery of the wrapping material and thereby the overlap of the material may be varied as desired and by the reciprocating adjustment the rollers may be positioned at any desired distance from the article being wrapped without changing their angular adjustment. By thus controlling the distance between the feed rollers and the article the most efficient position for wrapping without distortion or wrinkling of the wrapping material may be secured.

The adjustments of the rollers are secured as here shown by adjustments of the block 23. The block is secured to a pivot-block 25 by a bolt 26 serving as a pivot member whereby the block 23 and the rollers 24 may be swung thereabout into the various angular adjustments. The angular adjustments of the rollers and of the holder 19 are arranged so that their axes remain parallel. The coacting faces of the block 23 and pivot block 25 are ribbed so that when they are brought into contact a firm engagement will be secured. A similar arrangement is made in connection with the end of the block 16 and its adjacent supporting block. The pivot block 25 is held between adjustable screws 27 and 28 secured to the rear face of the ro-

tatable support and by adjusting these screws in one direction or the other the block 23 and thereby rollers 24 may be moved radially backward and forward with respect to the hose. The roll 5 may be adjusted toward and away from the roll 6 in order to accommodate the feed means to the varying sizes of hose or other articles. The rollers are mounted independently of the support for the wrapping material and hence their position may be adjusted without affecting the support and the wrapping material may be renewed without affecting the rollers.

In operating the device a length of hose to be wrapped prior to final vulcanization, for example, is suitably supported on the inside by a mandrel or other means and is passed into the mouth of the tubular shaft 11 adjacent the support 4. Wrapping material passing from the holder 19 between the friction rolls 24 is wound about the hose as it emerges from the end of the shaft 11. The material then passes through rolls 5 and 6 and is then ready to be vulcanized.

As many apparently widely different embodiments of this invention may be made without departing from the spirit thereof, it is to be understood that I do not intend to limit myself to the specific form of the invention as set forth except as indicated in the appended claims.

Having thus described my invention what I claim and desire to protect by Letters Patent is:—

1. In an apparatus of the kind described in combination, mechanism for feeding the article to be wrapped, a table rotatable about

the article, a holder for wrapping material and a supporting block therefor, guide rolls for the material and a supporting block therefor, guide ways formed in said table to receive the blocks and a device carried by the table for each block adapted to permit angular adjustment of the block and to clamp the block in its adjusted position.

2. In apparatus of the kind described in combination, mechanism for feeding an article to be wrapped, a table rotatable about the article, a holder for wrapping material and a supporting block therefor, guide rolls and a supporting block therefor, each block being provided with a toothed face projecting rearwardly of the table, and clamping devices carried by the table and adapted to engage the toothed faces of the blocks and to permit angular adjustment of the latter relatively to the table.

3. In apparatus of the kind described in combination, mechanism for feeding an article to be wrapped, a table rotatable about the article, a holder for wrapping material and a supporting block therefor, guide rolls and a supporting block therefor, each block being provided with a toothed face projecting rearwardly of the table, clamping devices carried by the table and adapted to engage the toothed faces of the blocks and to permit angular adjustment of the latter relatively to the table, and means for adjusting one of said clamping devices relatively to the table.

Signed at town of Union, New Jersey, this 19th day of April A. D. 1917.

CLEMENS R. WIECZORECK.