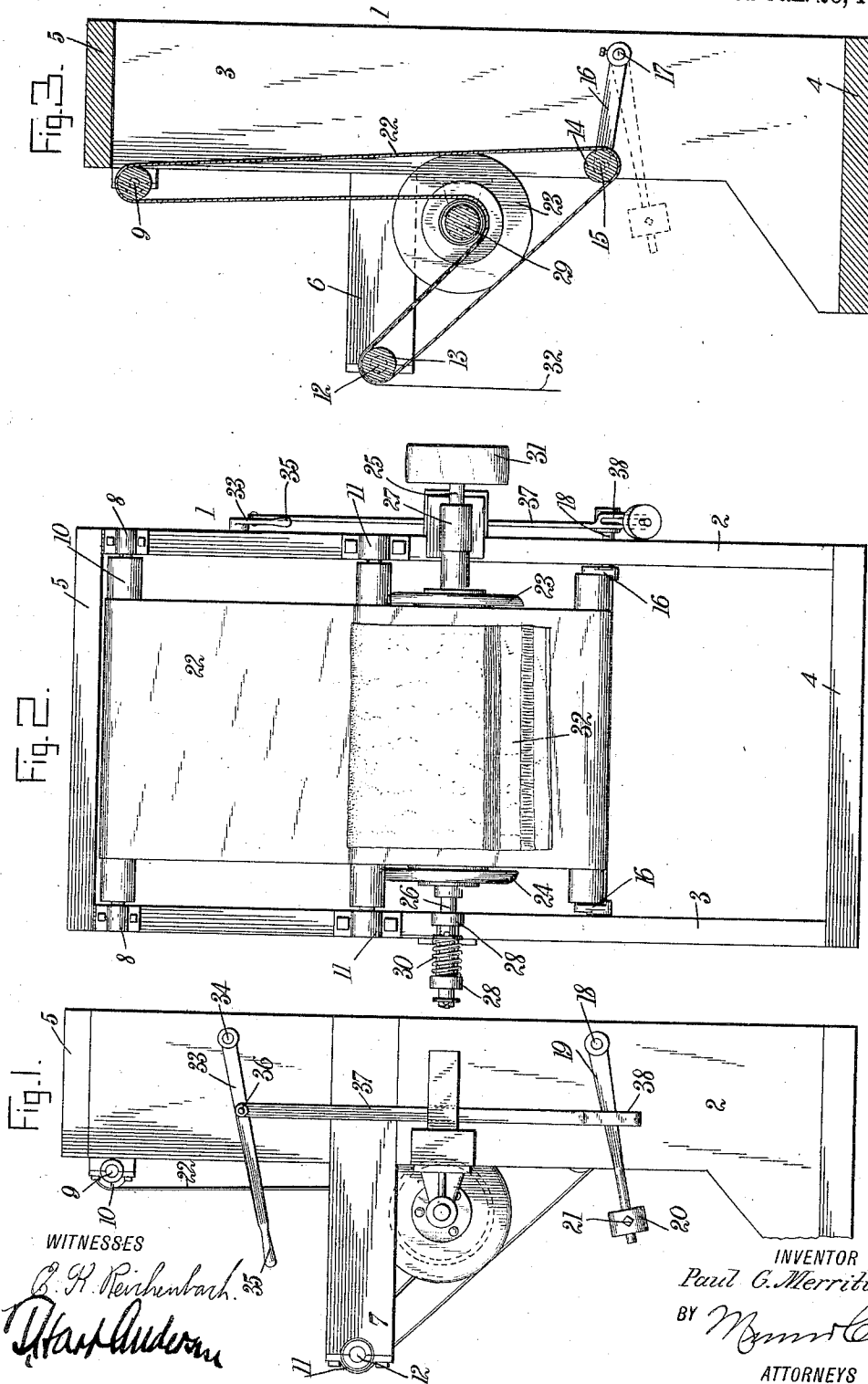


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 APPARATUS FOR ROLLING TOWELS, NAPKINS, AND THE LIKE.  
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1,051,430.

Patented Jan. 28, 1913.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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APPARATUS FOR ROLLING TOWELS, NAPKINS, AND THE LIKE.

1,051,430.

Specification of Letters Patent.

Patented Jan. 28, 1913.

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*To all whom it may concern:*

Be it known that I, PAUL G. MERRITT, a citizen of the United States, and a resident of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Apparatus for Rolling Towels, Napkins, and the Like, of which the following is a full, clear, and exact description.

10 The present invention relates to an apparatus for producing rolls of towels, napkins and like articles, and more particularly for an apparatus designed to produce such rolls to be employed in connection with the dispensing container which constitutes the subject matter of a companion application filed of even date herewith.

20 The object of the present invention is to produce rolls containing a plurality of separate towels or napkins so constructed that they may be delivered or dispensed one at a time, and so that the withdrawal of one will result in the partial withdrawal of the next adjacent one in the roll, leaving a free end projecting from the dispenser.

25 The present invention relates solely to an apparatus for producing the rolls of towels or napkins.

30 Reference is to be had to the accompanying drawing constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views and in which—

35 Figure 1 shows the apparatus in side elevation looking at the right as shown in Fig. 2; Fig. 2 shows the apparatus in front elevation; and Fig. 3 shows a vertical sectional view.

40 The apparatus comprises a suitable frame work 1 which may be of any suitable form adapted to properly support the operating parts, and as shown in the illustrated embodiment of the invention, this frame work comprises the vertical sides 2 and 3, the base plate 4, and the top plate 5, and having projecting at the front in a horizontal plane, the side arms 6 and 7. At or near its upper end, the frame 1 is provided with suitable bearings 8, in which is mounted to loosely turn therein, the spindle 9 of a roller 10. At the forward end of the arms 7, there are supported bearings 11 in which is supported the ends of a spindle 12 of a roller 13. A roller 14 is mounted upon a spindle or shaft 15 which is carried by the forward ends of

crank arms 16, the said crank arms being pivoted at 17 so that they may rock up and down for a purpose to be hereinafter described, and one of the arms 16 is mounted upon a short shaft 18 which passes through the side plate 2, and which at its outer end, is provided with an arm 19 upon which is mounted a weight 20. The weight 20 is arranged to be adjusted along the arm 19 and held in its adjusted position by means of a set screw 21. The action of the weight 20 and the arm 19 is to normally rock the arms 16 downward, carrying the roller 14. An endless belt 22, preferably of canvas or heavy linen is mounted upon the rollers 9, 12 and 14, as shown in Fig. 3.

Between the rollers 12 and 14, there are arranged suitable chucks 23 and 24, mounted upon shafts 25—26, arranged to revolve in suitable bearings 27 and 28. These chucks 23 and 24 are arranged to removably engage and support a roller 29 upon which the towels, napkins, or similar articles are intended to be rolled, and which when it has been provided with the desired number of such articles to produce a roll of the required size, may be removed therefrom. The roll 29 is frictionally held between the chucks 23 and 24, and for this purpose, the chuck 24 is arranged to yield longitudinally toward and away from the chuck 23, therefore, the shaft 26 is mounted to have a slight movement in its bearing 28 against the tension of a spring 30 (see Fig. 2). The arrangement is such that the chuck 24 must be moved laterally toward the left in order to permit the insertion of the roller 29, which roller will be held therein by means of the pressure exerted by the spring 30. The roller 29 is inserted in the apparatus so that the belt 22 passes beneath the same as shown in Fig. 3, and the weighted arm 19 imparting a downward stress on the roller 14, causes the belt 22 to frictionally engage the roller 29, so that motion being imparted to the roller 29, causes the belt to travel about its supporting rolls. To rotate the roll 29, the shaft 25 carries a belt pulley 31.

From the foregoing it will be observed that with the belt 22 adjusted as shown, and a roller 29 being frictionally held between the chucks 23 and 24, a rotation of the shaft 25 causes the roll 29 to rotate, and by means of the frictional engagement of the belt 22

therewith, causes the said belt to travel about its supporting rollers. The belt 22 may properly be described as a pressing belt, for its action is to cause the towels, napkins or other articles which are rolled upon the roller 29 to be smoothed and held in close contact with said roller or with the growing roll of the articles which are being wound thereon.

10 The operation is as follows: The towels, or napkins, to be rolled, are shown at 32, and they are laid upon the traveling belt 22 over the roller 13. This belt carries one edge of the towel or napkin beneath the revolving  
15 roller 29 upon which they are to be wound (see Fig. 3), the weighted lever 19 imparting sufficient tension to the belt 22 so as to cause it to press the towel and napkins closely against the roller 29 or the articles  
20 wound thereon, as they are undergoing the winding operation. Just before the free end of the towel 32 is wound upon the roller 29, the end of an adjusted towel or napkin will be laid thereon, and therefore,  
25 the roll will be built up of a plurality of independent towels or napkins, the adjacent ends of which overlap. As the roll of towels or napkins wound upon the roller 29 enlarges, the belt 22 will give up slack to accommodate itself to the enlarged roll by the  
30 upward movement of the arms 16 and the roller 15 against the force exerted by the weight 20.

In order to lift the arm 19, and thus lift  
35 the arms 16 and the roller 14 to remove the roll of towels, or napkins, from the apparatus, or to release the belt 22 from tension, there is provided a hand-lever 33, which is pivoted at 34, to the side 2 of the apparatus  
40 and extends forward, and is provided with a handle 35 in convenient reach of the operator. This lever 33 is pivotally connected at 36 to the upper end of a rod 37, which rod at its lower end is provided with a yoke 38  
45 through which passes the weighted lever 19. An upward movement of the lever 33 will through the rod 37 raise the weighted lever 19, the arms 16 and roll 14.

Having thus described my invention, I  
50 claim as new and desire to secure by Letters Patent:

1. An apparatus of the character described, comprising a frame having projecting parallel side arms, a roller mounted in the upper part of the frame, a roller mounted in the outer ends of the side arms, a roller mounted on swinging arms in the lower part of the frame, an arm on the pivot of one of the swinging arms and having an

adjustable weight thereon, a roll removably  
60 mounted in the frame between the roller at the upper end of the frame and the roller in the swinging arms, and an endless belt passing around the several rollers and under the said roll.

2. An apparatus of the character described, comprising a frame having parallel side arms, a roller mounted in the upper part of the frame, a roller mounted in the side arms, a roller mounted on swinging  
70 arms in the lower part of the frame, means tending to force the said arms downward, a roll mounted in the frame, and an endless belt passing around said rollers and in engagement with the said roll.

3. In an apparatus of the character described, a frame, two rollers mounted in the frame, a third roller mounted in swinging arms carried by the frame, an arm having an adjustable weight thereon and tending  
80 to swing the arms of the said roller downward, a roll mounted in the frame, and an endless belt passing around the said rollers and in engagement with the roll.

4. In an apparatus of the character described, a frame, two rollers mounted in the frame, pivoted arms mounted in the frame, a roller mounted in the free ends of the arms, an arm on the pivot of one of the pivoted arms, an adjustable weight on said arm,  
90 a roll mounted in the frame, and an endless belt passing around the rollers and in engagement with the said roll.

5. In an apparatus of the character described, a frame, two rollers mounted in the  
95 frame, pivoted arms on the frame, a roller mounted in the arms, a weighted arm on the pivot of one of the said arms, a pivoted lever, a link pivoted to the lever and loosely connected with the weighted arm, a roll  
100 mounted in the frame, and an endless belt passing around the rollers and in engagement with the said roll.

6. In an apparatus of the character described, opposing chucks, a roller, means to  
105 yieldingly and frictionally retain a roller between said chucks, means for driving one of said chucks, and an endless belt arranged to engage the roller supported by said chucks.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL GRENVILLE MERRITT.

Witnesses:

L. EARLE BELLANDE,  
JOS. F. WALTON.