May 24, 1932. S. A. SCHWARTZ 1,859,937

TOWEL SERVICE APPARATUS

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Fig. 1.

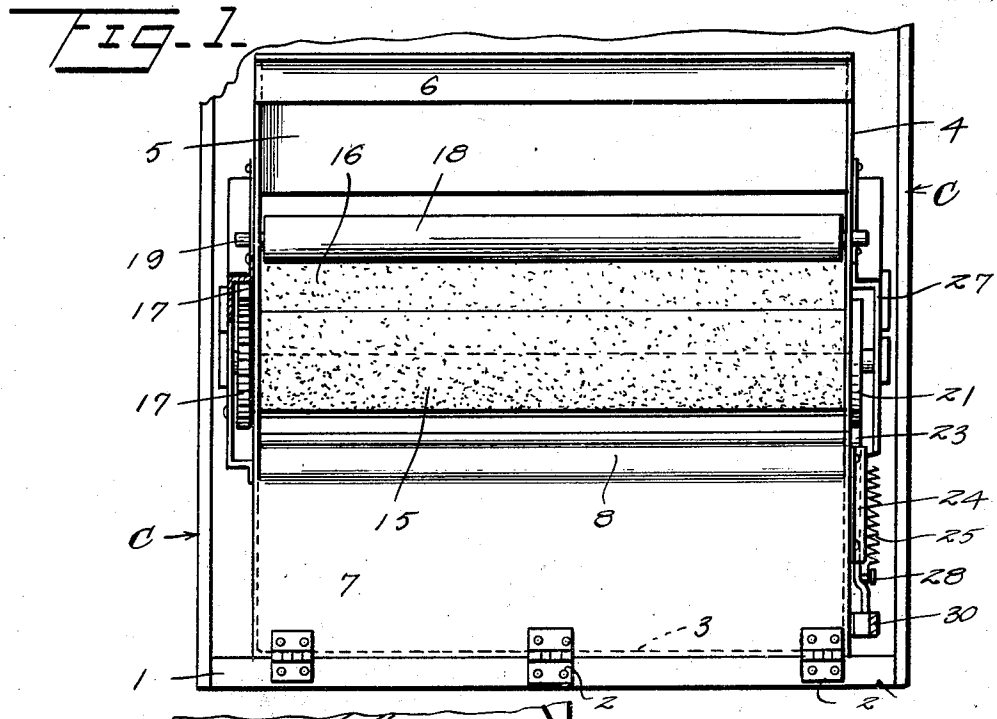

Fig. 2.

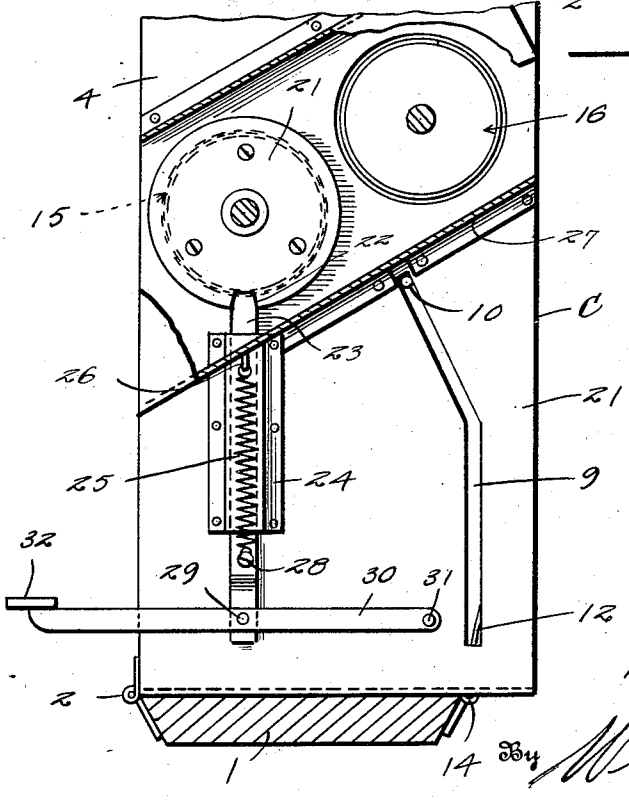

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Fig. 3

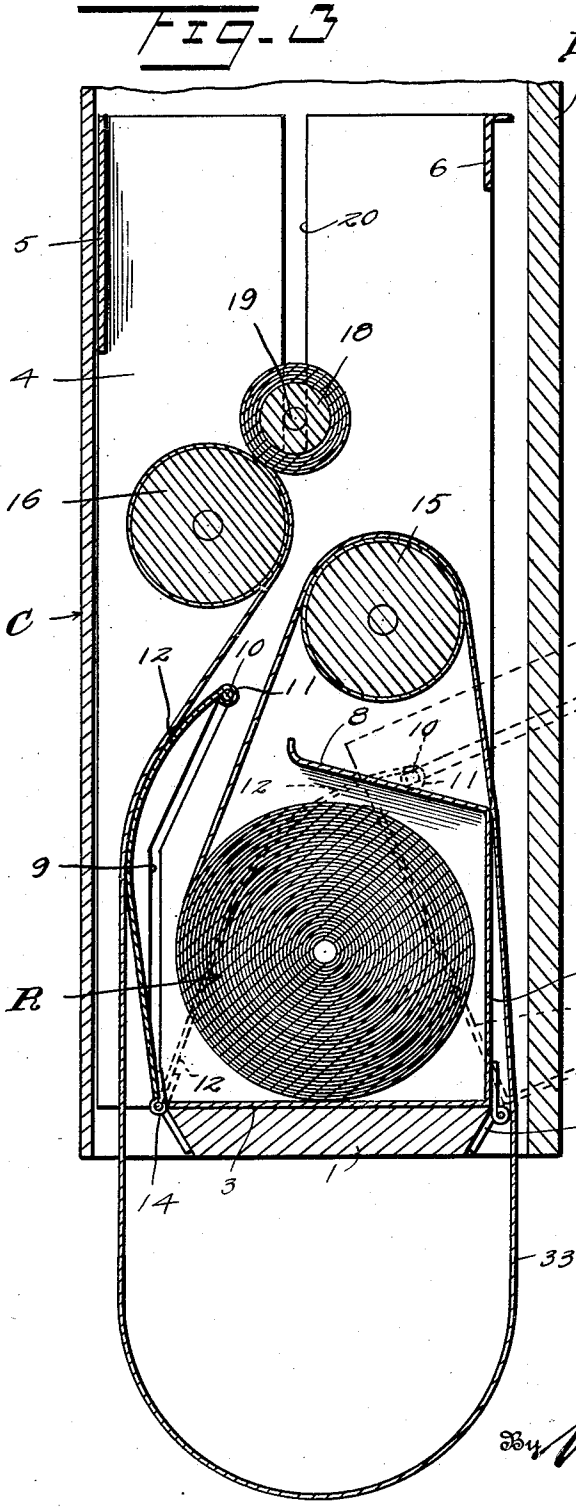
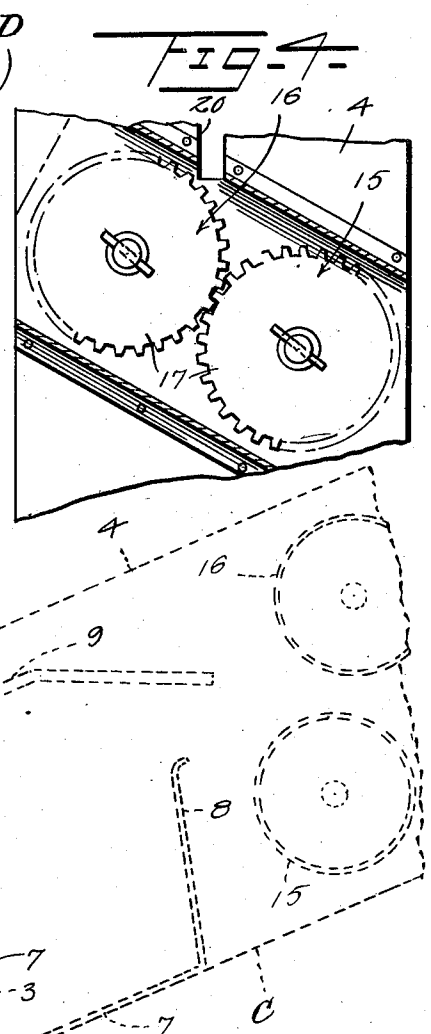


Fig. 4



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UNITED STATES PATENT OFFICE

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TOWEL SERVICE APPARATUS

Application filed April 28, 1931. Serial No. 533,528.

This invention relates to towel service apparatus, and it is an object of the invention to provide an apparatus of this kind having means operating in a manner to readily check or control the extent of toweling drawn from a clean towel roll and wherein the various parts of the apparatus are assembled in a manner to assure a ready and convenient application of clean toweling to the apparatus ready for use by the customer.

The invention also has for an object to provide an apparatus of this kind which is compact in its assembly and which embodies a structure wherein an effective separation is provided between the clean toweling and the soiled toweling.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved towel service apparatus whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in front elevation of a towel service apparatus constructed in accordance with an embodiment of my invention;

Figure 2 is a fragmentary view partly in side elevation and partly in section illustrating certain details of construction as herein employed;

Figure 3 is a fragmentary vertical sectional view taken through the apparatus as herein disclosed, a second position of certain of the parts being indicated by broken lines;

Figure 4 is a fragmentary elevational view also partly in section illustrating the driving connection between the feed rollers as herein employed.

As disclosed in the accompanying drawings, my improved apparatus comprises a base member 1 which may constitute the bottom wall of a cabinet C or other support. Hingedly connected, as at 2, to the forward marginal portion of the base member or support 1 is the forward marginal portion of a bottom plate 3 connecting the upstanding side plates 4 of a supporting structure for the apparatus proper. The upper portions of the side plates 4 are connected by the cross members 5 and 6 whereby a rigid structure is assured. The forward marginal portion of the plate 3 is defined by an upstanding wall 7 which is continued by an inwardly disposed wall 8, said walls 7 and 8 coacting with the plate 3 to provide a container or housing for a roll or other supply R of toweling. The roll or other supply of toweling may be readily placed within the container or housing by swinging the side plates 4 forwardly and downwardly as indicated by broken lines in Figure 3.

When my improved apparatus is employed in connection with a cabinet the cabinet has a conventional open face normally closed by a door D. When the door D is in open position the side plates or walls 4 and the parts carried thereby may be readily swung downwardly and outwardly.

It is also important that means be provided to positively limit the extent of outward and downward swinging movement of the side walls or plates 4. As herein disclosed, each of these side walls or plates 4 in its lower part is provided therealong with a longitudinally disposed slot 9, the opposite end portion of which being angularly related and extending within each of these slots 9 is an extended end portion of a rod 10 disposed through a barrel or sleeve 11 carried by the upper marginal portion of a swinging plate 12. The opposite longitudinal marginal portion of the plate 12 is hingedly connected, as at 14, to the rear marginal portion of the base member 1. While this plate 12 provides what might be considered a rear closing for the compartment or container in which the supply of toweling is placed it also serves in connection with the slots 9 to provide an effective means for positively limiting the outward and downward swinging movement of the side walls 4. When the parts are in

their normal or working position as particularly illustrated in Figure 3, this plate 12 also serves to provide means to effectively separate the soiled portion of the toweling from the clean portion.

Rotatably supported by and between the side plates or walls 4 are the feed rollers 15 and 16 corresponding ends of which being connected for unitary rotation by intermeshing gears 17 as particularly illustrated in Figure 4. The roller 15, in the present embodiment of my invention, is positioned forwardly of and slightly below the roller 16 and the toweling is carried from the roll or other supply of toweling within the container or housing over the roller 15 and then down outwardly of the wall 7 and below the base member 1. The toweling is then continued upwardly over the outer face of the plate 12 and over the inner portion of the roller 16 for winding upon the soiled toweling roller 18. The peripheral surfaces of the rollers 15 and 16 are of rubber or other suitable material to assure said rollers having requisite gripping or frictional contact with the toweling.

The soiled towel roller 18 at each end is provided with a trunnion 19 which is received within a vertically disposed open slot 20 provided in the adjacent side wall or plate 4 whereby said roller and the toweling thereon will, by gravity, operate to maintain the soiled toweling in effective gripping or frictional contact with the roller 16.

The roller 16 at its end portion remote from the gear 17 thereon carries a disc 21 provided in its periphery with a notch 22. This notch 22 is adapted to receive an extremity of a plunger 23. This plunger 23, as herein disclosed, is supported for reciprocating movement in a substantially fixed path of travel by a casing 24 suitably anchored to the adjacent side wall or plate 4.

This plunger 23 is constantly urged toward the disc 21 by a retractile member 25, herein disclosed as a coil spring, one end portion of which being suitably anchored, as at 26, to a part 27 carried by the adjacent side wall or plate 4 and the opposite end of this member or spring 25 is suitably anchored, as at 28, to the plunger 23. The plunger 23 has pivotally connected therewith, as at 29, an intermediate portion of a lever 30. This lever 30 at one extremity is pivotally connected, as at 31, to the adjacent side wall or plate 4 while the opposite end portion of this lever 30 is provided with a button 32 or its equivalent whereby the operator may readily and conveniently depress the lever 30 a distance sufficient to release the plunger 23 from the notch 22 so that upon requisite pull upon the depending towel loop 33 the desired length of toweling may be withdrawn from within the container or housing for the supply of clean toweling.

As the clean toweling is withdrawn the feed rollers 15 and 16 will rotate until the roller 15 has made one complete revolution whereupon the plunger 23 will automatically engage within the notch 22 and thus hold the feed rollers against further rotation. In this way automatic means are provided for checking or controlling the extent of clean toweling withdrawn by the user.

From the foregoing description it is thought to be obvious that a towel service apparatus constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A towel service apparatus comprising a supporting member, a plate, means for pivotally connecting a marginal portion of the plate to the supporting member, upstanding side plates carried by the first named plate, said side plates having slots, a member also pivotally connected to the support and having parts extending into the slots of the side plates whereby is limited the swinging movement in one direction of the first named plate with respect to its first pivotal connection, means for holding a supply of clean toweling carried by the first named plate, and feed rollers for the toweling carried by the side plates.

2. A towel service apparatus comprising a supporting member, a plate, means for pivotally connecting a marginal portion of the plate to the supporting member, upstanding side plates carried by the first named plate, said side plates having slots, a member also pivotally connected to the support and having parts extending into the slots of the side plates whereby is limited the swinging movement in one direction of the first named plate with respect to its first pivotal connection, means for holding a supply of clean toweling carried by the first named plate, and guiding means carried by the side plates with which the toweling withdrawn from the supply engages to provide a towel loop.

3. A towel service apparatus comprising a casing having a front opening, clean towel holding means mounted within said casing for movement through said front opening, a plate having a pivotal connection with said clean towel holding means and provided with means for engaging a portion of said casing to limit the movement of said clean towel holding means through said front open-

ing, said plate serving as a means to maintain separated soiled and clean portions of toweling.

4. A towel service apparatus comprising a casing having a front opening, clean towel holding means mounted within said casing for movement through said front opening, soiled towel takeup means mounted within said casing, said holding means and said takeup means being arranged to permit toweling to extend from said holding means downwardly below said casing to form a loop and thence upwardly to said soiled towel takeup means and a plate interposed between positions that the downwardly and upwardly extending portions of the toweling will assume to assist in preventing the spread of infection from soiled toweling to clean toweling, said plate having a pivotal connection with said clean towel holding means and having means for acting in conjunction with said casing to limit the movement of said clean towel holding means through said front opening.

5. A towel service apparatus comprising a casing, a clean towel holder mounted in said casing for swinging movement, a plate, means for supporting said plate in said casing for swinging movement independently of said clean towel holder, coacting means carried by the plate and said clean towel holder whereby said plate and said clean towel holder are connected in a manner to allow the plate to limit the swinging movement of the clean towel holder in one direction, soiled towel takeup means mounted in said casing, said plate also serving as a means to maintain separated soiled and clean portions of toweling.

6. A towel service apparatus comprising a supporting member, a clean towel holder, means for pivotally connecting a marginal portion of the holder to said supporting member, a plate pivotally connected to said supporting member and having a loose pivotal connection with said clean towel holder to limit the swinging movement of said clean towel holder in one direction from said supporting member.

In testimony whereof I affix my signature.

SAMUEL A. SCHWARTZ.