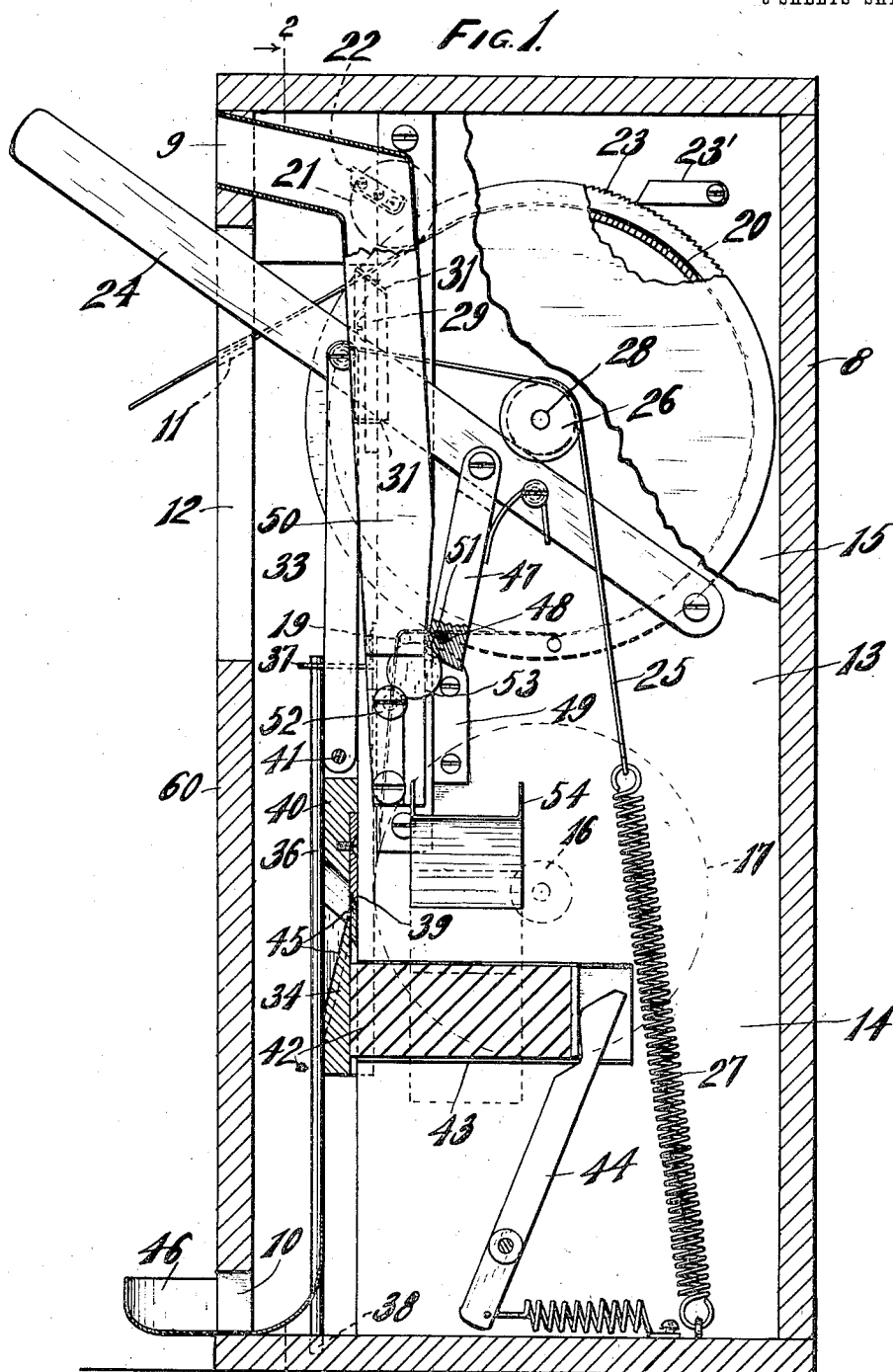


R. F. DOWNEY.
 SANITARY SOAP AND TOWEL DISPENSER.
 APPLICATION FILED OCT. 5, 1911.

1,041,710.

Patented Oct. 15, 1912.

3 SHEETS—SHEET 1.



WITNESSES:

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Katherine Holt

INVENTOR.

Richard F. Downey
 By *Morsell & Caldwell*
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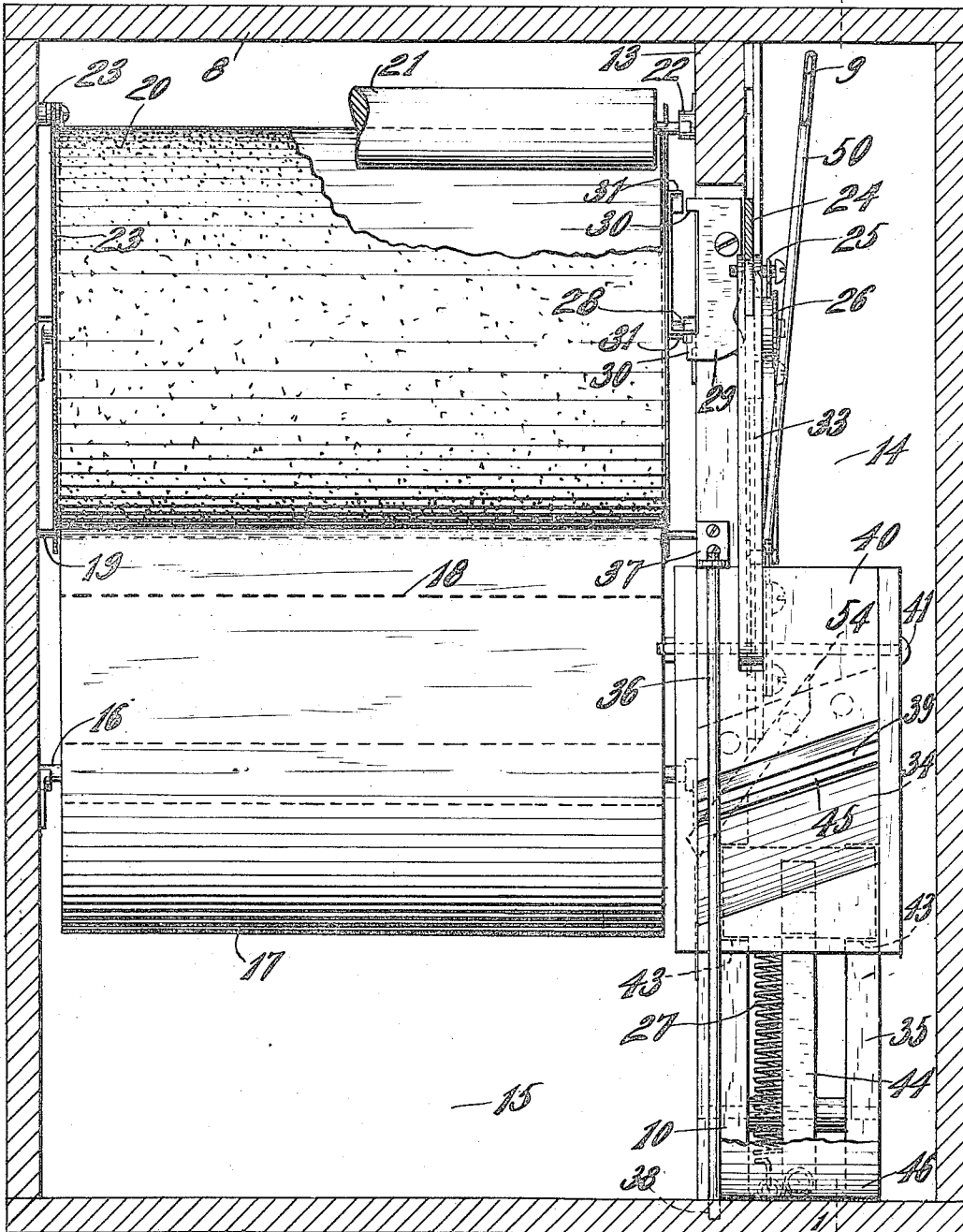
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FIG. 2.



WITNESSES.

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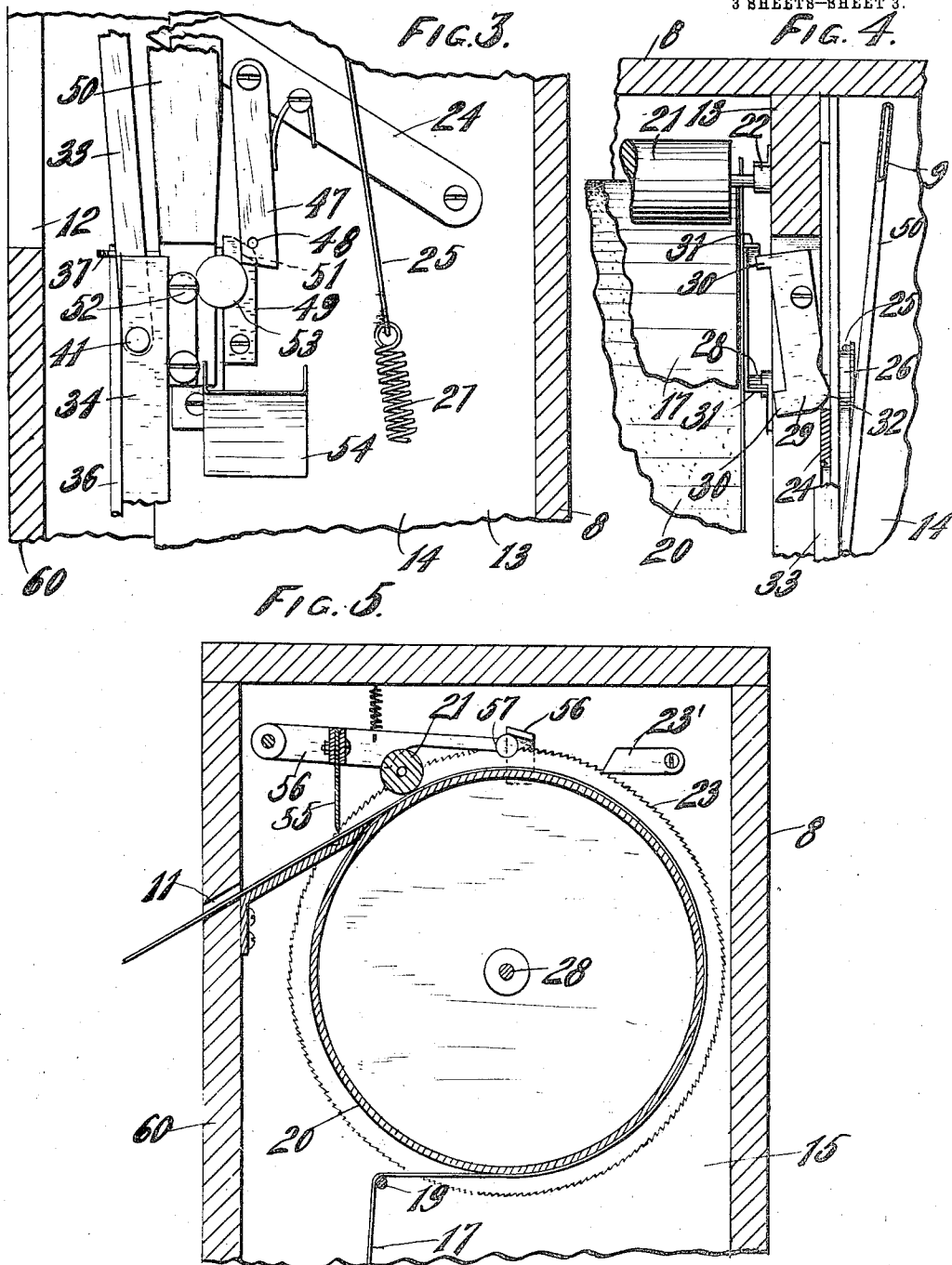
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3 SHEETS-SHEET 3.



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UNITED STATES PATENT OFFICE.

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SANITARY SOAP AND TOWEL DISPENSER.

1,041,710.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed October 5, 1911. Serial No. 652,930.

To all whom it may concern:

Be it known that I, RICHARD F. DOWNEY, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Sanitary Soap and Towel Dispensers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in sanitary soap and towel dispensers which are operated by coin controlled mechanism.

It is one of the objects of this invention to provide a soap and towel dispenser which is adapted to dispense a piece of fibrous toweling and a piece of soap when a coin is deposited into the coin slot of the casing and the operating lever is pulled.

A further object of the invention is to provide a soap and towel dispenser with means for dispensing a thin slice of soap from a cake of soap within the machine and also for dispensing a piece of fibrous toweling from a roll of material mounted in the casing, said pieces of soap and toweling being cut to predetermined dimensions at each operation of the machine.

A further object of the invention is to provide a soap and towel dispenser which is strong and durable, easily operated, and is well adapted to withstand the rough usage machines of this character are subjected to.

With the above and other objects in view, the invention consists of the improved soap and towel dispenser and its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings in which the same reference characters indicate the same parts in all of the views; Figure 1 is a vertical sectional view of the improved soap and towel dispenser taken on line 1—1 of Fig. 2; Fig. 2 is a vertical sectional view thereof taken on line 2—2 of Fig. 1; Fig. 3 is a detail sectional view of the coin mechanism of the soap and towel dispenser; Fig. 4 is a similar view thereof; and Fig. 5 is a vertical sectional detail view of a modified form of towel separating device.

Referring to the drawings the numeral 8 indicates the casing of the soap and towel dispenser which is of rectangular form and

is provided with a coin slot 9, a soap outlet 10, a towel outlet slot 11 and a handle slot 12. The casing is divided by a vertically extending partition 13 to which is connected the major part of the operating mechanism. This partition divides the casing into a soap compartment 14 and a towel compartment 15. A roller 16, journaled within the towel compartment, carries a roll of paper toweling or fibrous material 17 which is provided with transverse lines of perforations 18 spaced a predetermined distance apart so that portions of the material may be easily divided from the roll. The toweling extends upwardly from the roll and over a fixed rod 19 and thence beneath and around a feed drum 20 and out of the casing through the towel outlet slot 11. The surface of the drum is roughened and an idle roller 21, of considerable weight, bears on the toweling interposed between the drum and the idle roller and causes a positive engagement of the toweling with said drum. Both the drum and the idle roller are journaled within the towel compartment and the journal boxes 22 of the idle roller permit a vertical play of said roller. A ratchet wheel 23 is provided on one end of the drum and a ratchet dog 23', pivoted to the side of the casing and engaging the ratchet wheel, serves to prevent the retrograde rotation of said drum. An operating handle lever 24 pivoted at its inner end to the partition and extending outwardly through the slot 12 has connected thereto a cord or belt 25 which passes around a drum pulley 26 and at its lower end is connected to the upper end of a coiled retrieving spring 27. The lower end of this spring is attached to the bottom portion of the casing. The drum pulley is mounted on the end of the drum shaft 28, which extends through the partition, and when the operating lever 24 is pulled downwardly the cord connection with the pulley will rotate the drum and extend the end of the toweling out through the towel slot a sufficient distance so that it may be grasped and pulled out to the extent permitted by the mechanism, which will be to the first line of transverse perforation. This distance will approximate the length of the circumference of the drum.

In order to limit the rotation of the drum to one revolution each time the operating

handle is pulled downwardly a dog 29 medially pivotally connected to the front edge of the partition 13 is provided with an upper and a lower tooth 30 which are adapted to engage projections 31 extending from the end of the drum. The drum will be stopped from rotating by the lower dog tooth engaging the lower projection and when in this position the operating handle is in the path of movement of said dog. As soon as the lever is pulled downwardly a sufficient distance it will be out of the path of the dog and the drum will swing the lower dog tooth away from the projection and the drum will be free to turn one complete revolution. In swinging the lower dog tooth out of the path of the lower projection the upper tooth will be swung toward the drum and engage the lower projection if the attempt is made to turn the drum a greater distance than one revolution. When the operating handle is released it will be retrieved upwardly by its spring and in swinging upwardly it will engage the lower rounded edge 32 of the dog and swing said dog to its initial position, as shown in Fig. 1.

A link 33 pivoted to and depending downwardly from the handle lever is pivoted at its lower end to reciprocal knife frame 34 which is slidably positioned within the soap compartment. This knife frame is held in position against the upright 35 and the partition 13 by means of a rod 36 extending through a bracket 37 and into an aperture 38 in the base of the casing. The knife 39 of the knife frame is carried by a knife block 40 which is pivoted to the knife frame by a bolt 41 to provide for adjusting the thickness of the cut of the cake of soap 42. The cake of soap is positioned between grooved guide members 43 and is pressed outwardly against the knife frame by means of the spring controlled lever 44 which bears against the rear end of the cake of soap. A piece of soap of greater or less thickness may be cut from the cake by swinging the knife block toward or away from the cake and clamping the knife block in adjusted position between portions of the knife frame by means of the bolt 41. The portion of the knife frame adjacent to the knife is beveled off at an angle to provide a slot 45 for the cut piece of soap to pass therethrough and also to permit the cut piece of soap to drop into the receptacle 46 projecting through the soap slot 10.

A spring controlled locking dog 47 pivoted to and depending from the hand lever 24 is provided with a shoulder 48 in the form of a projecting pin which normally rests upon the stop plate 49 fastened to the side of the partition. This locking dog serves to hold the hand lever in locked position until released by a coin.

A coin tube 50 extending inwardly and then downwardly from the coin slot 9 ends

at a point adjacent to a coin recess 51 formed in the end of the lever locking dog 47, and above a stop screw 52. This stop screw is spaced a distance beneath the end of the coin tube less than the diameter of a coin 53 so that when a coin is inserted into the tube it will drop therethrough and wedge between the stop screw and the recessed portion of the locking dog and in dropping it will have forced the locking dog out of its locked position with relation to the stop plate 49 so that a downward pull on the hand lever will cause the shoulder 48 to ride on the curved upper edge of the stop plate and the mechanism to be actuated. This movement of the hand lever will swing the locking dog away from the coin and permit the said coin to drop into the coin trough 54 which will guide it into the lower portion of the towel compartment.

In the modified form a means is provided for cutting the towel material when it is desired to omit the transverse lines of perforations. To accomplish this result a knife 55 fastened to a spring retrieved lever frame 56 is provided with a projecting arm 57 which is adapted to be engaged and depressed by a cam member 58 carried by the drum so that each revolution of the drum will cause the knife to cut the material in two transversely. The knife is adapted to coact with the complementary cutting member 59 positioned immediately beneath the knife.

The dispenser is recharged with material through the door 60.

In operation a coin of the proper denomination is inserted in the coin slot to release the mechanism and the operating hand lever is then pulled downwardly and is released. This movement will cause a piece of soap to be cut which will drop into the soap receptacle and at the same time the edge of the towel will be extended through the towel slot. The operator then pulls on the end of the towel until the drum stops rotating and a further pull will separate the piece of material, at the first line of perforations, from the roll. The parts of the machine will now be at their initial position to be again actuated when another coin is inserted therein.

From the foregoing description it will be seen that the soap and towel dispenser is well adapted for the purpose desired.

What I claim as my invention is:

1. A soap and towel dispenser, comprising a casing provided with discharge openings, a roller journaled within the casing for holding a roll of fibrous material, another roller journaled adjacent thereto and around which the fibrous material passes, a soap holding means within the casing, an operating lever projecting through the casing, a connection between the second mentioned roller and the lever for rotating said

roller when the lever is moved, a soap cutting means connected to the lever, and a locking means for the lever.

2. A soap and towel dispenser, comprising
5 a casing provided with discharge openings,
a roller journaled within the casing for
holding a roll of fibrous material, another
roller journaled adjacent thereto and around
10 which the fibrous material passes, a soap
holding means within the casing, an operating
lever projecting through the casing, a
connection between the second mentioned
roller and the lever for rotating said roller
15 when the lever is moved, means for preventing
the retrograde rotation of the roller, a
reciprocal soap cutting means connected to
and actuated by the lever, and a locking
means for the lever.

3. A soap and towel dispenser, comprising
20 a casing provided with discharge openings,
a roller journaled within the casing for
holding a roll of fibrous material having
transverse perforations, a drum journaled
25 within the casing and positioned adjacent
to the roller and around which roller the

fibrous material passes, a pulley connected
to said drum, a soap holding means within
the casing, a yielding means for moving
soap within said holder, a reciprocal soap
cutter within the casing and positioned to 30
cut a thin slice of soap from the cake and
discharge it from one of the openings of the
casing, an operating lever projecting through
the casing, a belt having one end connected
to the lever and its other end connected to 35
a yielding means fastened to the casing, said
belt extending over the drum pulley, means
for preventing retrograde movement of said
drum, a dog for stopping the rotation of
the drum at the end of each revolution and 40
which is engaged by the lever to release the
drum from said locking engagement, a connection
between the lever and the soap cutter,
and a locking means for the lever.

In testimony whereof, I affix my signature, 45
ture, in presence of two witnesses.

RICHARD F. DOWNEY.

Witnesses:

C. H. KEENEY,
KATHERINE HOLT.