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TOWEL DISPENSING HOLDER

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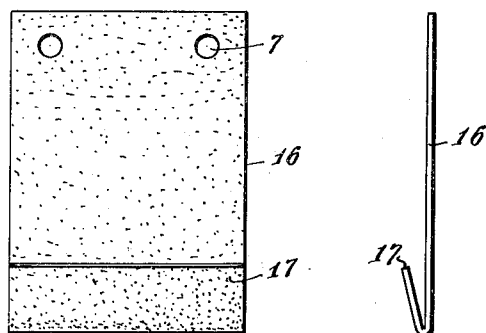
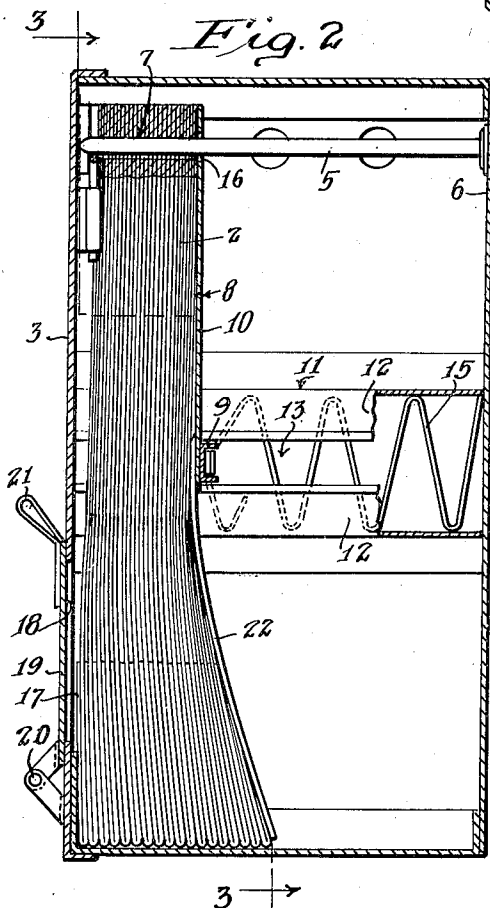
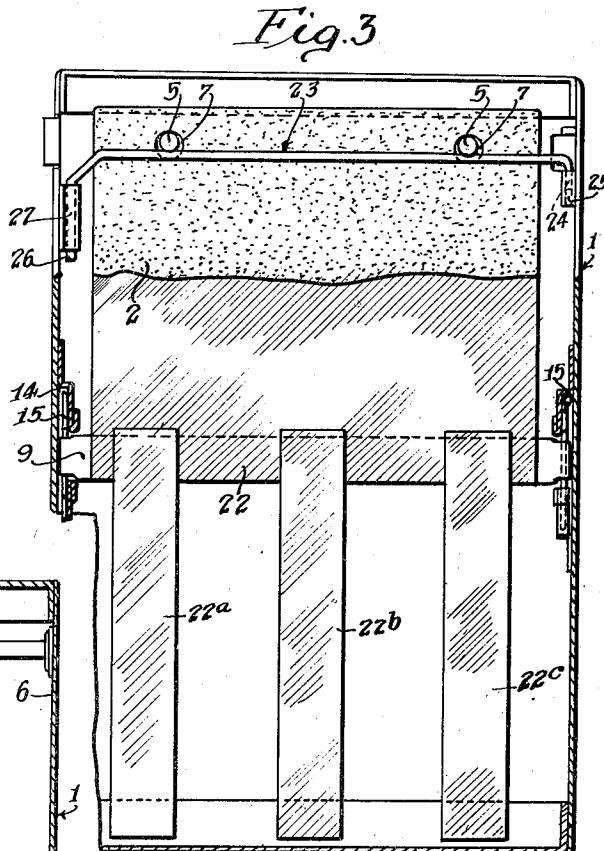
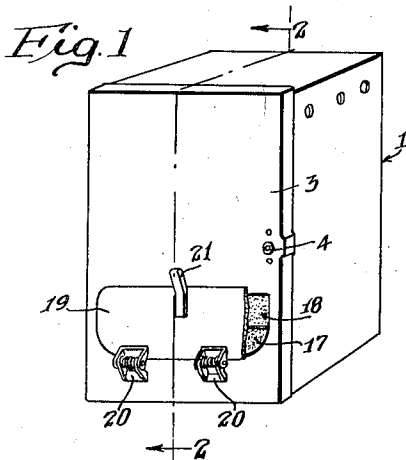


Fig. 5
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TOWEL DISPENSING HOLDER

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11 Claims. (Cl. 312—37)

This invention relates to a dispensing holder for towels such as paper towels, and an object of the invention is to provide a holder of this kind having a simple construction facilitating the loading of the holder with a pack of towels, and facilitating the removal of the towels one by one as desired.

A further object of the invention is to provide improved means for supporting the towel pack and for pushing the same forwardly to facilitate their removal through the dispensing opening at the front; also to construct this means in such a way that it will require a minimum amount of space within the interior of the casing. This enables these improvements to be employed without necessitating material reduction in the size of the towels carried in the holder.

In the preferred construction the towels are folded to produce flaps on their forward side to facilitate withdrawing them, and the towels are forced forwardly by a pusher plate having perforations guided on horizontal supporting bars. By reason of the presence of the flaps, the pack of towels has twice the thickness at its lower edge than at its upper portion. One of the objects of the invention is to provide simple means for pressing the lower part of the pack forwardly and operating in such a way as to prevent the pusher plate from becoming cocked into an inclined position that might cause it to jam or bind itself on the supporting bars.

Further objects of the invention will appear hereinafter.

The invention consists in the novel parts and combination of parts to be described hereinafter, all of which contribute to produce an efficient towel dispensing holder.

A preferred embodiment of the invention is described in the following specification, while the broad scope of the invention is pointed out in the appended claims.

In the drawing:

Figure 1 is a perspective of a holder embodying my invention, with the dispensing door broken away.

Figure 2 is a vertical section through the holder, on the line 2—2 of Fig. 1. This view is upon a larger scale and shows a pack of towels within the holder; and on the interior of the holder certain parts are represented broken away.

Fig. 3 is a vertical transverse section taken on the line 3—3 of Fig. 2, but partially broken away.

Fig. 4 is a front elevation of one of the towels.

Fig. 5 is an edge view of the towel shown in Fig. 4.

Referring more particularly to the parts, 1 indicates a box-form casing open on its forward side to receive the pack 2 of towels, and normally closed by a cover 3 which may be provided with a lock 4, if desired.

Supporting means for the pack 2 is provided, preferably including one or more bars 5 secured to the back wall 6 and projecting forwardly through aligned perforations 7 in the towels; the tips of these bars lie adjacent the cover 3.

Back of the pack I provide a pusher 8 for pressing the pack forward, said pusher preferably comprising a pusher bar 9, preferably of channel form, and a pusher plate 10.

The bar 9 is located at an intermediate point of the height of the holder, preferably at mid-height; and guiding means 11 for the ends of the bar 9 is provided, secured on each side wall, preferably formed by plates or cleats 12 presenting a guide slot 13 between them to receive the ends of the bar. In this way relatively narrow spring-slots 14 are formed that take up little space on the interior of the box, and in each slot 14 a zig-zag bent spring 15 is provided that thrusts against the back wall 6, and at the front thrusts against the bar 9. The guiding means 11 constitutes a spring housing.

The plate 10 has perforations 16 to receive the bars 5 so that these bars operate to guide the plate as it moves forwardly.

The lower edges of the individual towels 16 are all creased to form upwardly projecting flaps 17, and these flaps are located on the forward side so that the flap of the foremost towel in the pack may be seized and pulled through an opening 18 in the front cover. This opening is normally closed for sanitary reasons by a lid 19 preferably secured to the cover on spring hinges 20 that hold the lid closed. A handle 21 may be provided near the free edge of the lid for pulling it open.

On account of the flaps at the lower edges of the towels, the lower end of the pack 2 has about twice the thickness of the upper part. In order to press this part of the pack forwardly and to hold the upper part of the pusher plate 10 against the pack, I provide resilient follower means 22 preferably in the form of leaf springs 22a, 22b, and 22c, rigidly attached at their upper ends to the lower edge of the plate 10. These springs are bent backwardly below by the thrust of the pack, and this thrust tends to swing the plate 10 forwardly so as to keep it pressed forcibly against the back of the pack (see Fig. 2). This action is most advantageous because it prevents any tendency of the plate 10 to become cocked in such

a way as to jam the edges of the openings 7 on the bars 5.

In order to brace the forward ends of the bars 5, I provide means preferably in the form of a cross-bar 23, one end of which is bent down to form a short shaft 24 received in a bearing 25 secured to the adjacent side wall of the casing, and the other end of this cross-bar is bent down to form a pintle 26 received in a socket 27 attached to the opposite side wall of the casing.

When this cross-bar 23 is in place it supports the outer ends of the bars 5. This bar is more or less resilient and the bars 5 will yield sufficiently to enable the right end of the cross-bar as viewed in Fig. 3, to be lifted out of the socket and swung to one side when the casing is to be loaded with a pack. This cross-bar 23 also relieves the cover 3 of any strain from the pack, and holds the pack in place when the cover 3 is being replaced.

It is understood that the embodiment of the invention described herein is only one of the many embodiments this invention may take, and I do not wish to be limited in the practice of the invention, nor in the claims, to the particular embodiment set forth.

What I claim is:

1. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of frangible towels, supporting means for the pack including a substantially horizontal supporting bar located near the upper end of the casing extending forwardly from its rear wall and projecting through the perforations of the pack to support the same, a pusher extending transversely across the interior of the casing for pushing against the back of the pack at about mid-height of the same, channel-forming members attached to the side walls for guiding the ends of the pusher, resilient means located in the channels for forcing the pusher forwardly against the pack in front of it, means for supporting the forward end of the supporting bar to resist the pull when the towels are torn off from the bar, and a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one after tearing the same from the supporting bar.

2. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for the pack including a substantially horizontal supporting bar extending forwardly from the rear wall of the casing and projecting through the perforations of the pack, a pusher extending transversely within the casing, means for guiding the same on the side walls of the casing, resilient means for forcing the pusher forwardly against the pack in front of it, a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one, and means for supporting the forward end of the supporting bar.

3. A towel dispensing holder constructed as described in claim 1, in which each channel member provides a guide slot at its side remote from the adjacent wall of the casing receiving and guiding the end of the pusher, and in which the means for forcing the pusher forwardly comprises a spring mounted in each of the channels formed by said channel members, said springs being of zig-zag form.

4. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for

the pack including a supporting bar extending forwardly from the rear wall of the casing and projecting through the perforations of the pack, a pusher extending transversely within the casing, means for guiding the same on the side walls of the casing, means for forcing the pusher forwardly against the pack in front of it, and a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one, said pusher being located at an intermediate point of the height of said casing, and having a resilient follower engaging the back and lower portion of the pack for pressing the same toward the delivery opening.

5. A towel dispensing holder constructed as described in claim 4, in which each spring housing forms a relatively narrow spring slot, and each spring consists of a zig-zag bent spring confined in its corresponding spring slot.

6. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for the pack including a supporting bar extending forwardly from the rear wall of the casing and projecting through the perforations of the pack, a pusher extending transversely within the casing, means for guiding the same on the side walls of the casing, means for forcing the pusher forwardly against the pack in front of it, a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one, and a cross-bar for supporting the forward end of the supporting bar, with means for supporting the ends of the cross-bar from the side walls of the casing.

7. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for the pack including a supporting bar extending forwardly from the rear wall of the casing and projecting through the perforations of the pack, a pusher extending transversely within the casing, means for guiding the same on the side walls of the casing, means for forcing the pusher forwardly against the pack in front of it, and a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one, and means extending down from the pusher for yieldingly engaging the lower portion of the pack for pressing the same forward.

8. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for the pack including a supporting bar extending forwardly from the rear wall of the casing and projecting through the perforations of the pack, a pusher extending transversely within the casing, means for guiding the same on the side walls of the casing, means for forcing the pusher forwardly against the pack in front of it, a removable cover for the front of the casing having a delivery opening through which the towels may be removed one by one, and means extending down from the pusher for yieldingly engaging the lower portion of the pack for pressing the same forward, said last-named means including a leaf spring secured at its upper end to the pusher.

9. In a towel dispensing holder, the combination of a casing open at the front to receive a perforated pack of towels, supporting means for the pack, a pusher extending transversely within the casing, channel-forming members at-

5 tached to the side walls for guiding the same
on the side walls of the casing, means for forcing
the pusher forwardly against the pack in front
of it, including a plate and means extending
10 across the interior of the casing below said plate
and extending down from the plate for resiliently
engaging substantially the lower half portion of
the pack at the back, and a removable cover for
the front of the casing having a delivery open-
15 ing through which the towels may be removed
one by one.

10 10. In a towel dispensing holder, the combina-
tion of a casing open at the front to receive a
perforated pack of towels, supporting means for
the pack including a supporting bar extending
15 forwardly from the rear wall of the casing and
projecting through the perforations of the pack,
a pusher extending transversely within the cas-
ing, means for guiding the same on the side
20 walls of the casing, pusher means for forc-
ing the pusher forwardly against the pack in
front of it, and a removable cover for the front
of the casing against which the pusher means
presses the pack, said cover having a delivery
25 opening through which the towels may be re-
moved one by one, said pusher means being lo-

cated at an intermediate point of the height of
said casing, and a resilient follower extending
down from the pusher to a point toward the bot-
tom of the casing engaging the back and lower
portion of the pack for pressing the same toward
5 the delivery opening.

11. In a towel dispensing holder, the combina-
tion of a casing open at the front to receive a
perforated pack of towels, supporting means for
the pack including a supporting bar extending
10 forwardly from the rear wall of the casing and
projecting through the perforations of the pack,
a pusher extending transversely within the cas-
ing, means for guiding the same on the side
15 walls of the casing, resilient means for forcing
the pusher forwardly against the pack in front
of it, a removable cover for the front of the
casing having a delivery opening through which
the towels may be torn away one by one from
said supporting bar, and a cross-bar for sup-
20 porting the forward end of the supporting bar,
with means for supporting the ends of the cross-
bar from the side walls of the casing, a cover
outside of the cross-bar, said cross-bar operating
to retain the towels when the cover is open. 25

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