March 12, 1935. P. H. HORWITT 1,993,885

DISPENSING APPARATUS

Filed Dec. 1, 1933 2 Sheets-Sheet 1

Fig. 1

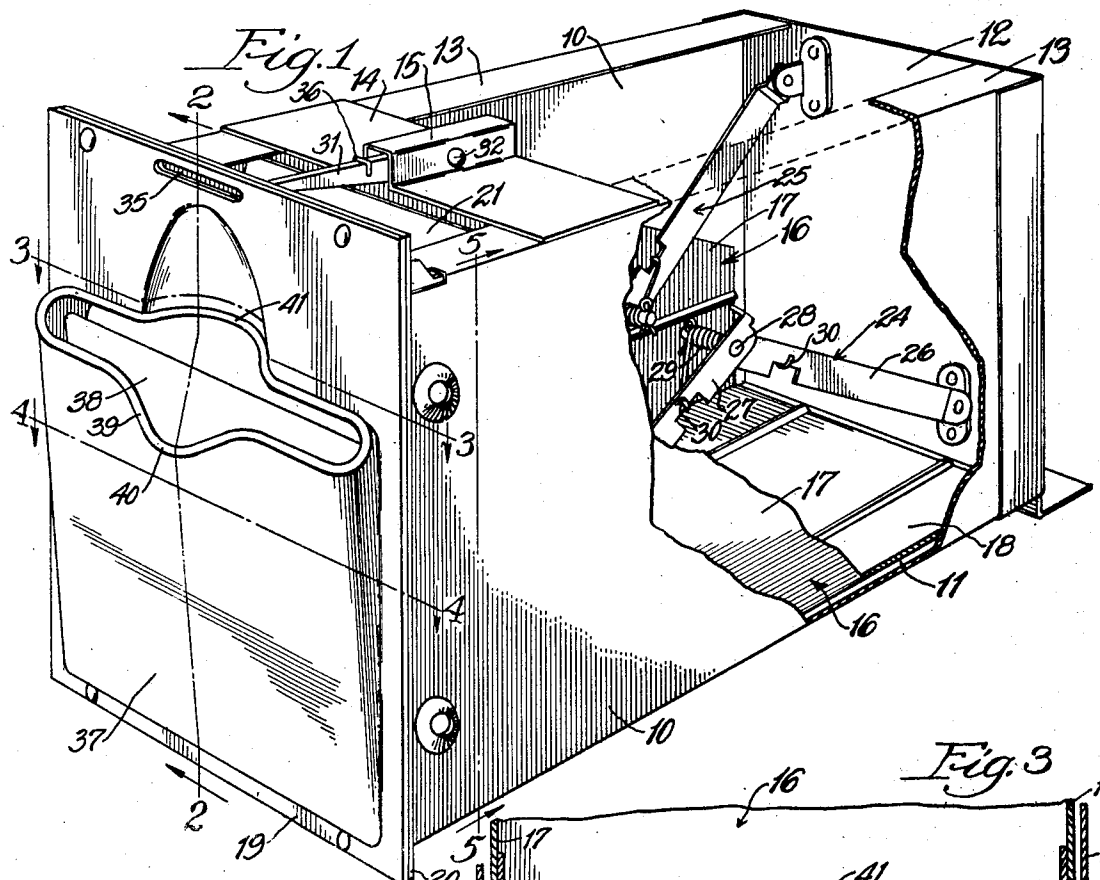


Fig. 3

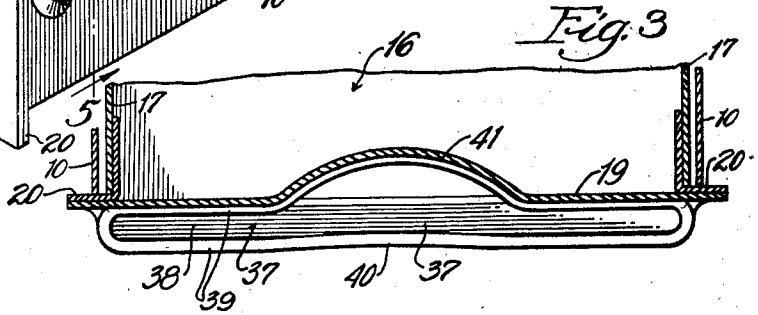


Fig. 5

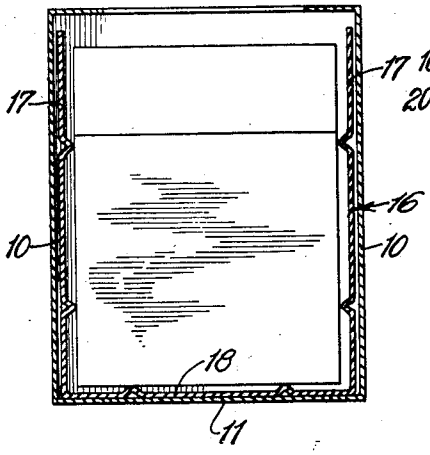
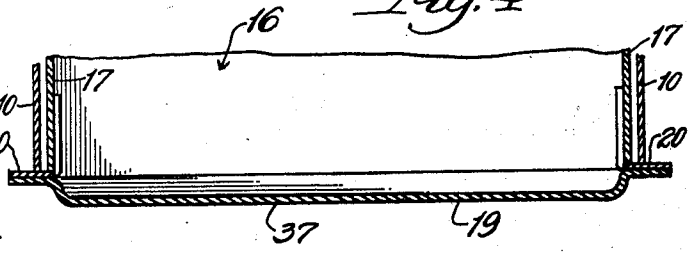


Fig. 4



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DISPENSING APPARATUS

Filed Dec. 1, 1933 2 Sheets-Sheet 2

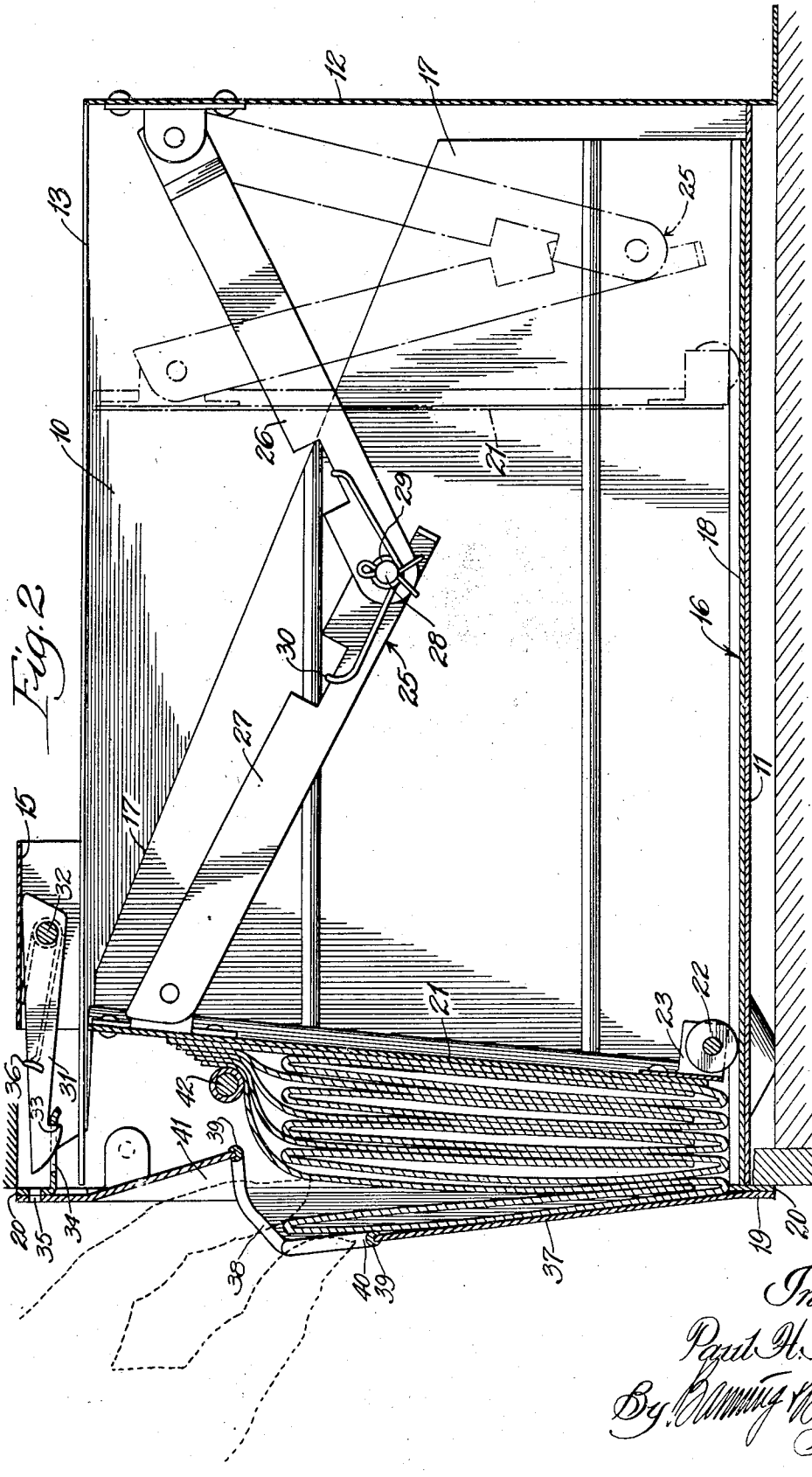

Fig. 2

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UNITED STATES PATENT OFFICE

1,993,885

DISPENSING APPARATUS

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Application December 1, 1933, Serial No. 700,379

3 Claims. (Cl. 312—61)

The dispensing apparatus of the present invention is intended primarily for the dispensing of napkins or the like which are so folded and stacked as to permit withdrawal of the outermost napkin by grasping the exposed tab between the finger and thumb preparatory to withdrawal of the napkin from the dispenser.

The present invention involves certain features which for purposes of illustration are shown as applied to the dispenser of the Horwitt Patent No. 1,895,661, issued January 31, 1933, and are particularly directed to means for restraining the upper edges of the napkins comprised within the stack in such a way as to prevent interference with the released tab of the outermost napkin, thereby facilitating the grasping of the tab for purposes of removal.

The present invention also relates to the formation of the slot through which the napkins are successively withdrawn, and to the front wall of the dispenser contiguous to said slot in such a way as to co-operate with the restraining means in permitting the easy and convenient insertion of the user's thumb and finger in grasping the exposed napkin tab and in withdrawing the same in such a way as to prevent disarrangement or disturbance of the succeeding napkins comprising the stack.

Further objects and details of the invention will appear from a description thereof in conjunction with the accompanying drawings, wherein,—

Figure 1 is a perspective view of the dispenser of the present invention showing the wall partly broken away to reveal the interior;

Fig. 2 is a longitudinal sectional elevation taken on line 2—2 of Fig. 1;

Fig. 3 is a cross sectional view of the front wall taken on line 3—3 of Fig. 1;

Fig. 4 is a similar view taken on line 4—4 of Fig. 1; and

Fig. 5 is a cross sectional elevation on a reduced scale taken on line 5—5 of Fig. 1.

The dispenser as shown comprises an outer casing including side walls 10—10, a bottom wall 11, and a back wall 12, giving to the structure a boxlike formation adapted to be inserted or enclosed within a wall, table, or other structure wherein it is intended to house the dispenser. The upper edges of the side walls are inturned to afford flanges 13 connected by a bridge plate 14, which is upwardly offset in the center to furnish a downwardly opening channel 15.

Within the outer casing is located a drawerlike compartment 16 for the reception of a stack of napkins, which compartment comprises side walls 17—17, and a bottom or base 18, the arrangement being in the nature of a drawer which is slidable within the upper casing. The drawerlike compartment is provided with a face plate 19, which, as shown, is thickened or reinforced around its edge by an inner frame 20, and the edge portion of the face plate with the surrounding frame projects beyond the body and base walls of the drawerlike compartment, to which it is rigidly connected on all sides and also beyond the forward edges of the outer casing, so that the reinforced edge portions of the face plate constitute a stop or abutment for limiting the inward movement of the drawerlike compartment and at the same time afford a proper finish for the exposed portion of the structure.

The napkins, as best shown in Fig. 2, are urged forwardly by a follower plate 21 which is supported upon a roller 22 carried by a bracket 23, which roller rides upon the base or floor of the drawerlike compartment, and the follower is urged forward by the action of toggle members 24 and 25, each of which comprises a rear toggle bar 26 and a forward toggle bar 27 pivoted upon a central pintle 28 carrying a coil spring 29, the ends 30 of which engage the toggle bars 26 and 27 and tend to straighten out the toggle and in so doing to advance the follower plate. Each of the toggle members is pivoted at its rear end to the rear wall of the outer casing and at its forward end to the follower plate, the toggle member 24 being pivoted at a lower level than the toggle members 25 to better distribute the thrust imparted to the follower plate.

The features of construction heretofore described are substantially the same as those shown and described in the Horwitt Patent No. 1,895,661 previously referred to, and further description thereof is deemed unnecessary.

The drawerlike extension is latched against accidental withdrawal by means of a latch member 31, the rear end of which is pivoted upon a pintle 32 entered through the side walls of the channel member 15 formed on the bridge plate 14, and the forward end of the latch member is provided with a hook 33 which is beveled on its forward face and is adapted to engage through a slotted keeper 34 inwardly projecting from the upper edge of the face plate to hold the same in closed relation.

In order to permit unlatching, a slot 35 is formed through the upper margin of the face plate and through the reinforcing marginal frame in such position as to permit a thin bladed knife

or the like to be inserted through the slot in position to slip under the beveled forward end of the latch to lift the same against tension of a spring 36 and permit withdrawal of the drawerlike compartment.

The metal of the face plate is outwardly bulged or obliquely offset to afford a pocketlike extension 37 of progressively increasing depth from the bottom to the top, which arrangement furnishes a transverse slot 38 of relatively small width, the plane of the slot or mouth being in oblique relation to the plane of the face plate and the edge of the slot being reinforced by a rounded marginal bead 39 which furnishes a suitable finish and affords a smooth lip for the manipulation required in removing the napkins from the dispenser.

To facilitate insertion of the thumb and finger, the lower lip of the slot is provided with a tab 40 in the center and the upper lip is recurved inwardly by affording a rounded recess or depression 41 in the wall of the face plate, which combined arrangement permits easy insertion of the thumb and first finger for the purpose of grasping the released tab of the outermost napkin, which as shown in Fig. 2 is exposed within the slot or mouth thus afforded.

In order to permit release only of the outermost tab, and to restrain the upper end of the outermost napkin so as to avoid interference with the manipulation of the exposed tab, a restraining bar 42 is provided, which extends transversely between the side walls 17 of the drawerlike compartment and in position to bend back and restrain the upper edges of the napkins, which as shown in Fig. 2 are folded to project above the level of the grasping tabs, so that under the thrust of the follower plate 21 the stack of napkins will be compressed and the lower portions of the stack advanced forwardly and held against the inner surface of the face plate while the upper portion of the napkin stack will be held back or restrained to the degree necessary to permit the outermost tab alone to spring forward into the position indicated in Fig. 2. This affords a gap behind the outermost tab, which permits the finger of the user to be easily inserted in position to grasp the exposed napkin.

In use, the outermost napkin tab is grasped in the manner described, and as the outermost napkin is withdrawn its lower portion will be held under considerable pressure from the stack behind while its upper edge will be restrained against displacement until the body of the napkin has been completely withdrawn through the slot, so that during the withdrawing operation the napkin will be released smoothly and evenly and without any tendency to disturb the stacked arrangement of the remaining napkins and without permitting withdrawal of more than one napkin at each operation. The withdrawal of the outermost napkin allows the stack as a whole to advance slightly, which releases and exposes the next free tab in position for like withdrawal. When the stack of napkins has been depleted, the drawerlike compartment can be unlatched and withdrawn and the follower plate pressed back and a new stack of napkins inserted in position.

The arrangement is one which enables a relatively narrow or restricted slot to be employed, which, however, is properly configured to permit easy insertion of the thumb and finger without excessive exposure of the napkins within the dispenser.

Although the features of the present invention have been shown as applied to a dispenser of the type illustrated in the Horwitt Patent No. 1,895,661, it will be understood that it is not the intention to limit the use of the present features to such dispenser, since quite obviously the interior construction and the means provided for advancing the stack of napkins to the discharging position may be modified in various ways without affecting the operation of the parts which form the particular subject of the present invention.

I claim:—

1. In a dispenser of the class described, the combination of a container provided with a front plate having a transversely elongated slot formed therein, the metal below the slot being outwardly offset to afford a pocket opening through the slot, the upper margin of the slot being inwardly bowed and the lower margin being recessed to afford additional clearance for the insertion of the thumb and finger, and means located within the container for advancing napkins or the like toward the slot for successive removal therethrough, and a transversely extending restraining bar located adjacent to the upper margin of the slot and within the container and in position to engage and restrain the projecting upper ends of the folded napkins and to permit escape of a portion of the outermost folded napkin to a position adjacent to the slot for grasping and removal.

2. In a dispenser of the class described, the combination of a container provided with a front plate having a transversely elongated slot formed therein, the metal below the slot being outwardly offset to afford a pocket opening through the slot, the upper margin of the slot being inwardly bowed and the center of the lower margin being formed to afford additional clearance for the insertion of the thumb and finger, and means located within the container for advancing napkins or the like toward the slot for successive removal therethrough, and a transversely extending restraining bar located adjacent to the upper margin of the slot and within the container and in position to engage and restrain the projecting upper end of the folded napkins and to permit escape of a portion of the outermost folded napkin to a position adjacent to the slot for grasping and removal.

3. A dispenser for paper napkins, each napkin having an elongated ply and ashorter ply folded thereagainst, said dispenser comprising a container for a stack of said napkins having a relatively narrow dispensing slot defined by offset edges in the front face thereof, the wall of said face sloping rearwardly from one of said offset margins so that the shorter ply of the foremost napkin will lie thereagainst with the free edge of said ply ready to be grasped through said slot, restraining means back of the slot in said face for engaging the exposed portion of the elongated ply of the foremost napkin to separate said plies of the foremost napkin, follower means urging said napkins toward said dispensing slot, and means exerting pressure against the end of said plate opposite said restraining means to cause said plate to assume an inclination opposite to that of the front face of the container to of the stack entirely forward of said restraining means.

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