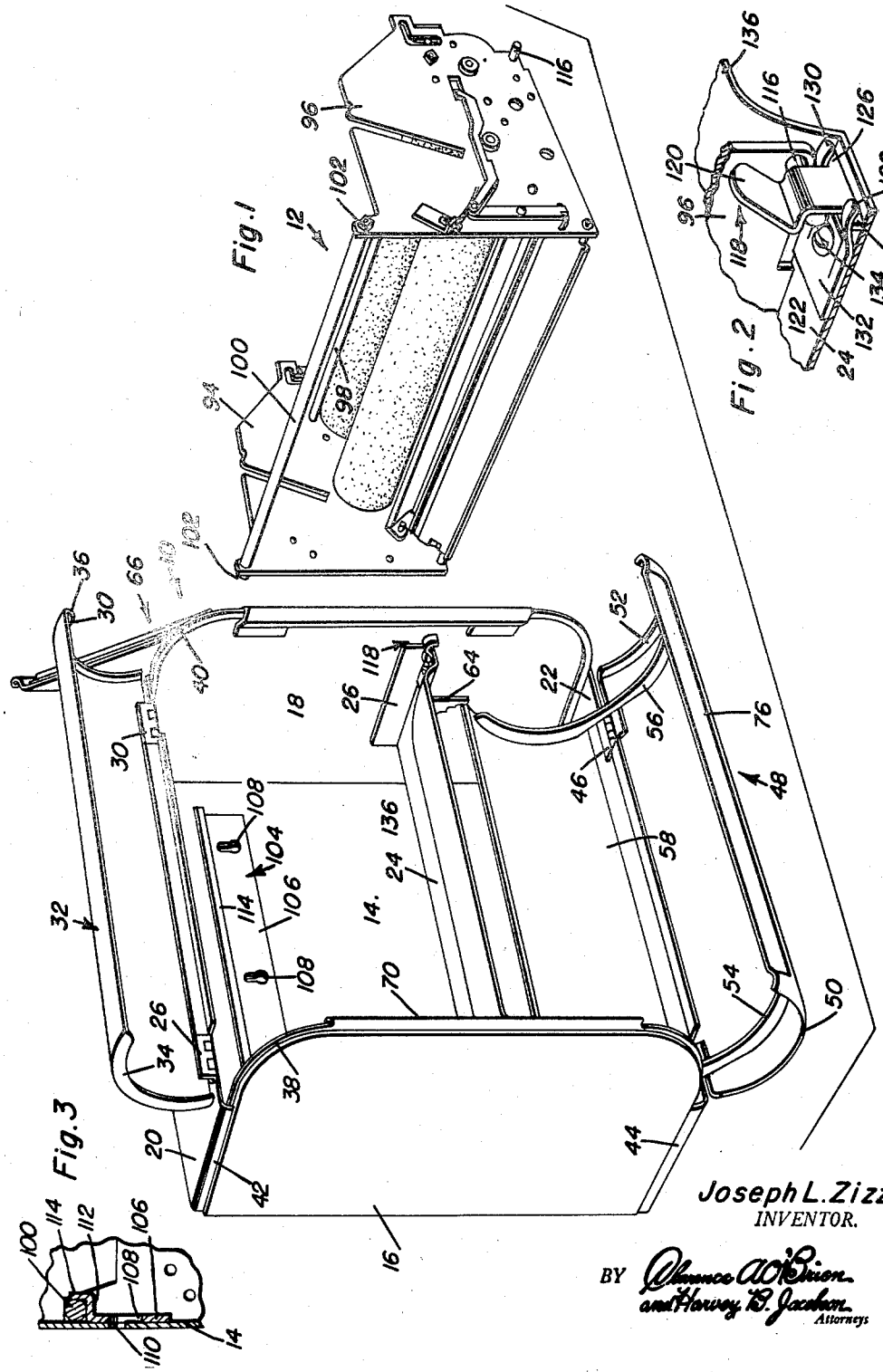
June 7, 1960 J. L. ZIZZI 2,939,754

DISPENSING CABINET AND MOUNTING MEANS FOR TOWEL DISPENSER MECHANISMS

Filed June 21, 1954 2 Sheets-Sheet 1



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Filed June 21, 1954 2 Sheets-Sheet 2

Fig. 4

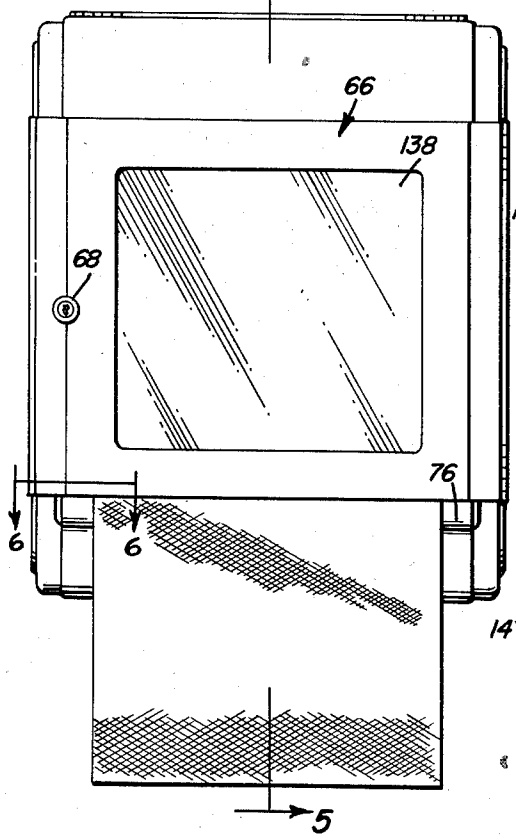
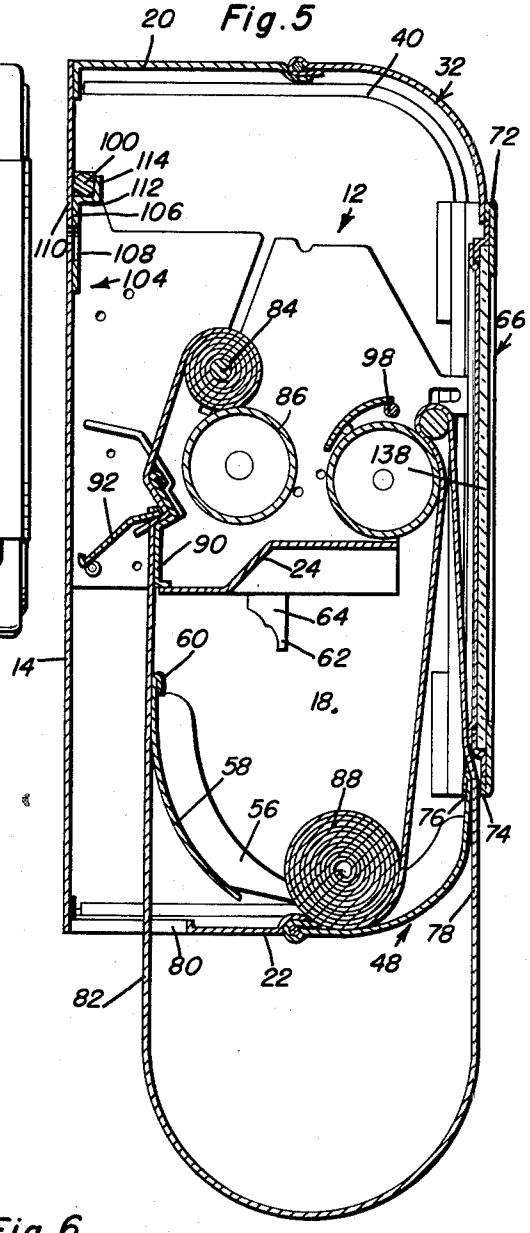


Fig. 5



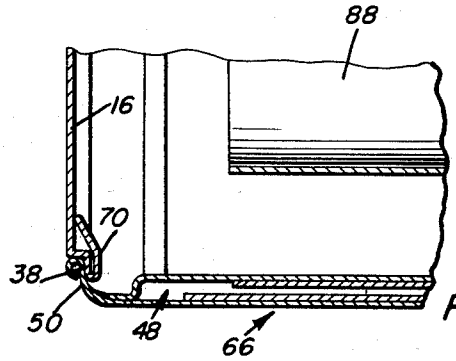


Fig. 6

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DISPENSING CABINET AND MOUNTING MEANS FOR TOWEL DISPENSER MECHANISMS

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9 Claims. (Cl. 312—38)

This invention relates generally to towel dispensing cabinets, and more particularly to those mechanisms of the type for dispensing a continuous loop of toweling.

A primary object of this invention is to provide improvements in the cabinet construction of towel dispensing mechanisms wherein a plurality of door members are provided, each cooperative with the others, to permit improvements in mounting means for a dispensing unit and for permitting a main door assembly to be incorporated in the cabinet construction such that a large and attractive mirror may be mounted on the main door.

Another object of this invention is to provide improvements in towel dispensing cabinet mechanisms wherein a neat and attractive dispensing cabinet is provided which at the same time is so constructed as to readily allow a dispensing unit to be mounted in or removed therefrom.

Still another object of this invention resides in the provision of improvements in towel dispensing cabinet constructions and in dispensing mechanisms mounted therein whereby the dispensing mechanism is securely held within the cabinet while at the same time is so mounted as to be readily removable therefrom for inspection, cleaning, replacement or the like.

A further object of this invention is to provide improvements in dispensing mechanisms, and more particularly, in the provision of a mounting bar member utilized in the construction of a dispensing mechanism which will serve the dual purpose of rigidly interconnecting certain of the parts forming the dispensing mechanism and will present improved means by which the dispensing mechanism is to be mounted within an associated cabinet.

Still another object of this invention resides in the provision of an improved dispensing assembly in conformity generally with the foregoing objects and wherein the cabinet construction incorporates certain structural elements therein which render the cabinet of economical and simple construction while at the same time permit the same to readily and effectively perform its function.

A still further object of this invention is to provide an improved towel cabinet construction in conformity with the foregoing objects wherein a horizontal shelf member disposed within the cabinet serves not only to provide means for mounting a dispensing mechanism within the cabinet, but also to subdivide and separate the interior of the compartment into a clean toweling chamber and a soiled toweling chamber, and wherein a bottom closure plate assembly is cooperable therewith to support a supply of clean toweling and to present a partition member preventing unauthorized tampering with the toweling supply.

Another object of this invention is to provide an improved towel cabinet construction which incorporates upper and lower closure panel members and an intermediate door assembly in which the door assembly, by overlapping free edge portions of the upper and lower closure panels, positively holds the closure panels in closed position as the door is manipulated into a locked position.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the improved towel cabinet construction and dispensing unit with the former in open position prior to the introduction of the latter;

Figure 2 is an enlarged perspective view showing a portion of the mounting and latching mechanism;

Figure 3 is an enlarged sectional view showing details of the mounting mechanism;

Figure 4 is a front elevational view of the dispensing mechanism;

Figure 5 is an enlarged vertical section taken substantially along the plane of section line 5—5 in Figure 4; and

Figure 6 is an enlarged horizontal section taken substantially along the plane of section line 6—6 in Figure 4.

Referring now more particularly to Figure 1, the dispensing cabinet assembly is indicated generally by the reference character **10**, whereas the dispensing unit is indicated generally by the reference character **12**. The dispensing cabinet will be seen to consist of a rear wall member **14** which has a pair of rigid side wall portions **16** and **18** projecting forwardly therefrom. Also projecting forwardly from the rear wall **14** are the top and bottom wall members **20** and **22**, respectively.

The top, bottom, rear and side walls of the cabinet are suitably rigidly interconnected to form a sturdy and durable assembly. For further rigidifying the assembly and for other purposes which will be presently apparent, a horizontal shelf member **24** is rigidly secured to the side walls **16** and **18**, and to this end, it will be noted that the opposite ends of the shelf are provided with upstanding flange portions **26** which are securely fastened to the inner surfaces of the side walls, such as by spot welding or the like.

As will be most readily apparent from Figures 1 and 5, the forward or free edge of the top wall **20** terminates some distance rearwardly of the forward edge of the side walls **16** and **18** and has connected thereto, as by the hinge members **28** and **30**, an upper closure panel assembly **32**. Since it is preferred that both the upper and lower corners of the side walls be formed of arcuate configuration so as to present a pleasing cabinet construction, the closure panel **32** is formed of arcuate configuration to closely overlie, when closed, the corresponding edge portions of the side walls. Opposite ends of the closure panel **32** may be provided with downturned flange portions **34** and **36** which are adapted to be disposed adjacent to and outwardly of the offset flanged edges **38** and **40** of the side walls **16** and **18**, respectively. This, of course presents an interlocking engagement between the closure panel and the side walls and also presents a neat and pleasing appearance for the cabinet construction. In this respect, it is to be noted that the offset flanges **38** and **40** may be formed throughout the extent of the top, bottom and forward edges of the side walls and that the top and bottom wall members **20** and **22** may be provided at opposite side edges with the flanged portions **42** and **44**, respectively, which embrace and may be rigidly secured to the side wall flanges **38** and **40**.

The bottom wall **22**, like the top wall **20**, has its forward edge terminating a substantial distance rearwardly of the forward edges of the side walls **16** and **18** and is provided therealong with hinge members **46** for pivotally mounting the lower closure panel assembly **48**. The bottom closure panel **48** is of arcuate configuration and is provided at its opposite side edges with the flanged por-

tions 50 and 52 cooperating with the side wall flanges 38 and 40 in the same manner as previously set forth in regard to the upper closure panel 32. Additionally, the closure panel 48 is provided with a pair of arcuate support bracket members 54 and 56 which have their forward ends rigidly secured to the inner surface of this closure panel and which have their opposite ends projecting rearwardly therefrom for rigidly carrying an arcuate partition plate 58 which serves, among other functions, to limit the downward swinging movement of the closure panel 48 as the same is disposed in open position, such as that shown in Figure 1, by virtue of the engagement of the upper or free beaded edge 60 of the partition plate against the rear surface of the lower extremity 62 of stop bracket members 64. The stop bracket members 64 are secured in depending relation to the undersurface of the shelf 24 and are disposed in slightly spaced relation to their corresponding side walls 16 and 18.

Hingedly secured to the forward edge of side wall 18 is a main door assembly 66 and the opposite side of this door carries a key controlled lock member 68 which includes a locking dog member (not shown) which is projectible into locked position behind the reinforcing means 70 formed on the forward edge of the side wall 16 and the extremity of its flange 38. When the door 66 is disposed in locked position, it is to be noted that it will maintain the upper and lower closure panels 32 and 48 in closed and locked positions by virtue of the fact that the upper and lower beaded edges 72 and 74 of the door 66 overlap the free edges of the closure panels and engage against at least portions thereof to maintain them in the closed position. Thus, locking of the main door member 66 effects simultaneously the locking of all the closure members.

A substantial portion 76 of the free edge of the lower closure panel member 48 is inwardly deformed such that it is spaced from the lower edge 74 of the door member 66 to permit the passage of toweling 78 therebetween as the same is dispensed or issued from the dispensing unit 12. The dispensing assembly is of the continuous loop type and the bottom wall 22 of the cabinet is provided with an enlarged opening 80 extending fully between the side walls 16 and 18 to permit passage of the soiled portion 82 of the toweling loop upwardly into the cabinet construction wherein it is rolled onto the take-up spindle member 84 by a conventional take-up roll member 86. The bottom closure plate 48 provides a support for the roll 88 of clean toweling, and the arcuate partition plate 58 cooperates therewith in maintaining the roll of clean toweling in proper position within the cabinet, particularly when the roll is of rather large dimensions, as when first inserted into the cabinet. Further, the partition plate 58 effectively prevents unauthorized persons from tampering with the clean towel supply, which would otherwise be possible were this member not present, inasmuch as the opening 80 must be of such dimensions as to permit passage of a person's hand and a portion of his forearm upwardly into the cabinet for threading the toweling between the fixed and movable smoothing plates 90 and 92, respectively, and onto the spindle 84 when the dispenser unit is being freshly loaded. The partition plate 58 also effectively prevents the fresh roll of toweling 88 from being dislodged from its normal position and interfering with the soiled toweling portion 82 within the cabinet.

As seen most clearly in Figures 1 and 5, the dispensing unit 12 consists essentially of a pair of spaced side wall members 94 and 96 which are rigidly interconnected at three spaced points thereon, namely, by the fixed smoothing plate 90, by a support bar member 98 extending between and rigidly secured to the side walls 94 and 96 and by a mounting bar member 100 extending between the upper rear corners of the side walls. The mounting bar 100 is provided at its opposite ends with reduced threaded end portions which project through the side walls and which receive nut members 102.

Attached to the inner surface of the rear wall 14 is the mounting bracket member 104 whose main body portion 106 is provided with a series of keyhole slots 108 whose smaller portions are adapted to register with openings 110 in the rear wall for the reception of fasteners therethrough, the fasteners, for the sake of clarity, being not shown. It is to be understood that this particular connection between the rear wall and the bracket 104 need not necessarily be used inasmuch as a rigid connection between the bracket and the rear wall will serve as effectively in producing the desired result. The upper edge of the bracket 104 is provided with a horizontally projecting portion 112 and with an offset vertical flange portion 114 which cooperate with the rear wall 14 to removably receive the mounting bar 100 of the dispensing assembly 12 previously mentioned. When the dispensing unit is properly mounted within the cabinet 10, the mounting bar 100 will be engaged with the bracket 104 and the lower edges of the side walls 94 and 96 of the dispensing unit will rest upon the upper surface of the horizontal shelf 24. To effectively latch the dispensing unit in proper position, the lower forward corner of the side walls 94 and 96 are provided with laterally projecting pin members 116 which are selectively engaged by the latching hook members 118 in the manner shown most clearly in Figure 2. The latching hooks are provided at their free ends with finger tab portions 120 and at their intermediate portions with arcuate hook formations 122 adapted to engage over the respective ends 116 and the lower ends of the latching hooks are provided with oppositely projecting ears 124 and 126 which are adapted to engage under the spring fingers 128 and 130 of the mounting tabs 132. The tabs 132 are rigidly mounted, as by fasteners 134 adjacent the forward edges of the portions of the shelf 24 between the previously mentioned flanges 26 and an upwardly deformed center portion 136 of the shelf, and in this respect, it is to be noted that the side walls 94 and 96 are adapted to just straddle the deformed portion 136 of the shelf to properly locate the dispensing unit 12 laterally within the cabinet and to properly position the pins 116 with respect to the latching hook members 118.

To effect complete removal of the dispensing unit from the cabinet assembly, it will be appreciated that the finger tab portions 120 of the latching hooks 118 may be grasped to move the hooks from the engaged position shown in Figure 2 to the disengaged position as illustrated in Figure 1, whereinafter the dispensing unit 12 may be grasped in a manner to swing it upwardly away from the shelf 24 about the mounting bar 100 whereafter a slight lifting movement of the entire unit will effect disengagement of the mounting bar from the bracket 104 so that the dispensing unit may be completely removed from the cabinet. During removal and installation of a dispensing unit within the cabinet, the benefit of the particular configuration of upper closure panel member 32 becomes readily apparent inasmuch as this closure panel may be swung completely back to overlie and rest upon the upper surface of the wall 20 to materially facilitate the removal or installation of the dispensing unit.

An additional and extremely useful result attained by the particular door and closure panel assembly shown and described resides in the large surface area afforded by the main door member 62 which will permit the installation therein of a mirror member 138 which, due to its extremely large surface area, will permit a user a full face view of himself.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equiva-

lents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. In a towel dispensing assembly, an enclosed cabinet including a rear wall and a horizontal shelf defining an upper and lower compartment therein, a mounting bracket secured to said rear wall above said shelf in said upper compartment, a dispensing unit removably engaged with said bracket and resting upon said shelf, said mounting bracket including a portion projecting horizontally from said rear wall and terminating in a vertical flange, said dispensing unit including a pair of spaced side walls, a mounting bar rigidly connecting the upper rearward corners of said side walls, said mounting bar being received between said vertical flange and the rear wall, said shelf having an upwardly deformed intermediate portion, said side wall resting upon said shelf and straddling said deformed portion whereby the dispensing unit is laterally positioned within said cabinet, said shelf including means for releasably latching said unit thereon, said means including spring urged latching hooks, said side walls having laterally projecting pins thereon engaged by said latching hooks.

2. In a towel dispensing assembly for removably securing the towel dispensing unit, a cabinet, said cabinet including a rear wall, a pair of spaced side walls having rear edges secured to said rear wall, top and bottom walls extending across the respective and lower edges of said rear and side walls, said top and bottom walls including a forward edge terminating short of the forward edges of said side walls, top and bottom closure panels hingedly secured to the forward edges of said top and bottom walls and including portions extending over the forward edges of said side walls, a door pivotally secured on the forward edge of one of said side walls and including portions extending over the forward edge of the opposite side wall and those portions of the closure panels extending over the forward edges of said side walls, a horizontal shelf extending between said side walls and defining upper and lower towel containing compartments for respectively containing dirty and clean portions of a towel roll in said cabinet, a mounting bracket secured on an inner surface of the rear wall of the cabinet between said top wall and horizontal shelf for removably receiving a portion of a towel dispensing unit, said horizontal shelf including means for removably retaining the towel dispensing unit thereon, said shelf including stop means extending downwardly into the lower compartment, an open slotted portion in said bottom wall for permitting the passage of the soiled portion of a continuous roll of toweling therethrough, and a partition element carried by the bottom closure panel and in engagement with said stop means for defining an enclosed space between the open slotted portion in the bottom wall and the door of said cabinet for containing a roll of clean toweling therein.

3. In a towel dispensing assembly, an enclosed cabinet including pivotal top and bottom closure panels secured in a closed position by overlying portions of a door pivotally secured on one edge of said cabinet, said cabinet including a rear wall, a horizontal shelf dividing said compartment into upper and lower compartments, means contained in said upper compartment removably securing a towel dispensing unit in said compartment, an open slotted portion in the bottom of said cabinet permitting the movement of towelling therethrough, and a partition member secured on an inner surface of the bottom closure member, said partition member extending upwardly between said open slotted portion and the cabinet door when the door is closed for positioning a clean roll of towelling between said partition member and said door.

4. In a towel dispensing assembly as set forth in claim 3 wherein said horizontal shelf includes a downwardly extending stop portion for engagement with said partition member when the bottom closure panel is open.

5. In a towel dispensing assembly as set forth in claim 4 wherein said partition member comprises an arcuate element extending substantially the length of said bottom closure member, said arcuate panel including upwardly extending arcuate flanges for retaining a roll of towelling therebetween.

6. In a towel dispensing assembly, a cabinet including a rear wall and a horizontal shelf, a mounting bracket secured to said rear wall above said shelf, and a dispensing unit removably engaged with said bracket and resting upon said shelf, said mounting bracket including a portion projecting horizontally and forwardly from said rear wall and terminating in a vertical flange spaced forwardly of said rear wall, said dispensing unit including a horizontal mounting bar, said mounting bar being disposed along the upper rear part of said dispensing unit and being received by said bracket between said rear wall and said vertical flange.

7. In a towel dispensing assembly, a cabinet including a rear wall and a horizontal shelf, a mounting bracket secured to said rear wall above said shelf, and a dispensing unit removably engaged with said bracket and resting upon said shelf, said mounting bracket including a portion projecting horizontally and forwardly from said rear wall and terminating in a vertical flange spaced forwardly of said rear wall, said dispensing unit including a horizontal mounting bar, said mounting bar being disposed along the upper rear part of said dispensing unit and being received by said bracket between said rear wall and said vertical flange, said shelf including means releasably latching said unit thereon.

8. In a towel dispensing assembly, a cabinet including a rear wall and a horizontal shelf, a mounting bracket secured to said rear wall above said shelf, and a dispensing unit removably engaged with said bracket and resting upon said shelf, said rear wall and said mounting bracket defining aligned fastener receiving openings whereby said rear wall and said mounting bracket are directly conected to a supporting surface.

9. In a towel dispensing assembly, a cabinet including a rear wall and a horizontal shelf, a mounting bracket secured to said rear wall above said shelf, said mounting bracket including a first vertical flange disposed in face to face engagement with said rear wall, a horizontal intermediate flange, and a second vertical flange disposed in spaced relation relative to said rear wall, and a dispensing unit, said dispensing unit including a horizontal moutning bar resting upon said horizontal flange between said second vertical flange and said rear wall, said dispensing unit resting upon said shelf, said rear wall and said first vertical flange defining fastener receiving openings for securing said rear wall and said mounting bracket on a supporting surface.

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