United States Patent [19]

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[11] **3,756,652**

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[54] **TISSUE DISPENSER FOR AN AUTOMOBILE SEAT ASSEMBLY**

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[21] Appl. No.: **196,638**

[52] **U.S. Cl.** **297/192**, 5/317, 248/DIG. 5, 312/330

[51] **Int. Cl.** **A47c 7/62**

[58] **Field of Search** ..... 297/192, 188; 312/330, 332; 248/226 R, 226 A, 305, 306, DIG. 5, 311, 316 A, 228; 206/19.5, 19.5 B, 19.5 R; 5/324, 317, 58

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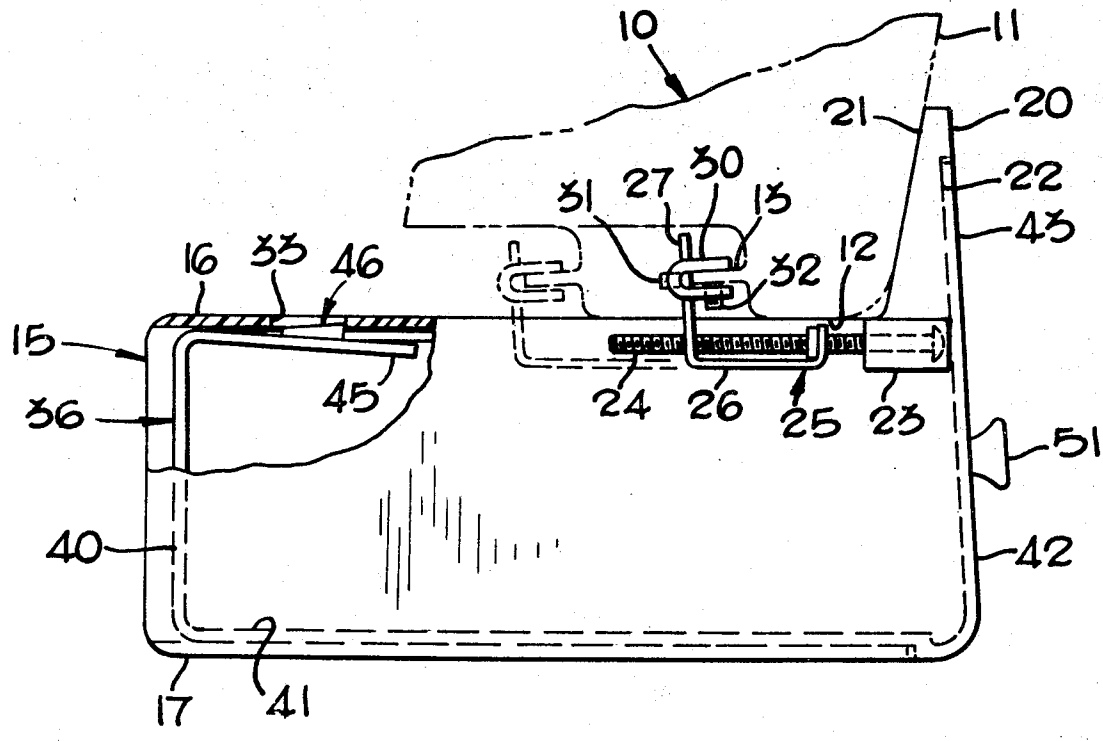
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[57] **ABSTRACT**

A container such as a tissue dispenser in an automobile seat assembly having a case provided with a front opening and with a flange extending upwardly from its top wall, and a drawer slidably received in the case, the drawer being adapted to hold a supply of tissues. A connector arm is adjustably mounted on an elongate member carried by the case and extending under the bottom seat side and rearwardly from the front seat side of an automobile seat. A C-shaped clamp on the connector arm selectively receives a rearardly facing seat shoulder on the bottom seat side. Selective positioning of the connector arm on the elongate member fixes the case to the seat and clamps the case flange against the front seat side. The connector arm is resiliently flexible to force the top wall of the case against the bottom seat side. The C-shaped clamp is adjustably mounted on a first arm portion of the connector arm extending upwardly from the elongate member to accommodate the height of the seat shoulder so that the seat shoulder is received in the clamp while the top wall of the case is urged against the bottom seat side. A lock means carried by the clamp fixes the clamp in the adjusted height position both to the first arm portion of the connector arm and to the seat shoulder. The drawer includes a flange extending upwardly from the drawer top wall which is movable against the case flange when the drawer is in its closed position. A tissue partially pulled through the drawer top wall opening is sandwiched between the case flange and drawer flange to preclude exposure.

7 Claims, 12 Drawing Figures



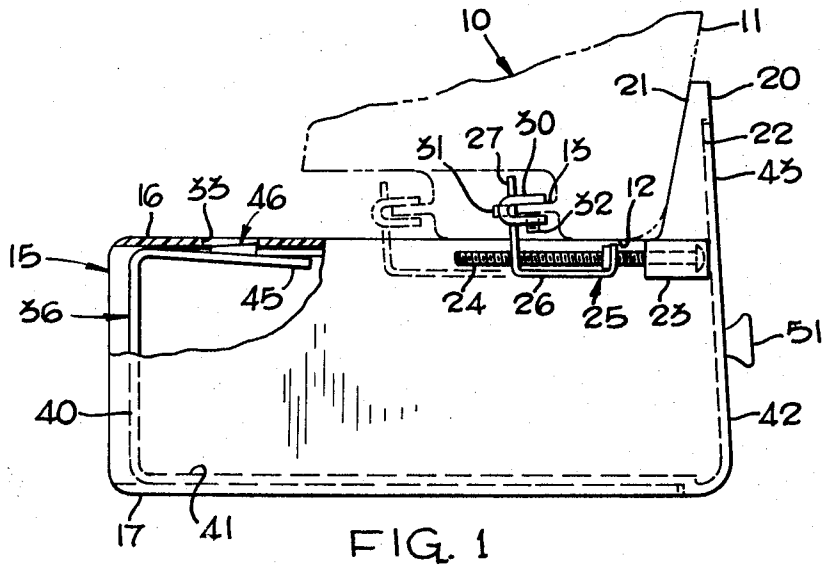


FIG. 1

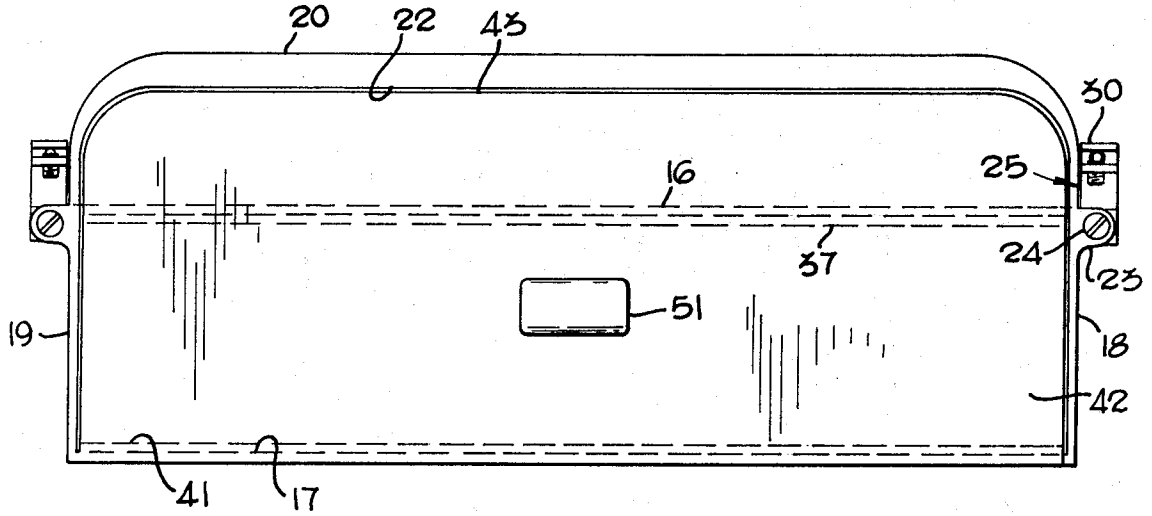


FIG. 2

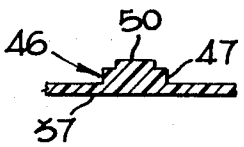


FIG. 5

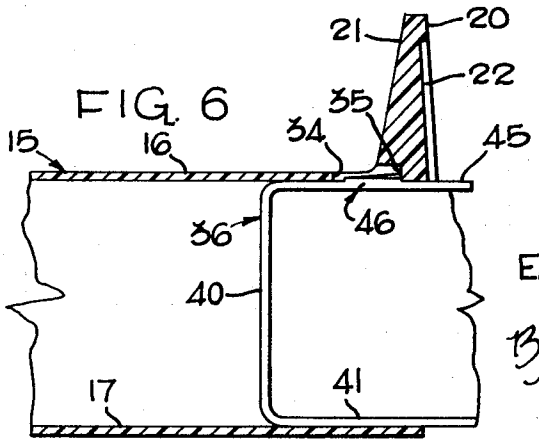


FIG. 6

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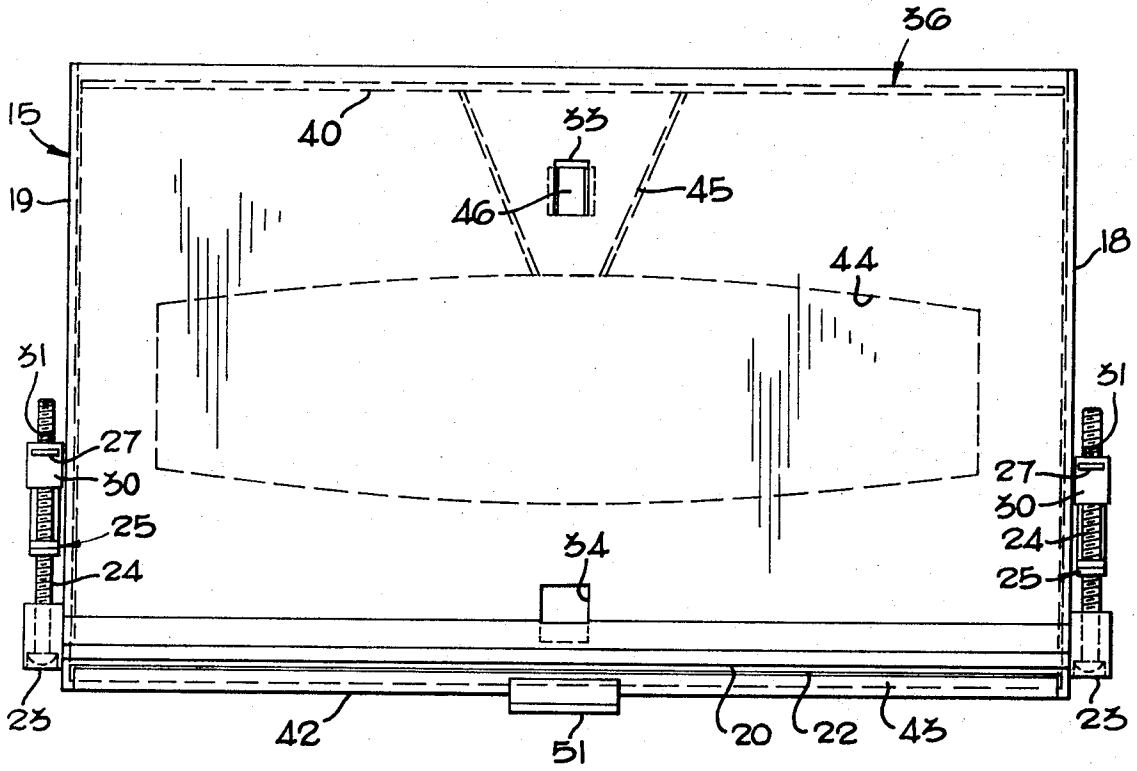


FIG. 3

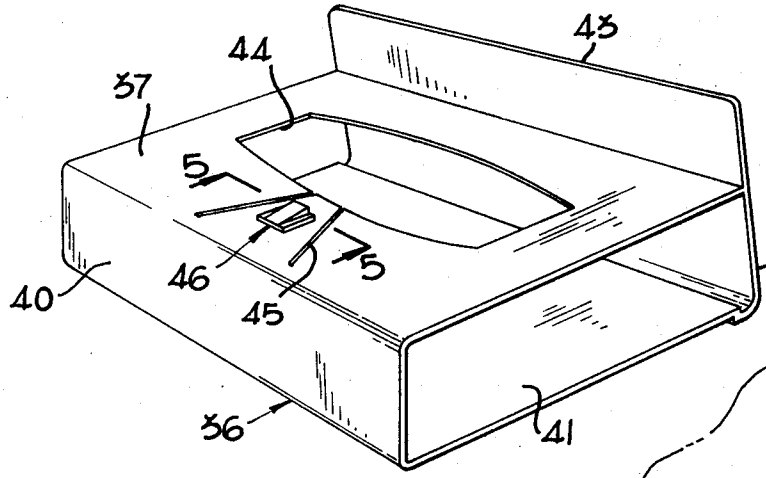


FIG. 4

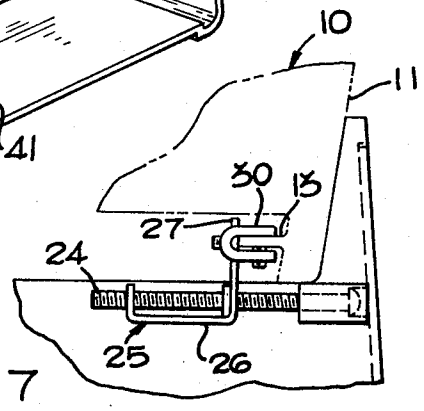


FIG. 7

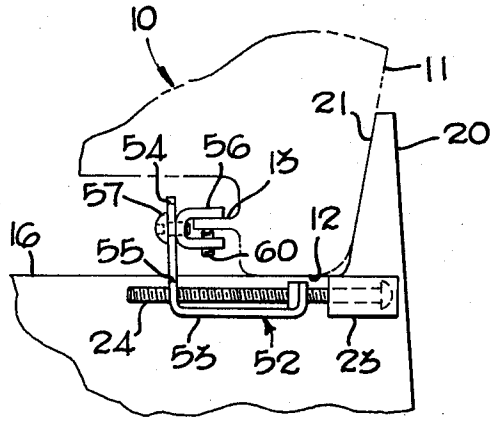


FIG. 8

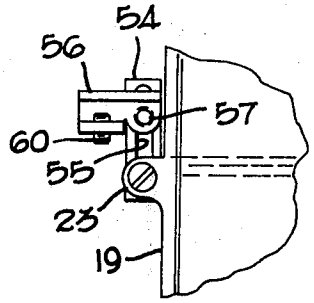


FIG. 9

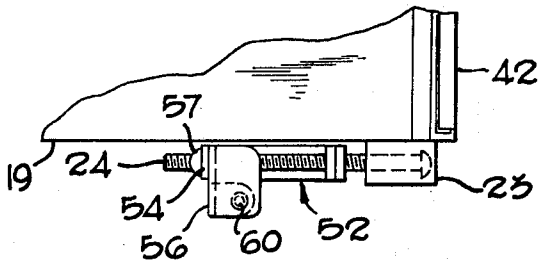


FIG. 10

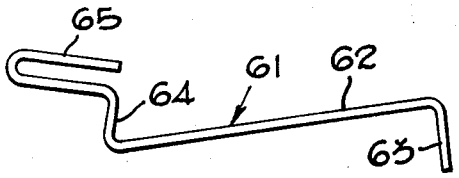


FIG. 11

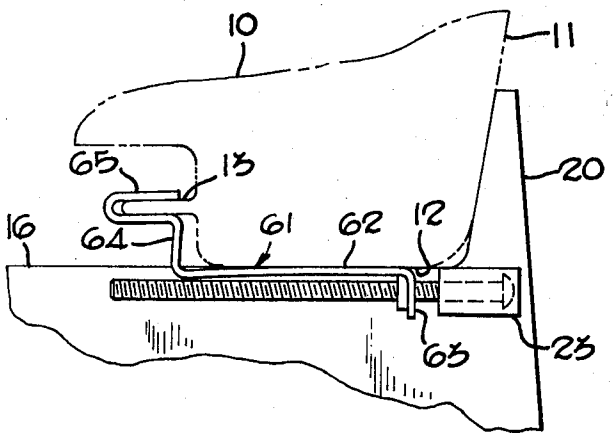


FIG. 12

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TISSUE DISPENSER FOR AN AUTOMOBILE SEAT ASSEMBLY

BACKGROUND OF THE INVENTION

This invention relates generally to improvements in a container in an automobile seat assembly, and more particularly to an improved tissue dispenser construction and to improved means for mounting a container to an adjustable front seat.

In the conventional tissue dispensers, the tissues are packaged in a cardboard box having a top opening through which the tissues can be pulled. In the well known Kleenex dispenser, the tissues are packaged so that as one tissue is removed, the next subjacent tissue is simultaneously, partially pulled through the dispenser opening for easy access.

Up until the present time there has been no convenient place for holding and mounting these conventional tissue dispensers for use in an automobile. Such tissue dispensers were merely seated on top of the dash board, on the front seat next to the driver, on the transmission hump or placed in the glove compartment. Placement of the tissue dispensers in any one of these usual locations either is not convenient because they are not immediately within easy reach of the seat occupant or they interfered with the occupant's actions or they occupied usable seating room or diminished the occupant's comfort. Dispensers have been mounted under the dash, however current dash design and safety restrictions practically preclude utilizing this location.

SUMMARY OF THE INVENTION

The present container is attached to an automobile seat by special mounting means. The container is located under the front seat and is located under occupant's legs near the floor so that the container does not hamper the movements of the occupant. The container is in a relatively concealed position, but is readily available for usage. The container does not occupy important and otherwise usable seat or floor space.

The invention positions the container in this convenient position by new attachment means which permits practical and easy installation on a front seat structure of any automobile including those with power seats. It provides a pressure fit against the front seat regardless of the structure variance that exists from one make of automobile to another.

The container, including the unique mounting means, is simple and durable in construction and inexpensive to manufacture and assemble. It can be quickly and easily installed in any automobile by anyone without the need for any complicated instructions or special tools. Accordingly, the container is one that can be sold as an accessory and can be readily installed by the average automobile owner or user.

Because the container is retained to the seat side by the mounting means, the dispenser will be carried by the seat during selective adjustment of the seat position, and will therefore be maintained in the appropriate position at all times.

The container includes a case in which a drawer is slidably received, the drawer being adapted to hold tissues, stereo tapes, first aid kit, tools and the like. The latch means, securing the case to the automobile seat, includes an elongate member carried by the case and extending under the bottom seat side and rearwardly from the front seat side, a connector arm adjustably mounted on the elongate member, and a substantially C-shaped clamp on the connector arm selectively receiving a seat shoulder on the bottom seat side adjacent to the lower edge of the front seat side. Adjustment of the connector arm on the elongate member fixes the case to the seat and clamps an upwardly extending case flange against the front seat side.

The connector arm is resiliently flexible to an extent that when the front seat side is clamped between the case flange and the substantially C-shaped clamp of the latch means, the connector arm holds the top wall of the case against the bottom seat side.

The substantially C-shaped clamp is adjustably mounted on an upwardly extending first arm portion of the connector arm to accommodate the height of the seat shoulder so that the seat shoulder is received in the clamp while the top wall of the case is against the bottom seat side. Lock means carried by the clamp fixes the clamp in adjusted height position to both the first arm portion and the seat shoulder.

More specifically, the connector arm includes a first arm portion extending upwardly from the elongate member and a second arm portion extending along and mounted to the elongate member in axially adjusted position in axially spaced relation to the connection of the clamp with the seat shoulder. The first and second arm portions are resiliently flexed when clamped to hold the top wall of the case against the bottom seat side.

The connector arm is constructed so that it is selectively reversible on the elongate member and the substantially C-shaped clamp is selectively reversible on the first arm portion of such connector arm to accommodate the position of the seat shoulder from the front seat side.

In the present embodiment, the container is a tissue dispenser. The drawer includes a front wall, a bottom wall, a rear wall and a top wall, and is open laterally between such walls for the insertion of a supply of tissues. The top wall of the drawer is provided with an opening through which the tissues can be pulled when the drawer is located in its open position.

A flange, extending upwardly from the drawer top wall in front of the drawer top wall opening, engages the case flange to keep a tissue partially pulled through the wall opening, from being urged outwardly for exposure when the drawer is moved to its closed position. The case flange is provided with a recess in its front face that receives the drawer flange when the drawer is located in its closed position, the recess being adapted to receive and sandwich the partially pulled tissue between the case flange and the drawer flange.

The drawer top wall includes a resilient, flexible tab formed integrally with the wall and extending to and partially defining the top wall opening, the tab having a stop member movable into a hole located rearwardly of the top wall opening when the drawer is in its closed position, whereby to selectively retain the drawer in such position. A second hole is formed in the case top wall which is adapted to receive the stop member when the drawer is moved to its open position in which the tissues are accessible through the drawer top wall opening, whereby to retain the drawer in the open position and maintain assembly of the drawer with the case.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of a tissue dispenser

located under and attached to an automobile seat assembly;

FIG. 2 is a front elevational view of a tissue dispenser;

FIG. 3 is a top plan view of the dispenser;

FIG. 4 is a perspective view of the dispenser drawer;

FIG. 5 is a fragmentary, enlarged cross-sectional view taken on line 5—5 of FIG. 4;

FIG. 6 is a fragmentary, cross-sectional view of the front end of the case and the rear end of the drawer showing the connection therebetween when the drawer is located in its open position;

FIG. 7 is a fragmentary, enlarged view showing the latch means attached to the seat when the seat shoulder is located closer to the bottom edge of the front seat side than is shown in FIG. 1;

FIG. 8 is a fragmentary, side elevational view showing a modified latch means construction;

FIG. 9 is a fragmentary, front elevational view of the latch means shown in FIG. 8;

FIG. 10 is a fragmentary, top plan view of the latch means shown in FIG. 8;

FIG. 11 is a side elevational view of a modified construction of the connector arm of the latch means, and

FIG. 12 is a fragmentary, side elevational view showing the connector arm of FIG. 11 utilized to attach the dispenser case to the automobile seat.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now by characters of reference to the drawings, and first to FIG. 1, it will be understood that the seat assembly includes an automobile front seat 10 having a front side 11, a bottom side 12 adjacent to the front side 11, and a seat shoulder 13. Although not shown, it will be readily understood that the automobile front seat 10 can be selectively adjusted forwardly, rearwardly, upwardly or downwardly by suitable conventional mechanism.

The container, which is a tissue dispenser in the present embodiment, includes a case generally referred to by 15 adapted to fit under the seat 10 between the bottom seat side 12 and the floor. The case has a top wall 16, a bottom wall 17 and spaced side walls 18 and 19. The front and the rear of the case 15 is open as is clearly shown in FIGS. 1 and 6. The case includes an integral, upwardly extending flange 20 on the front edge of the top wall 16. This case flange 20 is provided with an inclined rear face adapted to conform to and be pressed against the inclined front seat side 11. For reasons which will later appear, the front face of the case flange 20 is provided with a recess 22.

Formed integrally with and extending outwardly from each side of the case 15 is a side boss 23. These bosses 23 serve to hold the latch means utilized to fix the case 15 to the automobile seat 10.

The latch means on each side of the case 15 includes an elongate screw 24, constituting an elongate member, journaled for rotation in and carried by the boss 23. A connector arm 25 is adjustably mounted on the screw 24. The connector arm 25 includes a first portion 27 extending upwardly from the screw 24 and behind the seat shoulder 13, and a second portion 26 extending axially along the screw 24. The end of the second arm portion 26 is secured in an adjusted position on the screw 24 by a nut threadedly received on the screw 24. Adjustably mounted on the first arm portion 27, is a substantially C-shaped clamp 30, the clamp 30 receiving and holding the seat shoulder 13. When the clamp 30 is slidably adjusted on the first arm portion 27 to accommodate the particular height of the seat shoulder 30 while the top wall 16 of the case 15 is against the bottom seat side 12, a set screw 31 constituting a threaded element, carried by the clamp 30 is tightened to fix the clamp 30 to the first arm portion 27 and another set screw 32, constituting a threaded element, carried by the clamp 30 is tightened to fix the clamp to the seat shoulder 13.

It will be understood that the connector arm 25 is constructed of a material so that there is a certain amount of resilient flexibility between the angularly related first and second arm portions 27 and 26 respectively. As the screw 24 is turned in its journaling boss 23, the connector arm 25 is moved forwardly and axially along the screw 24 to clamp the lower front portion of the seat between the case flange 20 and the clamp 30. The rear face 21 of the case flange 20 is urged against the front seat side 11. At the same time, the resilient action of the connector arm 25 tends to urge the top case wall 16 against the bottom seat side 12.

Formed in the top case wall 16 is a hold 33. A similar, yet larger hole 34 is formed in the case top wall 16 adjacent to the case flange 20 and forwardly of the other hole 33. For reasons which will later appear, the front hole 34 is slightly larger than the rear hole 33, and the front hole 34 is provided with a rearwardly facing, stop surface 35.

The container includes a drawer indicated by 36, which may be of conventional structure to hold a variety of items, but when the container is especially used as a tissue dispenser, the drawer 36 has a top wall 37, a rear wall 40, a bottom wall 41 spaced from the top wall 37, and a front wall 42 spaced from the rear wall 40. The sides of the drawer 36 are open between the walls 37, 40, 41 and 42 to receive a conventional box containing a supply of tissues. A flange 43 formed integrally with the drawer 36 extends upwardly as a continuation of front wall 42 and above the top wall 37, the flange 43 extending substantially the width of the drawer and adapted to be received in the compatible recess 22 of the case flange 20 when the drawer is located in its fully closed position in the case 15.

The top wall 37 of the drawer 36 is provided with an access opening 44 through which the tissues are pulled from the supply of tissues located by and retained in the drawer compartment between the walls 37–42. The access opening 44 is located outwardly of the case 15 when the drawer is positioned in its fully open position.

The top wall 37 of the drawer is provided with a pair of laterally spaced, rearwardly divergent cuts from the top wall opening 44, to provide a resilient tab 45. The rear portion of the tab 45 is integral with the top wall 37 while the front portion partially defines the top wall opening 44. Carried on and formed integrally with the tab 45 are a pair of stop members 47 and 50. The stop member 47 is adapted to interfit the hole 34 under the resilient action of tab 45 when the drawer 36 is pulled out to its open position, the stop member 47 engaging the stop surface 35 to selectively retain the drawer 36 and case 15 in assembly. If it is desired to remove the drawer to insert a new supply of tissues, the tab 45 is simply depressed digitally to disengage the stop member 47 from the stop surface 35 and the drawer 36 is withdrawn. Because the tab 45 extends outwardly from

the open front end of the case and outwardly in front of the flange **20**, the tab **45** is digitally accessible.

The stop member **50** is smaller than the stop member **47**, and is adapted to interfit, under the resilient action of tab **45**, its compatible hole **33** when the drawer **36** is pushed to its fully closed position. The engagement of the stop member **50** with the margin defining the hole **33** is such that it tends to hold the drawer in the closed position but is overcome upon exerting a definite pull to the drawer incident to opening the drawer. The purpose of the stop member **50** is to prevent unintentional opening of the drawer such as might occur by vibration or by sudden braking of an automobile when the dispenser is installed under an automobile seat.

The drawer **36** is provided with a pull knob **51** attached to the front wall **42**.

It is thought that the functional advantages of the tissue dispenser have become fully apparent from the foregoing detailed description of parts, but for completeness of disclosure the assembly and usage of the dispenser will be briefly described. It will be assumed that the screws **24** are located in the side bosses **23**, that the connector arms **25** are located over and on the screws **24**, and that the substantially C-shaped clamps **30** are mounted on the upstanding, first arm portions **27**.

The case **15** is inserted under the seat with the top wall **16** against the bottom seat side and the flange **20** against the front seat side **11**. Then the clamps **30** are adjusted on the first arm portions **27** to align the clamps **30** with the seat shoulder **13**, and the connector arms **26** are moved axially on the associated screws **24** so as to move the seat shoulder **13** into the clamps **30**. The set screws **31** and **32** are tightened to fix the clamps **30** securely to both the first arm portions **27** and the seat shoulder **13**. The screws **24** are then turned to clamp the rear flange face **21** of the case flange **20** tightly against the front seat side **11** and to clamp the case top wall **16** against the bottom seat side **12**. The case **15** is now secured in place under the seat **19** and will move with the seat upon adjustment of the seat position.

A box of tissues are inserted into the drawer **36** through either one of the open sides, with the supply of tissues aligned with the top access opening **44**. Then the drawer **36** is simply inserted into the case **15**. When a tissue is desired, the drawer **36** is pulled open and a tissue is pulled from the supply of tissues through the access opening **44**. Then, the drawer **36** is closed by pushing the drawer inwardly until the drawer flange **33** engages the case flange **20**. If there is a tissue partially pulled out through the top opening **44**, such tissue will be urged into the flange recess **22** and sandwiched the drawer flange **43** and the case flange **20** to preclude exposure of such tissue.

To remove the drawer **36** for replenishing the tissue supply, the drawer is moved to its open position and the tab **45** is depressed to clear the stop member **47** from the stop surface **35**, and the drawer can be completely withdrawn. The depleted box of tissues can be removed and a new box inserted.

If the seat shoulder **13** is located sufficiently close to the front seat side **11**, the connector arms **25** should be reversed on their associated screws **24**, as disclosed in FIG. **7**. In addition, the substantially C-shaped clamps **30** are reversed on the upstanding first arm portions **27**. This arrangement will permit sufficient movement and adjustment of the connector arms **23** on the screws **24** to clamp the lower front seat portion between the connector arms **25** and the case flange **20** without obstruction of the connector arms **25** with the bosses **23**.

FIGS. **8–10** show a modified construction of the latch means, although the purpose and basic function remains the same. In this embodiment, each connector arm **52** is mounted on the associated screw **24** in the same manner, the connector arm **52** including a first arm portion **54** extending upwardly from the screw **24** and a second arm portion **53** extending forwardly along and axially of the screw **24**. A vertical slot **55** is formed in the first arm portion **54**. A substantially C-shaped clamp **56** has a threaded hole formed in its bight. The clamp **56** is adjusted vertically to the selected height, and an associated screw **57**, constituting a threaded element, is inserted through the slot **55** and is attached to the clamp bight. This structure differs from those described previously in FIGS. **1** and **7** in that the first arm portion **54** does not extend through and in the opening provided by the clamp **56**, and therefore, seat shoulder **13** can be inserted to a greater depth in such clamp **56**.

In addition, the clamp **56** includes a portion that extends laterally outward beyond the connector arm **52** and the screw **24**. A set screw **60**, constituting a threaded element, is carried by this lateral clamp portion and is tightened to secure the clamp **56** to the seat shoulder **13**. Because of this lateral extension of the clamp and the set screw **60**, the connector arm **52** and the screw **24** do not provide any obstruction to access to the set screw **60**.

Another embodiment of the latch means is disclosed in FIGS. **11–12**. When application of the container is limited to one particular make of automobile, this one-piece connector arm **61** permits a simplified structure and faster installation. In this embodiment, each connector arm **61** includes a second arm portion **62** that is adapted to extend axially along the screw **24**, an end portion **63** adapted to receive the screw **24** and against which the retaining nut bears, an upstanding first arm portion **64** and a substantially C-shaped clamp **65** formed integrally with the first arm portion **64**. In its initial, unstressed condition, the connector arm **61** assumes the shape illustrated in FIG. **11**, it being understood that the clamp **65** and the first arm portion **64** have a definite angular relationship to the position of the second arm portion **62**. When the connector arm **61** is mounted on the screw **24** as shown in FIG. **12**, the connector arm **61** is moved axially along the screw **24** until the seat shoulder **13** is fully inserted into the clamp **65**. As the seat shoulder **13** moves into the clamp **65** and the lower front seat portion is clamped between the case flange **20** and the clamp **65**, the connector arm **61**, including the second arm portion **62**, first arm portion **64** and clamp **65**, will resiliently flex to the stressed condition illustrated in FIG. **12**. The resilient loading of the connector arm **61** will hold the case flange **20** against the front seat side **11** and hold the case top wall **16** against the bottom seat side **12**. Moreover, this stressed condition of the connector arm **61** will hold the seat shoulder **13** securely within the clamp **65**.

I claim as my invention:

1. An automobile seat assembly, comprising:

a. An automobile seat having a front side and a bottom side, the bottom side being provided with a shoulder adjacent to the lower edge of the front side,

b. a container fitting partially under the seat, the container including:

1. a case having a top, bottom and opposed side walls, the case being provided with a front opening,

2. a flange on and extending upwardly from the top wall of the case, and

3. a drawer slidably received in the case, and

c. a latch means securing the case to the seat, the latch means including:

1. an elongate member carreid by the case and extending under the bottom seat side and rearwardly from the front seat side,

2. a connector arm adjustably mounted on the elongate member, and

3. means on the connector arm selectively engages the seat shoulder, the selective adjustment of the connector arm on the elongate member fixing the case to the seat and clamping the case flange against the front seat side.

2. An automobile seat assembly as defined in claim **1,** in which:

d. the container is a tissue dispenser, the drawer includes a top wall adapted to overlie a supply of tissues, the top wall of the drawer being provided with an opening through which the tissues can be pulled when the drawer is located in its open position,

e. the drawer includes a flange extending upwardly of the drawer top wall in front of the top wall opening, the drawer flange overlapping and engaging the front face of the case flange to keep a tissue partially pulled through the wall opening from being urged outwardly for exposure when the drawer is moved to its closed position, such tissue being sandwiched between the drawer flange and case flange.

3. An automobile seat assembly as defined in claim **2,** in which:

f. the case flange is provided with a recess in its front face receiving the drawer flange when the drawer is located in its closed position, the recess being adapted to receive both the said partially pulled tissue and the drawer flange as said tissue is sandwiched between the case flange and drawer flange.

4. An automobile seat assembly as defined in claim **1,** in which:

d. the drawer includes a top wall provided with an opening through which access can be had,

e. the case top wall is provided with a hole partially defined by a rearwardly facing abutment located rearwardly of the opening in the drawer top wall when the drawer is in its closed position, and

f. the drawer top wall includes a resiliently flexible tab formed integrally with the said wall and extending to and partially defining the drawer top wall opening, the tab having a stop member movable in the hole and engageable with the said abutment to retain the drawer in its closed position.

5. An automobile seat assembly as defined in claim **4,** in which:

g. the case top wall is provided with a second rearwardly facing abutment engageable with the stop member when the drawer is moved to its open position in which the drawer top wall opening is located out of the case, whereby to retain the drawer in the open position.

6. An automobile seat assembly as defined in claim **2,** in which:

f. the drawer also includes a front wall, a bottom wall, and a rear wall, the drawer being opened laterally between said walls for the insertion of the supply of tissues.

7. An automobile seat assembly as defined in claim **1,** in which:

d. the drawer includes a top wall provided with an opening through which access can be had,

e. the case top wall is provided with a rearwardly facing abutment located rearwardly of the opening in the drawer top wall when the drawer is in its open position,

f. the drawer top wall includes a resiliently flexible tab formed integrally with the said wall and extending to and partially defining the drawer top wall opening, the tab having a stop member engageable with the said abutment when the drawer is moved into its open position whereby to retain the drawer in the open position, and

g. the resiliently flexible tab being accessible when the drawer is in the open position and selectively depressible to disengage the stop member from said abutment whereby to permit removal of the drawer from the case.

* * * * *