March 4, 1941. L. W. SHIELDS 2,233,559

DISPLAY CABINET

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Fig. 1.

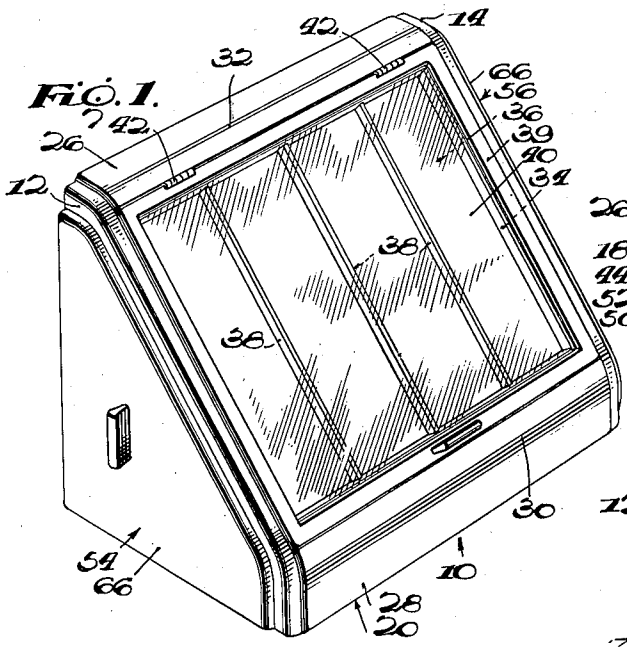


Fig. 3.

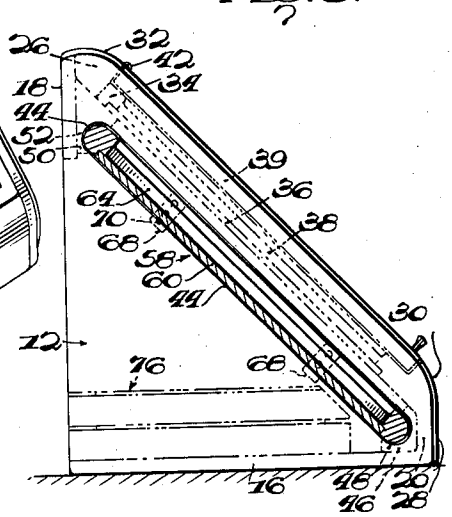
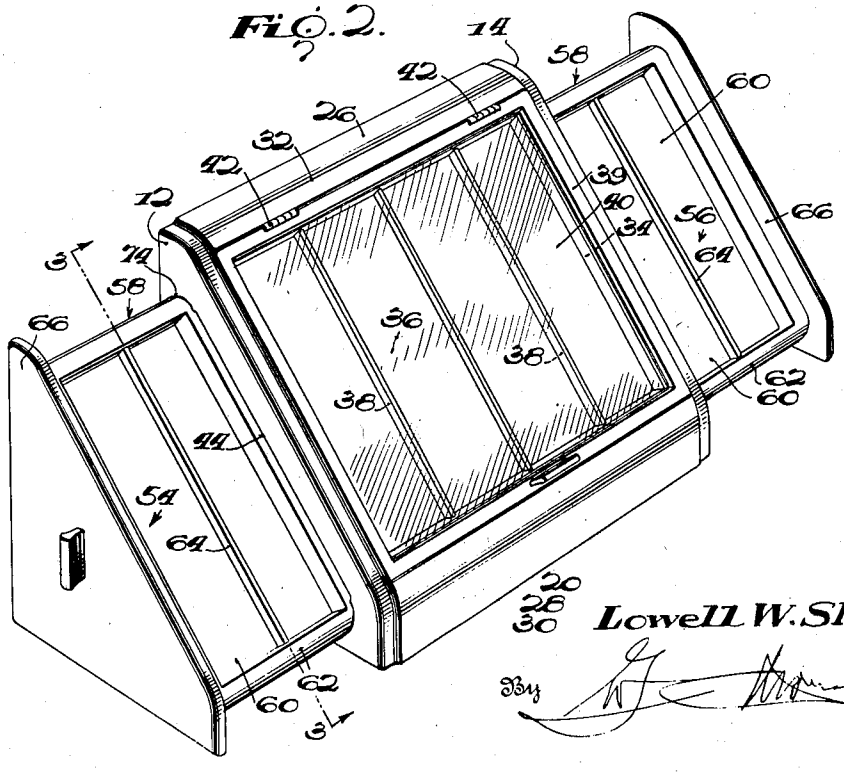


Fig. 2.



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Fig. 4.

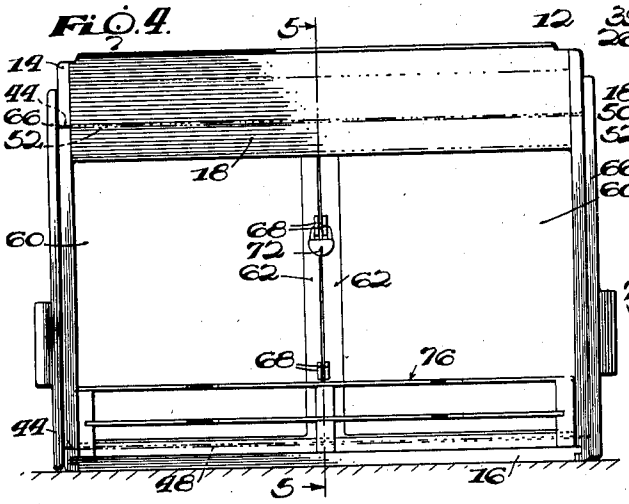


Fig. 5.

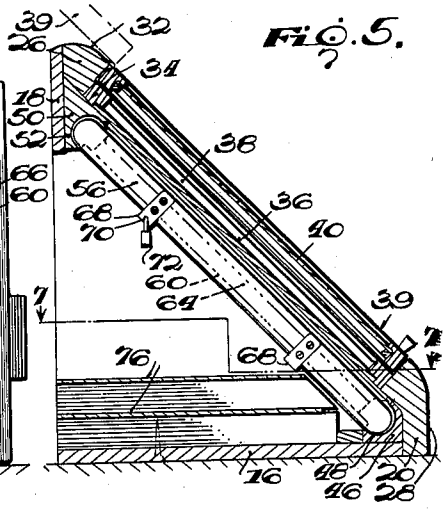


Fig. 6.

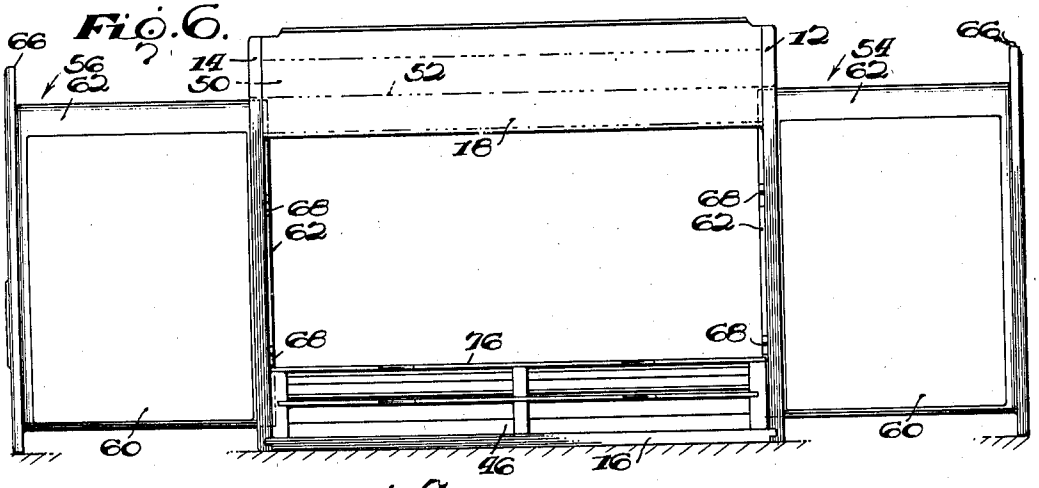


Fig. 7.

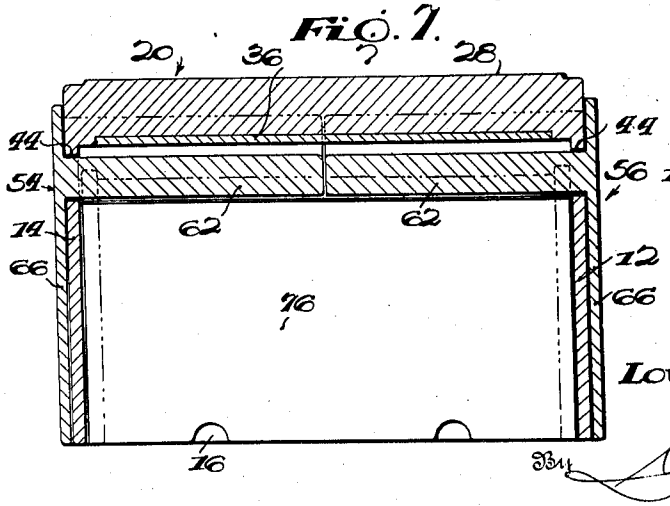
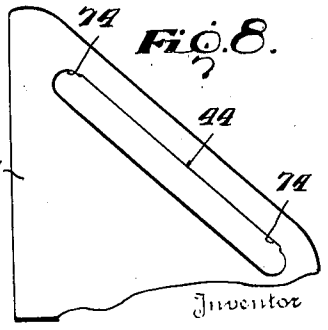


Fig. 8.



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2,233,559

UNITED STATES PATENT OFFICE

2,233,559

DISPLAY CABINET

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Application February 5, 1940, Serial No. 317,401

3 Claims. (Cl. 312—122)

The improved display cabinet comprising the present invention is primarily adapted for use in displaying articles of jewelry, as for example metal initials or character bearing elements, chain devices for personal wear, belt buckles, and a great variety of similar articles. The cabinet however is capable of other uses and the same may, with or without modification, be employed for displaying articles other than jewelry if desired.

It is an object of the present invention to provide a display cabinet of the character set forth above having a central display portion or casing and a pair of movable and extensible display portions or sections which are telescopically received within the central portion or casing and which will occupy and be securely held in their respective positions therein when the cabinet is telescoped for transportation or shipment purposes, or when it is desired to conceal the articles of jewelry which at other times are displayed by these latter extensible sections.

It is another object of the invention to provide such a cabinet in which the movable display sections may be extended from the central portion or casing, and which, when the sections are so extended, will provide in conjunction with the central portion a substantially continuous display of the jewelry or other articles of personal wear mounted in the cabinet.

Another object of the invention is to provide a cabinet of this character in which the movable side sections of the cabinet telescope into the central display portion or casing thereof through the side walls of the latter in such a manner that when partially extended, or even fully extended, they are incapable of becoming misaligned with the central portion of the cabinet or with each other.

A still further object of the invention is to provide a display cabinet having a central portion or casing and a pair of aligned extensible side sections which telescope into and out of the central casing through the side walls thereof and which are provided with outer end panels that fit closely against the side walls of the central casing when the sections are retracted and conceal the openings in which the sections are slidable, while at the same time merging into the contour of the side walls and enhancing the appearance of the telescoped or collapsed cabinet as a whole.

Yet another object of the invention is to provide such a telescopic cabinet with central and side portions as set forth above in which the inner ends of the side portions come into abutting relationship when the latter portions are telescopically received within the central portion in such a manner as to limit the inward movement of the sections and prevent the end panels from exerting an undue pressure upon the side walls of the central portion, thus protecting the side walls from becoming defaced.

Another object of the invention is to provide a display cabinet of this character in which the inner ends of the extensible display sections are provided with means thereon for preventing accidental removal of the sections completely from the cabinet construction, while at the same time permitting such removal if removal thereof is specifically desired, said latter means additionally constituting a locking means whereby the extensible sections may be locked together in their retracted telescoped positions.

Still another object of the invention is to provide a display cabinet construction possessing in general the features outlined above and additionally having a concealed storage space within the central portion or casing which, although it is substantially coextensive with the entire length, width, and height of the cabinet, in no ways interferes with the telescopic features of the cabinet construction.

Another object of the invention is to provide a display cabinet having a display compartment provided with a hinged door or window having a frangible glass panel therein through which the articles of jewelry being displayed are visible, the window being so hinged and positioned that it tends normally by gravity to assume a closed position, together with means whereby air entrapped in the compartment as the window in swinging approaches its closed position will escape from the compartment slowly and prevent forcible contact of the window with the jamb of the compartment, thus preventing fracture of the glass panel.

The provision of a cabinet construction possessing telescopic features yet which is comprised of a minimum number of moving parts and which therefore is unlikely to get out of order; one which is rugged and durable; and one which is well adapted to perform the services required of it, are further desirable features that have been borne in mind in the production and development of the present invention.

Other objects and advantages of the invention, not at this time enumerated, will become apparent as the following description ensues.

In the accompanying two sheets of drawings:

Figure 1 is a perspective view of an assembled telescopic display cabinet manufactured in accordance with the principles of the present invention, and showing the same in its telescoped or collapsed position.

Figure 2 is a perspective view, similar to Figure 1, showing the cabinet in its extended position.

Figure 3 is a sectional view taken substantially along the plane indicated by the line 3—3 of Figure 2.

Figure 4 is a rear elevational view of the telescoped display cabinet.

Figure 5 is a sectional view taken along the line 5—5 of Figure 4.

Figure 6 is a rear elevational view of the display cabinet showing the same fully extended.

Figure 7 is a sectional view taken substantially along the line 7—7 of Figure 5, and

Figure 8 is a side elevational view of the cabinet construction, one of the extensible display sections being removed to more clearly illustrate the nature of the invention.

Referring now to Figures 1, 2 and 3, the improved display cabinet involves in its general organization a main casing or housing 10 including side walls 12 and 14, a bottom 16, and a partial rear wall 18 extending across or bridging the two side walls 12 and 14 adjacent the top thereof.

The forward edges of the side walls 12 and 14 are inclined and present an oblique front, although a convex or other suitable form of front may be employed if desired. Extending across the front of the cabinet casing at the lower forward edge thereof between the two side walls 12 and 14 is a lower face member 20.

The lower or underneath surface of the member 20 is flush with the underneath face of the bottom 16 and forms a continuation thereof, thus permitting the member 20 to seat squarely upon the supporting surface upon which the cabinet construction rests.

Similarly, extending across the front of the cabinet casing 10 at the upper rear edge thereof between the two side walls 12 and 14 is an upper face member 26, the rear face of which abuts against the inner face of the rear wall 18.

The lower face member 20 is formed with a vertical front surface 28 and a rounded surface 30 while the outer exposed surface of the upper face member is curved as at 32. The upper and lower portions of the forward edges of the side walls 12 and 14 are correspondingly curved, thus preventing a degree of symmetry to the cabinet casing.

Referring now to Figure 5, a rectangular frame 34 extends around the open front of the cabinet casing 10 and is secured in any suitable manner to the side walls 12 and 14 and to the opposed faces of the upper and lower face members or rails 26 and 30 respectively. The frame 34 has secured to the underneath side thereof a tray panel 36 which, if desired, may be cloth-covered, and upon which the articles of jewelry are displayed. The tray panel 36 may be formed with raised division strips or ribs 38 which are spaced apart a distance sufficient to accommodate individual cards or other holders upon which the articles of jewelry may be mounted, the cards themselves also serving as a feature of the display of the articles.

The frame 34, in addition to serving as a support for the display tray panel 36, provides a jamb construction for a hinged window 39 having a transparent panel 40, preferably formed of glass, the hinges 42 for the window being mounted on the inner surface of the upper face member 26.

The dimensions of the window 39 are such that the edges of the same fit closely against the inner surfaces of the side walls 12 and 14 and against the opposed inner surfaces of the upper and lower face members 26 and 20 and thus, from an inspection of Figure 2, it will be seen that because the display tray 36 is relatively shallow and occupies a position in close proximity to the window 39 when the latter is closed, an air pocket of comparatively small volume is created beneath the window as the latter approaches its closed position. The entrapped air provides a cushion below and behind the hinged window 38 which retards its final closing movement, permitting such movement only as the air escapes by exfiltration, and thus preventing shock to the window panel 40. Since the window opens outwardly and upwardly, and is subject to being closed by gravity, it is obvious that such a precautionary feature takes on added significance.

Referring now to Figures 2, 3 and 5, the side walls 12 and 14 are each formed with an elongated inclined slot 44 therein, the slots extending substantially parallel to the forward upper edges of the side walls. The slots 44 in the two walls are opposed to each other on opposite sides of the casing 10 and occupy respective positions slightly below and to the rear of the plane occupied by the display tray 36. Positioned immediately behind the lower face member 20 at the bottom thereof and supported upon the bottom 16 is a transverse guide rail 46 having an upwardly presented curved trough-like guideway 48 therein. Similarly, positioned immediately behind the upper face member 26 and projecting slightly below the upper side of the frame 34 is a guide rail 50 having a downwardly presented curved trough-like guideway 52 therein. The latter guide rail 50 is substantially triangular in cross section and has one face thereof abutting against the fragmentary rear wall 18.

Still referring to Figures 2, 3 and 5, a pair of extensible display portions or sections 54 and 56 are telescopically received in the opposite sides of the casing 10 through the slots 44 in the side walls 12 and 14 thereof respectively. The sections 54 and 56 are substantially identical in construction (or at least entirely symmetrical) and it is thought that a description of one of these members will suffice for the other.

The section 54 comprises a relatively shallow display tray 58 including a tray panel 60 and a frame 62 to which the tray panel 60 is secured. The tray panel 60, like the tray panel 36, may be cloth-covered and may have associated therewith division strips or ribs 64. The height of the tray 58 is slightly less than the width of the slot 44 in the side wall 12 and the upper and lower top and bottom end pieces of the frame 62 are rounded to accommodate the rounded ends of the slot 44. These rounded end pieces of the frame 62 are received between the opposed guideways 48 and 52 and are slidable therein as clearly shown in Figure 5.

In order to conceal the outer ends of the trays 56 and the slots 44 in which the trays are slidable, each tray has secured thereto at its outer end a substantially triangular end panel 66, the forward inclined edge of which is rounded at the top and bottom thereof to conform to the curvature of the forward edges of the side walls 12 and 14 and with the curvature of the front faces of the upper and lower face members 26 and 20 respectively.

The transverse width of the extensible display trays **56** is equal to or slightly in excess of one-half the distance between the outer surfaces of the side walls **12** and **14**, and thus when the display trays **56** are fully telescopically received within the casing **10**, the inner ends of the trays **56** abut against each other as shown in Figure 4 and limit the inward movement of the end panels **66**. In this manner undue pressure exerted inwardly at the sides of the cabinet construction, as, for example, when the assembly is enclosed within a carrying case or the like, or when the same is packed for shipment, will prevent damage to the side walls **12** and **14**.

Referring now to Figures 3, 4 and 5, a pair of spaced limit stops **68** in the form of metal plates are rabbeted or otherwise secured into the inner ends of the display trays **56** and project downwardly beyond the plane of the tray panel **60**. The limit stops **68** on the two trays **56** are directly opposed to each other and, when the cabinet construction is completely collapsed, the limit stops of each tray occupy contiguous positions with the limit stops of the other tray. Apertures **70** extending through the limit stops **68** permit a padlock or other fastening means **72** (Figures 4 and 5) to be passed through the apertures of either or both pairs of limit stops. The limit stops **68** are designed to engage the inner surfaces of the side walls **12** and **14** in the vicinity of the slots **44** to prevent removal of the display sections **54** and **56** in their entirety from the casing **10** when the latter are pulled outwardly to their extreme extended positions. Removal of the sections **54** and **56** may, however, be effected if desired by elevating the ends of the cabinet construction from the supporting surface and forcing the outer ends of the sections downwardly and rearwardly to bring the limit stops **68** around the corners provided by the lower edges of the slots **44**.

Referring to Figure 8 it will be noted that the upper forward edges of the slots **44** are recessed as at **74** throughout a major portion of the length of the slot. In this manner a clearance is provided in order that the articles of jewelry carried on the auxiliary display tray panels **60** may clear the upper edges of the slots **44** when the sections **54** and **56** are extended or retracted.

It will be seen from an inspection of Figures 5 and 8 that because the slots **44** are formed in the side walls **12** and **14** at regions adjacent the upper and forward edge of the latter, the display trays **56** occupy positions which are well up toward the inclined front of the cabinet construction when the trays are telescopically received within the casing **10**. Because of this feature there is ample storage space below and behind the panels **60** for the storage of a reserve supply of the articles of jewelry. In order to accommodate such articles, a bin **76** consisting of pigeon-hole compartments may be secured within the casing **10** without interfering with the sliding movement of the trays **56**.

The invention is not to be limited to the exact arrangement of parts shown in the accompanying drawings or described in this specification, as various changes in the details of construction may be resorted to without departing from the spirit of the invention. For example, while the tray panels **36** and **60** have been shown as being substantially flat and occupying respective planes within the cabinet construction, these panels may be concave, convex or in fact of any desired configuration, it being necessary merely to modify the shape of the slots **44** in the side walls **12** and **14** to accommodate such panels. Only insofar as the invention has particularly been pointed out in the appended claims is the same to be limited.

What is claimed is:

1. In a jewelry display cabinet having an open front and including a pair of oppositely disposed side walls and a bottom, there being an elongated relatively narrow slot in each side wall extending parallel to but spaced from the forward edge of the latter and substantially coextensive with said edge, said slots being oppositely disposed and in alignment, a fixed display tray in said cabinet extending across said open front above the level of said slots, a pair of aligned movable display trays slidably disposed in said slots and movable from extended positions to retracted positions within the casing below said fixed tray wherein the inner edges of the trays are substantially contiguous, and a limit stop secured to the inner edge of each movable tray and designed for contact with the inner face of the side wall through which its respective tray extends, said limit stops occupying positions of proximity when the movable trays are retracted, there being apertures in said limit stops for reception therethrough of a locking device.

2. In a display cabinet, a casing having an open front and including a pair of oppositely disposed right-triangular side walls, a vertical rear wall and a horizontal bottom, there being an elongated relatively narrow rearwardly and upwardly inclined slot in each side wall extending parallel to but spaced from the forward edge of the latter and substantially coextensive with said edge, there being a relatively long recess along the upper inclined edge of each slot providing a clearance portion for articles carried by the trays, said slots being oppositely disposed and in alignment, opposed guideways extending between the slots at the ends thereof, a fixed display tray in said casing extending across said open front above the level of said slots, a shallow display tray slidably mounted within each slot and within said guideways and movable from an extended position to a retracted position within the casing below said fixed tray and vice versa, and right-triangular end panels secured to the outer ends of said trays and concealing the latter and the slots in which the trays are mounted when the trays are in their retracted positions as well as concealing the major portions of the side walls, said panels having lower edges terminating flush with the underneath side of said bottom whereby the panels and bottom are adapted to be supported on a common supporting surface when the panels are extended.

3. In a jewelry display cabinet, a casing having an open front and including a pair of oppositely disposed substantially triangular side walls, a vertical rear wall, and a bottom, there being an elongated relatively narrow upwardly and rearwardly inclined slot in each side wall extending parallel to but spaced from the forward edge of the latter and substantially coextensive therewith, said slots being oppositely disposed and in alignment, a lower face member at the forward edge of said bottom extending upwardly from said bottom at substantially right angles thereto, an upper face member extending inwardly of the cabinet forwardly and downwardly from the upper edge of the rear wall in parallelism with said forward edges of the side walls, a fixed display tray in said cabinet extending between said face members and closing said open front, an upper

guide member having an angular portion nested between the underneath side of the upper face member and the inner side of the vertical rear wall, a lower guide member having an angular portion nested between the inner side of the lower face member and the upper side of said bottom, opposed curved trough-like guideways formed in said guide members, and a pair of relatively shallow aligned movable display trays slidably disposed in said slots and guideways and movable from extended positions to retracted positions within the casing below said fixed tray wherein the inner edges of the trays are substantially contiguous.

LOWELL W. SHIELDS.

CERTIFICATE OF CORRECTION.

Patent No. 2,233,559. March 4, 1941.

LOWELL W. SHIELDS.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 3, first column, line 73, after "convex" insert the comma and word --, angular--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 8th day of April, A. D. 1941.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.