

No. 754,814.

PATENTED MAR. 15, 1904.

E. G. SCHRIEFER.
EXTENSIBLE CASE.

APPLICATION FILED FEB. 3, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

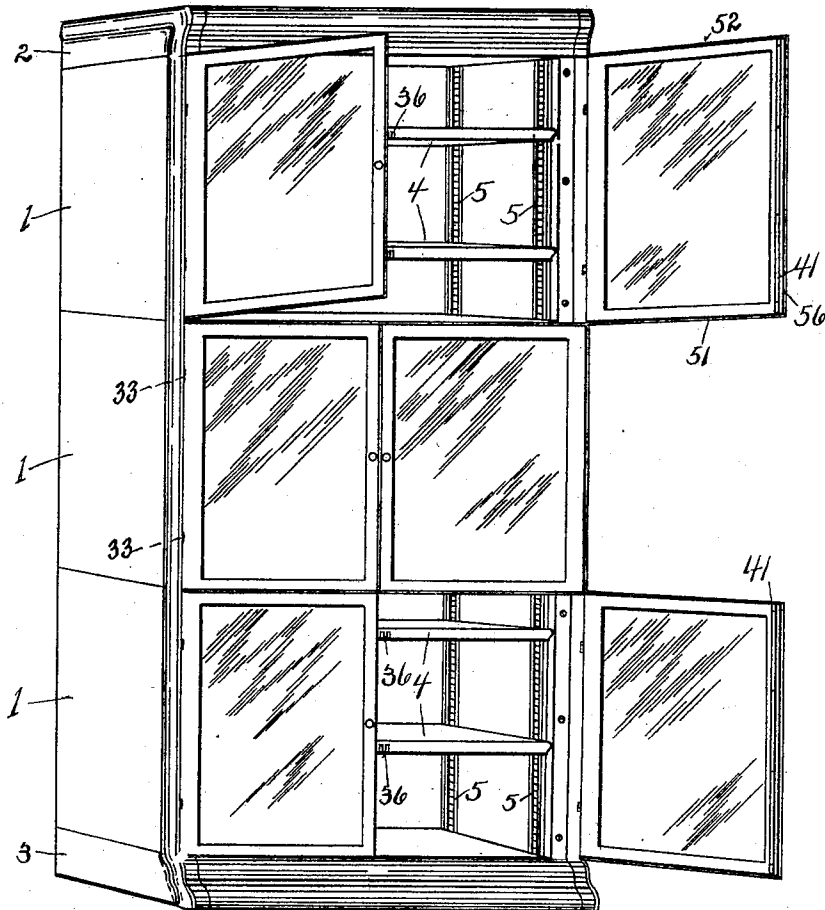
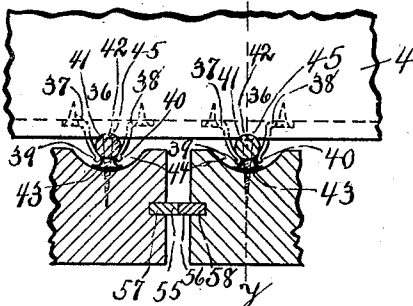
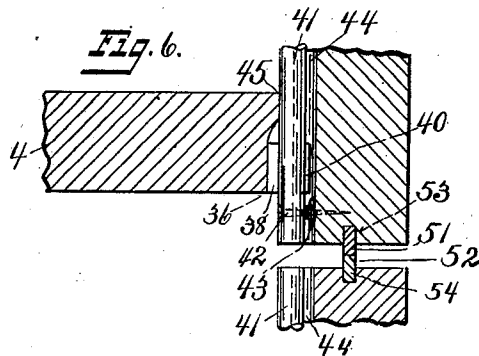


Fig. 5.



Witnesses:
Herbert F. Harder
J. D. Thorne

Fig. 6.



Inventor:
Edward G. Schriefer
by *A. F. Roberts, Jr.* Attorney

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2 SHEETS—SHEET 2.

Fig. 2.

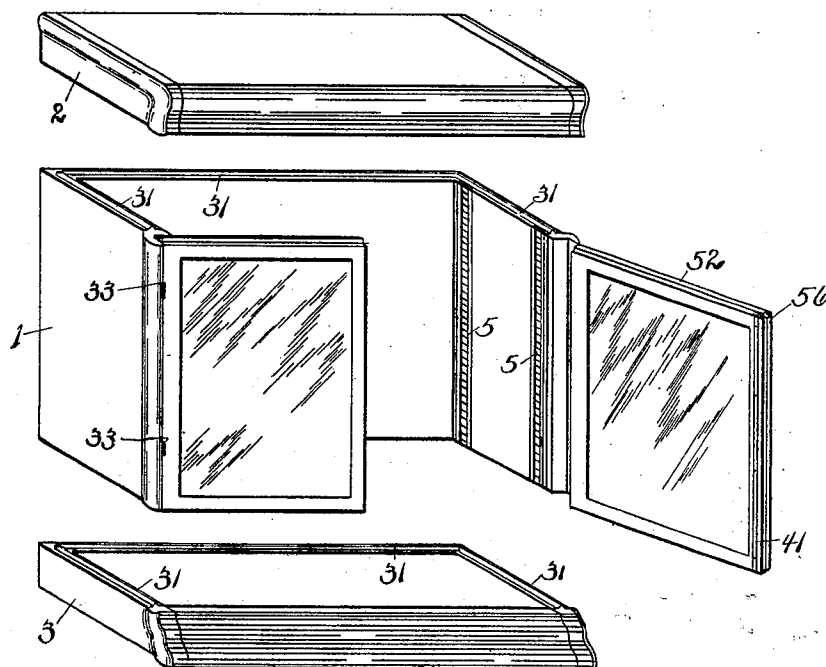


Fig. 3.

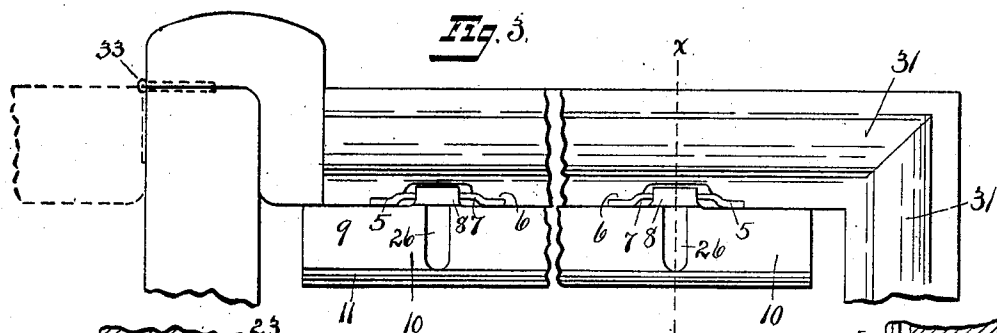
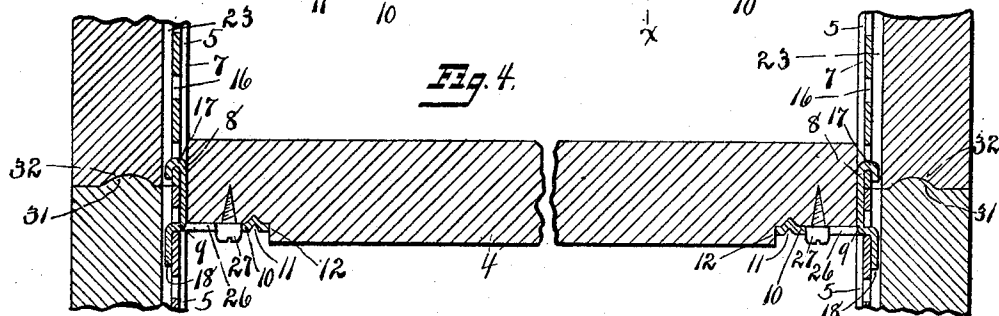


Fig. 4.



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Inventor

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UNITED STATES PATENT OFFICE.

EDWARD G. SCHRIEFER, OF CINCINNATI, OHIO.

EXTENSIBLE CASE.

SPECIFICATION forming part of Letters Patent No. 754,814, dated March 15, 1904.

Application filed February 3, 1902. Serial No. 92,462. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. SCHRIEFER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Extensible Cases, of which the following is a specification.

It is the object of my invention to provide an extensible case comprising a case section or sections having a back and sides, but without top or bottom, constructed as units, a top unit and a bottom unit, for forming a case in which a shelf or shelves may be passed up and down and secured at desirable points for forming a compartment either within a case-section or overlapping case-sections, with a door or doors swinging on a substantially vertical axis and having means for separately securing the doors; and my invention consists in providing a case-section of the character described with a door of the character mentioned and means for securing the door in closed position with relation to the case-section irrespective of the position of shelves, so that when the case is assembled each case-section may have a separate door or doors operable separately in ready and convenient manner; further, in providing a case-section of the character described with a shiftable shelf and means acting through the shiftable shelf and its supporting means for holding the sides of the case-section against sidewise displacement or bulging, and, further, in the parts and in the construction, arrangement, and combinations of parts hereinafter more fully described and claimed.

I do not independently herein claim the adjustable shelf-support herein shown and described, having filed applications on said subject-matter, being Serial Nos. 105,388 and 105,389, filed April 30, 1902, to which reference is respectfully made. I have also in another application, Serial No. 92,460, shown, described, and claimed the case-section or unit comprising a back and sides without top or bottom, to which application reference is respectfully made, and have also shown, described, and claimed such case-section in other particulars than therein claimed in other applications, filed by me February 3, 1902,

Serial Nos. 92,461 and 92,463, to which reference is also respectfully made.

In the drawings, Figure 1 represents a perspective view of my improved device with the doors shown in different positions. Fig. 2 is a view in perspective of the top unit, a case-section or unit, and a bottom unit, shown in separated relation. Fig. 3 is a plan view of one end of a case-section, partly broken away and showing the means for supporting the shelf and hanging the door. Fig. 4 is a detail in vertical transverse section taken through the sides of superposed case-sections and a shelf on a line corresponding to the line *xx* of Fig. 3, partly broken away, illustrating the shelf-supports and means for holding the sides of sections against sidewise displacement. Fig. 5 is a detail shown in horizontal section taken through the doors at the middle and illustrating the means for connecting the doors to the shelf, also showing the vertical dust-strips between doors; and Fig. 6 is a vertical section taken on the line *yy* of Fig. 5, illustrating the connection between the door and shelf and the horizontal dust-strips between doors located vertically above each other.

1 represents a case-section, 2 a top unit, and 3 a bottom unit.

4 is a shelf.

5 represents shelf-strips extending up and down at the front and the rear of the sides of the case, and preferably countersunk in grooves 6 in the sides and having a channel 7 in the strips for strengthening the same and receiving the vertical shanks 8 of a shelf-support 9. The shelf-support extends, preferably, from one to the other of the shelf-strips at each side of the case, having a connecting-ledge 10, on which the shelf rests. The ledge at its outer end has a strengthening-rib 11, and the shelf is rabbeted at the lower side of its end, as at 12, for receiving the ledge. The shelf-strips are provided with a series of openings 16, adapted to receive hooks 17 18, located near each end of the shelf-support, the seats of the hooks preferably resting upon the lower edges of the openings 16, with the inner sides of the hooks taking against the outer sides of the shelf-strips. The lower hooks are

preferably the longer, so that the support may be held cantingly for readily "finding" and inserting the same into the lower openings, when the upper hooks may be readily inserted into the upper openings. The sides of the case-section are provided with grooves 23 to rear of the shelf-strips for accommodating the hooks. The supports are provided with recesses 26 for receiving projections 27 in the shelf, the recesses preferably being holes punched into the shelf-supports, and the projections screws screwed into the rabbeted portion of the bottom of the shelves. In the form shown the lower hooks are formed of the metal removed for forming the holes 26, the whole of the support being formed as one piece of metal and forming a single support for each end of the shelf. Each side of the case is provided with connecting devices of the character described, thereby firmly holding the sides of the case in proper position. The ends of the shelves abut against the sides of the case or the vertical shanks of the shelf-support, and thereby prevent inward movement of the sides, the inner sides of the hooks take against the sides of the shelf-strip and prevent relative inward movement of the shelf-supports, and the recesses and projections between the shelf-supports and the shelf limit outward movement of the supports, thereby securing the whole firmly together, holding the sides of the sections against sidewise displacement or bulging.

The upper and lower ends of the back and sides of the case-sections, the lower end of the bottom unit, and the upper end of the top unit, or vice versa, may be provided at the sides and back with interconnecting tongues 31 and grooves 32 for preventing the passage of dust and for seating the respective units in proper relation with each other up and down.

The doors are preferably hinged to the sections by hinges 33.

As before stated, each door is provided with means for connecting the door with the section for holding the door in closed relation, so that any door may be opened without affecting the closed relation of adjacent doors. I have illustrated these means as consisting of a catch 36, preferably comprising two spring-leaves 37 38, projecting toward each other and having outwardly-projecting ends 39 40, adapted to readily direct a rod 41, secured to the door, between the leaves, and thus clamp to rear of the rod for holding the door in closed position. The rod 41 is secured to the door by means of screws 42, taking through the rods and through ferrules 43 into the frame of the door, the ferrules holding the rod from the door. Grooves 44 extend throughout the height of the door, the grooves being sufficiently large to receive that part of the catch 36 which holds the rod. The rod is preferably of the same form throughout its height and the fastening devices for the rod

of such form so that the catch may receive the rod irrespective of the height of the catch in the case, it being understood that the shelf which carries the catch may be placed at desirable heights throughout the case. In order to limit the inward movement of the doors so that when the case is closed the various doors may be in the same vertical plane, I provide a stop for each door, preferably by permitting the rod to strike the shelf, the rod being permitted, if desired, to take into a recess 45 at the front of the shelf. In this construction stops and catches are provided for the doors, so that any door may be closed and caught and readily separately opened irrespective of the position of the shelves or whether one or more shelves are located within a case-section or whether compartments for the reception of articles are formed within a case-section or overlapping superposed case-sections. The upper and lower edges of the doors are provided with dust-strips 51 52, respectively, preferably of flexible material, taking into grooves 53 54, and the swinging ends of the doors are provided with dust-strips 55 56, taking into grooves 57 58, so that when a plurality of sections are placed one upon another there may be dust-strips between each door and adjacent doors or the top and bottom units.

I claim—

1. The combination of a case-section comprising a back and sides and having open-ended top and bottom, with a shelf and means for supporting the shelf, constructed and arranged for permitting the shelf to be passed entirely through the section up and down while the top and bottom of the shelf are maintained in substantially horizontal planes, a door for the section swinging on a substantially vertical axis, and means between the shelf and door, part of said means attached to said shelf and movable with the shelf and part of said means rigidly secured to said door for holding the door in closed relation, irrespective of various shelf elevations.

2. The combination of a case-section comprising a back and sides and having open top and bottom, a shelf, means for securing the shelf in the case-section at various heights, a door for the section swinging in substantially upright positions and means between the shelf and door for holding the door in closed relation irrespective of various heights of the shelf in the case-section.

3. The combination of a case-section comprising a back and sides and having open top and bottom, a door therefor, a shelf, means for supporting the shelf at various heights in the section, means including a spring between the door and shelf, part of said means movable with said shelf for holding the door in closed position at various shelf elevations.

4. The combination of a case-section comprising a back and sides and having open top

and bottom, a shelf, means for securing the shelf in the case-section at different elevations, a door for the section swinging on a substantially vertical axis, means secured to and extending vertically of the door, and means secured to the shelf for being engaged by said latter means irrespective of various elevations of the shelf in the section for holding the door in closed relation.

5 5. In an extensible case, the combination of case-sections, comprising a back and sides and having open top and bottom, a shelf adjustably supported in each case-section, a top unit, and a bottom unit, a door for each section
15 swinging separately on a substantially vertical axis, and means for separately securing each door to its section in closed position, part of said means secured to the shelf and part of said means secured to the door of said section, with
20 the part of said means secured to the shelf adjustable with the shelf to various elevations and engaging the part of said means secured to the door at said various elevations.

6. In an extensible case, the combination of
25 case-sections, comprising a back and sides and having open top and bottom, a shelf adjustably supported in each section, a top unit, and a bottom unit, a door for each section swinging separately on a substantially vertical axis,
30 and means for separately securing each door to its section in closed position, part of said means secured to the shelf and part of said means secured to and extending up and down on the door of said section and arranged to be
35 engaged by said part secured to the shelf at various elevations with a flexible dust-strip between each door and adjacent doors.

7. The combination of a case-section comprising a back and sides and having open-
40 ended top and bottom, a shelf, a shelf-strip secured to each of said sides, each shelf-strip having a series of openings, and a shelf-support, said support having a hook at top and a hook at bottom for taking into said openings,
45 said shelf and its support collectively having a recess and projection, for securing the shelf and sides together and for holding the sides against sidewise displacement, whereby said case-section may be handled as an entirety
50 with the sides thereof reinforced by the shelf.

8. The combination of a case-section comprising a back and sides and having open top and bottom, with a shelf arranged to be passed
55 up and down entirely through the section, and means for supporting the shelf in the section at various heights, a door for the section

swinging in substantially upright positions, means carried by the shelf and movable therewith to various elevations in the section, and means between said latter means and the door
60 for holding the door in closed relation irrespective of various positions in which the shelf is supported.

9. The combination of a case-section comprising a back and sides and having open top
65 and bottom with a shelf and means for supporting the shelf in the section at various elevations, a door for the section swinging in upright positions, and means supported by the shelf and carried with the shelf when moved
70 to said various elevations and means extending up and down on the door arranged to engage said means carried by the shelf at various shelf elevations.

10. The combination of a case-section comprising a back and sides and having open top
75 and bottom, a shelf, means for supporting the shelf in the case-section at different elevations, a door for the section swinging in substantially upright positions, means secured
80 to and extending up and down on the door and means secured to the shelf for interengaging with said latter means at various shelf elevations.

11. The combination of superposed case-
85 sections comprising back and sides and having open top and bottom, superposed shelf-strips secured to the sides having series of openings, a shelf and a shelf-support, said support having a hook at top and a hook at
90 bottom for respectively taking into openings of two superposed shelf-strips thereby spanning superposed sides, substantially as described.

12. The combination of superposed case-
95 sections comprising a back and sides and having open top and bottom, superposed shelf-strips secured to the sides having series of openings, a shelf, a shelf-support at each end thereof, each of said supports having a hook
100 for taking into said openings, and means between said shelf and supports for limiting movement of said supports longitudinally of the shelf.

In testimony whereof I have signed my name
105 hereto in the presence of two subscribing witnesses.

EDWARD G. SCHRIEFER.

Witnesses:

ERNEST G. SIMON,

HERBERT F. HARDEN.