June 10, 1952 P. L. DU BOFF ET AL 2,600,050

COLLAPSIBLE CABINET

Filed March 31, 1949 3 Sheets-Sheet 1

FIG. 1

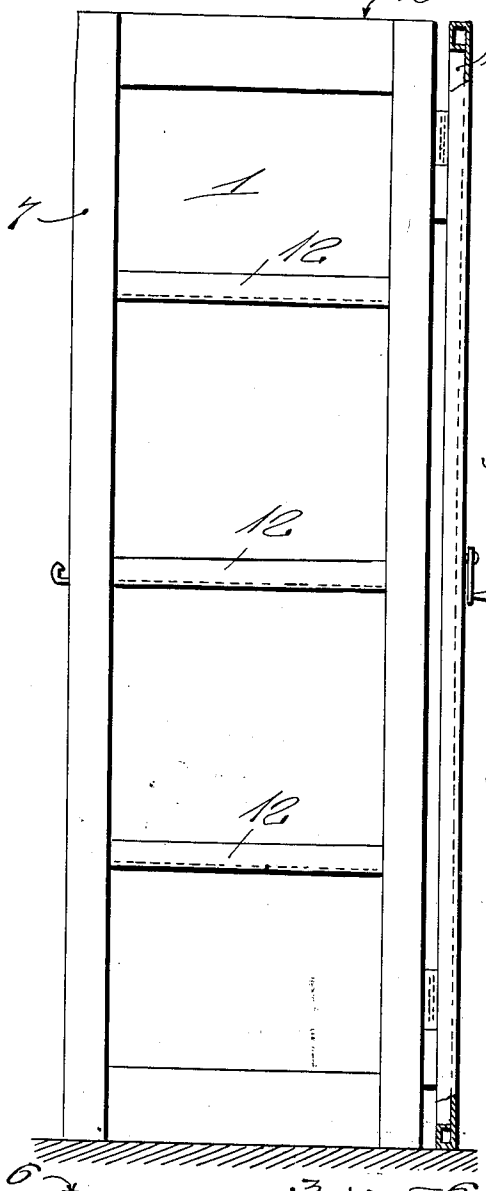
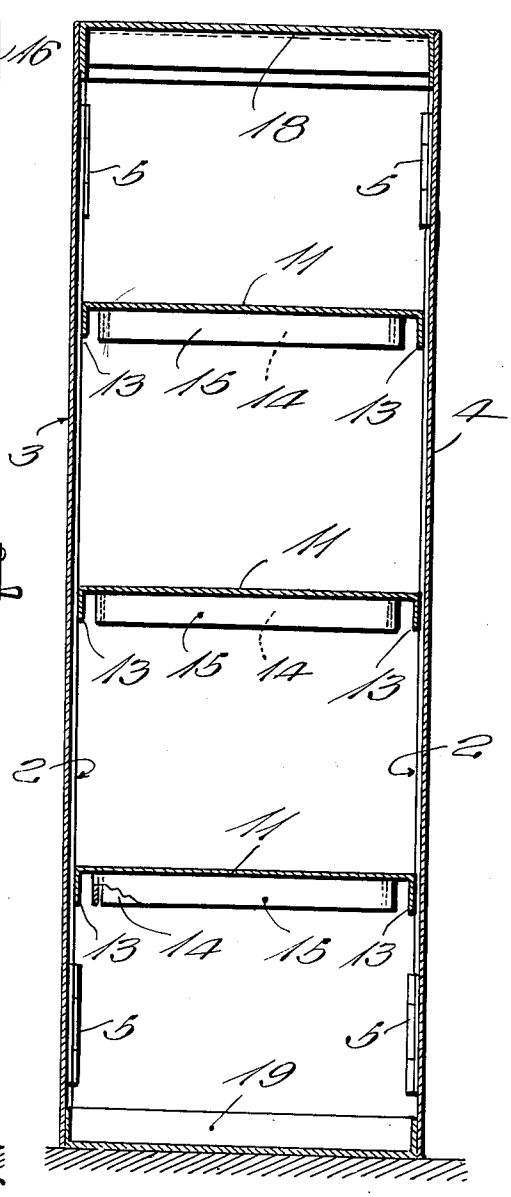


FIG. 2



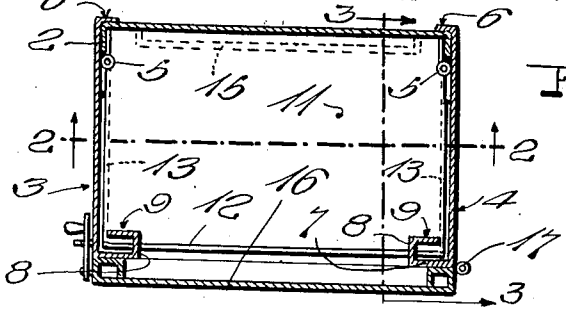


FIG. 5

INVENTORS
PHILIP L. DUBOFF,
THOMAS H. DOOLEY,
BY
Jacobi & Jacobi
ATTORNEYS

June 10, 1952 P. L. DU BOFF ET AL 2,600,050

COLLAPSIBLE CABINET

Filed March 31, 1949 3 Sheets-Sheet 2

FIG. 3

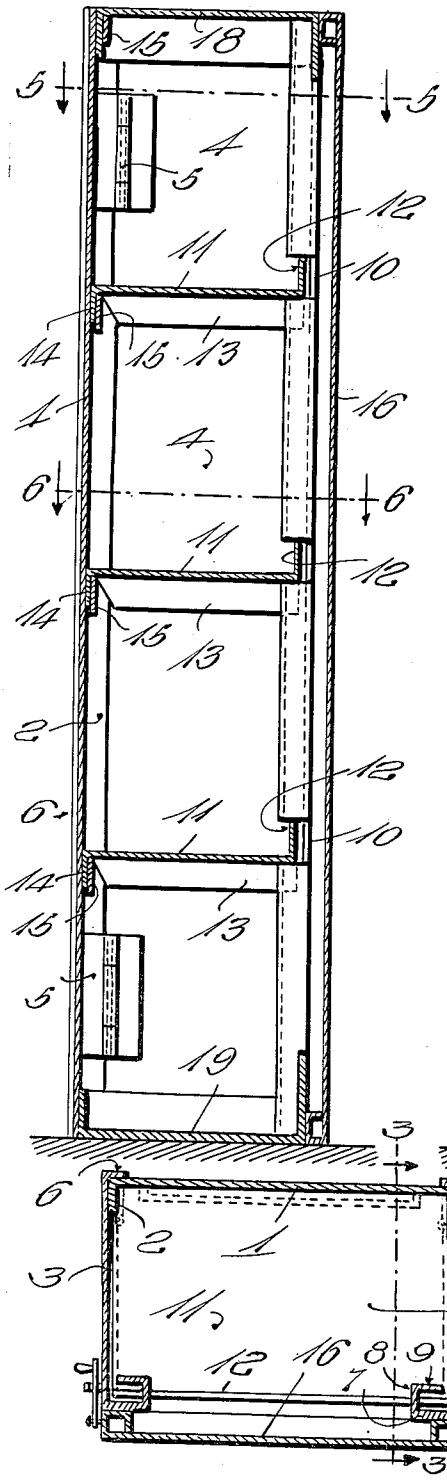


FIG. 4

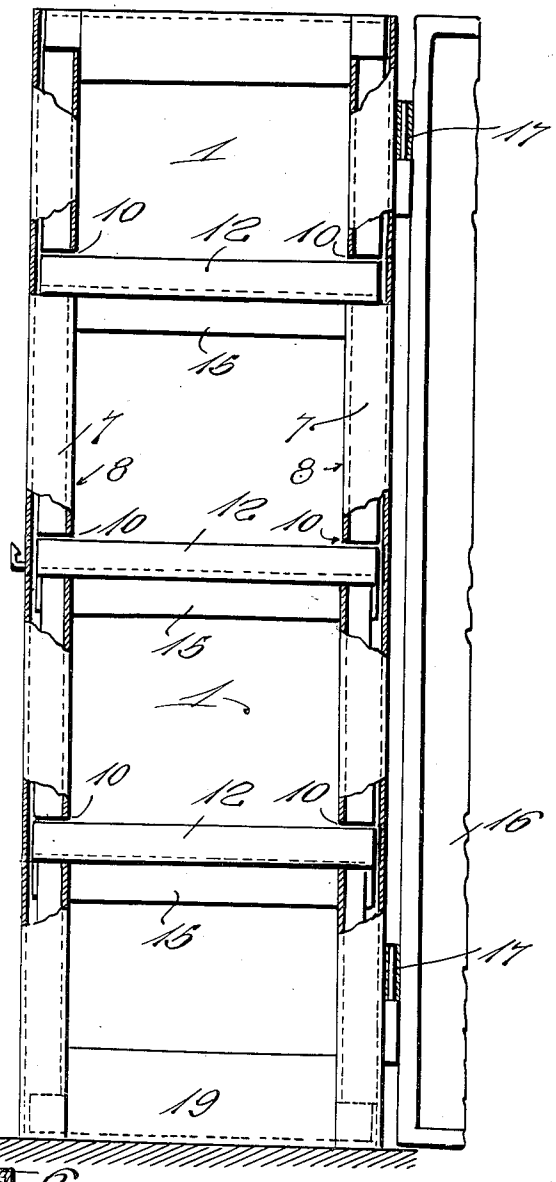


FIG. 6

INVENTORS
PHILIP L. DU BOFF
THOMAS H. DOOLEY,
BY
Jacobi & Jacobi
ATTORNEYS

June 10, 1952 P. L. DU BOFF ET AL 2,600,050

COLLAPSIBLE CABINET

Filed March 31, 1949 3 Sheets-Sheet 3

FIG. 7

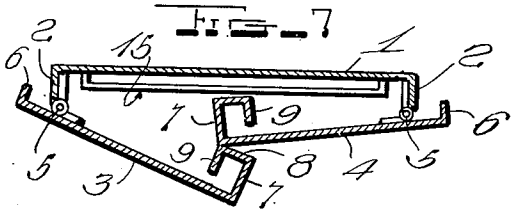


FIG. 8

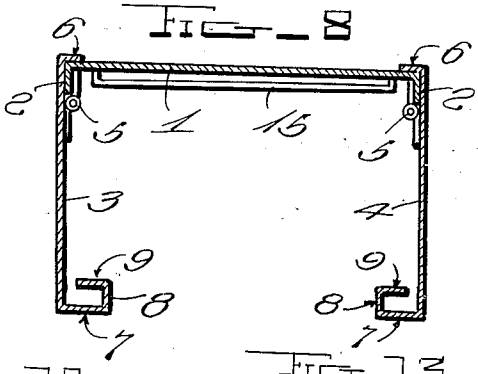


FIG. 9

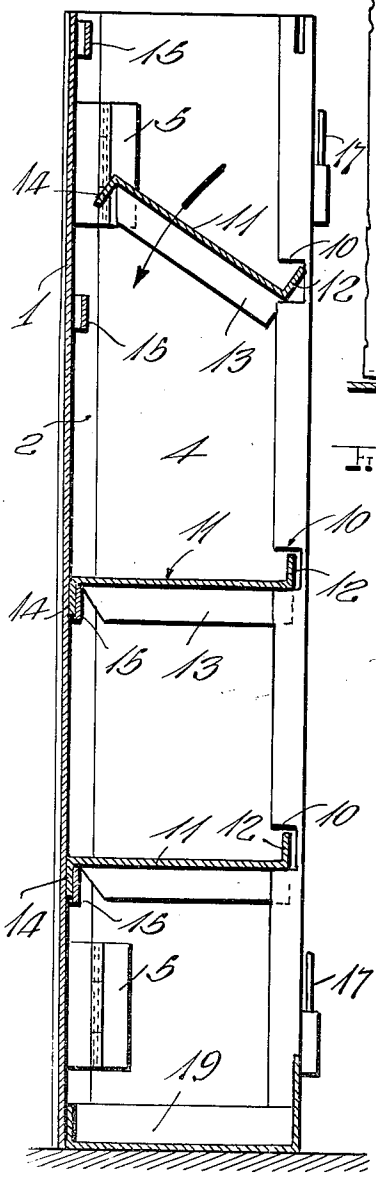


FIG. 10

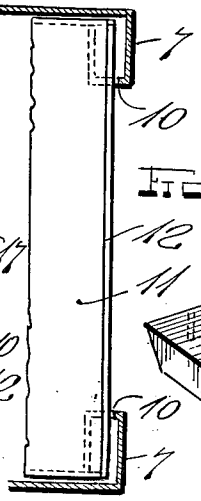


FIG. 13

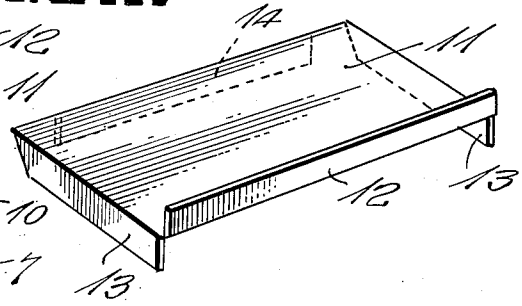


FIG. 11

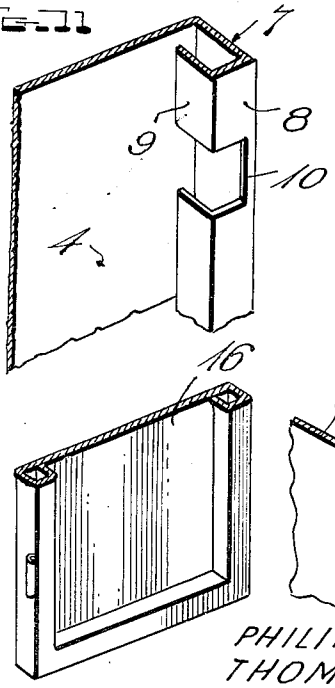


FIG. 14

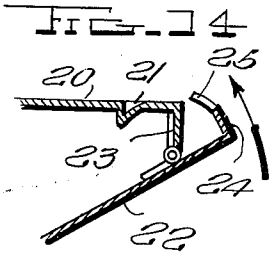


FIG. 15

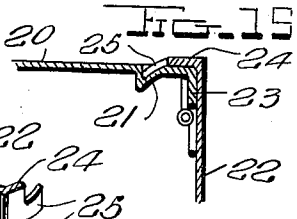


FIG. 16

FIG. 12

INVENTORS
PHILIP L. DU BOFF,
THOMAS H. DOOLEY,
BY Jacobi & Jacobi
ATTORNEYS

Patented June 10, 1952

2,600,050

UNITED STATES PATENT OFFICE

2,600,050

COLLAPSIBLE CABINET

Philip L. Du Boff, New York, N. Y., and Thomas H. Dooley, Bayonne, N. J., assignors, by mesne assignments, to Philip L. Du Boff, Scarsdale, N. Y.

Application March 31, 1949, Serial No. 84,656

3 Claims. (Cl. 312—262)

1

This invention relates to new and useful improvements in cabinets and more particularly to cabinets of the collapsible type, the primary object of the invention being to provide a collapsible cabinet which is provided with means for quickly and readily locking the same in set-up position to prevent lateral sway or movement, such means also affording a utilitarian purpose.

A further object of the invention resides in the provision of structure at the corners of a collapsible cabinet to make the same substantially dust proof.

A still further object resides in providing removable shelves adapted to be fitted in place in such manner as to lock the cabinet in upright position and prevent lateral sway or movement of the same.

A further object resides in providing a cabinet which is capable of being knocked-down and stored or shipped in a reasonably small space and one which may be quickly and readily assembled when desired for use.

A still further object of the invention resides in providing a collapsible cabinet with walls hinged together and having the edges at the hinged portions so constructed as to be interfitting in formation and providing substantially a dust proof connection.

Still another object resides in so forming certain walls of the collapsible cabinet as to provide for a frictional connection with portions of shelves to create an interlocking connection, sustaining the cabinet in set-up position locked against lateral sway or movement.

A further object of the invention resides in providing a device which is simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and numerous other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings, forming a part of this application,

Figure 1 is a front elevation of a cabinet constructed in accordance with our invention, with parts broken away and parts in section, the cabinet being in upright position and the door opened;

Figure 2 is a central vertical section therethrough, taken substantially on the line 2—2 of Figure 5, showing the horizontal position of the

2

shelves and the relation thereof to the walls of the cabinet;

Figure 3 is a vertical transverse section, as seen on the line 3—3 of Figure 5;

Figure 4 is a view similar to Figure 1, with parts broken away and parts in section, better illustrating the position of the shelves and their relation to portions of the cabinet in assembled position;

Figure 5 is a horizontal section, as seen on the line 5—5 of Figure 3;

Figure 6 is a similar view, as seen on the line 6—6 of Figure 3;

Figure 7 is a horizontal section, taken through the cabinet in collapsed position;

Figure 8 is a view similar to Figure 7, showing portions of the cabinet set up to form dust proof corners;

Figure 9 is a vertical sectional view similar to Figure 3, with the door being omitted and certain partitions or shelves supported in place, with the uppermost shelf or partition about to be moved downwardly in effective locking position;

Figure 10 is a fragmental sectional view showing relation of parts of a shelf to portions of the collapsible walls;

Figure 11 is a fragmental perspective view, with parts shown in section, of one of the walls of the cabinet, showing particularly the notch formed therein;

Figure 12 is a fragmental perspective view of the door of the cabinet removed, with parts shown in section;

Figure 13 is a perspective view of one of the shelves removed;

Figure 14 is a sectional view in fragment of a slightly modified form of wall structure to provide a modified form of dust proof corner;

Figure 15 is a similar view showing the walls in interlocked position providing the modified form of dust proof corner; and

Figure 16 is a fragmentary perspective view, with parts in section of one of the walls of this modification shown in Figures 14 and 15.

In describing the invention, we shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which the numeral 1 designates the rear wall of a cabinet, preferably made of metal, although it will be understood that the same may be made of any desired material, said rear wall having the side edges thereof bent angularly to form the side flanges 2. There are also provided the side walls 3 and 4 and as this is a collapsible or knock-down cabinet, the

latter walls are hinged to the rear wall through the medium of hinges 5. Portions of the hinges are secured to the inner faces of the side flanges 2 of the rear wall while other portions of the hinges are secured to the inner faces of the side walls at points slightly distant from the rear edges of the latter, as best illustrated in Figures 7 and 8 of the drawings. The rear edges of the side walls 3 and 4 are bent angularly and inwardly, as shown at 6 to provide end flanges thereon, these latter flanges fitting snugly against the rear face of the wall 1 when the side walls are extended to their outward positions, as clearly shown in Figure 8. Thus, the hinges are hidden from view, under normal conditions, and the corners of the walls 1, 3 and 4 are adapted to be interlocked to provide substantially dust proof connections. The front edges of the side walls 3 and 4 are bent inwardly to form the flat abutment flanges 7, thence rearwardly, as shown at 8, and then toward the side walls, as shown at 9. The termination of the metal forming the face 9 is just short of the inner face of the walls 3 and 4, as best seen in Figures 7 and 8, and for a purpose to be hereinafter and more particularly set forth. It will be seen, however, that the formation of the front edges of the side walls 3 and 4 in the manner set forth provides smooth, strong and rigid front edges for the walls.

The faces 8 and 9 of the front portions of these walls 3 and 4 are cut away or notched at various intervals throughout the length of the walls, as shown at 10. These notches or cut away portions 10 afford means for the introduction of shelves which are also used to lock the walls in assembled or upright position, as hereinafter set forth.

The shelves are designated by the numeral 11 and each shelf has its front edge provided with an upstanding flange 12, while the side edges are formed with depending flanges 13. The flanges 12 and 13 extend, respectively, the full width and depth of each shelf. The rear edge of each shelf is provided with a depending flange 14, the ends of which terminate short of the side edges of the shelf, as clearly shown in dotted lines in Figure 13 of the drawings. As many shelves may be provided as are desired, according to the height of the cabinet and while in the drawings we have shown three such shelves, and further while we have shown a rather elongated cabinet, it is to be understood that the height, size, and shape of the cabinet may be varied as desired, so that the number of shelves may be varied as found necessary and/or desirable.

As heretofore indicated, the shelves are also constructed to perform the function of locking the walls in upright position. In carrying out this objective, there are provided on the inner face of the rear wall 1 a number of spaced strips or the like 15 to provide means for connection therewith of the depending flange 14 on the rear edge of each shelf. Interlocking of the flange 14 of the shelf with the strip 15 is clearly shown in Figures 3 and 9 of the drawings. When it is desired to set up the cabinet, from a collapsed position, as shown in Figure 7, the walls are outspread, as shown in Figure 8, and the shelves are introduced through the notches 10 into a position as shown by the upper shelf in Figure 9. Then the shelf is forced frictionally against the walls and downwardly until the depending flange 14 locks into the strip 15. In accomplishing this, the flange 12 frictionally locks into the notch 10 and the depending side flanges 13 lock frictionally in the restricted spaces between the ends of the faces 9 and the inner faces of the walls 3 and 4, as best shown in dotted lines in Figures 5, 6 and 10 of the drawings. This frictional interlocking fit between the side flanges 13 and the restricted spaces between the walls 3 and 4 and the ends of the faces 9 not only locks the walls in upright position but prevents lateral sway or movement when the device is so set up.

There is also provided a door 16 which is hingedly mounted on pintles 17 supported on the face 7 of the wall 4. This door may be of any desired construction but is preferably constructed with bent edges to form beads as shown in Figure 12 of the drawings.

The cabinet is provided with a top wall 18 and a base 19. We have shown this top and base of simple construction and it may be varied as desired.

In Figures 14 to 16, inclusive, we have shown a slightly modified form of structure insofar as the dust proof corner structure is concerned. In this modification, the rear wall 20 is provided adjacent its side edges with notches or indentations 21. The side wall 22 which is hinged to the side flange 23 of the rear wall, has the rear edge thereof angularly bent as shown at 24 and this bent edge or flange has formed thereon the arcuate tongues or fingers 25 which are adapted to fit snugly in the notches or indentations 21 when the side wall is brought to an upright position with respect to the rear wall, as best shown in Figure 15 of the drawings. This modification merely provides for a spring locking connection at the corners when the device is set up to improve the dust proof quality of the corner construction.

From the foregoing description of the construction of our improved collapsible cabinet, the method of assembly and application thereof to use will be readily understood and it will be seen that we have provided a comparatively simple, inexpensive and efficient means for carrying out the various purposes and objects of the invention.

While we have described the elements best adapted to perform the various functions set forth, it is apparent that various changes in form, proportion and in the minor details of construction may be resorted to without sacrificing any of the principles of the invention.

Having thus described the invention, what is claimed is:

1. A collapsible cabinet comprising a rear wall having forwardly extending flanges along its side edges, side walls hinged on their inner faces to front edges of said flanges and having rear portions extending across outer faces of said flanges and provided along their rear edges with flanges overlapping side edge portions of the outer face of the rear wall and forming a dust-proof joint, and a door hinged to the front edge of one side wall.

2. A collapsible cabinet comprising a rear wall having forwardly extending flanges along its side edges, side walls hinged on their inner faces to front edges of said flanges, front edge portions of the side walls being bent to form inwardly extending abutments and then rearwardly to form flanges having rear portions bent to form lips extending towards and terminating in slight spaced relation to inner surfaces of the side walls, the lips and the flanges of said abutments being cut to form recesses leading from edges of the lips, a strip mounted across the inner face of the rear wall between its flanges and having its upper edge flush with the plane of lower edges of

the recesses, and a shelf in said cabinet having a depending flange across its rear edge fitting between said strip and the rear wall and a flange projecting upwardly along its front edge, the shelf having forward corner portions fitting into said recesses and end portions of its front flange fitting snugly between upper and lower edges of the recesses, and flanges extending downwardly along side edges of the shelf against inner faces of the side walls with front end portions fitting tightly between inner surfaces of the side walls and edges of the lips.

3. A collapsible cabinet comprising a rear wall having forwardly extending flanges along its side edges, side walls hinged on their inner faces to front edges of said flanges and having rear portions extending across outer faces of said flanges and provided along their rear edges with flanges overlapping side edge portions of the outer face of the rear wall, the rear wall having recesses in opposite side edge portions of its outer surface, tongues extending laterally from edges of the flanges of the side walls and curved longitudinally and constituting spring members fitting into said recesses and serving to hold the side walls at right angles to the rear wall, a shelf in said cabinet detachably engaged with the rear wall, and flanges extending along opposite side edges of the shelf and against which inner surfaces of the side walls bear.

PHILIP L. DU BOFF.
THOMAS H. DOOLEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 18,293	Brogden	Dec. 22, 1931
1,423,252	Popper	July 18, 1922
1,806,610	Christensen	May 26, 1931
1,937,935	Zimmerman	Dec. 5, 1933
2,183,883	Golder	Dec. 19, 1939
2,443,515	Rockwell	June 15, 1948
2,461,219	Lew	Feb. 8, 1949