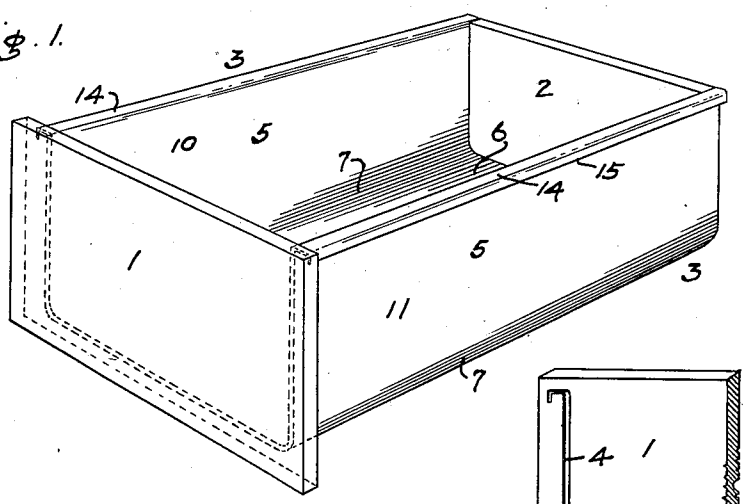
Nov. 22, 1949 C. M. JOHNSON 2,488,916

DRAWER CONSTRUCTION

Filed July 16, 1945

Fig. 1.



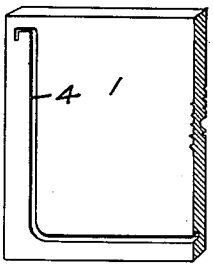
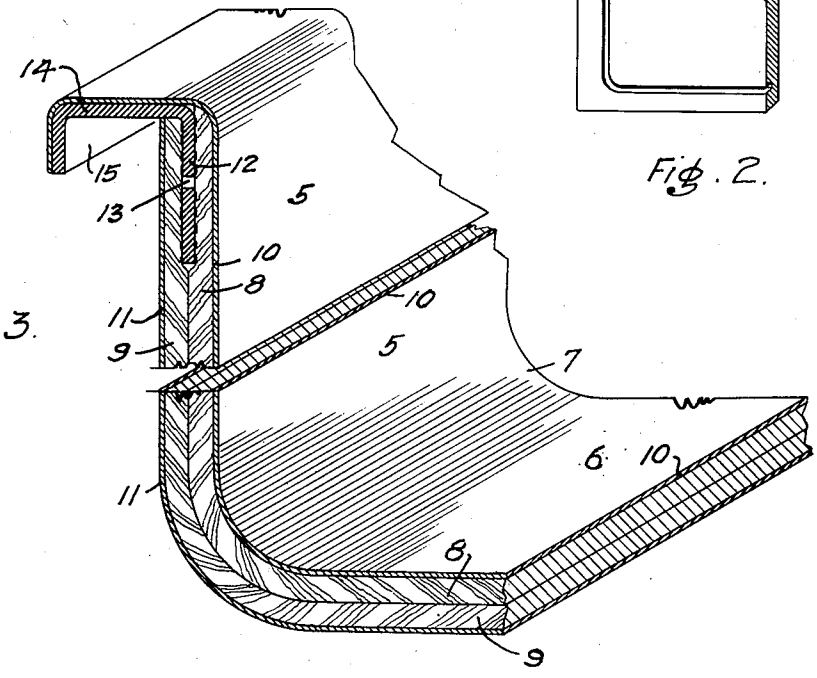




Fig. 2.

Fig. 3.




INVENTOR.

C. Morrison Johnson

BY

P. J. Elliott

Patented Nov. 22, 1949

2,488,916

# UNITED STATES PATENT OFFICE

2,488,916

## DRAWER CONSTRUCTION

Charles Morrison Johnson, Tacoma, Wash.

Application July 16, 1945, Serial No. 605,273

3 Claims. (Cl. 45—7)

1

This invention relates to the construction of drawers, especially to those drawers adapted for use in kitchen furnishings and furniture and similar utilitarian uses.

The objects of my invention are to provide a drawer constructed of the fewest possible parts; which may be made in large quantities; which is provided with continuous rounded corners; which has its suspending means integrally incorporated in the side walls of the drawer; and which is strong, light, durable and easily manipulated.

I attain these and other objects by the devices and arrangements illustrated in the accompanying drawings, in which—

Fig. 1 is a perspective of the completed drawer; Fig. 2 is a view of a portion of the inner side of the front board of the drawer, showing the routing in which the end of the main body of the drawer is secured; and Fig. 3 is a perspective view of a portion of the end of the main body of the drawer, before being inserted in the groove in the front board, and drawn on an enlarged scale.

Similar numerals of reference refer to similar parts throughout the several views.

The ordinary wooden drawer is constructed of five rectangular boards forming the sides, bottom and ends, said pieces being fastened together in any suitable manner as by doweling, rabbeting, dovetailing, nailing or gluing. The weight of the contents of such a drawer must be carried by the bottom board alone and this board is usually fastened to the sides and ends at a level above the lower edges of said parts, so that the continued use of said drawer depends on the effectiveness of the joint between the bottom and the said supporting sides and the ends. To make such a drawer requires the services of skilled mechanics and, if made in large quantities, the several joints are apt to be defective unless sufficient time is allowed for making the joints and for drying them while under pressure.

To overcome these difficulties I have invented the following described drawer in which the two most stressed joints, between the bottom and the sides, are entirely eliminated, and in which the drawer is suspended from the upper edges of its sides.

This drawer consists of only three main parts, namely, the front board 1, the rear board 2, and the combined sides and bottom structure 3. The front 1 is provided on its inner sides with a groove 4 (Fig. 2) shaped to fit the edge of the structure 3 which is secured therein by suitable gluing or cementing means. The back board 2 is preferably formed to fit inside the rear end of the said structure 3, to which it is secured by suitable means.

The structure 3 is formed of two vertical sides

2

5, an intermediary bottom 6, and curved corner sections 7, joining the parts 5 and 6, all formed integral with each other to form a unitary structure, in the following manner.

Two plies of veneerwood 8 and 9, with their fibers substantially parallel, are joined together by a suitable waterproof glue, and the outer surfaces of these plies 8 and 9 are covered with sheets 10 and 11 of paper impregnated with phenolic resin while the glue is still wet; then the sheet, thus formed, is placed over a heated mold and pressed therein under heavy pressure by a suitably shaped die, while the entire device is heated by radio-active rays to set the glue, thus forming a unitary composite structure which takes the place of the three parts in the usual construction.

When the drawer is to be supported from the upper edges of the sides 5, as illustrated in the drawings, metal hanger rails are attached to said upper edges of the sides 5 while the parts are being assembled, as above described. This metal hanger rail comprises an inverted U-shaped body having a downward extending long leg 12, with holes 13 therein. Said leg 12 is inserted between the upper edges of the said two plies 8 and 9, the glue of said plies filling said holes 13. The surfaces of the leg 12 may be suitably roughened or treated with rust-proofing, such as "Parkerizing" to enable the plies of wood to firmly grip the metal of the leg 12. The upper part 14 of said hanger rail extends horizontally outward from the part 12 and forms the slide track by which the drawer is suspended from a suitable fixed track (not shown). The outer leg 15 is preferably short and forms a guard rail and stiffener adapted to engage the said fixed track to guide the motion of the drawer and to prevent the drawer from being accidentally derailed from its support. The sheet 10 of paper which lines the inside of the drawer may be continued over the top leg 14 and the guard rail 15, to provide a suitable finish to the appearance of the drawer. The paper sheets 10 and 11 may be tinted or figured, if desired.

It is obvious that many variations may be made in the construction above described without departing from the spirit of my invention as outlined in the appended claims.

Having described my invention, what I claim and desire to secure by Letters Patent, is:

1. A drawer constructed of a front piece; a back piece: and a composite structure secured to both said front and back pieces and forming the sides, bottom, and running rails of the drawer and composed of two plies of wood having their grain substantially parallel and secured together with

glue under pressure, and metallic running rails incorporated into the upper portions of said sides, each said rail comprising a long inner leg lying between the two plies of wood in the sides, a horizontal slide track extending out from the sides and adapted to support the drawer, and a downturned stiffener flange to the slide track and extending parallel to said side and adapted to act as a guide rail.

2. A drawer as set forth in claim 1, wherein the said inner leg of the running rail is provided with holes adapted to be filled with the glue and assist in securing the running rails to the sides.

3. A drawer as set forth in claim 1, wherein the entire inner and outer surfaces of the plywood is covered with paper impregnated with phenolic resin, the paper of said inner surface being extended over the running rail and secured thereto.

C. MORRISON JOHNSON.




## REFERENCES CITED

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

### UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 1,327,755 | Cowles | Jan. 13, 1920 |
| 1,652,314 | Ludlow | Dec. 13, 1927 |
| 1,876,557 | Bodenstein | Sept. 13, 1932 |
| 1,887,691 | Loetscher | Nov. 15, 1932 |
| 1,991,056 | Mains | Feb. 12, 1935 |
| 2,062,088 | Dreyer | Nov. 24, 1936 |
| 2,236,557 | Zalkind | Apr. 1, 1941 |
| 2,276,004 | Vidal | Mar. 10, 1942 |

### FOREIGN PATENTS

| Number | Country | Date |
|---|---|---|
| 187,726 | Great Britain | Oct. 27, 1922 |