

Sept. 30, 1924.

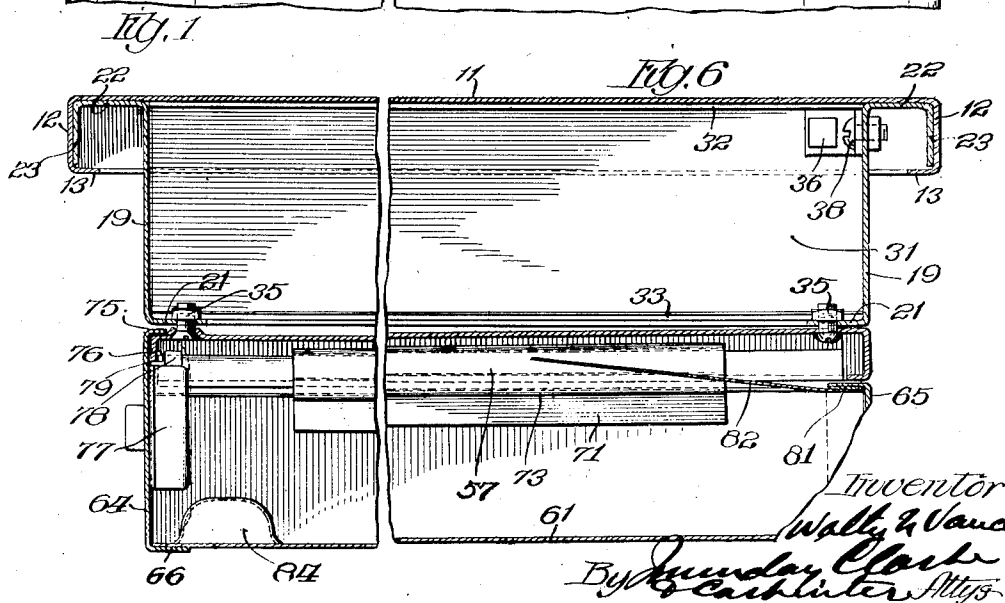
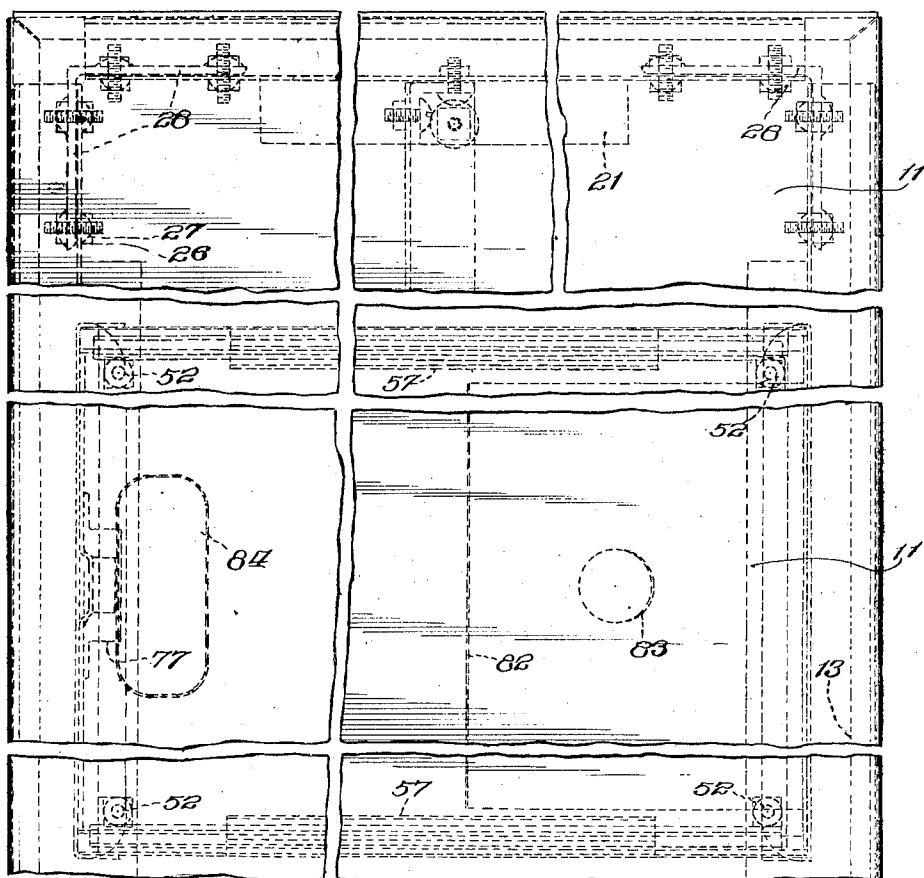
W. N. VANCE

1,509,853

TABLE

Filed Aug. 18, 1919

3 Sheets-Sheet 1



Sept. 30 , 1924.

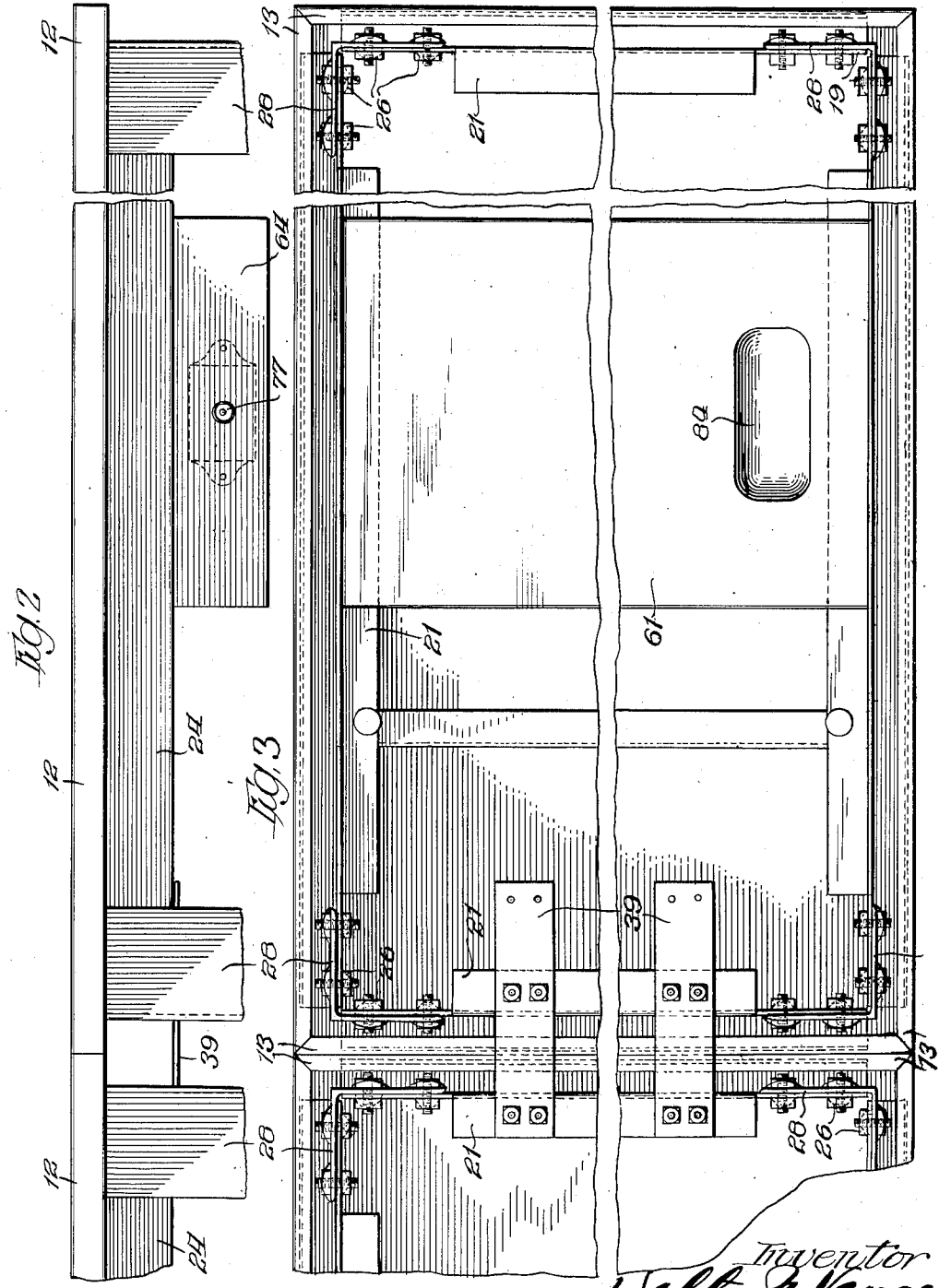
W. N. VANCE

1,509,853

TABLE

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3 Sheets-Sheet 2



Inventor
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Sept. 30, 1924.

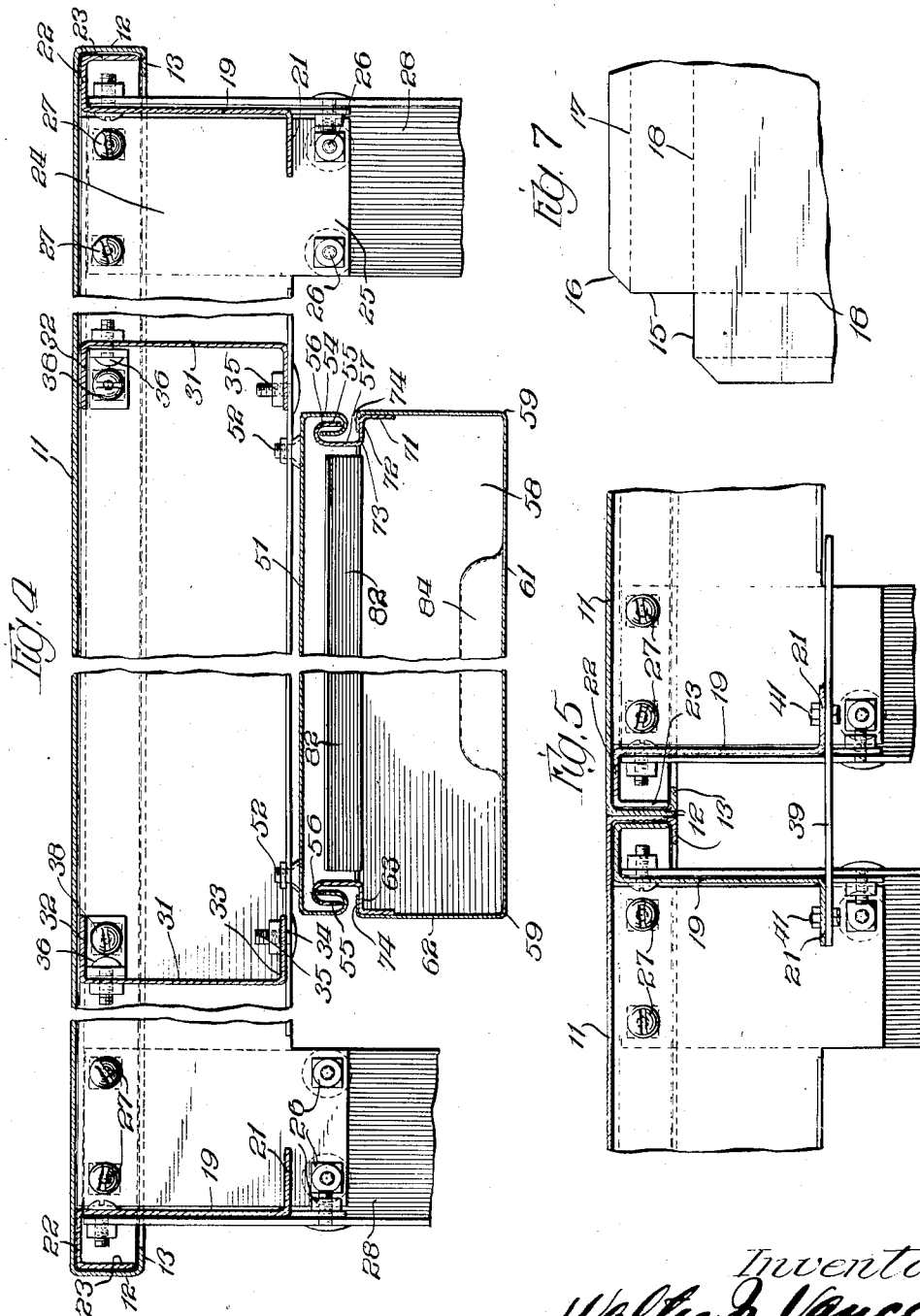
1,509,853

W. N. VANCE

TABLE

Filed Aug. 18, 1919

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE.

WALTER N. VANCE, OF CHICAGO HEIGHTS, ILLINOIS, ASSIGNOR TO DURAND STEEL LOCKER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TABLE.

Application filed August 18, 1919. Serial No. 318,113.

To all whom it may concern:

Be it known that I, WALTER N. VANCE, a citizen of the United States, residing in Chicago Heights, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tables, of which the following is a specification.

This invention relates in general to tables and has more particular reference to tables constructed wholly or largely of sheet metal.

The invention has for a principal object the provision of a table having a smooth imperforate top capable of easy and ready assembly without the use of special tools or instructions.

Another highly important object of the invention is the provision of a table of unusually rigid and sturdy construction, which may be cheaply manufactured, the parts being so constructed and arranged that their inter-engagement with each other will contribute materially to the stiffness and strength of the structure, the fastening devices acting largely to merely retain the parts in the assembled relations.

Another object of the invention is the provision of a sheet metal table which may be given the pleasing appearance of a wooden table, and this by merely decorating the metal to resemble wood.

Another object of the invention is the provision of a table of sheet metal, which may be provided in units and the units readily connected or assembled with each other into a unitary whole by the application of simple and easily arranged connecting devices.

Another object of the invention is the provision of a drawer of improved construction and improved mounting capable of cheap manufacture.

Another object of the invention is the provision of a drawer for a sheet metal table, which without providing delicate or complicated mechanism will insure against being pulled entirely from drawer rails or supports and which may be readily manipulated to remove it from the table upon desired occasions.

Another object of the invention is the provision of a table drawer in a sheet metal table, which may be securely locked in place without danger of the lock being manipulated or becoming disengaged when in locking position.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description when considered in connection with the accompanying drawing illustrating a preferred embodiment thereof.

Referring to the drawing,

Figure 1 is a partial top plan view embodying my invention;

Fig. 2 is a partial side elevation thereof;

Fig. 3 is a bottom plan view of the same;

Fig. 4 is a partial longitudinal sectional view thereof;

Fig. 5 is a similar view through two table units connected together;

Fig. 6 is a transverse vertical section taken through part of the table provided with a drawer; and

Fig. 7 is a part of the blank used in constructing the table top.

My invention contemplates the provision of a sheet metal table, the rails and legs of which, although being readily and securely interlocked with the top, will not need to be fastened thereto by auxiliary fastening devices or other means requiring perforation or deformation of either the body or the top or the sides and ends presented to view. To this end the invention contemplates the provision of an interlocking arrangement between the rails and the body which will be maintained by the securing of the legs to the rails.

The table top consists of a sheet of metal larger than the superficial area desired by an amount sufficient to provide downwardly extending peripheral flanges 12 returned at their lower edge 13 inwardly toward the table and in parallelism with the top 11. This sheet is formed at each corner by removing a right-angle piece of metal, bending to bring the right angle edges 15 in contact with the downwardly extending part of the flange and therebeyond mitering at 16 from lines of fold 17 between the flange parts 12 and 13. The inner angle of the rectangularly disposed edges 15 is located at the lines of bend 18, which are the lines of bend between the flange parts 12 and the body 11 of the table top. This construction provides a table top imperforate and without special formation in the body 11 or the flange parts 12.

The rails of the table are so formed as to engage behind the flange parts 12 and in the present instance are made substantially Z-shape in cross-section. That is to say, each consists of a body 19 adapted to be disposed in vertical position, having at its lower edges an inwardly projecting flange 21 and at its outer edge an outwardly disposed flange 22, which may, if desired, be turned down or given a return 23. The parts are so dimensioned that the flange 22 contacts at its outer extremities with the flange parts 12 of the top. Where the flange returns 23 are provided they are adapted to rest in contact with the inner face of the flange parts 12 to stiffen the structure, as will be readily understood, and the flange parts 23 may have such a length as to wedge in snugly between the table top 11 and its flange returns 13.

The legs of the table are of angle iron construction and the ends 24 of the rails are adapted to rest in contact with the adjacent inner faces of each angle iron leg at the top. The flanges 21 of the rails are omitted opposite the angle irons and metal preferably extending down as indicated at 25. The body of the rails, i. e. at these ends, is perforated to receive four fastening bolts 26 and 27 which secure the angle irons 28 to the rails.

In assembling the table units the top is preferably laid upon the floor with its upper side down, the rails inserted within the flange returns on the top and the angle irons then bolted in place holding all the parts in interlocked relation. Cross-supports are provided beneath the table, where desired, and each of these cross-supports consists of a channel sheet metal member 31 having a top flange 32 and a bottom flange 33, the dimensions being such that the flanges 32 and 33 enter between the under face of the table top and above the upper face of the flange return 21.

These flange returns are preferably perforated at intervals at 34 and the lower flanges 33 of the cross-supports are correspondingly perforated to receive securing bolts 35.

The upper portions of the cross-supports are secured to the rails by clips 36 bolted to the body 31 of the support at 37 and through the top portion of the body of the rail at 38.

The flanges 21 of the rails at the adjacent ends of two table units constructed as described, extend in opposite directions when the ends of the table units are brought together and to permanently fasten them in this relation it is only necessary to secure in place suitable tie plates 39 bolted by bolts 41 extending through the tie plates and through the flanges 21 just mentioned. I have provided also an improved drawer and drawer support for a sheet metal table of

this general character, which will now be described.

This last mentioned construction included a drawer support, comprising a sheet 51 bolted at 52 at the front and back and to the flanges 21 of the front and back rails. This plate is provided at each longitudinal edge with a downwardly extending U-flange 54 which provides a guideway 55 adapted to receive the free end 56 of companion U-metal members 57 extending up from the drawer proper 58. This drawer may have any usual or preferred construction, being shown as consisting of a sheet of metal bent at 59 to provide the bottom 61 and the sides 62, these sides being inturned at their top at 63 for engagement with the U-members 57 as will be presently described. At the front and back drawer ends, indicated respectively at 64 and 65, are provided and these members have peripheral flanges 66 at their bottoms and sides suitably secured to the edges of the sheet forming the bottom and sides of the drawer. Each U-member comprises a vertical portion 71 bent at 72 to provide a shoulder 73 for engagement with an inturned flange 74 at the top edge of the sides of the drawer and extending vertically upward therebeyond and returned upon itself to provide the U-portion of the member. The front wall of the drawer is bent over as indicated at 75 to engage above the supporting sheet 51, which is also flanged or bent down at the front at 76, overlying flanges are thus provided at the upper edge of the front of the drawer. The drawer may be provided with a lock 77 having a bolt 78 engageable behind the flange 76, which may be inturned as indicated at 79 to prevent any separation of the overlapping parts of the drawer and support when the locking bolt is projected into locked position. The upper edge of the rear wall of the drawer is bent inwardly as indicated at 81 and to this is fastened an upwardly extending leaf spring 82 adapted to engage behind the flange 76 to prevent the drawer being inadvertently pulled beyond its support, i. e. pulled out beyond a predetermined amount. An opening 83 is provided through the leaf spring 82 to permit a finger on the hand of the manipulator to engage above the leaf spring when the drawer is partly open to pull it down beneath the level of the flange 76 for complete removal of the drawer. If desired the bottom may be pressed upwardly at 84 to provide a hand hold in the drawer for opening and closing.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention

or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

- 5 1. A sheet metal table, comprising in combination a top portion having return flanges at its periphery, rails engaging in said return flanges, and legs securing said rails together and locking said top to said rails.
- 10 2. A sheet metal table, comprising in combination a top having return peripheral flanges, rails having parts extending into said return flanges, and legs of angle formation secured to oppositely extending rails and thereby retaining said parts in said flanges to lock said top to said rails.
- 15 3. A sheet metal table, comprising a top, rails supporting the same, legs engaged only with said rails and locking the same to said top.
- 20 4. A sheet metal table, comprising in combination: a top having inwardly turned peripheral flange portions, a plurality of rails having outwardly turned flange portions cooperating with the flange portions of said top, and a plurality of legs secured to said rails to interlock the latter in rigid supporting engagement with the said top.
- 25 5. A sheet metal structure, comprising in combination: a top having inwardly turned peripheral flange portions a plurality of rails having outwardly turned flange portions cooperating with the flange portions of said top, and a plurality of legs secured to said rails to interlock the inwardly and outwardly turned flanges of said top and said rails to secure said top to said structure.
- 30 6. A sheet metal table, comprising an imperforate top having peripheral flanges, rails of substantially Z-form frictionally engaged with said flanges, and legs secured to said rails.
- 35 7. A sheet metal table, comprising in combination a top, flanged rails therefor, legs supporting said rails, and cross-supports secured to said rails, the connections between said rails and cross supports being arranged in a plurality of planes.
- 40 8. A sheet metal table, comprising in combination a top, flanged rails therefor, legs supporting said rails, and cross-supports secured to said rails, the connections between said rails and cross supports being arranged in a plurality of angularly arranged planes.
- 45 9. A sheet metal table, comprising in combination a top, flanged rails, table legs and cross-supports, means securing said cross-supports to a flange of said rail, and clips securing said cross-supports to the body of said rails.
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10. A sheet metal table, comprising a top, rails, table legs, and flanged cross-supports, the flanges of said cross-supports and rails being secured together, and the webs or bodies of said cross-supports being independently secured together.

11. In a table the combination of a sheet metal top having its edges formed into downwardly and inwardly extending flanges, rails arranged between said flanges and top and held from relative vertical movement thereby and supporting the top, and legs each secured to a side and end rail and connected with each other by the rails and holding the rails interlocked within said flanges and supporting said rails and top.

12. A table, composed of units, each consisting of an imperforate top, legs, flanged rails connected to said legs and supporting said top, and means connecting said rails to secure the flanges of adjacent rails together to secure said units into a single table.

13. A unitary sheet metal structure, comprising in combination: a top portion having inwardly turned flanges around the periphery thereof, rail members having side flanges cooperating with said inwardly turned flanges of the top portion, legs securing said rails together to keep them in locking engagement with the top, a support having depending hooked flanges carried by said rails, and a drawer slidably carried by said support, said drawer having upwardly extending hooked flanges engaging the depending hooked flanges of said support, said support having a downwardly extending flange at its front and adapted to be engaged by a lock on said drawer to maintain the latter in closed position.

14. A unitary sheet metal structure, comprising in combination: a top portion having inwardly turned flanges around the periphery thereof, rail members having side flanges cooperating with said inwardly turned flanges of the top portion, legs securing said rails together to keep them in locking engagement with the top, a support having depending hooked flanges carried by said rails, and a drawer slidably carried by said support, said drawer having upwardly extending hooked flanges engaging the depending hooked flanges of said support, said support having a downwardly extending flange at its front and adapted to be engaged by a lock on said drawer to maintain the latter in closed position, said drawer and support having overlying cooperating flange portions at the front thereof for protecting the lock against manipulation.

WALTER N. VANCE.