Nov. 5, 1929. L. STICKLEY 1,734,651

CABINET

Filed June 27, 1928 2 Sheets-Sheet 1

Fig. 1.

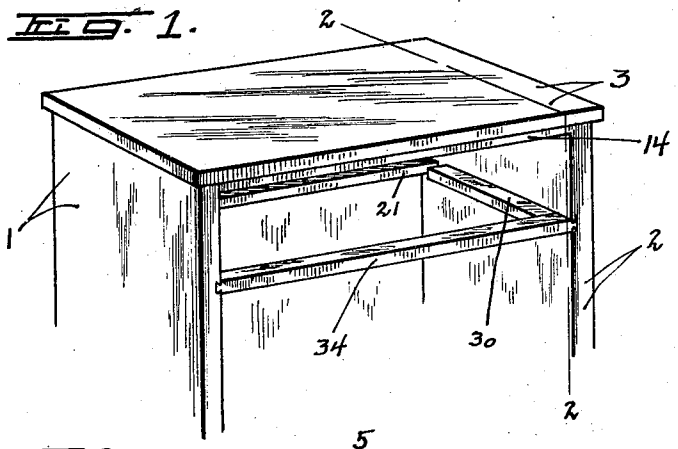


Fig. 2.

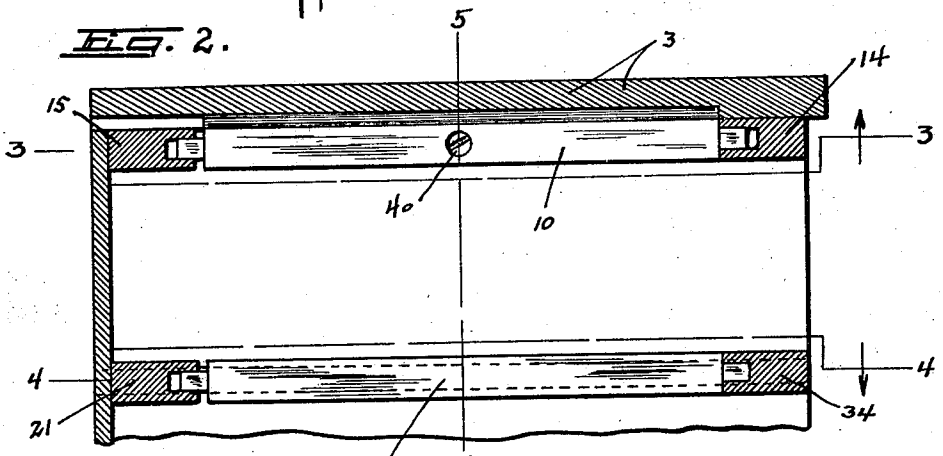
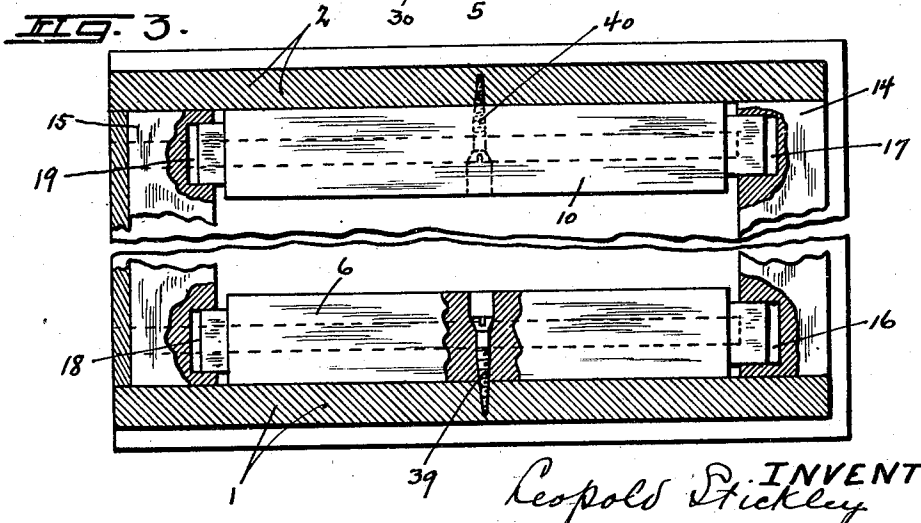


Fig. 3.



Leopold Stickley INVENTOR

BY Dennison & Thompson ATTORNEYS.

WITNESS

H. W. Hurst

Nov. 5, 1929. L. STICKLEY 1,734,651

CABINET

Filed June 27, 1928 2 Sheets-Sheet 2

FIG. 4.

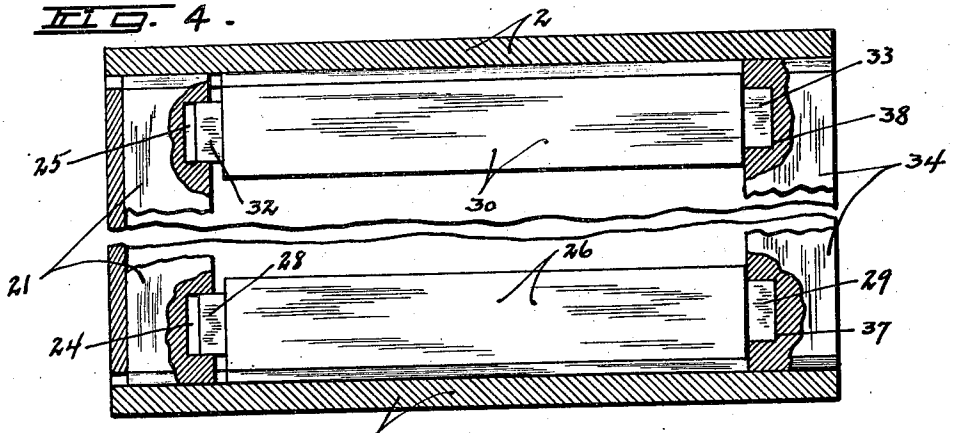


FIG. 5.

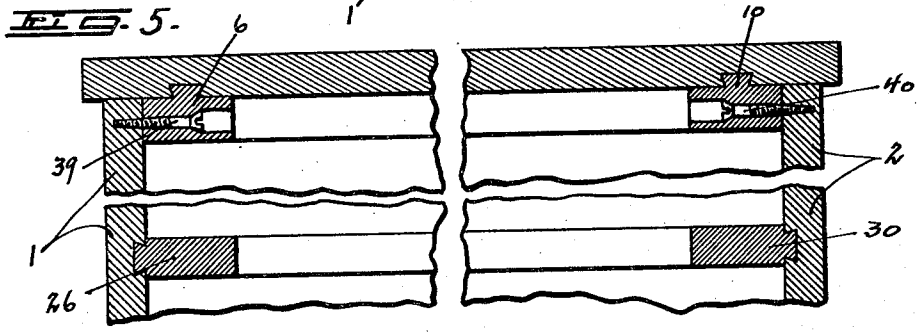
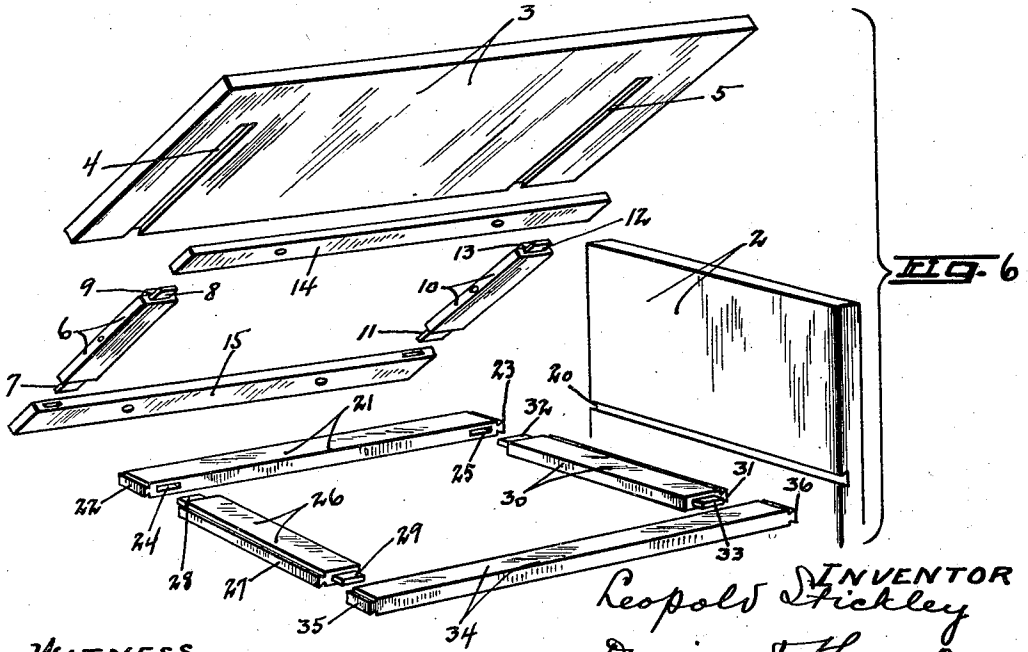


FIG. 6



WITNESS.
A. P. Hurst.

INVENTOR
Leopold Stickley
BY Dennison & Thompson
ATTORNEYS.

Patented Nov. 5, 1929 1,734,651

UNITED STATES PATENT OFFICE

LEOPOLD STICKLEY, OF FAYETTEVILLE, NEW YORK

CABINET

Application filed June 27, 1928. Serial No. 288,631.

This invention relates to a new and improved cabinet construction and has particular reference to articles of furniture which are made out of wood and which have drawers or shelves contained therein.

Hitherto it has been the practice to construct cabinets of this description in a solid and rigid fashion so that the top, bottom, back and sides were rigidly secured and braced one to the other. This type of construction is open to the serious objection that under changing conditions of temperature and humidity the wood of which the cabinet is constructed will expand and contract and the extent of the expansion and contraction will be different in pieces of wood which are of different size and shape. The larger pieces of wood entering into the construction of such a cabinet are usually those composing the top and sides which are the ones exposed to view. It has been found that when expansion or contraction of the top and sides takes place such natural expansion or contraction which would normally take place along a given path of movement cannot take place along such normal line of movement due to the fact that these parts of the cabinet are at different points rigidly connected together and to other parts of the structure. This being the case it very frequently happens that the top and sides of a cabinet will warp, check or crack and such a happening will seriously affect the appearance of the article.

The main object of my invention is to construct a cabinet of the type described in such a manner that the normal expansion and contraction of the top and sides of the article will not be interfered with.

Another object of my invention is to construct a cabinet which will permit the normal expansion and contraction of the top and sides thereof but which at the same time will hold the different parts of the structure in their original shape and form.

Other objects and advantages relate to the size, shape and arrangement of parts all as will more fully appear from the following description taken in connection with the accompanying drawings in which:—

Figure 1 is a perspective view of the upper part of a cabinet showing my new and improved construction.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is a section on line 5—5 of Figure 2.

Figure 6 is a perspective view of the top, one side and drawer guides of a cabinet ready to be assembled together.

As perhaps may best be seen from Figures 1 and 6 my construction requires a side member —1—, a second side member —2— and a top member —3—. In order to secure members 1, 2 and 3 together to form a unitary structure I provide in top member —3— a pair of parallel spaced grooves 4 and 5. A locking plate 6 having a tenon 7 on one end and a similar tenon 8 on the other end and carrying on its upper surface longitudinally disposed a dove-tail 9 is assembled with top 3, dove-tail 9 entering into groove 4. A second locking plate 10 of similar construction to locking plate 6 and having on one end a tenon 11 and on the other end a tenon 12 and a dove-tail 13 is also assembled in top 3 with dove-tail 13 in groove 5. A stop plate 14 is fixed on the under surface of top 3 in spaced relation to its front longitudinal edge by means of screws, not shown. A second stop late 15 is affixed by screws, not shown, to the under surface of top 3 in spaced relation to its rear longitudinal edge. Stop plate 14 is provided with mortises 16 and 17 for the reception of tenons 8 and 12, respectively. Similarly stop plate 15 is provided with mortises 18 and 19 for the reception of tenons 7 and 11, respectively. The distance between stop plates 14 and 15 is such that tenons 7 and 8 are free to move in relation to mortises 18 and 16 and tenons 11 and 12 are free to move in relation to mortises 19 and 17.

A groove —20— is formed in side member —2— in spaced relation to and parallel with its top edge. A similar groove, not shown, is formed in side member —1— and is disposed in the same plane as groove —20—. A locking plate —21— having a dove-tail —22— on one end and another dove-tail —23— on the other end and having on its

forward face in spaced relation mortises 24 and 25, is assembled with side members 1 and 2 with dove-tail —22— in the groove not shown, in side member —1— and with dove-tail —23— in groove —20—. Locking plate —21— is positioned with its rear longitudinal edge in registration with the rear edges of side members 1 and 2 and is fixed in position by gluing or other convenient means A side bar —26— is formed with a dove-tail —27— on its outer longitudinal edge and with a tenon 28 on one end and a tenon 29 on the other end. A similar side bar —30— is formed with a dove-tail —31— on its outer longitudinal edge and with a tenon —32— on one end and a tenon —33— on the other end. A second locking plate —34— similar to locking plate —21— has on one end a dove-tail —35— and on the other end a dove-tail —36— and carries on its inner face mortises —37— and —38—. Side bar —26— is placed in position with its dove-tail —27— in the groove, not shown, in side member —1— and with tenon —28— in mortise —24—. Side bar —30— is placed in position in side member 2 with dove-tail —31— in groove —20— and with tenon —32— in mortise —35—. Locking plate —34— is placed in position with dove-tail —35— in the groove, not shown, in side member —1— and with dove-tail —36— in groove —20—, locking plate —34— being positioned with its front longitudinal edge adjacent the foreward edges of side members 1 and 2 and with tenon —29— in mortise —37— and tenon —31— in mortise —38—. Side bars —26— and —30— are secured to locking plate —34— by gluing or other convenient means. The distance between locking plates 21 and 34 is such that tenons 28 and 32 are free to move longitudinally in relation to mortises 24 and 25, respectively.

Top member 3 is positioned in registration with the upper edges of side members 1 and 2 and with locking plate 6 in registration with side member 1 and locking plate 10 in registration with side member 2. Locking plate 6 is secured to side member 1 by means of a screw —39— and locking plate 10 is secured to side member 2 by means of screw 40. Screws 39 and 40 are preferably positioned at the center points of locking plates 26 and 30, respectively.

It will be understood that similar assemblies consisting of duplicates of locking plates 21, 26, 30 and 34 may be used if desired in different positions in my structure, and it will also be understood that a back and bottom is provided to make a unitary structure. It will also be understood that if it is desired locking plates 26 and 30 may be joined together to form a shelf.

The construction just described permits the free expansion and contraction of side members 1 and 2 and of top 3 due to the fact that side member —1— carrying locking plates 26 and 21 is not held against expanding and contracting movement because tenon 28 can move longitudinally in relation to mortise —24—. Similarly side member —2— carrying locking plates —30— and —34— is free to expand and contract because of the fact that tenon —32— is free to move longitudinally in mortise —25—.

Top member —3— is free to expand and contract due to the fact that dove-tail —9— is free to move in groove —4— and dove-tail —13— is free to move in groove —5—. Such free movement is not inhibited by stop plates 14 and 15 carried on top member 3 due to the fact that tenons 7 and 9 are free to move in mortises 18 and 16, respectively, and tenons 11 and 12 are free to move in mortises 19 and 17, respectively.

The construction here disclosed is securely locked together against distortion but at the same time permits the normal expansion and contraction of the different parts of the structure so that warping or checking cannot occur.

It will be understood that the size and relation of parts of my device may be changed to meet varying conditions depending upon the kind of wood which is employed and also depending upon the climate in which the structure is to be used without departing from the spirit of my invention, for altho I have shown and described a specific structure and form of part as an exemplification of an embodiment of my invention I do not desire to restrict myself to the exact size, shape or relation of parts as various changes may be made within the scope of the appended claims.

What I claim is:

1. In a device of the class described, opposed side members, a top member, a means connecting the top member to each of the side members, said means preventing vertical movement of the top member in relation to the side members while permitting lateral movement of the top member in relation to the side members, and additional means limiting such lateral movement of the top member.

2. In a device of the class described, a pair of opposed side members, a plate on each side member adjacent the upper edge thereof, a top member positioned on the upper edges of the side members, and means on the plates for securing the top member against vertical movement in relation to the side members while permitting lateral movement of the top member in relation to the side members, and additional means limiting such lateral movement of the top member.

3. In a device of the class described, opposed side members, a top member, a means connecting the top member to each of the side members, said means preventing verti-

cal movement of the top member in relation to the side members while permitting lateral movement of the top member in relation to the side members, additional means limiting such lateral movement of the top member, and additional means positioned in spaced relation to the top member for connecting the two side members, portions of such latter named means being movable relatively to the side members.

4. In a device of the class described, a pair of opposed side members, a plate on each side member adjacent the upper edge thereof, a top member positioned on the upper edges of the side members, means on the plates for securing the top member against vertical movment in relation to the side members while permitting lateral movement of the top member in relation to the side members, additional means limiting such lateral movement of the top member, and additional means positioned in spaced relation to the top member for connecting the two side members, portions of such latter named means being movable relatively to the side members.

5. In a device of the class described, opposed side members, a top member, a pair of locking plates slidably mounted in the top member in spaced relation, one of said locking plates being secured to one side member and the other locking plate being secured to the other side member, a pair of stop plates secured to the top member in spaced relation, said stop plates limiting the movement of the top member by coaction with the locking plates.

6. In a device of the class described, opposed side members, a top member, a pair of locking plates slidably mounted in the top member in spaced relation, one of said locking plates being secured to one side member and the other locking plate being secured to the other side member, a pair of stop plates secured to the top member in spaced relation, said stop plates limiting the movement of the top member by coaction with the locking plates, a pair of tie bars connecting the side members and being in spaced relation, a locking plate secured to each of the side members and coacting with the stop plate to permit a limited movement of the side members.

In witness whereof I have hereunto set my hand this 25th day of June, 1928.

LEOPOLD STICKLEY.