J. RUWITCH.

DRAWER CONSTRUCTION.

APPLICATION FILED JAN. 16, 1922.

1,438,333. Patented Dec. 12, 1922.

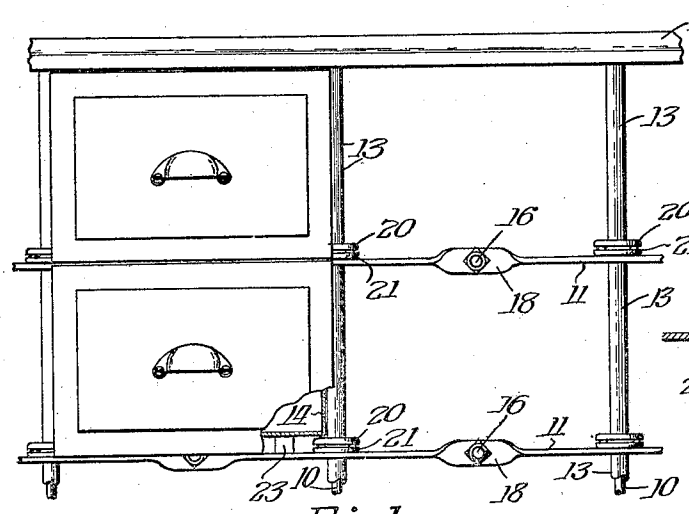


Fig.1

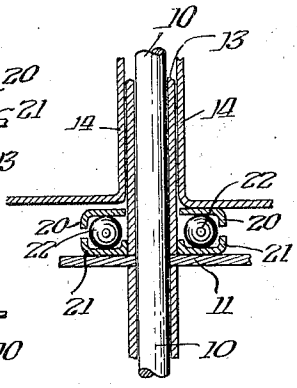


Fig.3

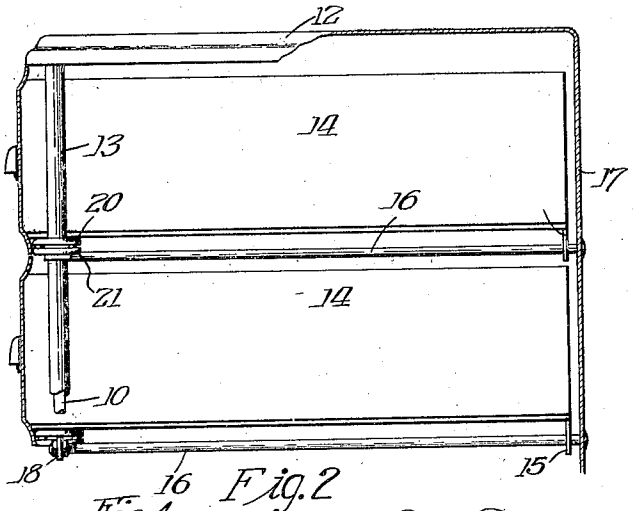


Fig.2

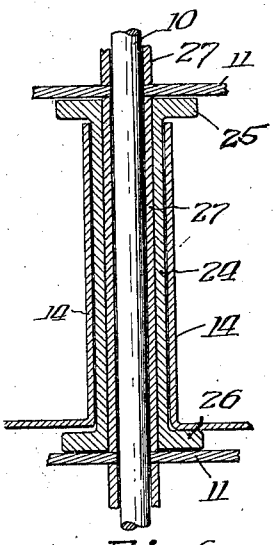
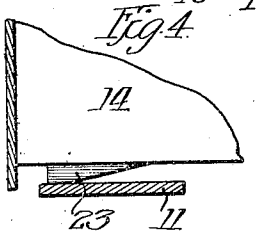


Fig.6

Fig.4



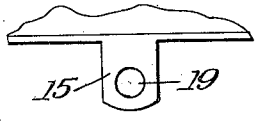
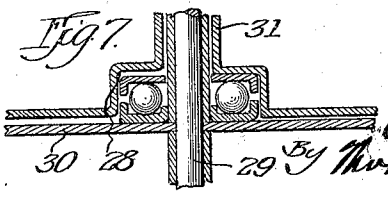


Fig.5

Fig.7.



Inventor
Julius Ruwitch
By Murray Katz Wilson
Attorneys

Patented Dec. 12, 1922. 1,438,333

UNITED STATES PATENT OFFICE.

JULIUS RUWITCH, OF CHICAGO, ILLINOIS.

DRAWER CONSTRUCTION.

Application filed January 16, 1922. Serial No. 529,541.

To all whom it may concern:

Be it known that I, JULIUS RUWITCH, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Drawer Construction, of which the following is a specification.

My invention relates to a novel drawer arrangement and particularly to certain details of construction relating thereto.

One of the principal objects of my invention is to simplify and lessen the cost of drawer construction work, particularly with reference to the drawers now commonly utilized by merchants for containing their goods. It has been found desirable, particularly in the large cities where dust and smoke are common, to carry goods or samples thereof in drawers so arranged as to be readily available to the salesmen in charge of such goods. To that end I have provided a simple construction by which stacks of drawers may be built up in a very economical manner and operated with a minimum of exertion on the part of the user. Another object of the invention is to provide for a series of drawers arranged either in horizontal or vertical rows or both, the parts being so arranged as to effect a large economy of space. This is an essential element in the use of devices of the kind referred to. In order to effect this result the supporting elements for the drawers are of the utmost simplicity and the minimum number of parts. Furthermore, in order to lessen the cost of construction and installation the parts employed are such as are commonly produced and carried in stock, as for instance, rods, flat bars and bolts. These, together with the anti-friction elements, which may consist of a standard form of roller bearing, constitute the sole frame and supporting elements of the drawer construction.

In a stack of drawers constructed in the manner described, the skeleton frame work is not exposed to view, the drawer flanges being of such width as to wholly conceal the frame when the drawers are closed.

A further object of the invention is to provide a construction which has independent bearing support from the outer walls, frames or panels. Each stack of drawers is supported on its own standards or uprights and therefore may be installed without regard to the wall against which the drawers are placed.

The invention will be more readily understood by reference to the accompanying drawings, wherein,

Fig. 1 is an elevation of a plurality of drawers and the frame construction associated therewith;

Fig. 2 is a longitudinal sectional view showing the drawers and frame in side elevation;

Fig. 3 is an enlarged sectional view through the anti-friction element;

Fig. 4 is an enlarged sectional view showing the means employed for effecting the elevation of the drawers when in closed position in order to relieve the antifriction element of the weight thereof.

Fig. 5 is a fragmentary view showing the form of connection between the rear end of the drawer and its support;

Fig. 6 is an enlarged sectional view through a modified form of anti-friction element, and,

Fig. 7 is an enlarged sectional view showing a modified form of connection between the drawer and anti-friction supporting element.

In the drawings it will be seen that the drawer construction comprises a skeleton frame including the vertical rods 10, and horizontal flat bars 11. The rods are suitably anchored at their upper and lower ends, the upper ends being held in a top closure or cap 12. The horizontal bars are maintained in proper spaced relation by means of spacing sleeves 13, which are in effect tubes through which the rods 10 extend. The rear end of the drawer, indicated at 14, is supported only at its central portion, a projection 15 therefrom being constructed for sliding engagement with a longitudinally extending rod 16. This rod, which is shown in the form of a bolt, extends from the rear wall 17, to a deflected intermediate portion 18, of a horizontal bar 11. If desired, an anti-friction element in the form of a roller or ball bearing may be provided in place of the aperture 19, in the projection 15, but I am convinced that such provision is unnecessary and the elimination thereof serves to materially reduce the cost of construction.

In order to provide for ease of movement of the drawers in opening and closing the same, I provide anti-friction elements, an example of which is indicated in Fig. 3. In that view I illustrate a ball bearing including upper and lower races 20, 21, the balls 22

being confined therebetween. The parts constituting the races are axially apertured to accommodate the sleeve 13 therein. The bottom race rests upon one of the horizontal bars 11. Thus it will be seen that the same ball bearing serves to support the respective sides of two horizontally adjacent drawers. However, in order to effect this advantage it is necessary that when the drawers are in their closed position the weight thereof should be lifted from the anti-friction element; otherwise the weight of one drawer would prevent the free operation of the anti-friction element in withdrawing the adjacent drawer. To that end I provide, as shown in Fig. 4, a pair of inclined planes 23, one adjacent to each of the side edges of the drawer, these being adapted to cooperate with the horizontal bar 11, and to effect the elevation of the drawer as it approaches its closed position. In Fig. 3 one of the drawers is shown in an elevated position while the other is shown as resting upon the ball bearing.

In the construction shown in Fig. 6, I provide an anti-friction element in the form of a spool 24, the upper and lower flanges 25, 26, of which serve to guide and support the drawer. These spools are likewise mounted upon the spacing sleeves 27 and operate in a manner similar to that already described.

In the construction shown in Fig. 7, the anti-friction element is the same as that shown in Fig. 3. I have, however, provided for lateral as well as vertical guiding effect by grooving the lower corners of the drawers as indicated at 28. In other respects the construction so far as the rod 29, cross bar 30 and spacing sleeves 31 is concerned, is identical with that heretofore described.

The advantages of a construction such as I have described will be readily apparent. A plurality of stacks of drawers may be installed at a minimum of expense and may be operated with little exertion. Obviously the arrangement is capable of much modification and I do not wish to be limited except as indicated in the appended claims.

I claim:

1. In drawer construction, the combination of a skeleton frame including vertical posts, an anti-friction element mounted at each side of a drawer opening for rotation about a post as an axis, a central longitudinally extending guiding and supporting bar, and a drawer supported at its sides on said anti-friction elements and at its inner end on said bar.

2. In drawer construction, the combination of a skeleton frame providing for vertical and horizontal rows of drawers, said frame including continuous vertical posts at the side of each vertical row of drawers, anti-friction devices mounted for rotation about a post as an axis, and drawers supported at their sides on said anti-friction devices.

3. In drawer construction, the combination of a skeleton frame providing for vertical and horizontal rows of drawers, said frame including continuous vertical posts at the side of each vertical row of drawers, anti-friction devices mounted for rotation about a post as an axis, drawers supported at their sides on said anti-friction devices, and means for supporting the inner ends of said drawers at a middle point.

4. In drawer construction, the combination of a skeleton frame providing for vertical and horizontal rows of drawers, said frame including continuous vertical posts at the side of each vertical row of drawers, anti-friction devices mounted for rotation about a post as an axis, and drawers supported at their sides on said anti-friction devices, the same anti-friction devices serving as a support for two horizontally adjacent drawers.

5. In a drawer construction, the combination of a frame providing for a horizontal row of drawers, said frame including vertical posts, an anti-friction device mounted for rotation on one of said posts and a portion of the anti-friction device projecting into the plane of movement of two adjacent drawers.

6. In a drawer construction, the combination of a frame providing for a horizontal row of drawers, said frame including vertical posts, an anti-friction device mounted for rotation on one of said posts and a portion of the anti-friction device projecting into the plane of movement of two adjacent drawers, and means located at the bottom and near the center of the drawer opening for supporting and guiding the rear end of the drawer.

Signed at Chicago, Illinois, this 11th day of January, 1922.

JULIUS RUWITCH.