D. E. KURTZ.

CABINET DRAWER.

APPLICATION FILED JUNE 24, 1910.

1,092,270.

Patented Apr. 7, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

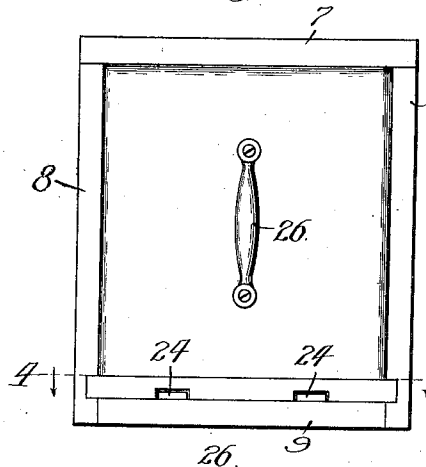
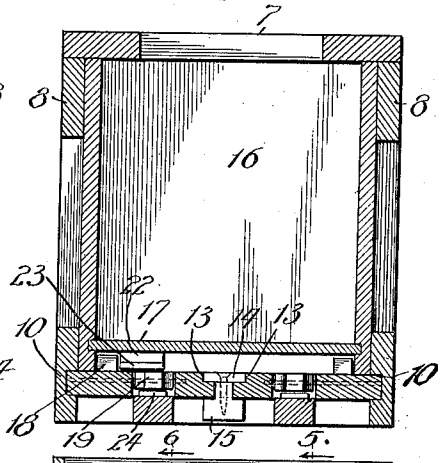


Fig. 3.



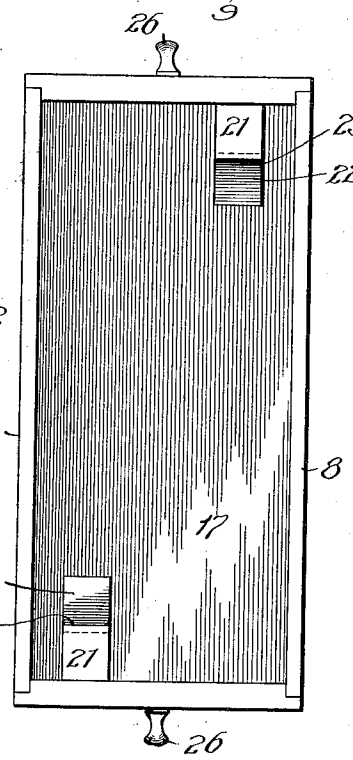


Fig. 2.

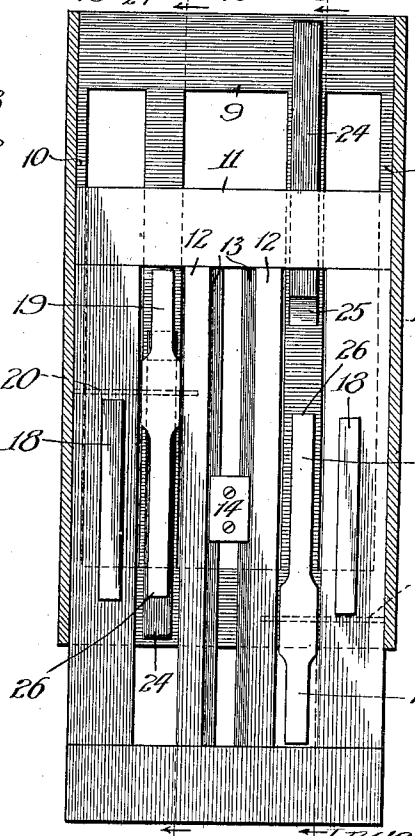


Fig. 4.

Witnesses:
Geo. C. Davison
J. J. Wilson

Inventor:
Daniel E. Kurtz
By Linthicum Belt & Keller
Attys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

D. E. KURTZ.

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2 SHEETS—SHEET 2.

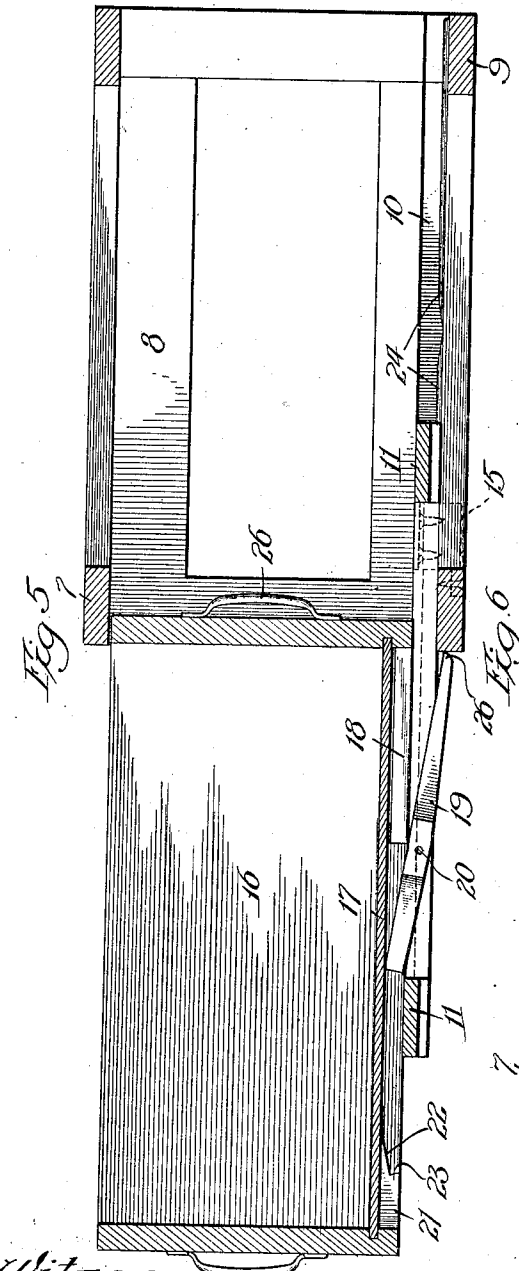


Fig. 5.

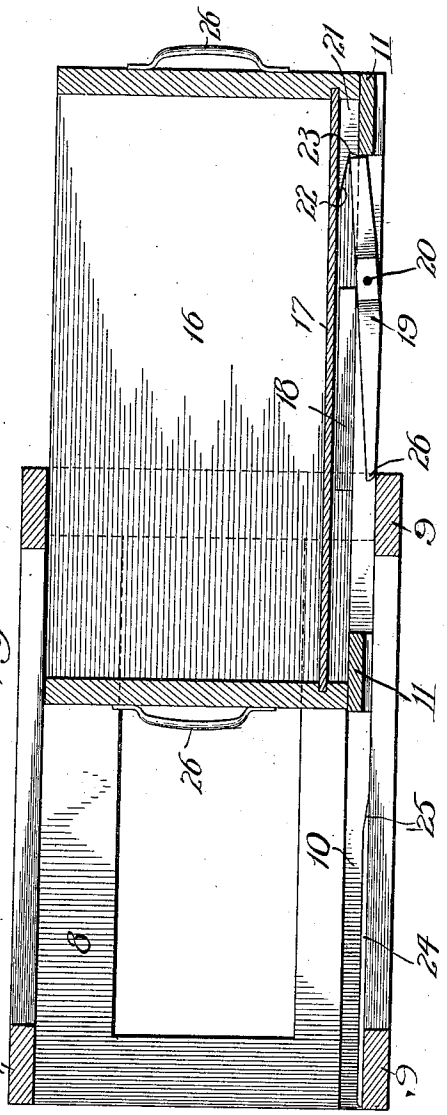


Fig. 6.

Witnesses:
Geo. C. Davison
J. J. Wilson

Inventor:
Daniel E. Kurtz
By Linthicum Belt & Fuller
Attys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DANIEL E. KURTZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO SPIEGEL, MAY, STERN COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF WEST VIRGINIA.

CABINET-DRAWER.

1,092,270. Specification of Letters Patent. **Patented Apr. 7, 1914.**

Application filed June 24, 1910. Serial No. 568,760.

To all whom it may concern:

Be it known that I, DANIEL E. KURTZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cabinet-Drawers, of which the following is a specification.

This invention relates to certain novel improvements in cabinet drawers and its object is primarily to provide a drawer which can be readily opened in either direction and which will be adequately supported when in its opened or extended position. It is essential that sliding drawers have some means of support when they are open and this is particularly true in large drawers such as are employed in filing cabinets and other places where considerable weight is carried by the drawer.

In order that the drawer in my invention, which is adapted to be opened or extended outwardly in either direction beyond the frame of the cabinet, may be suitably and sufficiently rigidly supported when in extended position, I have provided a drawer support slidably mounted in the main frame of the cabinet and upon which the drawer itself is slidably mounted. The support is adapted to be extended longitudinally beyond the frame in either direction and it is provided with latches which are adapted to maintain it in extended position when the drawer is open. The drawer itself, however, is provided with releasing devices which are adapted to release the latches upon closure of the drawer to permit the support to be slidden into the frame simultaneously with and by the drawer. During the inward movement of the drawer after the support has been released from its locked position, the drawer is automatically connected to the support, whereby the support is moved inwardly by the drawer. There is also provided on the frame of the cabinet a device which breaks the connection between the drawer and support upon closure of the drawer, thereby permitting relative movement of the drawer on the support to permit the drawer to be extended beyond the outer extremity of the support when in extended position.

This invention will be best understood by reference to the following description when taken in connection with the accompanying drawings illustrating a preferred embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

Referring to the drawings—Figure 1 is an end elevation of a drawer embodying my invention. Fig. 2 is a bottom view of the drawer itself. Fig. 3 is a transverse sectional view of the frame support and drawer taken near one end thereof looking toward the center. Fig. 4 is a section on the line 4—4 of Fig. 1. Fig. 5 is a section on the line 5—5 of Fig. 4, showing the drawer and support extended to the left, and, Fig. 6 is a section on the line 6—6 of Fig. 4, showing the drawer as partially extended to the right.

My invention is capable of use in any construction where it is desirable to provide a drawer or drawers which will open in both directions, but it is particularly adapted for employment in sectional filing cabinets. Whereas any number of drawers may be embodied in one section, I have shown for the purpose of illustration merely, a single drawer which will be sufficient for a disclosure of this invention.

On the drawings, 7 designates the top, 8 the sides, and 9 the bottom of a drawer supporting frame. The top and sides of the frame may be open as shown, or closed if desired, or the frame may be extended to accommodate any desired number of drawers similar in construction to the one hereinafter to be described.

The side members 8 of the frame are grooved at 10 near their lower sides to provide guideways or sliding tracks in which is adapted to slide longitudinally a drawer support 11. The drawer support comprises end members, side members, and a pair of longitudinally extending members 12 disposed between the side members, and grooved at their adjacent upper edges 13 to provide a sliding track for a block 14 which is of substantially the same height as the depth of the groove and is screwed to a grooved block 15 which extends beneath the members 12. The block 15 is adapted to slide in the grooves 13 and serves as a stop to limit the outward movement of the drawer support in both directions, by being engaged between the end member of the support and the end of the frame, as clearly shown in Fig. 5. It will be evident from the above description that the drawer support is slidable in the grooves 10 in both

directions beyond the end of the frame, and is limited in its sliding movement in both directions by the stop block 15.

A drawer which is designated generally as 16, is slidably mounted upon the drawer support and is adapted to slide longitudinally within the main frame. The bottom 17 of the drawer is elevated as shown in Figs. 3 and 5, and a pair of blocks 18 are secured upon the side pieces of the drawer support to be engaged by the ends of the drawer projecting beneath the bottom to limit the outward movement of the drawer on the support, as shown in Fig. 5. The blocks 18 are of the required length to permit the drawer to be opened to its fullest extent in both directions without being entirely withdrawn from the frame.

In order that the drawer support may be maintained in its extended position while the drawer is open to act as a support for the drawer, I have provided a pair of latches 19 pivotally mounted upon the pins 20 between the side pieces and the longitudinal members 12 of the support. These latches are substantially identical in construction and a detailed description of one will suffice for a disclosure of this invention. It will be evident from inspection of Figs. 4, 5 and 6, that the latches are pivoted nearer one end than the other so that the long and heavier end will drop downwardly under the influence of gravity into position to engage with the outer end of the main frame and maintain the drawer support in extended position, as shown in Fig. 5, when the support has been drawn out to its limit. It is desirable that the drawer support be maintained in its extended position until, during the closing movement of the drawer, the outer ends of the drawer and of the support are brought into substantial alinement, whereupon during the remainder of the closing movement of the drawer the support should be carried inwardly into closed position with the drawer.

In order to release the latch 19 from locking engagement with the end of the main frame upon inward movement of the drawer to permit inward movement of the support, I have provided upon the bottom of the drawer and near the outer ends thereof, and in alinement with the latches, a pair of blocks 21 having a cam face 22 which will engage the shorter end of the latch as the drawer is moved inwardly and elevate the long end above the bottom of the frame into the position shown in Fig. 6. The blocks 21 are also provided with shoulders or abutments 23 adapted to engage with the outer end of the latch after the latch has been released. It will be evident from Fig. 6 that engagement of the shoulder 23 with the outer end of the latch will connect the drawer support and drawer together so that the support will be slidden into the frame by the drawer during its closing movement.

After the drawer has been closed, carrying with it the drawer support into the frame, it may be desirable when the drawer is next used that it be opened from the other end, and since the support can not be extended beyond the frame as far as the drawer, it is necessary that the connection between the drawer and support be broken to permit the drawer to be extended beyond the support. In order to release the outer end of the latch from engagement with the shoulder 23 on the block 21, there is provided upon the bottom of the frame a pair of strips or blocks 24 provided at their inner ends with cam surfaces 25. When the drawer and support are brought into substantially closed position, the inner rounded end 26 of the latch will ride up the inclined surface 25 of the block or strip, thereby swinging the latch 19 about its pivot to lower its outer end from engagement with the shoulder 23.

It will be evident that when the drawer and support are closed the long ends of both of the latches will be supported upon the strips 24 to maintain their outer ends free from the path of the shoulders 23 so that the drawer may be movable longitudinally in either direction upon the support until one of its outer ends engages with the stop blocks 18. Continued outward movement of the drawer in either direction after the end has engaged with the blocks 18, will withdraw the support from the frame until further outward movement of the support, and consequently the drawer, is prevented by the stop block 15. When the support has been withdrawn to this position, the latch 19 will engage with the frame to maintain the support in its extended position. Upon closing movement of the drawer, the support will first be released from its locked position relatively to the frame and will then be connected with the drawer to be carried inwardly thereby, as has been previously explained. Suitable handles 26 are preferably provided upon either end of the drawer.

My invention as above described, provides a substantial support for the drawer when opened in either direction, automatically maintaining the support in extended position until the drawer is partially closed, and automatically carrying the support into closed position in the frame upon further closing movement of the drawer. While a preferred embodiment of this invention has been shown and described, it will be evident that various minor mechanical details may be changed without departing from the spirit of the invention or sacrificing any of the material advantages thereof.

What I claim is:

1. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted

in said frame to be extended beyond the frame at either end thereof, a drawer slidably mounted on said support, means for automatically locking said support in extended position when it is extended in either direction beyond the frame, and means adapted to engage said locking means and release the same upon closing movement of the drawer.

2. In a cabinet drawer, the combination of a frame, a sliding support adapted to be extended beyond the frame at either end thereof, a drawer slidably mounted on said support, means carried by the support for automatically locking said support in extended position at each end of the frame, and means carried by the drawer in position to release said locking means upon closing movement of the drawer relatively to the support to thereby permit the support and drawer to be slidden into the frame.

3. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame to be projected longitudinally in either direction beyond the frame, a drawer slidably carried by said support, means movable about a horizontal axis carried by the drawer support adapted to engage with the frame beneath said drawer support and adapted to also engage above the drawer support with the drawer whereby movement of the support with respect to the drawer and the frame is controlled by movement of the drawer.

4. In a cabinet drawer, the combination of a frame, a sliding support adapted to be extended along the frame in either direction, a drawer slidably mounted on said support, means pivotally carried on the support and adapted to engage with the frame when the support is extended to maintain the support in extended position, a device for releasing said means from the frame upon predetermined closing movement of the drawer, said means when released being adapted to be connected with the drawer whereby the support is carried inwardly with the drawer, and means for disconnecting the drawer from said means to permit said drawer to slide relatively to the support.

5. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame and adapted to be extended beyond the frame at either end thereof, a device for limiting the outward movement of said support, means for locking said support in extended position, a drawer carried upon said support, means for limiting the movement of the drawer on the support, and means controlled by the drawer for automatically releasing the locking engagement between said support and frame upon closing movement of the drawer whereby the support and drawer may be slidden into the frame.

6. In a cabinet drawer, the combination of a frame, a drawer support mounted to slide in said frame, a latch carried by said support and adapted to lock the support in extended position, a drawer adapted to slide in said frame, means for automatically releasing the support from locking engagement with the frame and connecting it with the drawer upon initial closing movement of the drawer, whereby the support and drawer may be moved together into the frame, and means for automatically breaking the connection between said drawer and support when the drawer has assumed its closed position whereby the drawer may be moved relatively to the support beyond the frame in opposite directions.

7. In a cabinet drawer, the combination of a frame, a drawer support mounted to slide in said frame, a drawer slidably mounted upon said support, all constructed and arranged to permit the drawer and support to be extended in either direction beyond the frame, means for limiting the outward movement of the drawer in either direction, a plurality of devices carried by said support, each adapted to automatically lock the support in one of its extended positions, and means carried by the drawer for automatically releasing said locking means upon initial closing movement of the drawer to permit the drawer and support to be slidden into the frame from either direction.

8. In a cabinet drawer, the combination of a frame, a drawer support mounted to slide longitudinally in said frame, a drawer mounted to slide longitudinally on said support, means for limiting the outward movement of said drawer in both directions, means for automatically connecting said drawer and support together upon initial closing movement of the drawer whereby the support will be carried into the frame with the drawer from either direction, and means for automatically disconnecting said drawer from said support when the drawer and support have assumed their closed position whereby to permit longitudinal movement of the drawer relatively to the support in either direction.

9. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame and adapted to be extended longitudinally in either direction beyond the frame, a drawer slidably mounted on said support and adapted to be extended in either direction beyond the support, means for limiting the extension of the support and drawer, means carried by the support and adapted to engage with the frame to lock said support in extended position in either direction, means carried by the drawer and adapted to automatically release said locking means from engagement with the frame and automatically connect

said support and drawer together when the outer ends of the drawer and support are moved into substantial alinement, whereby to permit the drawer and support to be slidden into the frame, and means for disconnecting said drawer from the support to permit the drawer to open in the opposite direction.

10. In a cabinet drawer, the combination of a frame, a sliding drawer support adapted to be extended beyond the frame at either end thereof, a block slidably mounted in the frame and adapted to be engaged between the frame and the sliding support to prevent withdrawal of the support from the frame, a plurality of latches pivotally mounted on said drawer support, each adapted to engage with the frame to lock the support in extended position, a drawer slidably mounted on said support, a pair of blocks secured on the support for limiting the sliding movement of the drawer on the support, a cam block located on the drawer near each end thereof to release a latch from locking engagement with the frame, a shoulder on said cam block to abut against the end of said latch to slide the support into the frame with the drawer, and a cam on the frame to free the latch from engagement with said shoulder whereby the drawer may be moved independently of said support.

DANIEL E. KURTZ.

Witnesses:
WM. O. BELT,
I. J. WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."