Sept. 12, 1933. F. L. G. STRAUBEL 1,926,503

DRAWER CONSTRUCTION

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Fig. 2.

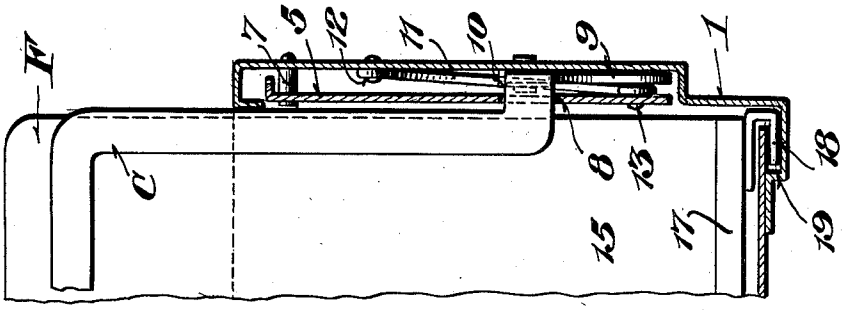


Fig. 1a.

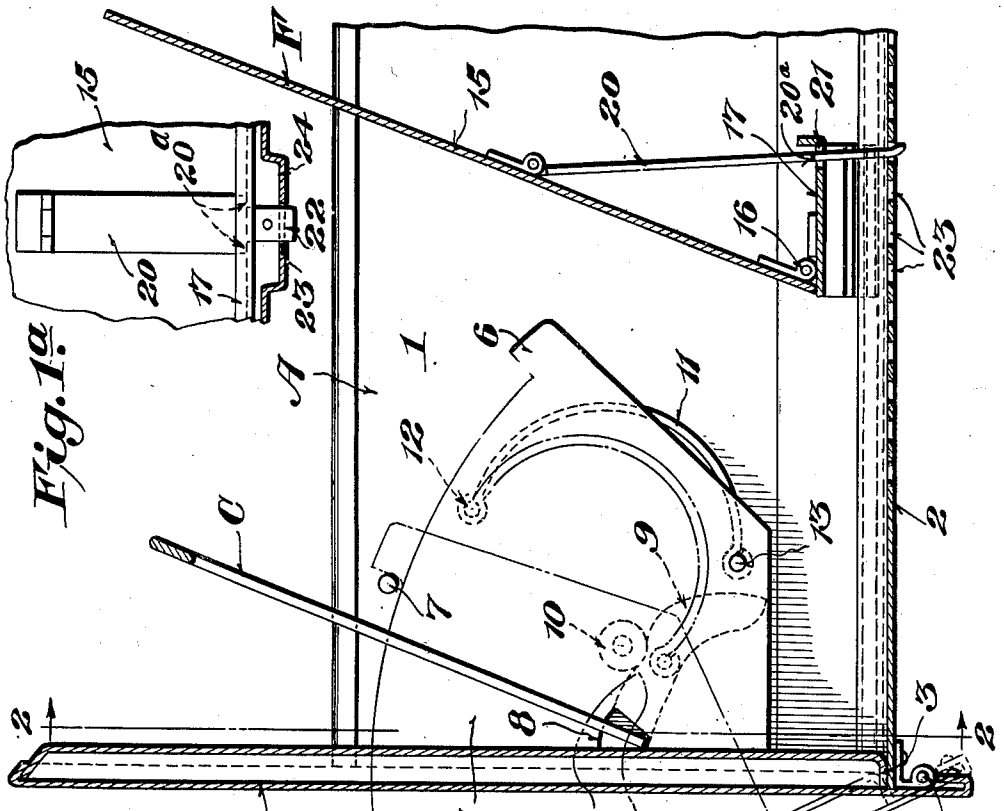
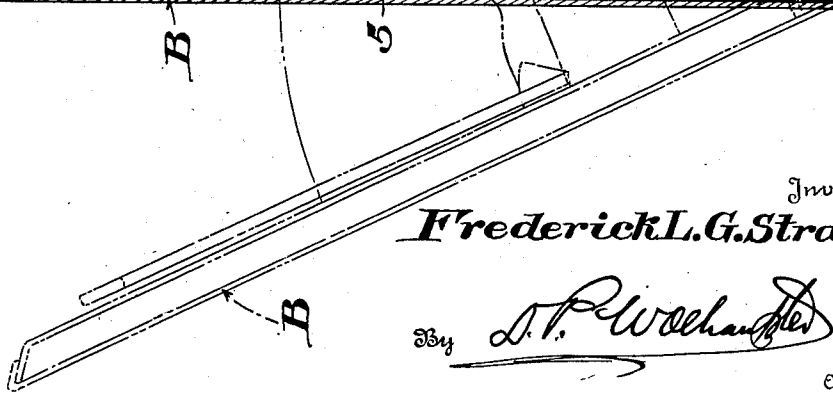


Fig. 1.



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DRAWER CONSTRUCTION

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Fig. 4.

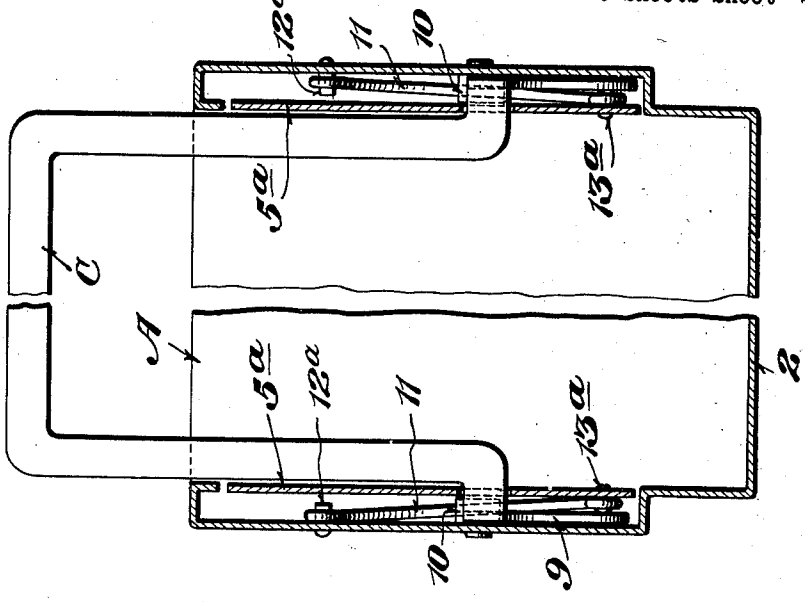
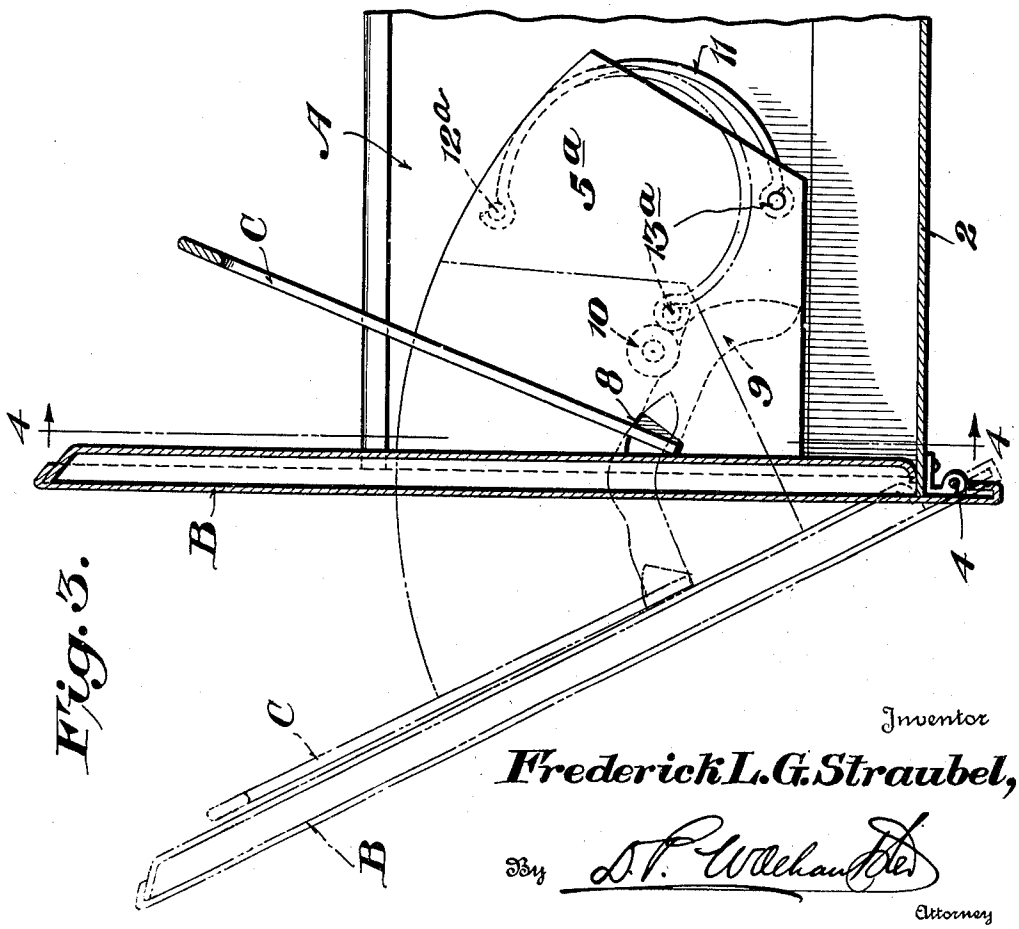


Fig. 5.



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DRAWER CONSTRUCTION

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Fig. 6.

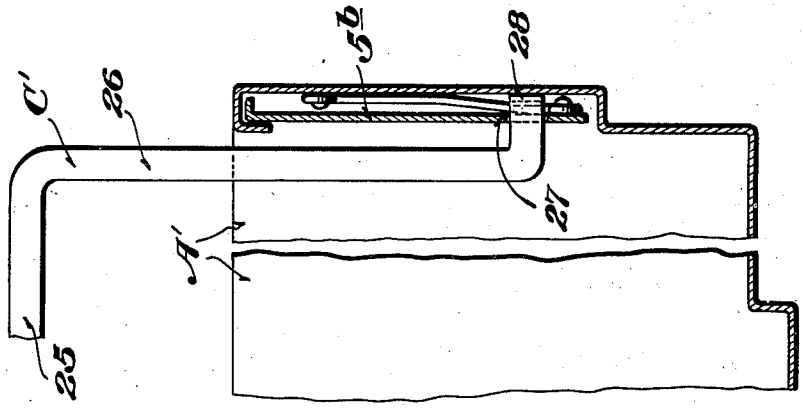
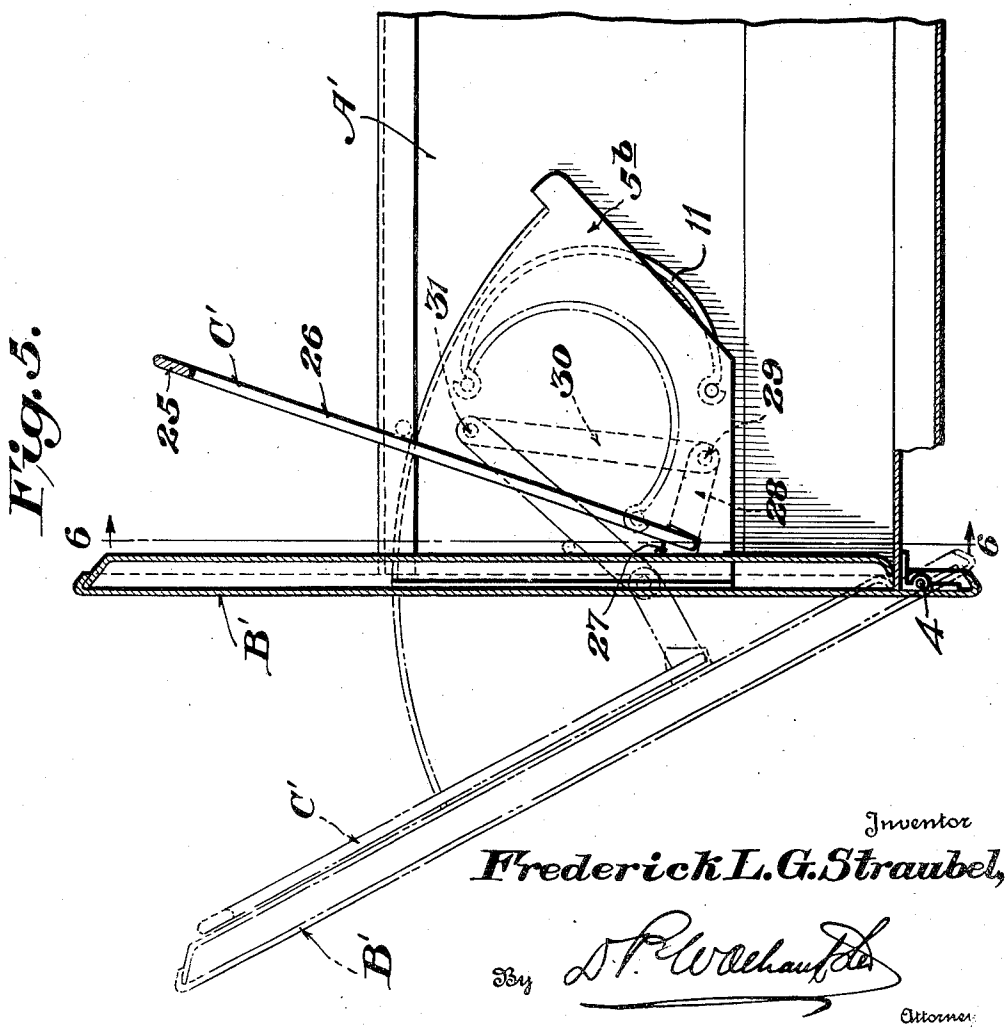


Fig. 5.



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1,926,503

UNITED STATES PATENT OFFICE

1,926,503

DRAWER CONSTRUCTION

Frederick L. G. Straubel, Green Bay, Wis., assignor of one-eighth to O. C. Straubel, Green Bay, Wis., and two-eighths to C. W. Straubel, Youngstown, Ohio

Application November 16, 1932
Serial No. 642,972

10 Claims. (Cl. 129—26)

This invention relates to drawers for filing cabinets, and more particularly to drawers of the type having a tilting front.

One of the objects of the invention is to provide a tilting front wherein the axis or pintle of the hinge connecting the front with the bottom of the drawer is located at a point below the bottom of the drawer, that is, at a point below the plane of the bottom of the drawer, so that when the tilting front is pulled open, additional space will be provided along the drawer bottom, in the direction of its length so that the files or the like can readily separate, thereby facilitating removal of the drawer contents.

A further and more important object is to provide novel means for controlling the operation of the tilting front, the same being particularly compact in form, and simple and practical to install and maintain. That is to say, the invention contemplates the use of a spring leaf strip, or wire, connected respectively with the drawer and a part of the tilting front, as distinguished from a coil spring which necessarily occupies more space than a spring strip or wire, and at the same time eliminates the necessity of levers or links usually employed in connection with coil springs.

Another object of the invention is to provide a novel compressor or throw back carried with the tilting front and which is simple and positive in its operation and control.

An additional object is to provide a novel adjustable follower for regulating the filing space in the drawer to render the front compressor effective.

With the foregoing and other objects in view, which will be more fully apparent as the nature of the invention is better understood, the same consists in the novel features of construction, combination and arrangements of parts hereinafter more fully described, illustrated in the accompanying drawings and defined in the appended claims.

A preferred and practical embodiment of the invention is shown in the accompanying drawings, in which:—

Figure 1 is a vertical sectional view of the improved construction.

Figure 1ª is a detail view of the follower locking means.

Figure 2 is a section taken on the line 2—2 of Figure 1, showing one side of the drawer.

Figure 3 is a vertical sectional view illustrating a modified form of stop or abutment means for the wings of the tilting front.

Figure 4 is a vertical sectional view taken on the line 4—4 of Fig. 3.

Figure 5 is a vertical sectional view illustrating a modified form of compressor operating means.

Figure 6 is a detail vertical section taken on the line 6—6 of Fig. 5, showing one side of the drawer.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

Referring to the accompanying drawings, the drawer A, consisting of the vertical side members 1 and horizontal bottom 2 is provided at its forward end with a tilting front B, the same being movably connected to the drawer bottom 2 by the hinge 3. The axis or pintle 4 of the hinge is dropped substantially below the plane of the bottom of the drawer so that when the front B is tilted outwardly, the inside face thereof will be moved a greater distance than if the hinge were located in the included angle between the drawer bottom and the front in its normal position. This arrangement provides additional space, as measured along the bottom of the drawer between the front B and the follower F, to ease up the drawer contents by releasing them at the bottom as well as at the top when the front is tilted outwardly and thus facilitate removal.

The tilting front B is preferably provided with the rearwardly extending wings 5 at each side thereof which not only serve as a guard to prevent the drawer contents from being displaced laterally when the tilting front is open, but also constitute a carrier for the compressor member C while at the same time providing for conveniently arranging the means for tensioning the tilting front to hold it in its open or closed position.

In the embodiment shown in Figure 1, the wings 5 are provided with the ears or abutments 6 adapted to engage with the stop pin 7 or its equivalent carried by the inner face of the drawer side 1. In the arrangement shown, the members 6 and 7 cooperate to define the maximum outward limit of movement of the tilting front. Since the compressor C in this embodiment of the invention is of the same construction as that shown in my co-pending application, Serial No. 628,527, it will not be referred to either in detail, except to say that there is a bail-like structure having side arms whose lower ends are angularly disposed to rest in the substantially triangular slots 8 in the wings 5 and are provided with the rearwardly extending fingers 9. These fingers cooperate with a roller 10 carried by the side wall

of the drawer which are so positioned that the compressor C will be locked or held to resist and withstand the pressure of the drawer contents from within, so as not to force the front B outward when closed.

An important feature of the present invention resides in the provision of the spring 11 for tensioning the tilting front and holding the same in its open or closed position. As previously indicated, this spring is preferably a bowed metal strip or wire having its upper end 12 secured to the inner face of the drawer side 1 and its lower end secured to the fastening 13 on the wing. When the tilting front is closed as shown in full lines in Figure 1, the spring 11 will tend to hold the front in its closed position. However, when the front is pulled open, that is to the dotted line position, the spring 11 will assist in the opening movement and also maintain the drawer front in its tilted open position until it is again desired to close the same. The spring 11 may be arranged between the wing 5 and the drawer side 1 so as not to interfere with the filing space in the drawer, and is, therefore, shielded when in operation or at rest, as will be apparent from Fig. 2.

Referring further to Figure 1, it will be observed that the drawer construction also includes a follower designated generally as F, the same including a follower plate 15 extending transversely of the drawer to support the drawer contents, the same being pivotally connected at its lower edge by the hinge 16 to a slide member or block 17 which is provided with the side shoes 18 operating in the guides 19 formed at the lower side corners of the drawer. The plate 15 and slide 17 are, of course, adapted to be adjusted longitudinally of the drawer to properly space the drawer contents, and for the purpose of holding the follower in adjusted position, the rear face of the plate 15 is provided with a hinged supporting member or leg 20 whose lower end is guided through an opening 21 in the slide 17. The said lower end is cut away to provide the shoulders 20^a which limit the backward movement of the plate 15 and also provide a tongue 22 adapted to engage in suitably spaced keeper openings or slots 23 formed in the bottom channel 24 of the drawer. By tilting the plate 15 forwardly from the position shown in Fig. 1, it will be apparent that the hinged supporting member 20 may be disengaged from the keeper slot 23 thereby to permit of the adjustment of the follower to the desired position. When the tongue 22 is engaged in one of the notches 23, it will, of course, be apparent that the follower is locked against longitudinal movement in either direction. As will be observed from Fig. 1 the rearward inclination of the plate 15 is at the same, or substantially the same angle as the inclination of the compressor member C, thus causing the drawer contents to assume the proper angle with reference to the compressor.

Figure 3 of the drawings illustrates a modification of the construction shown in Fig. 1 in the respect that the wings 5^a are not provided with the ears 6 or their equivalent. In this arrangement, the spring 11 is secured to the side wall at 12^a in the same manner as heretofore indicated, and is also secured to the wing 5^a at 13^a, but the pin 13^a or its equivalent is located on the wing so that as the drawer front is tilted outwardly, the pin will engage with the roller 10 which will act as a stop abutment to prevent the drawer front from tilting too far outwardly. In other words, by arranging the pin 13^a as shown, the tension of the spring 11 is increased and, furthermore, the path of movement of the pin 13^a will be obstructed by the roller 10 fixed to the side of the drawer, as will be apparent from both Figs. 1 and 4.

Figures 5 and 6 of the drawings illustrate a modified form of compressor and operating means therefor. The compressor C' is of bail-like formation with the horizontal portion 25 connecting the vertical arms 26, the lower ends of which operate in the openings 27 in the wings 5^b. The lower end of each of the arms 26 is provided with an angularly offset and rearwardly extending portion 28 which is pivotally connected as at 29 to a link 30, the latter being pivotally supported as at 31 to the inside face of the drawer side 1. When the tilting front B' is closed, the parts assume the full line position shown in Fig. 5, thereby forcing the upper portion of the compressor C' inward with whatever contents of the file may be resting against it, to a backward incline for compression, the links 30, in the position shown, will then resist the compression of sheets of compressor C' which would tend to force the hinged front B outward when closed. When the tilting front B' is opened, the compressor will be forced back upon the inside face thereof as shown in dotted lines. This arrangement also lends itself to a compact construction and insures a positive operating connection for the compressor operated by the movement of the tilting front, the spring 11 being employed for tensioning each of the wings connected with the compressor, in the manner heretofore described.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood the changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. In a filing drawer, a tilting front, a wing carried by the tilting front and operating parallel with one of the sides of the drawer, and a spring having its ends respectively connected with the side of the drawer and with said wing.

2. In a filing drawer, a tilting front, a wing carried by the tilting front and operating parallel with one of the sides of the drawer, and a spring wire member having one end anchored to the side of the drawer and its other end connected to the said wing.

3. In a filing drawer, a tilting front, a wing extending rearwardly from the inside face of the drawer front and operating parallel to one of the sides of the drawer, abutment means for limiting the outward movement of the wing, and spring means arranged between the wing and the side wall of the drawer and respectively connected to said side wall of the drawer and to the wing.

4. In a filing drawer, a tilting front, a wing carried by the inside face of said front and extending rearwardly into the drawer parallel to one of the drawer sides, a spring wire anchored at one end to the side of the drawer and having its other end anchored to the wing, and a stop member located in the path of movement of the end of the spring which is anchored to the wing to limit outward movement of the wing.

5. In a filing drawer, the combination of a tilting front pivotally connected to the drawer bottom and a compressor member carried with the tilting front, of an abutment carried by one of the side walls of the drawer and adapted to be engaged by said compressor when the front is tilted

rearwardly to a closed position, and spring means for tensioning the movement of the tilting front, said means comprising a spring wire anchored at one end to one of the side walls of the drawer and having its other end operatively connected with a rearwardly extending portion of the tilted front, said latter end of the spring being adapted to engage with said abutment to define the maximum outward tilting movement of the front.

6. In a filing drawer, a tilting front, a compressor member rockably carried with the tilting front at the inside face thereof, and a link pivotally connecting a portion of said compressor with one of the side walls of the drawer.

7. In a filing drawer, a tilting front member, wings carried by said tilting front member extending rearwardly from the inside face thereof, said wings having openings therein, a compressor member having angularly disposed end portions mounted in said openings, and links pivotally connecting the angularly disposed end portions of the bail-like compressor member with the side walls of the drawer.

8. In a filing drawer, a tilting front, wings carried by the tilting front and extending rearwardly into the drawer from the rear face of the front, said wings having openings therein, a compressor member having angularly disposed end portions extending laterally through said openings and rearwardly along the inside faces of the wings, and links pivotally connecting the ends of the said rearwardly extending portions to the side walls of the drawer.

9. In a filing drawer, a tilting front, a compressor movably supported on the tilting front, means for causing the compressor to assume a rearwardly inclined locked position when the tilting front is closed, and a follower adjustable within the drawer and having an inclination corresponding to the inclination of the compressor when the tilting front is closed.

10. In a filing drawer, a tilting front, a compressor movably supported on the tilting front, means for causing the compressor to assume a rearwardly inclined position against outward pressure from within which tends to force the tilting front outward when closed, and a follower adjustable along the bottom of the drawer and including a slide member, a plate hinged to the slide member and a support pivotally carried by the rear face of the plate, said support being adapted to hold the plate at an inclination corresponding to the inclination of the compressor when the front is closed, and said support also having means for interlocking with the bottom of the drawer.

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