

Dec. 11, 1934.

F. L. G. STRAUBEL

1,983,573

FILING DRAWER

Filed April 15, 1932

2 Sheets-Sheet 1

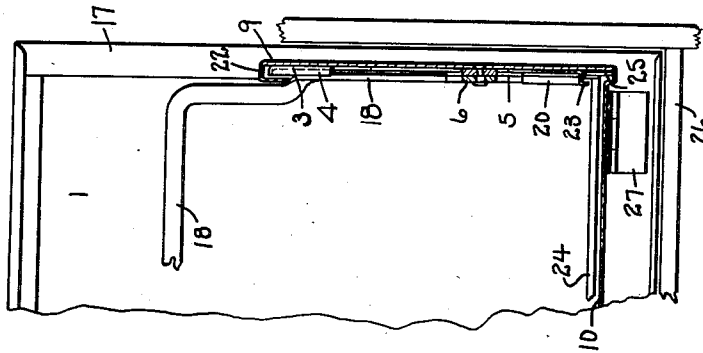


FIG. 2.

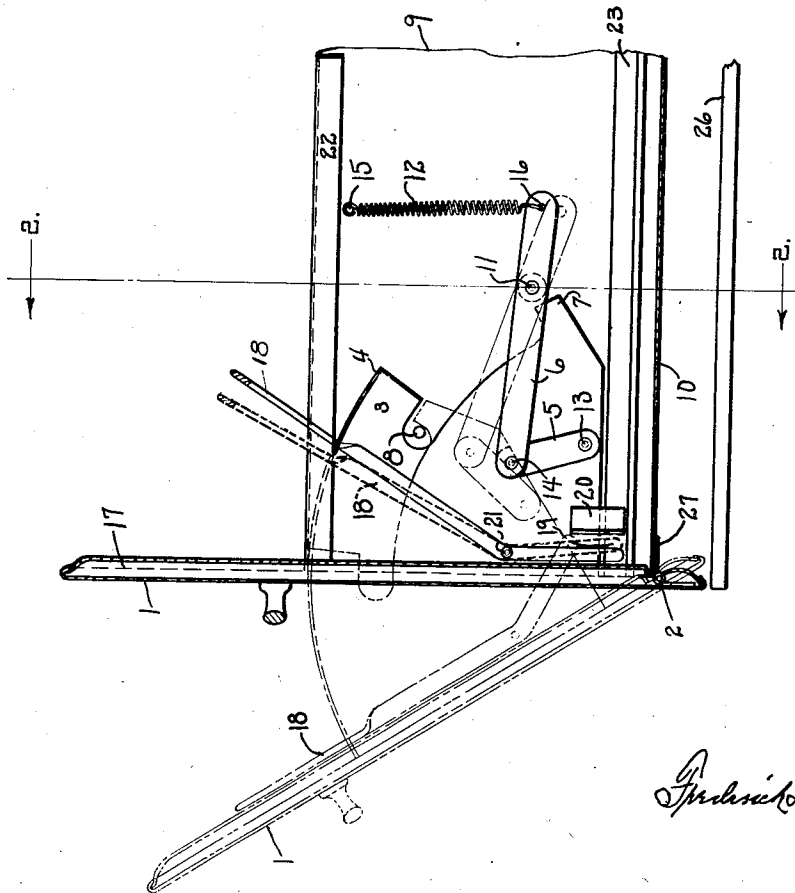


FIG. 1.

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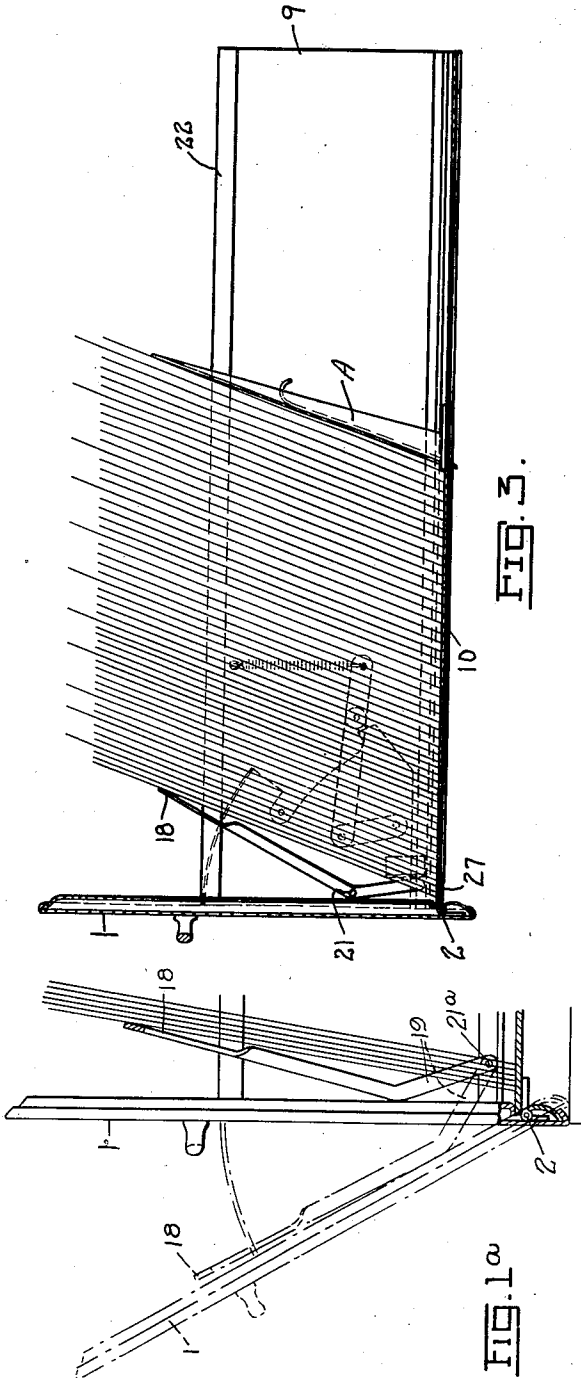
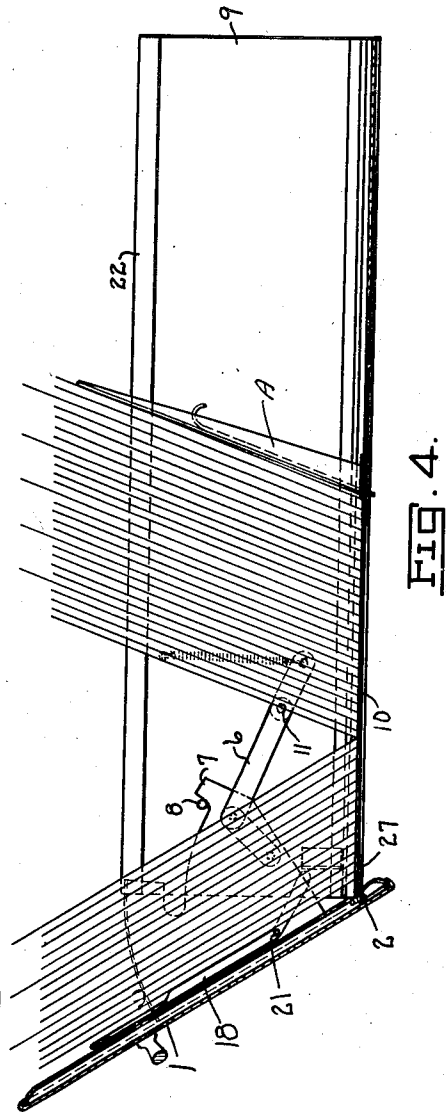
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2 Sheets-Sheet 2



INVENTOR.
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UNITED STATES PATENT OFFICE

1,983,573

FILING DRAWER

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Application April 15, 1932, Serial No. 605,397

23 Claims. (Cl. 129—26)

This invention relates to filing drawers having outward tilting fronts.

The object of this invention is the provision of improved means attached to the tiltable front of the drawer, which is hinged to the drawer bottom, by which the front may be tilted outward at the top to a predetermined degree up to a stop or stops provided therefor. In addition means are provided by a combination of spring-actuated levers and links to hold the front in either tilted or vertical positions, also means as a throwback or compressor by which the filed contents are forced to a backward incline when closing the file.

With this object in view the invention consists in construction substantially as herein described and claimed and as set forth in the accompanying drawings of which—

Figure 1 is a longitudinal side elevation of the front portion of the drawer.

Figure 1a is a detailed view of a modification of the invention.

Figure 2 is a cross-section of the drawer side on line 2—2 of Figure 1.

Figure 3 is a longitudinal section showing the drawer closed.

Figure 4 is a similar view showing the drawer open.

In the embodiment shown in the drawings, the drawer includes side walls, a bottom wall, a rear wall, and a drawer head or tilting front 1, the latter cooperating with an adjustable space regulator A defining the variable drawer contents receiving space wherein letters, cards or other similar matter may be filed. A distinctive feature of the invention is the provision of a compressor member at the front of the drawer to push the drawer contents rearwardly when the tilting front is closed.

In the drawings the left inner side only of the drawer is shown and herein described, the right or opposite side of the drawer having the same mechanical features. The operating means described are designated by similar numerals.

The outwardly tiltable front or drawer head 1 is hinged at its lower part at 2 to the drawer bottom by means of a hinge 28. The wing 3 consists of a plate carried by the front 1 parallel with and engaging the inner face of the drawer side 9, and with a part of its upper edge formed to a circular arc about the hinge axis of the drawer front and provided along said edge with an inwardly bent flange 4.

The inner end of the wing has the upper edge cut out to an arc-shaped form of less radius than the main part of the wing with an upwardly projecting

stop ear 7 at the rear or lower end of the same. A stop pin 8 projects inwardly from the side of the drawer in position to engage said stop ear 7 to limit the forward tilting of front 1. A compressor lever in the form of a lever of the first kind with a longer upper arm 18 and a shorter lower arm 19 at an obtuse angle thereto is pivotally attached to the wing 3 close to the front 1, and its upper end is connected to the corresponding lever on the other side of the drawer by a cross-bar, forming a bail-shaped structure to engage the front end of the contents of the drawer.

22 represents an inwardly and downwardly bent flange along the top edge of the side 9 and spaced from the side and 23 a longitudinal follower guide strip with its upper flat part attached to the side 9 near where it joins the drawer bottom, said strip having inwardly and downwardly projecting flange portions that provide space for the sliding shoe 25 of the follower base 24. The inwardly projecting flange members 22 and 23 also provide intermediate space for the mechanical parts to avoid interference with the contents filed. 26 represents a horizontal partition of the filing cabinet, the intermediate space between that and the drawer bottom being usually occupied by various kinds of extension slides or rollers upon which the drawer moves in and out.

As a means provided to hold the front 1 firmly upright and also in an outwardly tilted position, the link 5 is pivotally attached to the wing 3 at 13 and at 14 to the lever 6. The lever 6 is pivotally attached to the drawer side 9 at 11. The coil spring 12, attached at its upper end to the drawer side 9 at 15 and at its lower end to the rear end of the lever 6 at 16, with an upward tension produces a downward pressure upon the link 5 at 14, thereby drawing the wing 3 downward and the front 1 with its flange 17 firmly against the front end of the drawer side, as in the position shown in Figure 1. For the operator to tilt the front outward it is merely necessary to pull at its upper part sufficiently to overcome the tension of the spring 12 and to draw it outward as far as the stop 7 in contact with the pin 8 will permit. In doing so the link 5 and lever 6 change to the positions shown by dotted lines in Figure 1, and as the pivot 13 passes beyond the line of the hinge pivot 2 and the pivot 14, the tension brought to bear upon the wing 3 will be in an opposite direction to hold the front 1 in an outwardly tilted position. The compressor 18, pivotally attached to the wing 3 at 21, in the position shown in Figure 4 and by dotted lines in Figure 1 with the front 1 tilted

outward, is forced backward at its top portion upon closing the front when its lower end 19 comes in contact with the stop 20 which is attached to the upper part of strip 23 in slightly spaced relation to the side 9 and in close proximity to the lower part of the front 1. The compressor 18 is released from the position shown in Figures 1 and 3 by the outward tilting of the front, to the position shown by dotted lines of Figure 1 and as in Figure 4. As its upper portion will lie close to the inner wall of the tilted front, it provides space for all or part of the contents filed, to be tilted forward for the purpose of convenient access to or ease of filing into index divisions as shown by Figure 4.

Instead of pivotally attaching the compressor 18 to the wing 3 at 21 its lower extremity 19 may be pivotally attached to the drawer side as indicated in 21a in Figure 1a thereby producing practically the same results.

In designing a file drawer of this description it is quite necessary to provide the means described to hold the tiltable front, more particularly in an upright position, firmly against the ends of the drawer sides without the use of hooks or catches that require extra operations and that are liable to become loose by constant use.

In my Patents 799,689 of September 19, 1905, 1,013,234, January 2, 1912, 1,561,752, November 17, 1925 and 1,892,020, Dec. 27, 1932, and also application of August 3, 1931, No. 554,605, various spring devices in connection with reciprocating followers are shown that also hold the front in either upright or tilted positions, but in this application my object is to secure a simple combination of spring-actuated links and levers applicable to the front only for use in a cheaper grade of filing cabinets.

Having thus described my invention that which I claim to be new and desire to secure by Letters Patent is—

1. A filing drawer including a tilting front, a member carried by the front and adapted to engage with a fixed part of the drawer to limit its outward tilting movement, a pivoted lever carried by the drawer, a spring for tensioning one end of said lever, a link connected with the other end of said lever and also connected with said member.

2. A filing drawer including a tilting front, a wing carried by the inner face of the front, a shoulder carried by the wing and adapted to engage a fixed part of the drawer to limit outward tilting movement of the front, and spring-controlled lever means pivotally connected with said wing for holding the front in either its vertical or tilted position.

3. A filing drawer including a tilting front, means for controlling the tilting movement of said front, a drawer contents compressor member pivotally supported at the inside face of the tilting front and movable therewith, and means on the drawer adapted to be engaged by the compressor to actuate the same in one direction.

4. A filing drawer including a tilting front, means for controlling the tilting movement of said front, a drawer contents compressor pivotally supported at the inside face of the tilting front and movable therewith, means on the compressor whereby it may follow the tilting front in its opening movement, and means on the drawer adapted to be engaged by the compressor to move the same to its final position when the tilting front is closed.

5. A filing drawer including a tilting front,

a member for compressing and releasing the contents of the drawer respectively when the front is in its vertical and tilted positions, said member pivotally supported at the inside face of the front, and means for causing said member to engage the front end of the contents of the drawer when the front is in its vertical position and to fall back against the inside face of the front when the latter is tilted outwardly.

6. In a filing drawer the combination with a tilting front of a drawer contents compressor comprising a bail-shaped member including lever members connected by a cross-bar, said lever members including portions arranged at an obtuse angle and pivotally connected to the tilting front.

7. In a filing drawer, the combination with a tilting front of a drawer contents compressor member including a substantially vertical portion and a horizontal portion, said vertical portion being in the form of a lever including arms arranged at an obtuse angle, means for pivoting said vertical portion to the tilting front, and an abutment carried by the drawer and adapted to be engaged by one of the arms of the vertical portion when the front is in its vertical position to cause the other arm of the lever and the horizontal portion to move toward the front end of the contents of the drawer.

8. In a filing drawer, the combination with a tilting front, of a compressor member including a vertically disposed lever including arms arranged at an obtuse angle, means for pivoting the lower portion of said lower arm to the drawer whereby when the front is in its vertical position the upper arm will be thrown toward the drawer contents and when the front is in its outward tilted position the said upper arm will fall back against the inside face of the front.

9. A filing drawer including a tilting front, a member carried by said tilting front adapted to engage with a fixed part of the drawer to limit its outward tilting movement, and spring tensioned link and lever means cooperating with said member for holding the front in either its vertical or tilted position.

10. A filing drawer including a tilting front, a member carried by said front adapted to engage with a fixed part of the drawer to limit the outward tilting movement thereof, a lever pivotally connected to a fixed part of the drawer, a spring engaging one end of said lever, and shiftable means carried by the other end of said lever and engaging with said member to impart the tension of the spring to the tilting front, thereby to hold the same in either its vertical or tilted position.

11. A filing drawer including a drawer body, a tilting front therefor, and a compressor pivotally supported between the inner side face of the tilting front and the space within the drawer for receiving the drawer contents, said compressor including arms disposed at an obtuse angle, one of said arms being adapted to lie against the inside face of the tilting front when the latter is open and the other of said arms being adapted to be engaged by the inside face of the tilting front when the latter is closed.

12. A filing drawer including a drawer body, a tilting front therefor, and a compressor pivotally supported between the inner side face of the tilting front and the space within the drawer for receiving the drawer contents, said compressor including a member having its medial portion de-

deflected to one side of the ends, said deflected medial portion being disposed toward the inside face of the tilting front whereby portions of the member at opposite sides of the crown of the deflected portion may be alternately engaged with the tilting front according to whether the said front is open or closed.

13. In a filing drawer, an abutment on a drawer side wall, a tilting front, a compressor movably supported on the tilting front, and means carried by the compressor adapted to engage with said abutment when the tilting front is moved inwardly to cause the compressor to move inwardly toward the drawer contents.

14. In a filing drawer, a tilting front, an abutment on a side wall of the drawer, a compressor pivotally supported on the tilting front and having means for engaging with said abutment when the tilting front is moved inwardly to move the compressor inwardly, said compressor being adapted to fall back against the inner side of the tilting front by gravity when the tilting front is opened.

15. In a filing drawer, the combination of a tilting front, a drawer contents compressor pivotally supported between the tilting front and the filing space of the drawer, said compressor including a vertically disposed member bent to provide a long upper arm and a short lower arm both of which are in receding relation to the inside face of the tilting front when the latter is in its vertical closed position and when the drawer is filled with papers, whereby the intermediate portion between the arms may be engaged by the said tilting front to force the long arm into compressive relation to the drawer contents.

16. In a filing drawer, the combination of a tilting front, a drawer contents compressor pivotally supported between the tilting front and the filing space of the drawer, said compressor including a vertically disposed member having an offset portion extending from its medial portion for engaging with the drawer front whereby when the tilting front is closed the upper end of said compressor will be moved into the filing space of the drawer to compress the drawer contents.

17. In a filing drawer, a tilting front, a compressor movably supported on the tilting front, means controlled by the movement of the tilting front for causing the compressor to move toward and with the tilting front as the latter is tilted outward, and to be forcibly moved rearwardly away from the tilting front when the latter is closed.

18. In a filing drawer, a tilting front, a compressor pivotally supported on the tilting front, means for releasably holding the tilting front in closed upright position, means for maintaining the compressor in a rearwardly projecting position when the front is closed, and means for releasing said front and said last named means by the act of tilting said front forwardly and downwardly.

19. In a filing drawer, a tilting front, a compressor pivotally supported on the tilting front, means controlled by the movement of the tilting front for causing the compressor to move toward and with the tilting front as the latter is tilted outward, and to be forcibly moved rearwardly to a position away from the tilting front when the latter is closed.

20. In a filing drawer, the combination of a tilting front pivotally connected to the drawer body, a movable compressor member mounted on the tilting front, an abutment element carried by the drawer body and adapted to be engaged by a part of the compressor member when the front is tilted rearwardly to a closed position, and spring means for tensioning the movement of the tilting front, said spring means including a spring anchored at one end to the drawer body and having its other end operatively connected with a part of the tilting front.

21. A filing drawer including a tilting front, and a member pivotally carried by the inner face of the tilting front and adapted to exert pressure on the drawer contents when the tilting front is closed to force said contents inwardly.

22. A filing drawer including a drawer body, a tilting front, and means movably carried by the inner side of said front to occupy a position inwardly of the front end of the drawer body when the front is closed, to force the drawer contents inwardly.

23. A filing drawer including a drawer body, a tilting front therefor, a compressor mounted on a pivot remote from the point about which the tilting front moves and located between the said tilting front and the filing space within the drawer body, and means effective upon the closing movement of the tilting front to move the compressor inwardly beyond a vertical plane intersecting its pivot to compress the drawer contents.

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