Sept. 23, 1941. A. N. HANNA 2,257,052

FILING DEVICE

Filed April 5, 1941

Fig. 1.

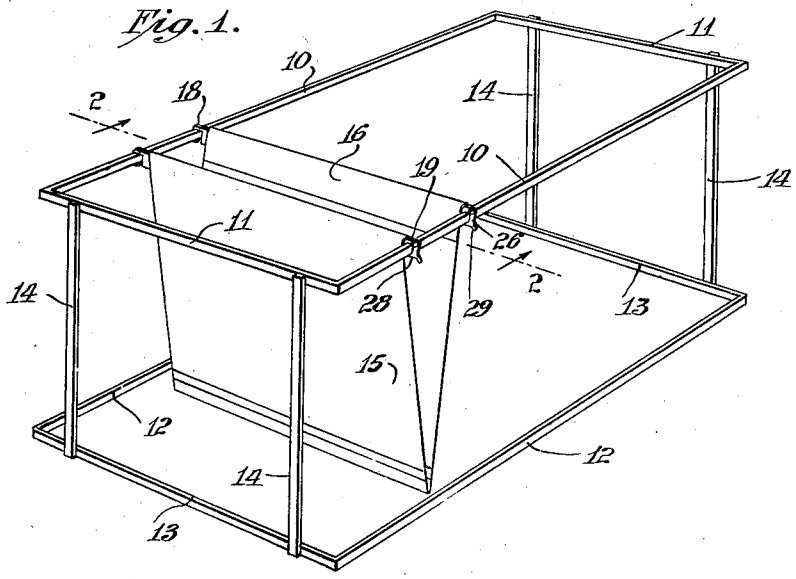


Fig. 2.

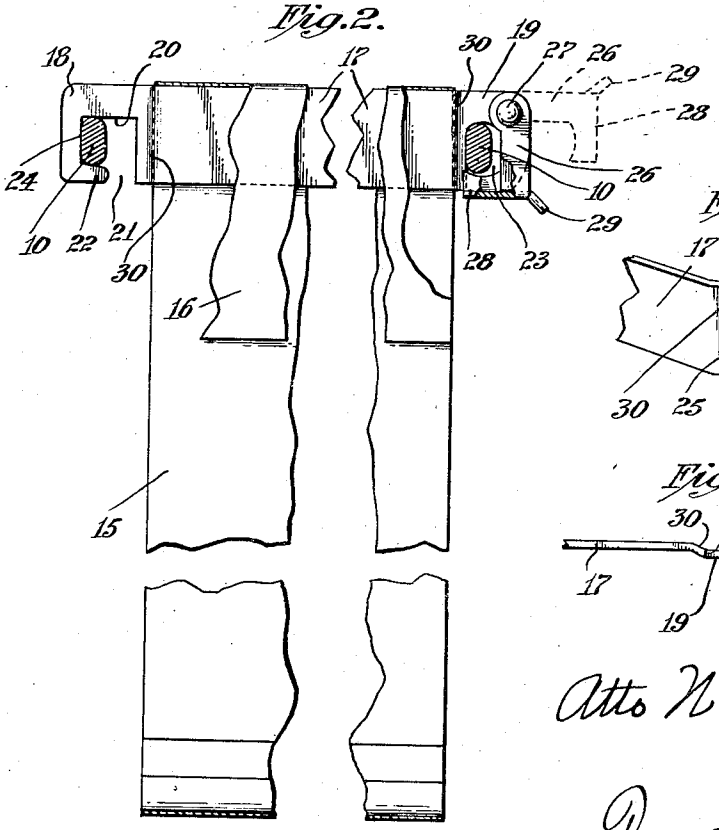


Fig. 3.

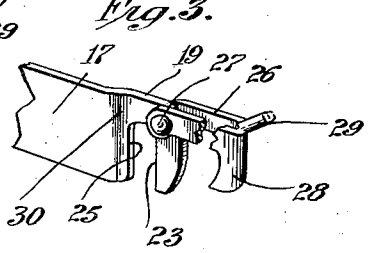
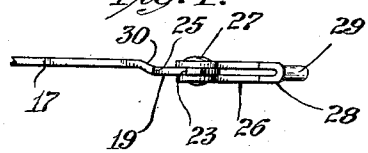


Fig. 4.



Otto N. Hanna

INVENTOR

Francis P. Wentworth

ATTORNEY.

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UNITED STATES PATENT OFFICE

2,257,052

FILING DEVICE

Atto N. Hanna, Orange, N. J.

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6 Claims. (Cl. 129—16.7)

The invention relates to filing devices, and more particularly to a device of this kind employing file folders adapted to be slidably and removably mounted in relation to rods carried by a filing cabinet of the box or sliding drawer type.

There has heretofore been provided filing devices of the type to which the invention relates, in which the folders are suspended from bars by means of metal strips having notches toward the opposite ends thereof straddling the rods in a manner to permit the lifting of the entire folder from the file cabinet or permit the opening of the folder while in the cabinet by movement of the top edges of the folder away from each other along the bars.

Such devices as are above referred to have the objectionable feature that the suspension strips are capable of tilting action longitudinally of the supporting bars so as to permit the folders to drop within the file case or make the handling of the folders awkward. Furthermore, this tilting of the folders as a whole is apt to result in the displacement of folders adjacent the one being removed. This tilting of either or both top edges of a folder may result in the disarrangement of the papers therein, particularly when a cabinet is not completely filled with folders.

With the above conditions in mind, I have provided a filing device wherein each folder has both of its top edges provided with a suspension strip, which strip is so constructed as to minimize any tilting action of the folder as a whole and to prevent the accidental displacement of any part of adjacent folders when removing one folder from the file.

While, in the device of the invention, the suspension strip is so locked as to preclude accidental displacement thereof from the supporting bar, the construction is such as to permit a free sliding movement of the folder along such bars without lateral tilting of the folder, or possibility of vertical movement of the strip unless the user desires to remove the folder from the cabinet.

The construction is also such that when mounting a folder upon the supporting bars, longitudinal movement will be imparted to the suspension strips in a manner to ensure the proper engagement of a part of the strip with the under side of one of the supporting bars, and prevent lifting action of that end of the strip in relation to the bar, the other end of the strip being provided with a recess and with a movable member adapted to pass below the supporting bar and close the open end of this recess so as to prevent accidental lifting of this end of the strip or allow upward movement thereof permitting longitudinal shifting of the strip in a manner to cause the disengagement of both ends thereof from the supporting bar.

The invention consists primarily in a filing device embodying therein a folder, each top edge of which is provided with metal suspension means projecting beyond the side edges of the folder, said means, at one side of the folder, having a downwardly opening bayonet slot therein, and at the other side of the folder having a straight downwardly opening recess therein, and a member adapted to have movement to position a part thereof across and close the lower portion of said recess; and in such other novel features of construction and combination of parts as are hereinafter set forth and described, and more particularly pointed out in the claims hereto appended.

Referring to the drawing:

Fig. 1 is a perspective view of a metal frame adapted to be mounted in a file cabinet of the box or sliding drawer type, with a single folder embodying the invention mounted therein;

Fig. 2 is a condensed elevation of a folder embodying the invention;

Fig. 3 is a perspective view of one extending end of the suspension means and the pivotal member carried thereby; and

Fig. 4 is a plan view of the end of the suspension means shown in Fig. 3.

Like numerals refer to like parts throughout the several views.

In the embodiment of the invention shown in the accompanying drawing, the frame for carrying the various file folders is provided with an upper frame having longitudinally extending supporting side bars 10, cross bars 11 connecting the ends of said supporting bars, and a similarly formed lower frame consisting of side bars 12 and end bars 13. The end bars 11 and 13 at each end of said frames are connected by vertical supporting bars 14 connected with the upper and lower frames by welding, riveting or in any other desired manner. These vertical supports 14 are located without the end bars 11 and 13 of each frame so as to not interfere in any way with the file folders mounted within the frame.

The frames themselves may be produced in any desired manner, preferably by a bending operation, and a welded joint closing the end of the continuous rod forming the frame, thus avoiding a lap joint or rivets along the side bars 10 of the top frame.

The file folder proper 15 is suspended from the top side bars 10 of the frame. To permit this suspension of the folder, each top edge thereof is provided with metal suspension means projecting beyond the side edges of the folder, said means at one side of the folder having a downwardly opening bayonet slot therein, and

at the other side thereof having a straight, downwardly opening recess, this recess being closed by means of a member adapted to have movement to position a part of it across the lower part of said opening below a side bar.

These file folders are preferably made of heavy manila or other strong, heavy paper having a closed fold 16 at the top thereof providing space for the insertion of a metal suspension strip 17. This suspension strip preferably extends throughout the entire width of the folder and has its ends 18 and 19 projecting beyond the side edges of the folder and is extended through the opening in the folded portion 16 of the file folder proper to afford the suspension means above referred to.

It is preferable to have the strip 17 extend from side to side of the folder and project beyond the opposite edges thereof in the manner described, in order to stiffen the top edges of the folder and to avoid the additional expense and difficulties of riveting the suspension means to the top of the folder.

While in the cabinet, the folder proper 15 is suspended by the supporting bars 10 of the frame by means of the projecting ends of the suspension strip 17.

It is desirable, in a device of the character to which the invention relates, to permit free sliding movement of each file folder along the supporting bars to permit separation of the tops of the file folders so that a paper may be withdrawn therefrom without removing the file folder from the supporting bars, or to permit the removal of the entire file from said bars. This freedom of movement of the parts of the file folder with such devices heretofore used, may result in tilting of either or both top edges of the folder longitudinally of, and lateral play of the folder in relation to, the supporting bar or bars, both of which are undesirable.

To avoid this condition, I so construct the suspension strip that lateral movement, tilting or accidental lifting of any folder is impossible, and it is largely in this feature that the device of my invention differs from other and earlier devices.

To secure the above result, I provide one extending end, at 18, with a bayonet slot 20, the opening of which, indicated at 21, is located adjacent the edge of the folder 15, and the tongue 22 of which is adapted to engage the under face of a supporting bar 10 and thus prevent lifting of this end of the folder except as a result of movement of the suspension strip to the left a distance equal to the length of said tongue 22.

The extending portion 19 at the other side edge of the folder is provided with a straight, vertically extending recess 23 opening downwardly the same as the opening 21, and, like said opening 21, located adjacent the side edge of the folder proper 15.

The end 24 of the bayonet slot and the wall 25 of the straight recess are spaced from each other a distance so that the former is in engaging relation with the outer face of the supporting bar 10 on one side of the folder, and the latter is in engaging relation with the inner face of the supporting bar 10 at the opposite side of the folder.

The width of the recess 23 is slightly greater than the thickness of the supporting bar, so as to permit sufficient clearance between the suspension strip and both supporting bars to allow a free sliding movement of the folder along these bars, but insufficient to permit the opening 21 of the bayonet slot to be brought below the adjacent bar 10 to permit lifting of the folder or any substantial tilting movement thereof, unless the suspension strip at the opposite side of the folder is disengaged from its supporting bar 10.

While the tongue 22 at one side of the folder will prevent lifting of the folder in relation to its supporting bar, the recess 23 cannot be so formed as to alone secure the same result upon the opposite side of the folder.

To prevent any lifting of the folder in relation to a supporting bar at the end thereof in which the recess 23 is formed, I provide a movable member 26 pivoted at 27 upon the projecting end 19 of the suspension strip, which member is provided with an angularly extending stop arm 28 which, with movement of said member about the pivot 27, is positioned across the opening 23 in a manner to close this opening and thus prevent upward movement of this end of the strip in relation to said bar.

This member 26 is provided with a finger piece 29 projecting therefrom to an extent to facilitate movement of the member into or out of its operative relation to the recess 23 and the supporting bar 10 therein.

While the suspension strip 17 is made of a single thickness of sheet metal, the member 26 is formed by folding a metal blank to produce a channelled member adapted to receive the extremity of the extending end 19 of the suspension strip.

The angularly extending stop arm 28 is of a length to extend entirely across the recess 23, and the location of the pivot 27 is such that said member 26, when lifting stresses are applied to the strip, will not receive movement sufficiently great to permit any material lifting action of the file folder at the side thereof adjacent said member.

When the strip 17 extends throughout the entire width of the file folder proper, the looped upper edge of the portion of the folder which carries the strip affords a satisfactory connection between the strip and the folder. To minimize likelihood of movement of the folder along this strip, however, I provide the strip, towards opposite ends thereof, with a vertically extending stepped or offset portion 30, which portions 30 are spaced apart a distance substantially equalling the width of the folder, so as to more or less confine the top portion of the folder between such portions.

The operation of a filing device embodying the invention is substantially as follows:

Each free top edge of the file holder is provided with a strip 17 constructed as heretofore described.

When it is desired to place a file in a cabinet, the file holder proper is inserted between the side bars 10 of the top frame and is moved slightly to the left, so as to bring the opening 21 of the bayonet slot above the top bar, the opposite end of the suspension strips being raised above the opposite supporting top bar 10 with the member 26 in the position shown in Fig. 3.

With this position of parts, the end of the strips to their right cannot be lowered until the file folder is moved to the extreme right, whereupon the raised end of the strip may be lowered and the open bottom of the recess 23 passed over the adjacent supporting bar 10. When this supporting bar is confined within said recess, the tongue 22 of the bayonet slot will be positioned below

the supporting top bar adjacent same, thus preventing lifting of this end of the strip.

To prevent the accidental lifting of the other end of the strip, the member 26 is moved to bring its angular arm 28 across the open end of the recess 23 and below the bar 10 positioned within this recess, thus preventing the lifting of the end of the strip.

When the folder is thus suspended from the parallel bars 10, the lateral play of the strips 17, in the actual device, will amount to only a small fraction of an inch, merely enough to permit free sliding movement of the strip along the bars 10, but preventing any substantial tilting movement of the strip in relation to said bars.

From the showing of Fig. 2 of the drawing, it is obvious that the folder cannot have side play sufficient to bring the opening 21 of the bayonet slot into alinement with the supporting bar 10 within said slot, so that there is no possibility of the accidental lifting of any file folder within a cabinet.

It is obvious that the top edges of any file folder may be spread apart, as shown in Fig. 1, to permit the withdrawal of a paper from a folder without disturbing the operative relation of the suspension strips and the supporting bars.

When it is desired to remove a folder from a cabinet, it is necessary to move the member 26 about its pivot 27 so as to bring the stop arm 28 to one side of the recess 23. Thereupon, that end of the suspension strip may be raised above the adjacent bar and the folder and the strip moved to the left, (Fig. 2) until the opening 21 of the bayonet slot is below the adjacent bar 10, whereupon the whole file may be removed from the cabinet by lifting it therefrom.

It is not my intention to limit the invention to the precise details of construction herein shown and described. In practice, however, this construction has given highly satisfactory results. The construction described, however, may be varied without departing from the spirit and scope of the invention, although it is essential in the device to provide at one end of the suspension strip a bayonet slot or its equivalent, and at the other end thereof a vertically extending recess having associated therewith a movable member adapted to close the bottom of this recess in the manner herein described.

Having described the invention, what I claim as new and desire to have protected by Letters Patent, is:

1. A filing device embodying therein a folder, each top edge of which is provided with metal suspension means projecting beyond the side edges of the folder, said means, at one side of the folder, having a downwardly opening bayonet slot therein, and at the other side of the folder having a straight downwardly opening recess therein, and a member adapted to have movement to position a part thereof across and close the lower portion of said recess.

2. A filing device embodying therein a folder, each top edge of which is provided with metal suspension means projecting beyond the side edges of the folder, said means, at one side of the folder, having a downwardly opening bayonet slot therein, and at the other side of the folder having a straight downwardly opening recess therein, and a pivotal member having an angularly extending stop arm adapted, with movement of said member in one direction, to pass across and close the lower portion of said recess.

3. A filing device embodying therein a folder, each top edge of which is provided with metal suspension means projecting beyond the side edges of the folder, said means, at one side of the folder, having a downwardly opening bayonet slot therein, and at the other side of the folder having a straight downwardly opening recess therein, and a pivotal member having an angularly extending stop arm adapted, with movement of said member in one direction, to pass across and close the lower portion of said recess, said pivotal member being composed of sheet metal folded upon itself to form a channel adapted to receive the extremity of said projecting suspension means, and having a finger piece whereby said member may be rocked about its pivot.

4. A filing device embodying therein a file folder having a closed fold at each top edge thereof, suspension means comprising a metal strip seated within each fold, and extending from side to side of, and having ends projecting beyond the side edges of, the file folder, one of said projecting ends having a downwardly opening bayonet slot therein opening adjacent the edge of the file folder, and the projecting end at the other side of the folder having a straight downwardly opening recess therein, and a pivotal member having an angularly extending stop arm adapted, with movement of said member in one direction, to pass across and close the lower portion of said recess.

5. A filing device embodying therein a file folder having a closed fold at each top edge thereof, suspension means comprising a metal strip seated within each fold, and extending from side to side of, and having ends projecting beyond the side edges of, the file folder, one of said projecting ends having a downwardly opening bayonet slot therein opening adjacent the edge of the file folder, and the projecting end at the other side of the folder having a straight downwardly opening recess therein, and a pivotal member having an angularly extending stop arm adapted, with movement of said member in one direction, to pass across and close the lower portion of said recess, said pivotal member being composed of sheet metal folded upon itself to form a channel adapted to receive the extremity of said projecting suspension means, and having a finger piece whereby said member may be rocked about its pivot.

6. A filing device embodying therein a file folder having a closed fold at each top edge thereof, suspension means comprising a metal strip seated within each fold, and extending from side to side of, and having ends projecting beyond the side edges of, the file folder, each strip having vertically extending stepped or offset portions spaced apart a distance substantially equalling the width of the file folder, one of said projecting ends having a downwardly opening bayonet slot therein opening adjacent the edge of the file folder, and the projecting end at the other side of the folder having a straight downwardly opening recess therein, and a pivotal member having an angularly extending stop arm adapted, with movement of said member in one direction, to pass across and close the lower portion of said recess.

ATTO N. HANNA.