

(No Model.)

2 Sheets—Sheet 1.

T. W. FOWLER.
DOCUMENT FILE.

No. 475,212.

Patented May 17, 1892.

Fig. 1.

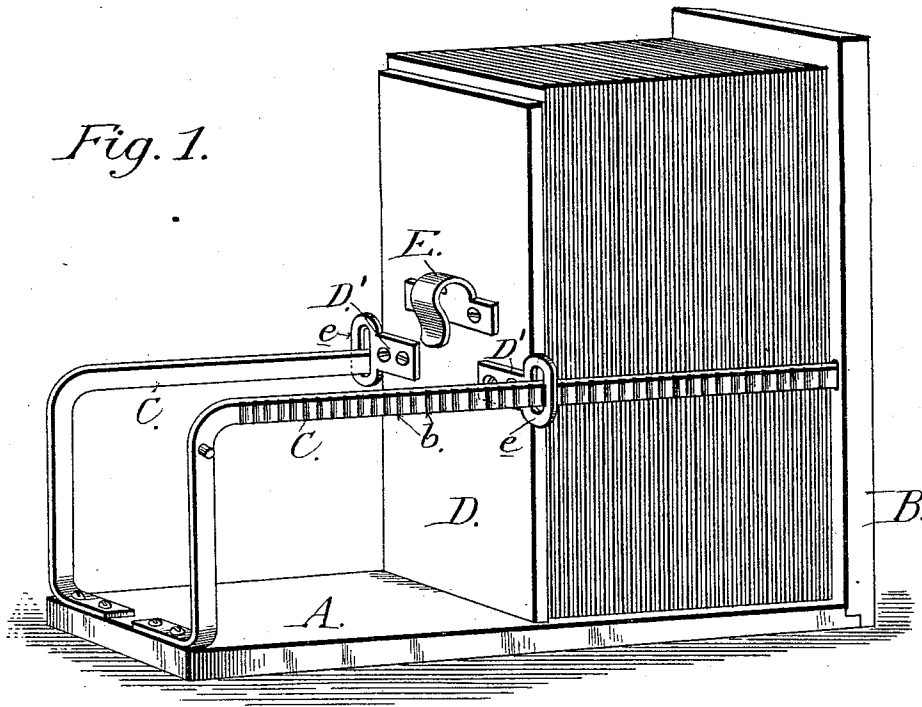
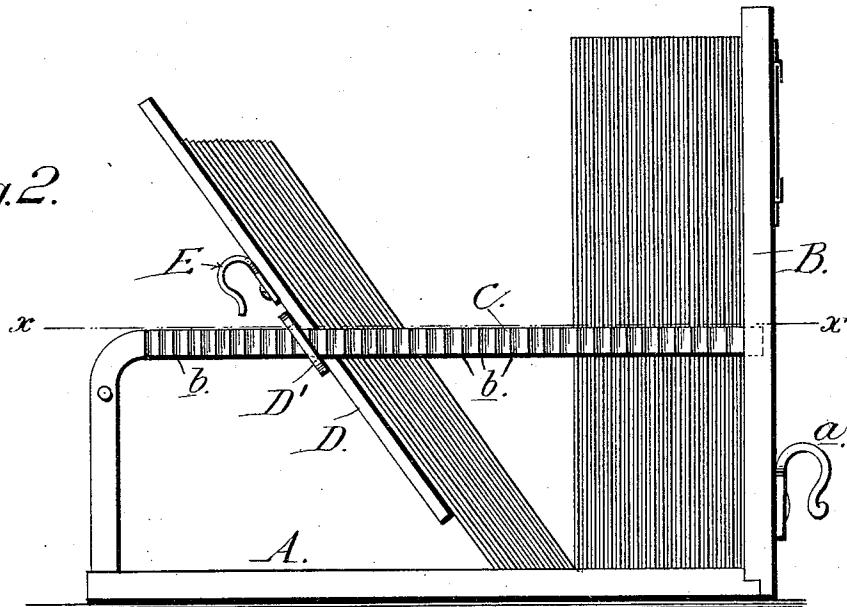


Fig. 2.



WITNESSES

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Fig. 3.

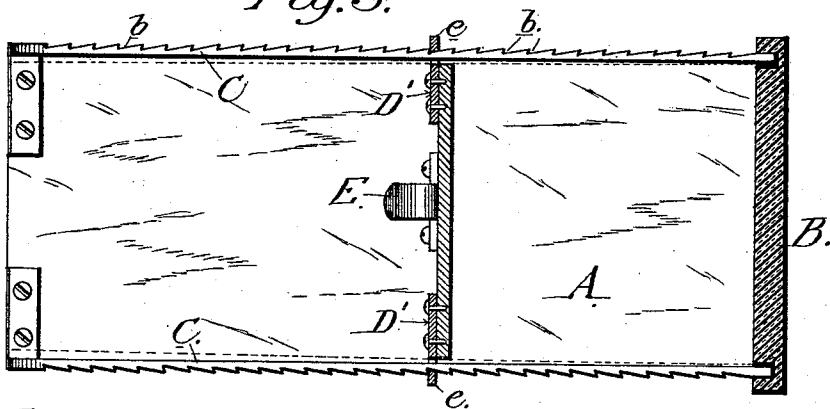


Fig. 4.

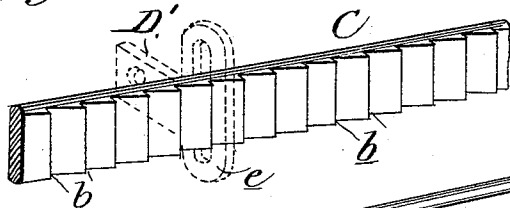


Fig. 5.

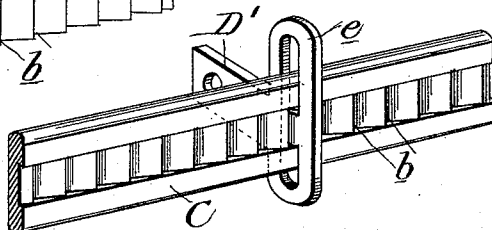


Fig. 6.

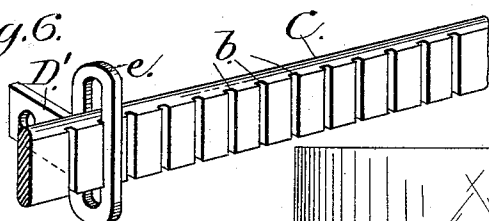


Fig. 7.

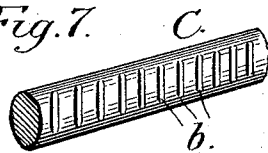


Fig. 8.

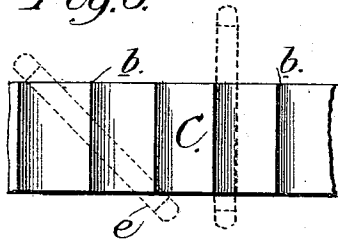
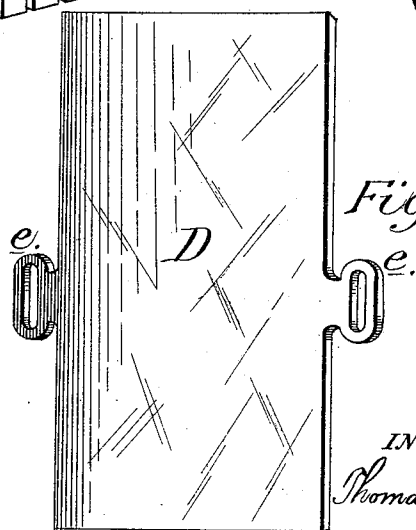


Fig. 9.



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UNITED STATES PATENT OFFICE.

THOMAS WALTER FOWLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

DOCUMENT-FILE.

SPECIFICATION forming part of Letters Patent No. 475,212, dated May 17, 1892.

Application filed April 4, 1892. Serial No. 427,648. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WALTER FOWLER, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented certain new and useful Improvements in Document-Files; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of a document-file embodying my invention. Fig. 2 is a side elevation of the document-file, showing one of the positions of the follower. Fig. 3 is a horizontal sectional view on the line $x x$ of Fig. 2. Figs. 4, 5, 6, 7, and 8 illustrate modified forms of rack-bars or ratchet-surfaces on the side bars. Fig. 9 is a perspective view of a metal follower formed with integral guides on its sides.

My invention relates to means for filing papers and documents of all kinds; and it consists, first, in providing the box or case with side bars or portions adapted to yield laterally under a compressive force applied to them to release a follower from a locked condition.

My invention also consists in providing the said sides with a ratchet or grooved surface, into contact with which the follower is held by the expansive force of said sides, and out of contact with such surfaces the follower is removed by a lateral compression of said sides, whereby an automatic release of the follower is effected.

My invention also consists in providing the follower with slotted plates, brackets, or guides, each having one of the walls of the slot serving as a pawl to engage the ratchet-surfaces of the side pieces of the box proper to lock the follower in position, and to be released from its locked position when the said side pieces are laterally compressed to bring the outer portions or edges of the ratchets or grooved portions inside of the planes of said engaging-walls.

My invention further consists of the construction, arrangement, and combination of

devices or parts, which I shall hereinafter fully describe and claim.

In the accompanying drawings I have illustrated my invention as applied to a well-known form of document file box or case; but I do not limit myself to these specific forms of boxes or cases, as their structures may be altered and their general configurations modified to meet existing circumstances or to satisfy varying tastes.

In the form of box or case shown in Figs. 1 and 2 a plain base or bottom A is secured to a front piece B, which stands at right angles with the bottom and may be provided with a handle or finger-piece a , by which the file box or case is readily handled, and also with a means for containing a label or otherwise indicating the nature of the papers contained within the box or case.

The sides of the box or case are shown as consisting of the bars or guides C, composed, preferably, of metal having a certain amount of spring, and these bars or guides are supported a suitable distance above the base or bottom A by having one of their ends secured to the said bottom and their opposite ends fitted or secured to the front piece B. The side pieces or guides may be of any suitable shape or form in cross-section, and I have found a very desirable form to be substantially like that shown in Figs. 1, 2, 4, 5, and 6, in which the bars or guides appear as being flat pieces set on edge, with their upper and lower edges rounded. However, this form is not absolutely essential, as the round bars of Fig. 7 or bars omitting the rounded edges, will answer; but the preferred form is one substantially similar to the form shown in said Figs. 1 to 6, inclusive.

Upon or within the sides, and preferably the outer sides of the bars or guides, I press, cut, or otherwise make or secure vertically-disposed notches, grooves, or indentations b , of any desired form and which constitute a grooved or ratchet surface with which the follower engages. These grooves, notches, or ratchets are vertically disposed and may extend the full width of the bars or guides, as shown in Figs. 1, 2, 4, 6, and 8, or may be formed in or on and along only the middle or other portion of the sides, as shown in Fig. 5.

The specific form or disposal of the grooves, notches, or ratchets is immaterial, provided they are so arranged as not to permit the engagement with them of the follower on its release from its locked position.

The follower D is to be located between the sides or guides in the well-known manner and is to be supplied with plates or brackets D', which may be secured to the rear face of the follower and project laterally beyond its side edges, and having said projecting portions or heads *e* vertically slotted and adapted to receive the side bars C of the box or case proper. The slots in the heads have a width sufficient to receive the side bars and allow the follower to be moved back and forth with freedom, while the vertical height or major axis of the slots is greater than the cross-sectional height of the side bars and will be dependent upon the rearward inclination which it is desired to have the follower assume when in its unlocked position. If desired, the follower may be formed from a blank of metal, in which case the slotted heads *e* will be formed integral with the follower and will project laterally therefrom, as shown in Fig. 9. The vertical walls of the slots will preferably be straight, and the walls of the slots contiguous to the outer grooved or ratchet sides of the side bars are to serve as pawls or engaging-surfaces for said sides. If desired, a pawl may be formed by a tongue projecting inward from the wall of the slot as shown in Fig. 5; but a simple and effective means is provided by utilizing the wall of the slot as the pawl or engaging surface, as before explained. The follower may also be provided with any desired form of handle or finger-piece E, by means of which said follower may be more readily operated in its forward and backward movement.

In operating my file-box the papers or documents are placed within the case or box in the usual manner and the follower-board is pushed forward, the engaging walls or pawl slipping past the grooves, notches, or ratchet-surfaces of the side bars, which, being of spring metal, are capable of lateral compression and automatically yield under the influence of the follower as the latter is moved forward until the said follower is stopped by being forced against the papers, when the side bars expand laterally by reason of their spring-power or elasticity and bring one of the grooves, notches, or ratchets in or on each of the side bars into close contact with the walls of the slots or pawl-surfaces. In this position the follower is securely locked to the file box or case proper and holds the documents or papers in a close and secure manner. To release the follower, the operator simply exerts an inward pressure upon the side bars at any point back of the point of engagement of the follower-board with said sides, when this pressure causes the said bars or sides to instantly release their contact with the walls of the slots or pawl-surfaces on the follower

to permit the latter to be moved backward by the cushion or pressure of the confined papers or documents and to assume an inclined position, the angle of which is determined by the length of the slots in the heads *e*. As soon as the release of the follower is effected by the compression of the side bars, the board instantly moves from its fixed vertical position, with the walls of the slots or pawl-surfaces parallel with the grooves or ratchet-surfaces of the side bars, into a position which brings the said walls of the slots or pawl-surfaces at an angle with the grooves or ratchets of the side bars, as shown by dotted lines in Fig. 8, when the follower may be drawn rearward to the end of the file-box without liability of the walls of the slots or pawl-surfaces engaging with any portion of the grooved or ratchet surfaces of said side bars. On the backward movement of the follower the latter remains in its rearwardly-inclined position, with the end walls of the slots sliding upon the top and bottom edges of the side bars. To return the follower to a locked position, it may be pushed forward, still remaining in its inclined position, until its lower end is checked or arrested by the contact with the file-papers, when its upper end will be moved in an arc of a circle and will be brought up against the papers by the continued pressure on the board. As soon as the follower has assumed a vertical or approximately vertical position to bring the walls of the slots in alignment with the grooves or ratchets on the side bars, the latter at once spring into contact with the walls of the slots or pawl-surfaces, and thereby form a secure lock between the file case or box proper and the follower. The same results are effected by righting the follower when it is in its rearwardly-inclined position at the back end of the box, and then forcing it forward while in a vertical position, the walls of the slots or pawl-surfaces slipping by the grooves or ratchets on the side bars, as before explained.

A file-box constructed in accordance with my invention, as described, requires no levers or clamping devices to lock the follower to the floor or bottom of the case or box proper and which are liable to bind tightly at times and render the ready release of the follower a difficult matter. It also requires no manipulation of any lever, clamping device, or other feature to give a proper inclination to the follower.

The release of the follower in my case is readily and instantly effected by simply compressing the sides of the box or case toward each other, thereby accelerating the unlocking of the follower. There are also no loose parts to cause a "wabbling" movement to the follower in its backward and forward movement and nothing to get out of order or rattle.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A document-file having a follower adapt-

ed to be released from a locked position by a lateral compression of the sides of the box or case.

2. A document file box or case having compressible sides, in combination with a follower engaging said sides and adapted to be released by an inward compression of said sides.

3. A document-file having compressible sides, in combination with a follower adapted to slide on said sides and to be secured in a locked position by the lateral expansion of the sides.

4. A document-file having compressible sides, in combination with a follower adapted to slide on said sides and to be automatically secured in a locked position and released by a lateral movement of the sides.

5. A document-file having a follower and having its box or case provided with side bars adapted to be moved inward under the influence of the follower as the latter is forced against the file papers or documents and to hold said follower in a locked position.

6. A document file box or case having side bars of spring metal, in combination with a follower guided on and held in a locked position on said bars and released from said position by an inward compression of said bars.

7. A document file box or case having side bars of spring metal, in combination with a follower guided on said bars, held in a locked position by the outward expansion of the bars and released by an inward compression of the same.

8. A document file box or case having laterally-yielding sides provided with grooved or ratchet surfaces, in combination with a follower guided on and embracing said sides and engaging said surfaces to secure it in a locked position, said follower being released by the inward compression of said sides.

9. A document file box or case having the side bars of spring metal, with their outer sides provided with grooved or ratchet surfaces, in combination with a follower having slots for receiving said sides and with their walls binding against said grooved or ratchet surfaces thereof to lock the follower in position, said follower being released by the inward compression of said sides.

10. A document file box or case having the laterally-yielding grooved or ratchet-formed side bars of spring metal, in combination with a follower having plates extending laterally therefrom and provided with vertical slots adapted to receive and be guided by said bars, said slots each having one of their inner walls provided with pawls or surfaces adapted to engage said grooves or ratchets to lock the follower to said bars and to be released from contact with said bars by the inward compression of the latter.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS WALTER FOWLER.

Witnesses:

C. E. BIRCKHEAD,

W. C. DUVALL.