Nov. 9, 1943. C. B. COOPER 2,333,704

VERTICAL PAPER FILE

Filed June 26, 1942 2 Sheets-Sheet 1

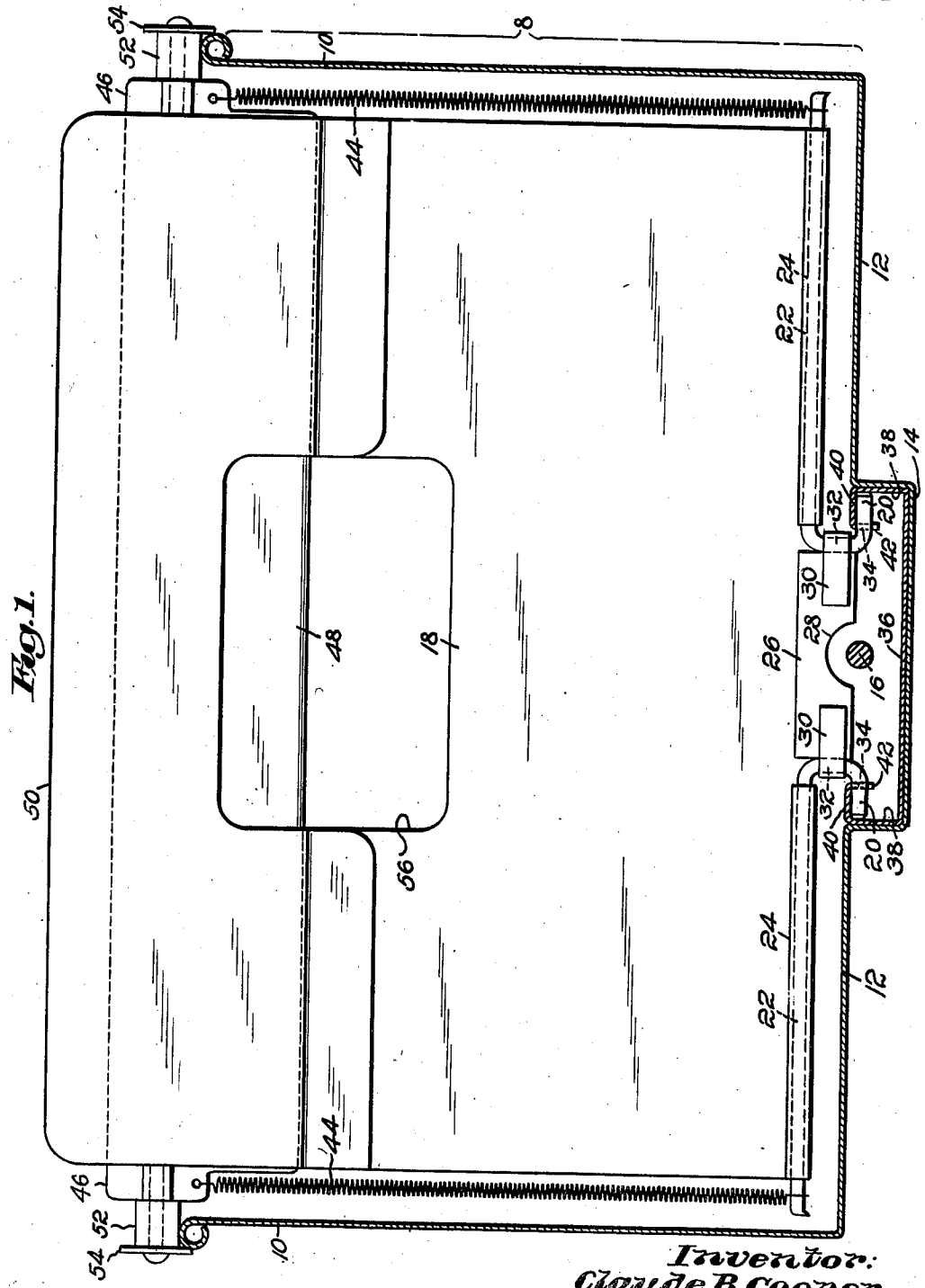


Fig. 1.

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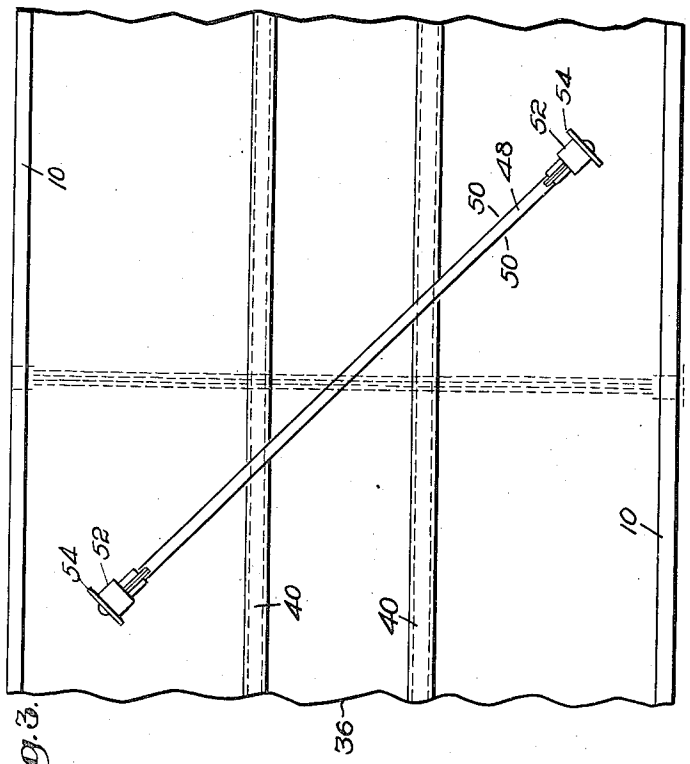


Fig. 3.

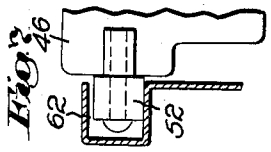


Fig. 7.

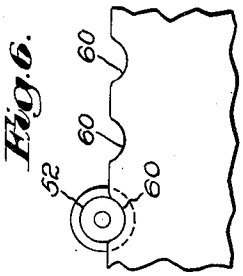


Fig. 6.

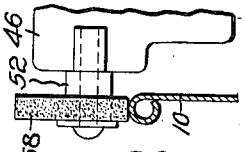


Fig. 5.

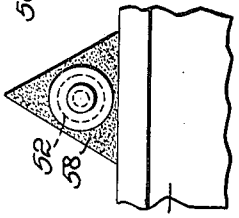


Fig. 4.

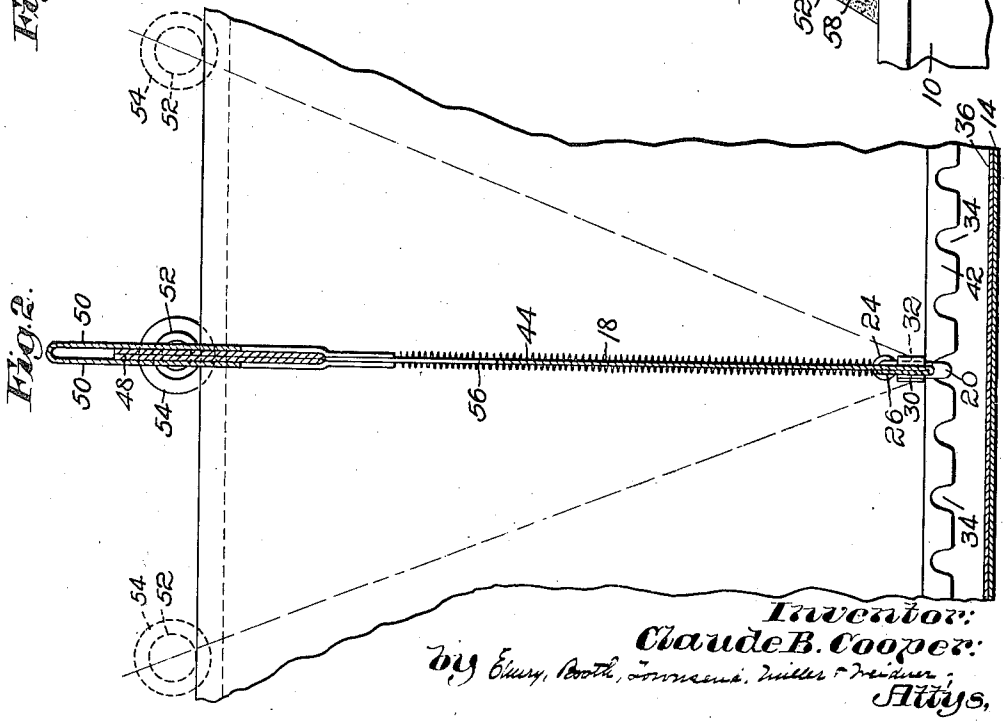


Fig. 2.

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UNITED STATES PATENT OFFICE

2,333,704

VERTICAL PAPER FILE

Claude B. Cooper, Watertown, Mass.

Application June 26, 1942, Serial No. 448,659

6 Claims. (Cl. 129—16)

This invention relates to vertical paper files of the class exemplified by Patent No. 1,928,827 issued to me October 3, 1933 and by Patent No. 1,931,891 issued to me October 24, 1933, and is in the nature of an improvement upon the subject matter of those patents. In fact, the present invention contemplates more than one improvement. One feature is a construction which enables a transverse adjustable wall to be employed either as a divider or as a follower. Another feature is a simplified and improved engagement of the adjustable wall with the drawer or tray adjacent to the bottom of the latter, to provide a greater security of attachment of the wall to the drawer, to prevent injury to folders and papers, to provide for greater ease of adjustment lengthwise of the drawer, and to provide for greater convenience of attachment to and detachment from the drawer. Another feature is a novel arrangement for enabling the wall to be set at various angles with reference to a vertical plane and to maintain the chosen angularity.

These and other novel features will be evident during the course of the following description when taken in connection with the accompanying drawings of specific embodiments thereof, while its scope will be pointed out more particularly in the appended claims.

In the drawings:

Fig. 1 is a vertical, cross-sectional view of a paper file embodying the invention and exhibiting some of the novel features to which reference has been made;

Fig. 2 is a vertical, longitudinal sectional view of the same;

Fig. 3 is a plan of the same illustrating the procedure in removing the divider or follower from the drawer or tray;

Fig. 4 is a side elevation illustrating a modification;

Fig. 5 is an end elevation illustrating the same modification;

Fig. 6 is a side elevation illustrating a second modification; and

Fig. 7 is an end elevation illustrating a third modification.

Referring to the drawings and to the embodiment of the invention illustrated in Figs. 1, 2 and 3, and having reference at first more particularly to Fig. 1, there is shown a paper file comprising a drawer or tray 8 having longitudinal side walls 10 and a bottom 12, the latter being formed with a central, longitudinal channel 14 in which there is a lengthwise rod 16 commonly employed for the attachment of guide cards and a follower. It is to be observed that the construction presently to be described interferes in no way with the usual rod and that removal of the latter to accommodate the new construction is unnecessary.

The construction about to be described is suitable for use either as a divider or as a follower particularly because in certain embodiments it may be set at angle considered with reference to a vertical plane. This angular adjustment is useful also in the case of a divider because by its use a certain group of folders may be distinguished from the others and a place kept as by inclining one divider at the front of the group forwardly and by inclining a second divider at the rear of the group rearwardly. In the case of the use of the movable wall as a rear follower, the wall will be adjusted to slope rearwardly.

The divider or follower comprises a transverse wall 18 arranged for adjustment lengthwise of the drawer or tray, for removal therefrom and reinsertion at the desired point for angular movement considered with reference to a vertical plane. This wall has two laterally directed projections or pintles 20 which for the reinforcement of the wall are formed as parts of wires 22 whose principal horizontal portions are disposed within beads 24 formed on the wall and wrapped about the wires. The wall has a broad tab 26 bent upwardly against and welded to the body of the wall, and both are cut away to form a recess 28 to provide ample clearance about the rod 16. This broad tab, in turn, is provided with tongues 30 wrapped about vertical portions 32 of the wires and welded in place. This arrangement reinforces the wall and provides an exceedingly strong construction.

The projections or pintles 20 are received in opposite openings or notches 34 (see also Fig. 2) constituting one pair of two sets suitably provided within the channel 14 as by inserting in said channel a channel bar 36 whose flanges 38 are bent first inwardly toward each other as at 40 and then downwardly as at 42. The projections or pintles 20 are capable of rocking in the notches 34, thus permitting rocking of the wall 18, while maintaining a definite location of lower margin of the plate lengthwise of the drawer or tray. The spaces below the notches are sufficient to receive the projections or pintles so that the wall, when lowered sufficiently, may be moved lengthwise of the drawer or tray and its projections or pintles reinserted in another pair of notches, and to permit the wall to be swung about

a vertical axis (see Fig. 3) into an angular position to enable it to be withdrawn upwardly from its place and removed from the drawer or tray and reinserted in a new place by a reversal of that operation.

The projections or pintles **20** are normally maintained in the notches **34** by appropriate means such as springs **44** attached at their lower ends to projecting portions of the rods **22** and at their upper ends to lugs **46** on a vertical slide **48** arranged between guides **50** (see Fig. 2) suitably affixed, as by welding, to the wall **18**. The lugs **46** are suitably supported on the drawer or tray sides as by being equipped with rollers **52** which may be provided with flanges **54**. Since the rollers rest upon the drawer sides, the slide **48** cannot descend and hence the effect of the springs **44** is to draw the wall **18** upwardly and to maintain the projections or pintles **20** in the notches **34**. To depress the wall and to displace the projections or pintles downwardly from their notches, the palm of the hand is pressed downwardly upon the upper edges of the guides **50** while the fingers, inserted in an opening **56** in the wall **18** press upwardly on the lower edge of the slide **48**.

When the rollers **52** rest directly upon smooth, flat upper edges of the drawer sides, the upper margin of the divider or follower tends always to assume an upright position (see Fig. 2) but if flat-surfaced, non-slipping shoes **58** (made of rubber or rubber-like material, for example) are applied to the rollers, as in Figs. 4 and 5, the shoes grip the upper edges of the drawer sides and maintain the desired angular position of the divider or follower considered with reference to a vertical plane. Or, instead of employing non-slipping shoes, the rollers may rest in notches **60** (see Fig. 6) in the upper edges of the drawer sides.

By reference to Fig. 7, it will be observed that the roller **52**, instead of resting upon the upper edge of the drawer side, is received in a channel **62** formed by bending the drawer side to form a hollow rib which not only strengthens the drawer side but provides a desirable guard over the top of the roller to prevent clothing, hands and papers from coming into contact with either the roller or with the track on which it runs.

Having thus described these embodiments of the invention, what I claim and desire by Letters Patent to secure is:

1. In a paper file, the combination of a drawer or tray having along and below its bottom a longitudinal channel and two sets of notches below said drawer bottom and within said channel and directly downwardly in said channel toward the bottom of said channel, a movable, transverse wall having a tab depending below said drawer bottom into said channel and having two lateral projections normally received in two opposite notches of said sets, said wall being vertically movable to cause said projections to reced downwardly from the notches in which they are normally received, and means normally to exert an upward pull on said wall to prevent said projections from receding downwardly from the notches in which they are normally received.

2. In a paper file, the combination of a drawer or tray having along and below its bottom a longitudinal channel and two sets of notches below said drawer bottom and within said channel and directed downwardly in said channel toward the bottom of said channel, a movable, transverse wall having a tab depending below said drawer bottom into said channel and having two lateral projections normally received in two opposite notches of said sets, said wall being vertically movable to cause said projections to recede downwardly from the notches in which they are normally received, and resilient means to exert an upward pull on said wall urging said projections upwardly into the notches in which they are received.

3. In a paper file, the combination of a drawer or tray having along and below its bottom, central portion a channel and two longitudinal sets of openings below said drawer bottom and within said channel, a movable transverse wall having a tab depending below said drawer bottom into said channel and having portions arranged to engage and to pivot in desired pairs of openings of said set, said wall being rotatable about a vertical axis to withdraw said tab from said channel and said portions from the openings in which they are received, and means to exert an upward urge on said wall urging said portions into said openings.

4. In a paper file, the combination of a drawer or tray having along and below its bottom, central portion a longitudinal channel with alternating teeth and spaces therein and below said drawer bottom, said spaces opening downwardly, a movable, transverse wall having a tab depending below said drawer bottom into said channel and having means engageable with said spaces by upward movement and disengageable therefrom by downward movement, said wall being shiftable lengthwise of said channel after such downward movement, and means normally exerting an upward pull on said wall maintaining engagement of said wall with the chosen spaces.

5. In a paper file, the combination of a drawer or tray having longitudinal side walls, a transverse wall movable longitudinally therein, means providing for adjustment of the lower margin of said wall lengthwise of said drawer or tray and for angular movement considered with reference to a vertical plane, and means including non-slipping shoes gripping said side walls to maintain said transverse wall in the chosen angular position.

6. In a paper file, the combination of a drawer or tray having longitudinal side walls, a transverse wall movable longitudinally therein, means providing for adjustment of the lower margin of said wall lengthwise of said drawer or tray and for angular movement considered with reference to a vertical plane, and means including lateral rollers carried by said wall and flat-surfaced, rubber-like non-slipping runners about said rollers, respectively, and contacting said side walls to maintain said transverse wall in the chosen angular position.

CLAUDE B. COOPER.

CERTIFICATE OF CORRECTION.

Patent No. 2,333,704. November 9, 1943.

CLAUDE B. COOPER.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 1, second column, line 10, after the word "at" insert --an--; page 2, first column, line 57, claim 1, for "directly" read --directed--; line 63-64, same claim, for "reced" read --recede--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of December, A. D. 1943.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.