March 8, 1932. V. GRONBERG 1,848,779

PAPER FILE

Filed Oct. 31, 1930 2 Sheets-Sheet 1

Fig. 1.

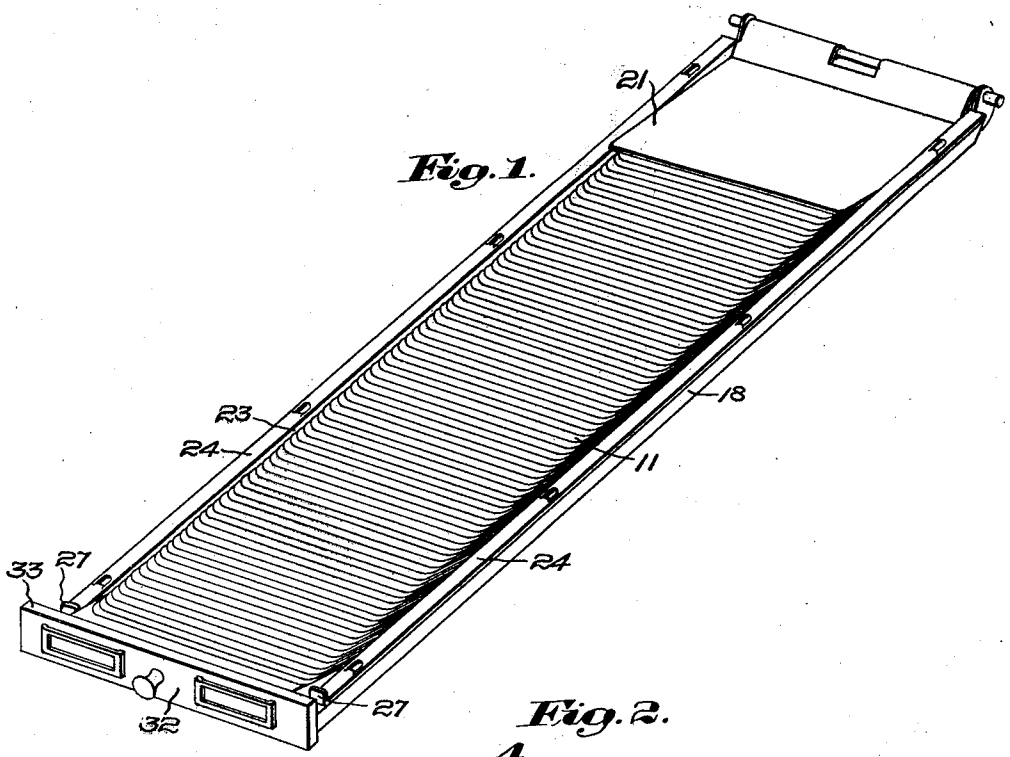
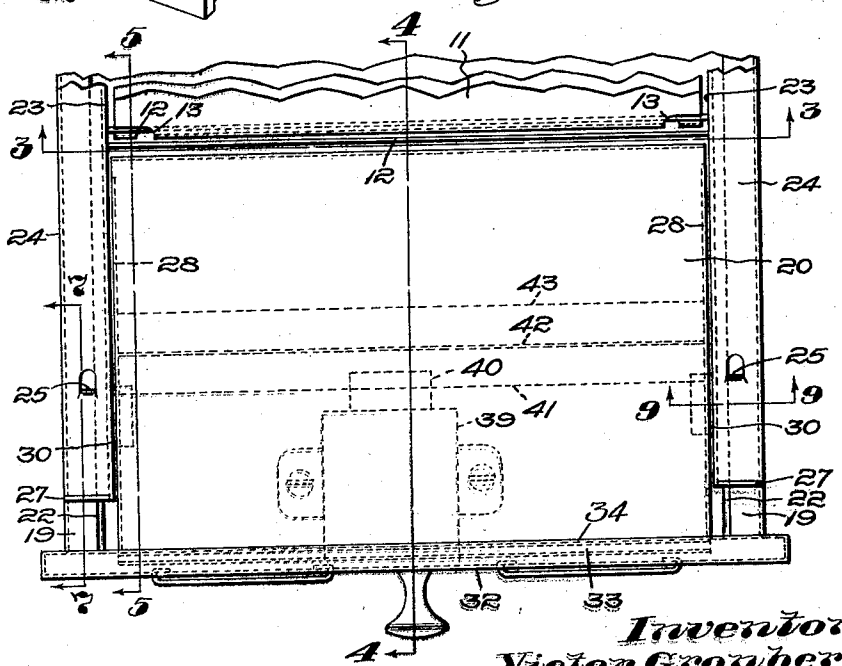


Fig. 2.



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Filed Oct. 31, 1930 2 Sheets-Sheet 2

Fig. 3.

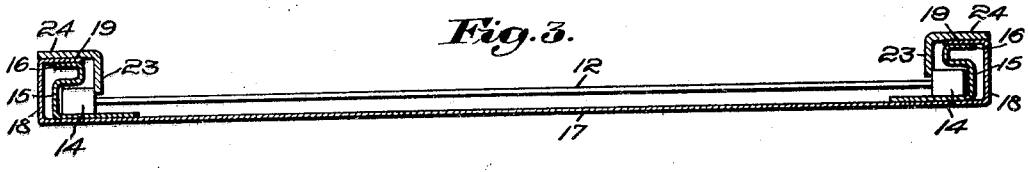


Fig. 4.

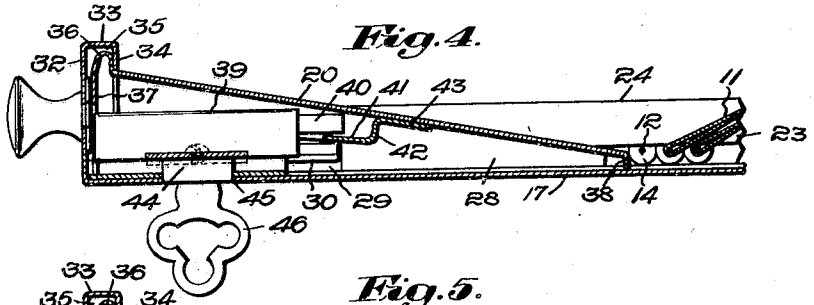


Fig. 5.

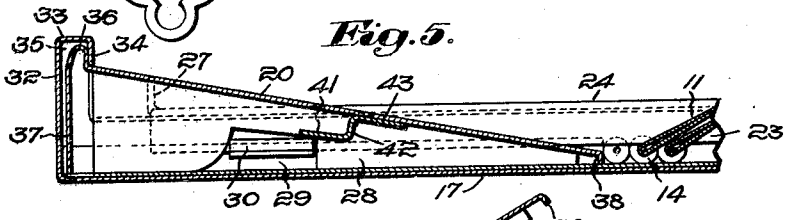


Fig. 6.

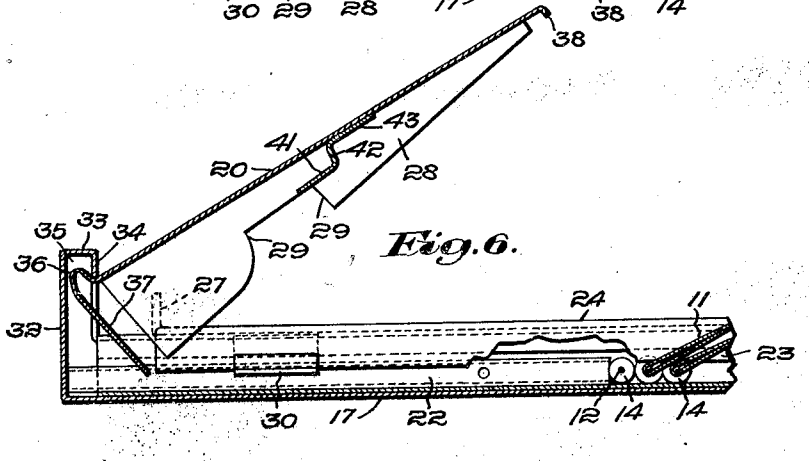


Fig. 7.

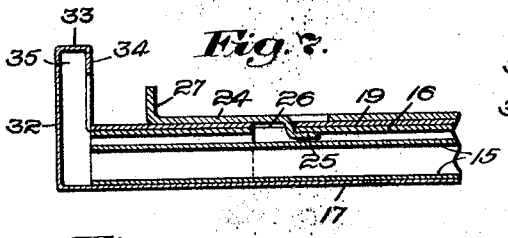


Fig. 8.

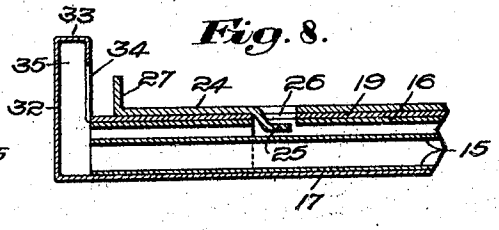
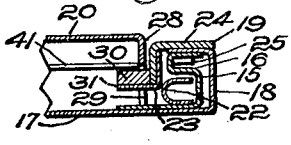


Fig. 9.



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Patented Mar. 8, 1932 1,848,779

UNITED STATES PATENT OFFICE

VICTOR GRONBERG, OF JAMESTOWN, NEW YORK, ASSIGNOR TO POSTINDEX COMPANY, INC., OF JAMESTOWN, NEW YORK, A CORPORATION OF MASSACHUSETTS

PAPER FILE

Application filed October 31, 1930. Serial No. 492,502.

This invention relates to paper files having novel means to prevent unauthorized removal of the sheets from the file. In the specific embodiment disclosed by way of illustration, the sheets are arranged in overlapping relationship, so that their exposed margins may serve to receive identifying matter, and the sheets are secured to carriers which are received in channels presented by a mounting in the nature of a panel, tray or drawer, according to the circumstances. The sheets cannot be removed from the carriers without first removing the carriers from the channels, and the carriers cannot be removed from the channels without first unlocking them by the aid of a key in the possession of an authorized person.

The invention will best be understood by reference to the following description, when taken in connection with the accompanying drawings of one specific embodiment thereof, while its scope will be pointed out more particularly in the appended claims.

In the drawings:

Fig. 1 is a perspective view of a paper file exemplifying the invention:

Fig. 2 is a plan of a portion of the same;

Fig. 3 is a sectional view at an enlarged scale on line 3—3 of Fig. 2;

Fig. 4 is a sectional view at an enlarged scale on line 4—4 of Fig. 2;

Fig. 5 is a sectional view at an enlarged scale on line 5—5 of Fig. 2;

Fig. 6 is a sectional view similar to Fig. 5, but showing the front sheet rest raised;

Fig. 7 is a sectional view at an enlarged scale on line 7—7 of Fig. 2;

Fig. 8 is a sectional view similar to Fig. 7, but showing the sheet-carrier retaining bar drawn forward preparatory to removing the same; and

Fig. 9 is a sectional view at an enlarged scale on line 9—9 of Fig. 2.

Referring to the drawings, and to the embodiment of the invention which is illustrated therein, and having reference at first to Fig. 1, there is shown a paper file comprising a series of sheets 11 arranged in overlapping relationship, so that their exposed margins may serve to receive identifying matter. In the present example, the sheets are folded, and each receives in its fold a sheet carrier comprising a resilient wire 12 (see Fig. 2), which is threaded through two perforations 13, intersected by the fold of the sheet in the manner disclosed in U. S. patent to Quigley, No. 1,616,508. The desired overlap of the margins of the sheets is obtained by providing each wire with terminal enlargements in the form of cylindrical trunnions 14 (see Fig. 3), which are received in channels 15 presented by an appropriate mounting. In the present example, these channels are formed by bars 16, bent to the desired cross-sectional shape, and suitably secured as by spot-welding to a panel, tray or drawer, conveniently formed by a plate 17, whose longitudinal margins are bent to provide outstanding flanges 18 and inwardly directed flanges 19, the latter overlying the channels.

It should of course be understood that the perforations 13 are very slightly larger in diameter than the cylindrical trunnions 14, so that the carrier may be assembled with the sheet by passing the trunnion at one end through one of the perforations, then sliding the carrier along and passing the trunnion through the other perforation, so that between the two perforations the wire is received within the fold of the sheet, and the remainder of the wire is without the fold (see Fig. 2). Thus it is evident that the sheet cannot be removed from the carrier without first removing the carrier from the channels. This removal is accomplished by flexing the wire to reduce its effective length, thereby enabling the trunnions to be withdrawn from the channels.

In the example shown, the sheet carriers afford pivots, on which the sheets may be swung from their normal positions, in which their free edges are disposed toward the front end of the panel or drawer (see Fig. 1), to positions in which they are disposed toward the rear (see Fig. 2). At the front of the panel or drawer, there is a fixed, inclined sheet rest 20, and at the rear, there is a sheet rest 21, which is pivoted at its rear edge and may be swung rearwardly. As shown in Fig.

2, the sheet carrier which is nearest the front sheet support 20 has no sheet mounted upon it. Between this sheet carrier and the front end of the drawer, there are spacers 22 (see Figs. 6 and 9) inserted in the channels 15, to keep the trunnions 14 of the sheet carriers tangent with one another.

The means for preventing unauthorized removal of the sheet carriers and the sheets from the file will now be described, reference being had at first to Figs. 3 and 4. Two retaining members 23 overlie the sheet carriers adjacent their ends, and extend lengthwise of the channels 15. As shown, these retaining members overlie the inner ends of the trunnions 14, as a result of which the trunnions cannot be withdrawn from the channels when the retaining members are in place. These members of course intervene between the inner ends of the trunnions and the adjacent edges of the sheets 11 (see Fig. 2). In the example shown, the retaining members are in the form of angle bars, having flanges 24 (see Fig. 3), which overlie the inwardly directed flanges 19 presented by the tray or drawer. The retaining members are conveniently mounted for movement from their normal positions to positions in which they do not present obstructions to the removal of the sheet carriers. To this end, the retaining members, as shown, are conveniently detachable from the panel or drawer, as by being provided with integral tongues 25, one of which is shown in Figs. 7 and 8, normally extending through apertures 26 presented by the flanges 19 and the bars 16. In the normal position of the retaining members (see Fig. 7), each of the tongues 25 serves to prevent upward displacement of the retaining member 23. But when the retaining member is moved in a forward direction to the position shown in Fig. 8, its tongues 25 register with the apertures 26, and the retaining member may then be lifted from its place. To facilitate the longitudinal movement of the retaining member, each is provided with an upstanding handle 27, which may be grasped to slide the member forward and backward.

The retaining members are conveniently locked in their normal positions by being interlocked with the front sheet rest 20, as by providing the latter at each side with a downwardly directed flange 28, having a notch 29, which as shown in Fig. 5 normally receives a lug 30 presented by the retaining member. This lug completely fills the notch from front to back, and thus normally prevents the retaining member from being moved in a forward direction. In the present example, the lug is welded to the retaining member, and to a reinforcing angle bracket 31 (see Fig. 9).

The sheet rest 20, when in its normal position (see Figs. 4 and 5), cannot move forwardly or rearwardly, because it is interlocked with the panel or drawer. To this end, in the present example, the panel or drawer is provided with a front wall 32, which is bent rearwardly as at 33, and then downwardly as at 34, to present a channel 35. The sheet rest is bent upwardly as at 36 to form a lip which is received in the channel 35, and then downwardly as at 37, to form a flange whose lower edge rests upon the tray or drawer bottom. This is true also of the lower edges of the flanges 28 at the sides of the sheet rest. The front end of the sheet rest is provided with a narrow, downwardly directed flange 38, which likewise rests upon the panel, or drawer bottom.

The only way in which the sheet rest can be removed from the position which it normally occupies is by rocking its rear end forwardly and upwardly (see Fig. 6), and by so doing, it may be removed by withdrawing the lip 36 from the channel 35. This frees the lugs 30, and permits the retaining members 23 to be removed. However, the sheet rest normally is locked in place by a lock 39 (see Fig. 4), having a bolt 40 conveniently interlocked with the sheet rest, as by providing the under side of the latter with a forwardly directed flange 41, which underlies the bolt 40. This flange is conveniently formed on a bar 42, having a rearwardly directed flange 43 secured to the under side of the sheet rest, as by welding. The lock, which is of common form, is provided with a rotary cylinder 44, which extends through an aperture 45 in the tray or drawer bottom, and receives a key 46 by means of which it may be turned. When the key is turned in the proper direction, the bolt 40 is withdrawn in a forward direction from its normal position above the flange 41, and the sheet rest 20 is unlocked, whereupon it may be removed from its place in the manner illustrated in Fig. 6.

Thus it is apparent that, by first removing the sheet rest 20, and then removing the retaining members 23, one or more of the sheet carriers 12 may be removed by flexing them in the manner hereinbefore described to withdraw the trunnions 14 from the channels 15. This can be accomplished only by an authorized person having the key 46 in his possession.

Having thus described one embodiment of the invention, but without limiting myself thereto, what I claim and desire by Letters Patent to secure is:—

1. In a paper file, the combination of a mounting, a series of sheets mounted thereon with margins in overlapping relationship, and means to prevent unauthorized removal of said sheets from said mounting, said means including two retaining members at opposite sides, respectively, of said sheets, and extending transversely of said overlapping margins, and means to lock said retaining members in place, the last-mentioned means including a member normally inter-

locking with said retaining members and with said mounting and removable from such interlocking relationship to permit movement of said locking members.

2. In a paper file, the combination of a mounting, a series of sheets mounted thereon with margins in overlapping relationship, and means to prevent unauthorized removal of said sheets from said mounting, said means including two retaining members at opposite sides, respectively, of said sheets, and extending transversely of said overlapping margins, a third member interlocking with said retaining members and with said mounting, and means to lock said third member in such interlocking relationship.

3. In a paper file, the combination of a mounting, a series of sheets mounted thereon with margins in overlapping relationship, and means to prevent unauthorized removal of said sheets from said mounting, said means including two retaining members at opposite sides, respectively, of said sheets, and extending transversely of said overlapping margins, and normally interlocked with said mounting, a third member normally interlocked with said retaining members and with said mounting, and means normally to lock said third member in interlocking relationship with said retaining members.

4. In a paper file, the combination of a mounting having inwardly-opening channels, a plurality of sheet carriers whose ends are received in said channels, and sheet carrier locking means to lock said sheet carriers to said mounting, said locking means including two members movably related to said mounting and overlying said carriers adjacent to their ends and overlying the openings of said channels.

5. In a paper file, the combination of a mounting having inwardly directed flanges and channels underlying said flanges, a plurality of sheet-carriers whose ends are received in said channels, and sheet-carrier locking means to lock said sheet-carriers to said mounting, said locking means including two members disposed on the front faces of said flanges and extending inwardly beyond said flanges.

6. In a paper file, the combination of a mounting having inwardly directed flanges and channels underlying said flanges, a plurality of sheet-carriers whose ends are received in said channels, and sheet-carrier locking means to lock said sheet carriers to said mounting, said locking means including two members interlocking with said flanges, respectively, and overlying said carriers adjacent said ends.

7. In a paper file, the combination of a mounting having inwardly directed flanges and inwardly-opening channels underlying said flanges, a plurality of sheet carriers whose ends are received in said channels, and sheet carrier locking means to lock said sheet carriers to said mounting, said locking means including two members having portions overlying the openings of said channels and overlying said carriers adjacent said ends, and means normally to lock said members in place.

8. In a paper file, the combination of a mounting having inwardly directed flanges and channels underlying said flanges, a plurality of sheet carriers whose ends are received in said channels, and sheet carrier locking means to lock said sheet carriers to said mounting, said locking means including two members overlying said carriers adjacent said ends, a third member which interlocks with said two members, and a lock which normally locks said third member in the position in which it interlocks with said two members.

9. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are provided with terminal enlargements received in said channels, respectively, and which are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including members overlying the inner ends of said enlargements.

10. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are provided with terminal enlargements received in said channels, respectively, and which are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including two members overlying said sheet-carriers adjacent said enlargements.

11. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are received in said channels, respectively, and are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including two members overlying said carriers adjacent said ends.

12. In a paper file, the combination of a mounting presenting two channnels, a plurality of flexible sheet-carriers whose ends are received in said channels, respectively, and are capable of being withdrawn therefrom by flexing said carriers, a plurality of sheets carried by said carriers, respectively, and means to prevent unauthorized removal of said carriers, said means including two members overlying said carriers between said channels and said sheets.

13. In a paper file, the combination of a mounting presenting two inwardly-opening channels, a plurality of sheet-carriers whose ends are received in said channels, respective-

ly, a plurality of sheets carried by said carriers, respectively, and means to prevent unauthorized removal of said sheet-carriers from said mounting, said means including two sheet-carrier locking bars having portions overlying the openings of said channels, disposed lengthwise of and adjacent said channels, respectively, and overlying said sheet-carriers adjacent said ends.

14. In a paper file, the combination of a mounting presenting two channels, a plurality of sheet-carriers whose ends are received in said channels, respectively, a plurality of sheets carried by said carriers, respectively, and means to prevent unauthorized removal of said sheet-carriers from said mounting, said means including two sheet-carrier locking bars disposed lengthwise of and between said channel and the adjacent edges of said sheets, and overlying said sheet carriers adjacent their ends.

15. In a paper file, the combination of a mounting presenting two channels, a plurality of sheet-carriers having enlarged terminals received in said channels, respectively, a plurality of sheets carried by said carriers, respectively, and means to lock said sheet-carriers in place in said channels, said means comprising two members overlapping the inner ends of said terminals, respectively.

16. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are provided with terminal enlargements received in said channels, respectively, and which are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including retaining members overlying the inner ends of said enlargements, said members being provided with tongues normally interlocked with said mounting and being slidable lengthwise into and out of interlocking relationship therewith, a sheet rest interlocked with said mounting and with said members and being removable from such interlocking relationship only by movement in a predetermined direction, and a lock having a bolt interlocked with said sheet rest and normally preventing such movement.

17. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are provided with terminal enlargements received in said channels, respectively, and which are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including retaining members overlying the inner ends of said enlargements, said members and said mounting having normally interlocking means and said members being slidable lengthwise into and out of interlocking relationship with said mounting, said members being provided with lugs, a sheet rest interlocked with said mounting and having flanges provided with notches receiving said lugs, said sheet rest being removable from such interlocking relationship only by movement in a predetermined direction, and a lock having a bolt interlocked with said sheet rest and normally preventing such movement.

18. In a paper file, the combination of a mounting presenting two channels, a plurality of flexible sheet-carriers whose ends are provided with terminal enlargements received in said channels, respectively, and which are capable of being withdrawn therefrom by flexing said carriers, and means to prevent unauthorized removal of said carriers, said means including retaining members overlying the inner ends of said enlargements, said members and said mounting having normally interlocking means and said members being slidable lengthwise into and out of interlocking relationship with said mounting, a sheet rest having at its front end an upwardly directed lip having interlocking relationship with said mounting, said sheet rest having interlocking relationship with said members, and being removable from said interlocking relationships only by movement in a predetermined direction, and a lock having a bolt interlocking with said sheet rest and normally preventing such movement.

In testimony whereof, I have signed my name to this specification.

VICTOR GRONBERG.