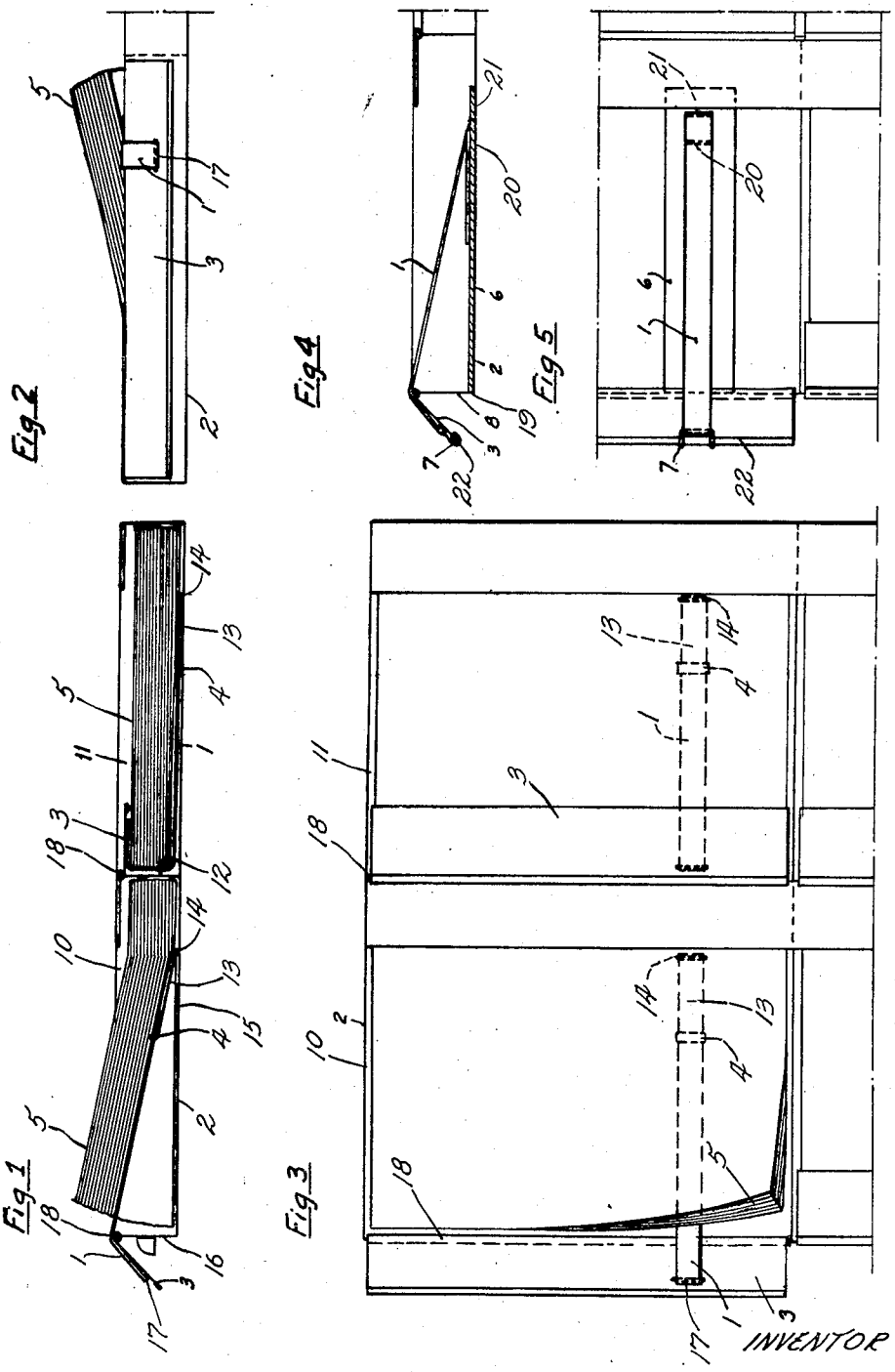
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DEVICE FOR REMOVING PAPER SHEETS FROM DRAWERS

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DEVICE FOR REMOVING PAPER SHEETS FROM DRAWERS

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1 Claim. (Cl. 206—73)

This invention relates to means applicable to drawers or to other compartments of cabinets of the type in which drawings, maps or other material in sheet form is stored, and particularly sheets which are repeatedly removed and replaced in the drawers.

When drawings or maps are stored in drawers, such as is the practice in architects' and engineering offices, they are usually placed flatly on top of one another in drawers or other compartments in filing cabinets. The repeated removal and replacement of the drawings in these cabinets usually causes the drawings to become folded, dog-eared and often torn, and this occurs particularly at one or more of the corners of the sheet. This happens because of the efforts of the handler of the drawings to elevate the sheets, and particularly by engaging them at one of the corners thereof, or by the insertion of the fingers below the sheet. Additionally, these storage drawers are often provided with handles having fastening screws which sometimes form rough projections on the interior of the drawer and the contact of the edges of the drawings with these projections causes tears. The tearing and destruction of the drawings is an aggravation, particularly since the damage very often occurs at the corners of the sheets where the drawing number and other informative material is inscribed, and the tearing away and elimination of this data often causes inconvenience.

It is therefore an object of the present invention to provide means by which the drawings placed in a drawer or other storage compartment will be safeguarded from tearing or injury, yet will permit of the ready and convenient removal of the drawings from the compartment at any time. It is a further object of the invention to provide means, located at the forward end of a drawer or similar compartment, which will serve to raise the drawings, maps or other sheets in a manner to enable the same to be readily grasped and removed from the drawer without the possibility of damage to the drawings or other sheets.

More particularly, the invention contemplates the provision of a flexible member, such as a flat strip or tape which has a substantial portion of it normally disposed beneath the drawings stacked in a drawer or compartment, said strip being provided with means by which it is elevated or raised in a manner to cause it to lift the stack of drawings disposed on top of it, and thus render an edge of the drawings in the stack accessible to the fingers for the selection of a drawing and its removal from the drawer.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a vertical sectional view through a two-compartment drawer showing the improved lifting means applied thereto;

Fig. 2 is a front elevation of one of the compartments of the drawer, showing the foldable lid member in open position;

Fig. 3 is a top plan view of the structure shown in Fig. 1;

Fig. 4 is a sectional view through a modified structure, and

Fig. 5 is a top plan view of the structure shown in Fig. 4.

Referring to the drawing, and particularly to the structure of Figs. 1 to 3 thereof, 2 indicates the body of the drawer or other compartment of a filing or storage compartment intended for the reception of drawings, maps, or other sheets 5 which are placed within the drawers in stacked relation, or disposed on top of one another. The drawer, in the embodiment shown, consists of the two compartments 10 and 11 arranged in side-by-side relation and separated by the vertical partition or strip 12.

At 1 is shown the sheet-elevating member or lifter, which is in the form of a flat, ribbon-like member or tape composed of strong material, such as linen, plastic, leather or the like. At one end the tape 1 is looped or doubled back upon itself, as indicated at 13 and this looped portion extends around a fastening element or loop member 14 provided on or in the bottom 15 of the drawer, at a substantial distance from the front end 16 of the drawer. A buckle or other slidable fastening device 4 on the tape permits the adjustment of the loop and takes up any slack in the tape.

Pivoted at 18 at the upper edge of the front wall 16 of the drawer 2 is a cross-strip 3 constituting a pivoted lid member which, in its closed or folded down position, overlies the stack of drawings 5 and holds the same down substantially as shown in the compartment 11 of the drawer. Secured to the inner face of this lid member 3, as indicated at 17, is the second end of the tape 1. The tape 1 is preferably located toward one of the sides of the drawer in which it is fitted, so that when it is elevated by the opening movement of the pivoted lid member 3, it will tend to raise or elevate one corner of the stack of drawings to a height at least as great as the height of the front wall 16 of the drawer, substantially as shown in Fig. 1.

From the foregoing, the operation of the device will be clear. When the lid member 3 is disposed in its closed or folded-down position, as shown in the compartment 11 of the drawer, it will be noted that a portion of the tape 1 extends around the forward edges or over a part of the top of the various drawings located in the stack 5. When it is desired to remove one or more drawings from the drawer, the lid member is manually swung to its open position, as shown at the left in Fig. 1 and this upward and outward swing of the lid member will cause the portion of the tape in the drawer to be raised to the angular position in Fig. 1, whereby it will elevate the stack of drawings adjacent to one corner of the drawings, and thus render this corner of them readily accessible to permit of the easy selection of the drawing in the stack and its removal from the drawer. The swinging movement of the lid member 3 back to closed position allows the stack of drawings to descend back into place within the drawer. When the lid member 3 is swung downwardly to its fully open position, as shown in Fig. 1, it will be noted that the tape 1 becomes taut and under tension between the top edge of the front wall 16 of the drawer and the anchorage 14 and remains so while the lid is in its open or lowered position. This angular, tensioned, or taut position of the tape holds the corner portions of the sheets elevated and easily available for grasping.

In the modified structure shown in Fig. 4, and in which a drawer may be provided which will not permit of the ready fastening of one end of the tape 1 in place, a supplemental tape-retainer 6 is provided. This element is in the form of a strip of metal, plastic, wood or cardboard which will lie within the drawer and have its forward edge 19 abutting against the inside face of the front wall 8 of the drawer 2. Instead of being loosely disposed within the drawer, this retainer strip might be adhesively or otherwise secured to the bottom of the drawer. The strip 6 is provided with a pair of spaced-apart slots 20 and 21 through which the tape 1 is drawn and is adjustable and which frictionally engages the tape in a manner to hold it in a desired adjusted position as to its effective length.

In order to secure the opposite end of the tape 1 to the pivoted lid member 3 in this embodiment of the invention, the end of the tape is provided with a hook or similar

element 7 which fits over the beaded edge 22 of the pivoted lid member 3. This embodiment of the invention operates in the manner described with respect to the structure of Fig. 1. That is to say, by the swing of the lid member to open position, the tape will be elevated in a manner to raise the drawings or other sheets to raised position to enable the same to be easily engaged by the fingers and removed from the drawer. The closing movement of the lid member will restore the drawings to lowered position in the drawer.

While I have stated herein that the invention is particularly adapted for use in connection with drawings, maps and similar sheets, it will be apparent that it may be used in connection with sheet material of all kinds that is stacked in drawers or other compartments from which its removal is normally not easily performed. Hence, when herein describing the sheets as "drawings or maps" I wish to be understood as meaning any sheets which might be successfully used in connection with the device described.

As herein stated the described device is particularly useful in connection with drawings or other large sheets of substantial area and which are usually removed from the open drawer by drawing them forwardly and over the top of the front wall 16 of the drawer. It is therefore desirable that the tape 1 be so adjusted as to length that it will permit a swing of the lid member 3 to the position shown at the left in Fig. 1 or as shown in Fig. 4. When the lid member 3 is in this position, it extends angularly downward from its hinge to a position well below horizontal, thus permitting the drawings which have been raised by the tape to be slid forwardly out of the drawer and over the lid member 3.

Having described one embodiment of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claim.

What we claim is:

A compartment for relatively large paper sheets such as drawings or maps, consisting of a drawer in which a stack of the sheets are flatly rested, said drawer having a front vertical wall, a pivoted lid member hingedly secured at the top of the wall and pivotal to below a horizontal position to thereby permit sheets taken from the drawer to be removed across the downwardly-pivoted lid member, a flexible, flat tape having one end attached to the lid member, said tape extending into the drawer and along the bottom of the same beneath the sheets, the second end of the tape being secured to the bottom of the drawer beneath the sheets at a distance from the front wall, the manual swing of the lid member to open position causing the tape to be angularly raised and drawn taut between its point of attachment to the bottom of the drawer and the upper edge of the front wall, thereby lifting portions only of the sheets, the tape being positioned substantially closer to one of the side edges of each of the sheets located in the drawer than to the other side edge of each of said sheets, so that the tape will be located to one side of the center line of the sheets and will raise a corner of the stack of sheets to facilitate grasping of corner parts of the sheets, the tape being adjustable in length to thereby allow the lid member to swing below a horizontal position and permit the withdrawn sheets to be slid over it.

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