April 10, 1956 H. E. GOULD 2,741,495

MEMORANDUM PAD BINDERS

Filed Sept. 16, 1953

Fig. 1

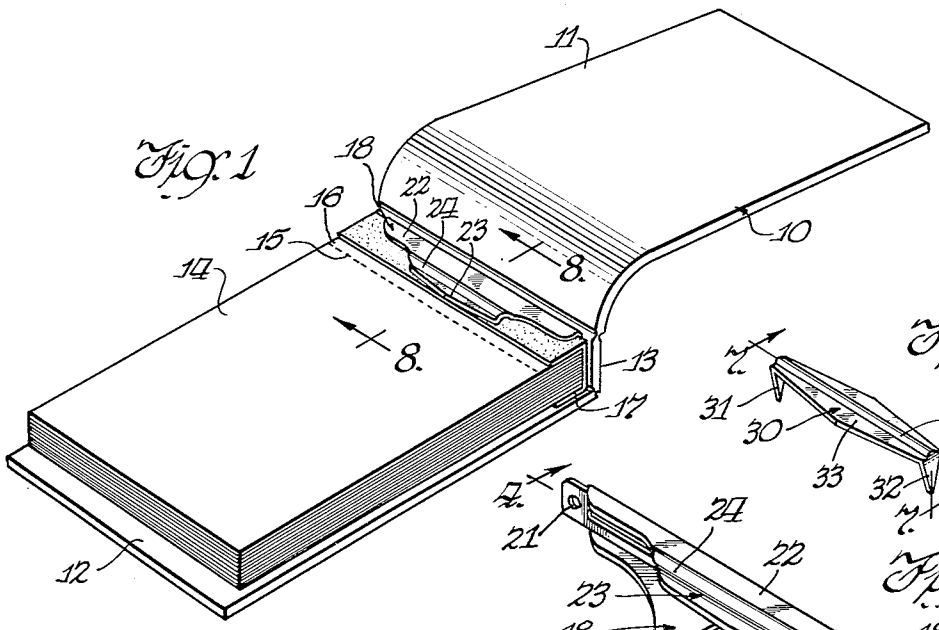


Fig. 3

Fig. 2

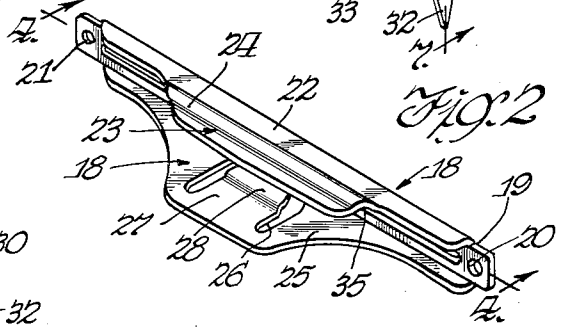


Fig. 7

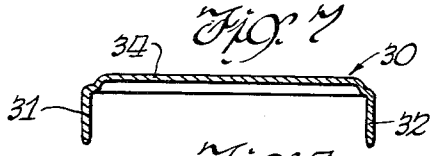


Fig. 4

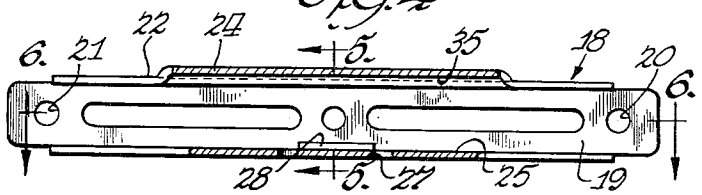


Fig. 5

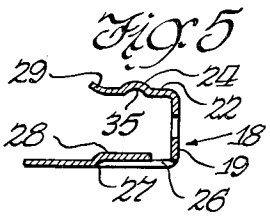


Fig. 6

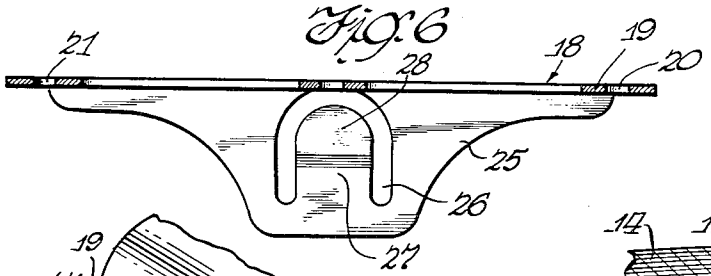


Fig. 8

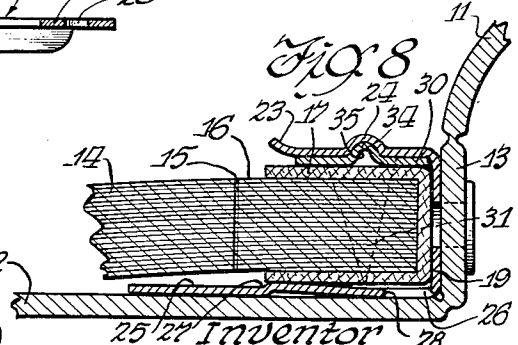
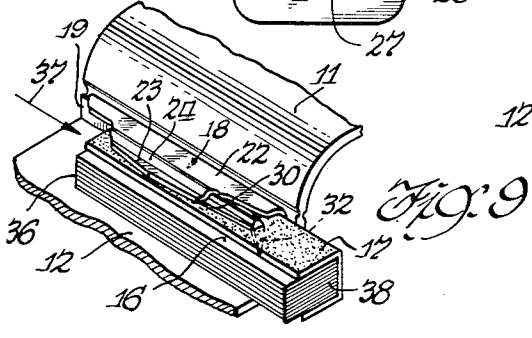


Fig. 9



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MEMORANDUM PAD BINDERS

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Application September 16, 1953, Serial No. 380,575

3 Claims. (Cl. 281—19)

This invention relates to improvements in memorandum pad binders or the like, wherein the binders are so constructed that the pads may be removed or replaced as required.

It has been proposed to manufacture memorandum pads, notebooks, and the like, in the form of a relatively stiff and wear-resistant binder and a separable filler releasably held in the binder, the filler being removed or replaced as desired. In one form, the filler and binder are provided with interengaging metallic holder elements which may be assembled by exerting pressure on the metallic element of the filler to push it into the corresponding metallic element on the cover and disassembled by pulling the two metallic elements apart to remove the filler from the cover. A snap action spring clip incorporated in one of the elements makes this form of assembly and separation feasible without the need for any pins or screw posts.

The fillers for binders of the type described are usually in the form of a bound or glued pad having perforations across the tops of the sheets in the pad to enable the sheets to be torn out without difficulty. After each sheet in the filler has been torn off, a relatively small and somewhat inaccessible stub remains. Although the pad is readily insertable into a binder of this type, it is somewhat difficult to grasp the stub which remains and exert thereon the requisite pull to free it from the binder, so that another filler can be inserted thereinto.

A general object of this invention, in its broader aspects, is to provide an improved holding means for a pad or the like in a binder therefor, wherein the pad is not only readily insertable into the binder, but the remnant thereof, after the usable portions of the pad have been torn off, is equally as readily removable from the binder.

Another object of my invention is to provide a holder for a removable pad or the like in a binder, wherein the pad may be inserted into the binder by a simple pushing operation in one direction to cause a spring clip to catch and hold the pad in the binder during normal use of the pad, and wherein the stub remnant of the pad may be removable from the binder by a simple sliding action normal to the direction of insertion.

My invention has for another object the provision of a holder for a pad or the like in a binder, wherein the pad is pushed into place in the binder against the action of a snap action clip and is withdrawn from the binder by a mere sliding action against a frictional holding means which has no snap action.

These and other objects of this invention will become apparent from the following detailed description when taken together with the accompanying drawings in which:

Fig. 1 is a perspective view of a binder and removable filler pad incorporating the filler holding means of this invention;

Fig. 2 is a view in perspective, and drawn to a larger scale than Fig. 1, of the portion of the holding means which is affixed to the binder;

Fig. 3 is a perspective view of the portion of the holding means which is affixed to the removable filler pad;

Fig. 4 is a front elevational view of the holding means portion shown in Fig. 2, with parts shown in section as indicated by a line 4—4 in Fig. 2;

Fig. 5 is a side sectional view of the holding means portion shown in Fig. 4, with the section taken substantially on a line 5—5 of Fig. 4;

Fig. 6 is a top sectional view of the holding means portion shown in Fig. 4, wherein the section is taken substantially as indicated by a line 6—6 of Fig. 4;

Fig. 7 is a front sectional view of the holding means shown in Fig. 3, the section being taken substantially on a line 7—7 of Fig. 3;

Fig. 8 is a fragmentary side sectional view of the assembled binder and filler drawn to a larger scale than Fig. 1, and wherein the section is taken substantially at the position indicated by a line 8—8 of Fig. 1; and

Fig. 9 is a fragmentary view in perspective of the assembled binder and filler of Fig. 1 after the useable portion of the pad has been exhausted, and wherein the remaining stub is shown partially removed from the binder.

Referring now to the drawings for a detailed description of the illustrative form of the invention depicted therein, there is shown in Fig. 1, a binder 10 which, in this instance, is provided with flexible top and bottom covers 11 and 12, respectively, and a connecting back portion 13. For ease of manufacture, the top, bottom and back portions may be made from a single piece of flexible wear-resistant material which, however, is sufficiently resistant to bending to provide a relatively firm or stiff support for a filler 14 which filler, as depicted, comprises a plurality of sheets of paper assembled together in the form of a pad. Preferably, each sheet of the filler has a row of perforations 15 near the end which is adapted for mounting adjacent the closed or hinged end 13 of the binder, whereby each sheet may be readily torn from the pad and when so torn will leave a stub portion 16 as a remnant of the pad.

The sheets of the pad, as illustrated, are held together by gluing to a backing strip 17 which is preferably made of flexible but strong material and folded to hold the sheets together at one end during normal handling.

To the back 13 of the binder 10 is secured a metal holder element 18, hereinafter termed holder, in the form of a channel, to be described hereinafter, as clearly shown in Fig. 2. The holder 18 is formed with a substantially flat back portion 19 which is secured to the back portion 13 of the binder 10 by fastening elements, such as rivets (not shown) passing through openings 20 and 21 disposed at the end regions of back portion 19.

An upper side 22 of the holder 18 is provided with a relatively short forwardly projecting tongue portion 23 in which a groove or recess 24 is formed, which groove or recess extends longitudinally along the tongue portion 23. The groove or recess 24 extends to the side edges of the tongue portion 23 and the terminal end portions of the groove or recess 24 are thus open and unobstructed for a purpose to be hereinafter described. The lower side of holder 18 also has a forwardly projecting tongue portion 25 thereon which is longer than tongue portion 23 and has a U-shaped slot 26 (Fig. 6) cut therein to define a spring finger 27. The tongue portions 23 and 25 are disposed in substantially parallel planes and have a longitudinal length less than the longitudinal length of the substantially flat back portion 19 and define therewith the channel-shaped configuration, in section, of the holder 18. The end 28 of finger 27 is offset from the

general plane of the tongue 25, as shown in Fig. 5, to project into the interior space defined by channel-shaped holder 18 and provides a resilient spring means.

Filler 14 is provided with a holder element in the form of a staple 30 having spaced and pointed prongs 31 and 32 at the opposite ends thereof which are driven through the sheets in the stub portion 16 of filler 14. Said prongs 31 and 32 are preferably shorter than the thickness of the stub portion 16 of the pad, so that the staple can be driven into said stub portion 16 until a relatively flat intermediate portion 33 thereof rests against the backing strip 17 in a plane substantially parallel to the tongue portions 23 and 25 without having the prongs extend through and project from the opposite face of the pad. A longitudinally extending bead 34 is formed in the upper surface of the flat intermediate portion 33 of the staple which bead projects upwardly and is of a size for holding engagement with the longitudinally extending concave inner surface 35 of the groove or recess 24 on the holder 18. The length of bead 34 is sufficient to resist turning of filler 14 in holder 18 and the location of staple 30 in stub 16 is preferably such that when stub 16 is inserted into holder 18 in a direction toward the back portion 19 as far as it can go, that is, until backing strip 17 abuts on the back portion 19 of holder 18, the groove or recess 24 will be aligned with bead 34 and will be received therein.

The distance between the upper and lower tongue portions 23 and 25 of holder 18, as viewed in Fig. 4, is such that it is substantially equal to the thickness of the stub portion 16 of filler 14, plus the double thickness of the backing strip 17, plus the thickness of the flat intermediate portion 33 of staple 30. However, due to the fact that the offset end 28 of spring finger 27 extends into said space, the stub portion 16 of the filler 14 will be resiliently gripped between the offset portion of the spring finger and tongue portion 23 when a filler 14 is properly inserted into holder 18. To insure an unobstructed insertion of the stub portion 16 into holder 18, the longitudinally extending free leading edge 29 of tongue portion 23 is inclined upward away from the tongue portion 25 and the space defined by the channel-shaped holder, as shown in Fig. 5, and provides a camming action by which tongue portion 23 is raised over bead 34 until said bead 34 is aligned with the groove or recess 24, at which point tongue portion 23 is snapped downwardly and a resilient lock is effected between holder 18 and staple 30.

It is contemplated that filler 14 will be supplied by the manufacturer of the binder 10 and will be provided with staple 30 preferably centrally located in stub section 16 to engage holder 18. To insert a new filler into binder 10, the filler is readily held by grasping the useable section of the filler and pushing the stub section 16 into holder 18 until bead 34 snaps under the bead 24. Any lateral misalignment between filler 14 and binder 10 may be readily adjusted merely by sliding filler 14 laterally relative to holder 18 until the desired alignment between the filler and binder is achieved.

When the filler and binder are properly assembled, they will appear as depicted in Figs. 1 and 8.

After the useable or expendable portion of filler 14 has been exhausted so that nothing but the stub portion 16 remains, it may be observed that due to the configuration of holder 18, a large part of the stub portion 16 is enclosed, leaving small regions at the sides of the stub exposed. To pull the stub section 16 out of holder 18 by pulling on said stub portion 16 in a direction opposite to that in which it was inserted in said holder, is extremely difficult, inasmuch as it requires that a sufficient area of the stub portion 16 be presented and accessible for gripping to enable the thumb and forefinger of the user to secure a firm grip thereon. The amount of force required to pull said section out must be greater than the force exerted by the holder 18 tending to resist separation of the upper and lower sides of the holder, and if this force is sufficient to hold filler 14 in binder 10 under normal conditions of use, then the force required to separate the stub portion 16 from holder 18 would be uncomfortably large.

In the present design, however, it becomes unnecessary to separate the stub section from the holder 18 in the manner aforesaid. Instead, relatively light pressure exerted upon the exposed end 36 of stub portion 16 will cause said stub portion to slide longitudinally in holder 18 until the opposite end 38 of said stub portion 16 extends beyond the sides of binder 10 a sufficient distance to permit it to be grasped firmly and readily and thereby pulled completely out of holder 18. The only resistance to such longitudinal movement is the friction developed between the engaged groove or recess and bead on the holder and staple and between spring finger 27 and the inside surface of tongue portion 23 which is fairly uniform, there being no requirement in effecting the longitudinal movement that any portion of holder 18 be bent or distended beyond the shape assumed by said holder 18 after the filler is inserted into said holder.

It may be observed from the foregoing description that a filler pad holder made in accordance with this invention provides a snap acting means which may be utilized during the insertion of the cover into the holder, not only to hold the filler in the binder, but to indicate when the filler has been inserted into the holder the required distance, and also that the removal of the stub portion remaining after the filler has been exhausted is effected simply by a sliding action of the stub in the holder which does not involve a distortion of any portion of the holder and hence does not require the use of any considerable force.

The material of which holder 18 and staple 30 are made may be spring steel which has been suitably coated to prevent corrosion, or it may be made of phosphor bronze such as is frequently used for non-corrodible springs.

It is understood that the foregoing description is merely illustrative of a preferred embodiment of the invention and that the scope of the invention, therefore, is not to be limited thereto, but is to be determined by the appended claims.

I claim:

1. A securing means for removably securing a filler in a cover, said means comprising, in combination, an elongated unitary holder element adapted to be secured to a cover and a means removably secured to said holder element, said means including a relative flat portion having a longitudinally extending upstanding bead thereon, said holder element including a substantially flat back portion, tongue portions projecting from said back portion in transversely spaced planes disposed substantially parallel to the relative flat portion of said means and defining with said back portion a channel, said tongue portions being of a length less than the length of said back portion, one of said tongue portions having a longitudinally extending groove receiving said bead to prevent relative transverse movement between the holder element and the means, said groove having at least one terminal end portion thereof extending to one side edge of said one tongue portion to permit said bead to be longitudinally slidable therethrough, the other tongue portion having a substantially U-shaped slot defining a finger portion, said finger portion being offset from said other tongue portion toward said one tongue portion into the space defined therebetween to provide a resilient spring means, whereby, said holder element and said means may be removably secured together by transverse relative movement of the groove and bead overcoming pressure exerted by the resilient spring means to interengage the bead in the groove; secured together against transverse relative movement by such interengagement of the bead in the groove; and disassembled by relative longitudinal

sliding movement of the bead through said terminal end portion of said groove.

2. The structure defined in claim 1 wherein one of said tongue portions has a longitudinally extending free leading edge inclined away from the other tongue portion to facilitate the transverse relative movement of the groove and bead in overcoming the pressure exerted by the resilient spring means when removably securing the holder element and means together.

3. In a binder comprising a separable cover having top, bottom and back sections, a filler, an elongated unitary holder element secured centrally of the inside of the back section of said cover, a second element secured centrally of only one end marginal portion of said filler and removably secured to said holder element to hold the filler in the cover; said second element including a relative flat portion having a longitudinally extending upstanding bead thereon, said holder element including a substantially flat back portion, tongue portions projecting from said back portion in transversely spaced planes disposed substantially parallel to the relative flat portion of said second element and defining with said back portion a channel, said tongue portions being of a length less than the length of said back portion, one of said tongue portions having a longitudinally extending groove registering with and receiving said bead to prevent relative transverse movement between the elements and to retain the filler in

the cover, said groove having at least one terminal end portion thereof extending to one side edge of said one tongue portion to permit said bead to be longitudinally slidable therethrough, the other tongue portion having a substantially U-shaped slot defining a finger portion, said finger portion being offset from the plane of said other tongue portion toward said one tongue portion into the space defined therebetween to provide a resilient spring means, whereby, the filler may be removably secured to the cover by transverse relative movement of the groove and bead overcoming pressure exerted by the resilient spring means to interengage the bead in the groove; secured together against transverse relative movement by such interengagement of the bead in the groove, and a remnant of the filler after use may be removed from the cover by relative longitudinal sliding movement of the bead through said terminal end portion of said groove.

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