United States Patent [19]

Grundell

[11] **3,863,998**

[45] **Feb. 4, 1975**

[54] **DOCUMENT FILES, FOLDER, REGISTERS AND THE LIKE**

[76] Inventor: **Carl-Erik Grundell,** Osogatan 8, 122 48 Enskede, Sweden

[22] Filed: **Sept. 25, 1973**

[21] Appl. No.: **400,509**

[30] **Foreign Application Priority Data**

Sept. 25, 1972 Sweden 12369/72

[52] **U.S. Cl.** **312/184,** 211/126

[51] **Int. Cl.** **A47f 3/14**

[58] **Field of Search** 312/184; 211/45, 46, 50, 211/126, 184, 162, 113; 40/359

[56] **References Cited**

UNITED STATES PATENTS

2,688,409 9/1954 Echlin 211/184

3,779,393 12/1973 Grundell 312/184

FOREIGN PATENTS OR APPLICATIONS

1,144,113 3/1969 Great Britain 312/184

Primary Examiner—Casmir A. Nunberg

Attorney, Agent, or Firm—Ulle C. Linton

[57] **ABSTRACT**

Files for documents, registers, and the like having a rail and a relatively stiff, but thin sheet material connected to said rail to form a gripping element, a guiding element or a securing member for papers and the like.

6 Claims, 7 Drawing Figures

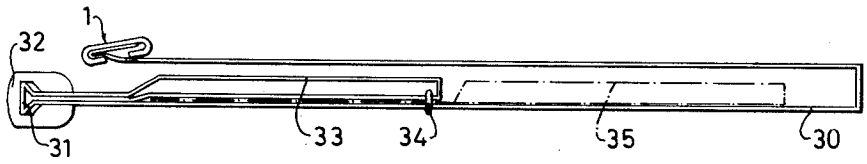
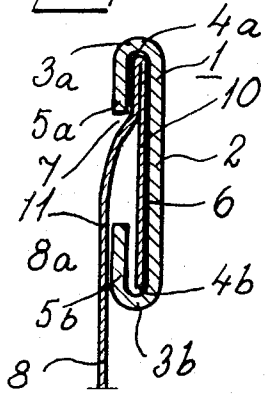


Fig. 1



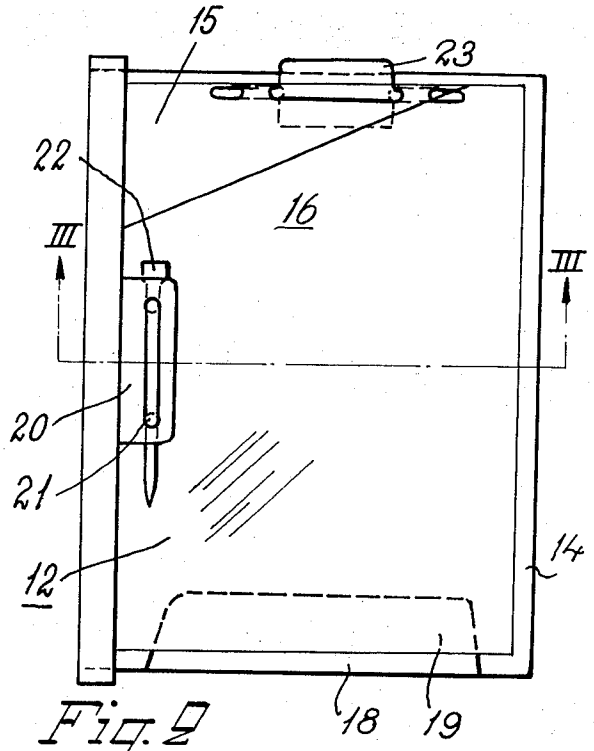


Fig. 2

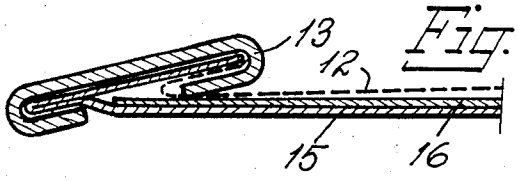


Fig. 3

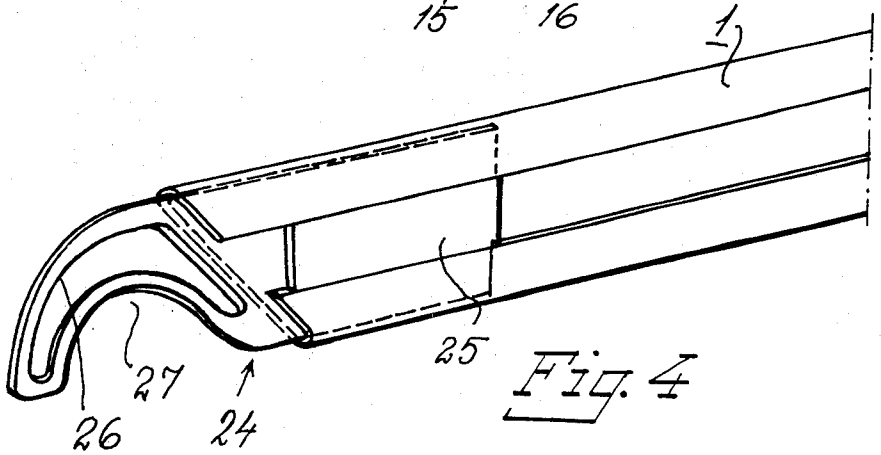


Fig. 4

Fig. 5

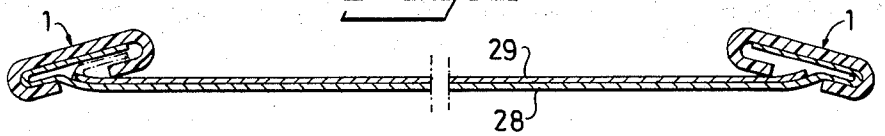


Fig. 6

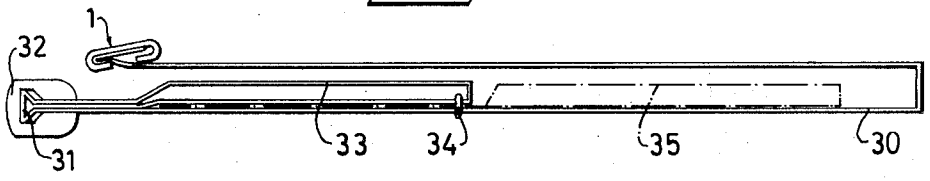
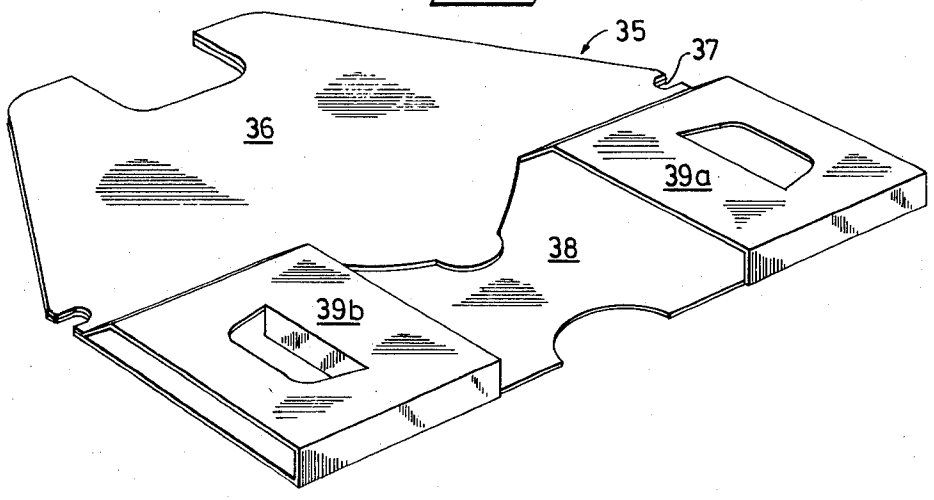


Fig. 7



DOCUMENT FILES, FOLDER, REGISTERS AND THE LIKE

This invention refers to files, pockets for storing documents and similar applications in which a unit made from a relatively stiff but thin sheet material is connected to a reinforcing or suspension rail or profile.

One object of the invention is to provide a thin profile which enables the connection of a sheet member such as a cardboard element without the use of any securing means such as glueing, stitching and the like.

Another object is to provide such a connection between the profile and the sheet member that said profile and sheet member together form a gripping element, a guiding element or a securing member for papers and the like.

Further objects and advantages will appear from the following detailed description of the invention.

In the accompanying drawings some exemplary embodiments of the invention are illustrated.

FIG. 1 is a section through a connection between a reinforcing and/or suspension profile and the margin of a file side.

FIG. 2 illustrates a document file for storing perforated as well as unperforated documents and being provided with signal or securing means as well as a cover.

FIG. 3 is a section along line III—III in FIG. 2.

FIG. 4 is a perspective view of a suspension profile for files.

FIG. 5 is a section through a register having displaceable strips.

FIG. 6 is a section through a modified document file with removable units.

FIG. 7 is a perspective view of a removable unit according to FIG. 6.

The profile which is generally designated 1 is preferably made from extruded transparent plastic material and comprises a mainly planar web portion 2 continuing via rounded transitions 3*a*.3*b* forming inner abutment surfaces 4*a*.4*b* in an upper flange 5*a* and a lower flange 5*b*. These flanges are directed towards each other and are both approximately parallel to each other and to the web portion but may also form a minute angle with said web portion as will be explained more in detail. Consequently a space 6 extending along the entire length of the profile is obtained. Said space communicates with a slot 7 which also extends along the entire length of the profile.

As seen in FIG. 1 a connection between the profile just described and a unit made from a relatively stiff but thin sheet material such as cardboard can be obtained in a very easy and cheap manner by folding said unit 8 at 9 to obtain a folded edge portion 10. Said edge portion is sideways introduced in the profile. As the width of the space 6 approximately corresponds to the double wall thickness of the sheet and as the upper flange preferably slightly converges towards the web portion 2 the unit will be effectively secured to the profile. If the folded parts of the sheet are held firmly pressed against each other and the web portion by means of the edge portion of the upper flange 5*a* an extremely durable connection is obtained which enables the profile to take up considerable loads acting upon the sheet member. A folding line 11 parallel to the fold 9 serves to deflect the lower part of the unit to be approximately parallel to the web portion 2 of the profile. It is also possible to fold the sheet member onwardly over the lower

flange portion 3 such that it extends parallel to the web portion and in almost the same vertical plane as said web portion. By designing the profile according to FIG. 1 with a relatively short upper flange 5*a* the part of the sheet member which extends from said upper flange over the lower flagne 5*b* may be regarded as a resilient tongue which together with said lower flange consitutes a gripper means which according to FIGS. 2–3 serves to detachably hold documents, file parts and similar objects. This arrangement makes it also possible to detachably arrange a cover 12 or the like by providing said cover with a folded edge portion 13 which is hooked in as clearly appears from FIG. 2. As the part 8a of the sheet member holds said cover slightly pressed against the flange 5*b* said cover is effectively secured to the profile even if the cover is made from a relatively weak material such as paper. In spite thereof the cover may be slid along the rail and it is therefore evident that the cover may be substituted by a signal strip or the like.

When it is desired to obtain only a small gripping effect the folding line 11 is located immediately below the lower edge of the upper flange 5*a*.

These and other properties of the profile connection makes it possible to solve a number of problems involved in document files, registers and similar applications.

FIGS. 2–3 illustrate a document file made in accordance with the invention. The illustrated document file consists of a sheet which is folded near to its middle to constitute two superimposed file parts from which the rear one 15 is secured to the profile 1 in the manner just described. The front file part 16 has such an extension from the folding line 14 that its free end according to FIG. 3 may be introduced in the gripping means which is generated between the rear file part and the flange 5*b*. Said front part of the file is preferably obliquely cut as at 17 so as to make it easy to grasp the front part in question and to get easy access to the pocket which is generated between the file parts 15 and 16. If the rear file part 15 according to FIG. 2 is extended downwardly and the extended portion is folded over the lower edge 18 of the front file part an additional lower pocket 19 is obtained.

It is also possible to punch out near to the free edge of the front part a flap 20 having punched holes 21 and a flexible binder 22 for binding perforated documents. A similar flap may be arranged near to the upper edge portion of the rear file part. By designing the binder according to the drawing with a sideways projecting middle portion 23 a signalling means is obtained if said middle portion is located so as to protrude over the file but a means to hold documents in the pocket when said middle portion extends downwardly as indicated in dotted lines in FIG. 2.

The rail or profile just described may easily be provided with end stops 24 having reinforced projecting ends 26 with recesses 27 for guiding the file in a manner well known in the art. The part of said end stop which is to be introduced in the profile may have a rib 25 which fills up the space 7.

The invention also makes it possible to manufacture registers having strips made from cardboard, plastics or the like, said strips being displaceable perpendicular to their length direction. Such a register is illustrated in FIG. 5 and comprises a base member 28 secured to two rails 1 in the manner described and a plurality of strips

29 which have their edge portions guided in the space between the base member 28 and the flanges of the profiles. Thus the strips are properly guided and the gripping effect of the flanges generates a friction effect which maintains the strips in any desired set position. In order to obtain a stop means for the strips the edges of the lateral sides of the base member are provided with profiles 1 which however are placed upside down relative to the profiles of the longitudinal sides. Of course the sheet member must be folded as hereabove described, however in opposite direction compared to that of the described one.

In a modification of the register according to FIG. 5 the strips may be replaced by strips for instance paper strips having one end folded and inserted as indicated in dotted lines in FIG. 5 and consequently secured to one of the profiles whereas its opposite end being planar such that it alternatively may extend outside the profile or may be introduced therein to be guided as described. When the profile is transparent it is evident that signals and registrations upon the file part or papers attached thereto will be well visible. In the embodiment according to FIG. 6 the profile 1 is attached to one end of a file 30 the opposite end of which being folded to substantially T-shape 31 such that it may be sideways introduced in a correspondingly shaped groove in a channel bar 32 serving as a stiffening member. The T-shaped part 31 is extended and forms a storage member substantially designed as the unit illustrated in FIG. 7. This storage member 33 is intended to receive punched cards, photos or the like. A resilient wire preferably extends in the hight direction of the file on the under side thereof and passes through an upper and a lower hole such that it also extends on the upper side of the file bottom. Said wire 34 serves to detachably hold a unit 35, shown in perspective in FIG. 7. Said unit has a bottom member 36,38 intended to be introduced between the storage member 33 and the file bottom as indicated in dotted lines in FIG. 6. The part 38 situated outside the member 33 is formed to an upper and a lower pocket 39*a*.39*b* for the purpose described. In the transition between parts 36 and 38 are arranged two cutouts 37 through which the wire 34 may pass to hold the unit 35 secured. It is obvious that unit 33 is permanently secured to the file while unit 35 is removable therefrom.

I claim:

1. A register comprising in combination a substantially flat preferably rectangular base member, movable members such as strips, slideably arranged relative thereto, said base member comprising a sheet member, made from relatively thin but stiff as cardboard, said sheet member having two opposite ends thereof folded to generate anchoring means, a profile having a substantially planar web portion, first and second abutment portions extending substantially perpendicular to said web portion and first and second guiding portions extending from said abutment portions and directed towards each other and substantially parallel to said web portion such that a longitudinal channel is formed in the profile with said channel having an extension parallel to the plane of said web portion which considerably exceeds the extension in a direction perpendicular to said web portion, the extension of said guiding portions being such that a longitudinal groove communicating with said channel is generated, the folded anchoring portions of said base member having an extension which substantially corresponds to the corresponding portions of said channel, said anchoring portions being sideways introduced in said channel with said folded portions located in said channel such that the main portion of said base member will first substantially follow one of said guiding portions, then pass through said slot and finally extend substantially parallel to said web portion of said profile thereby generating a support for said movable members as well as together with said other guiding portions of said profile resilient guides for the ends of said movable members.

2. A register as claimed in claim 1 wherein the width of the longitudinal channel of said profile approximately corresponds to the total thickness of the main portion of said base member and said folded portion thereof.

3. A register as claimed in claim 2 wherein the sides of said base member which extends perpendicular to the sides being formed as anchoring means are also folded to generate anchoring means intended to be introduced in further profiles, and said folded parts however being folded in the opposite direction compared to the first mentioned folded portions.

4. A register as claimed in claim 1 wherein a sheet member, for instance a protective member at one of its ends is folded, said fold having an extension somewhat exceeding the corresponding extension of one of the guiding portions of said profile, said fold of said sheet member being instertable in said profile from the side thereof such that its edge portion rests against one of said abutment portions.

5. A register as claimed in claim 1 wherein said base member at a distance from its folded portion has a folding line extending parallel to said folded portion.

6. A register as claimed in claim 1 wherein at least one of said guiding portions has its free end located nearer to said web portion than its opposite end.

* * * * *