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Brown, deceased et al.

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[54] **POCKET HOLDER WITH MAGNETIC CLASP**

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[52] **U.S. Cl.** ..... **206/5 R,** 24/3 H, 24/3 G, 206/37 R, 206/DIG. 33, 224/5 R

[51] **Int. Cl.** **A45c 11/04**

[58] **Field of Search** ..... 206/5 R, 6, 38 R, 206/37 R; 224/5 R, 26 R; 24/3 H, 3 G, 11 HC; 220/34

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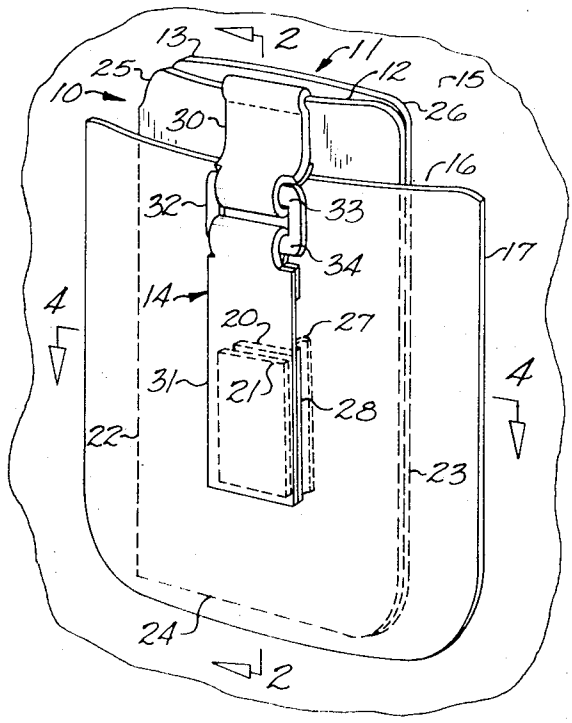
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Primary Examiner—William T. Dixson, Jr.
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[57] **ABSTRACT**

This holder includes a case receivable within a pocket. A flexible clasp having interconnected upper and lower portions is attached to the case, the connection providing for compound hinge action between the upper and lower clasp portions. The underside of the clasp and the front face of the case each carry mutually attractive magnetic elements. The pocket material is held between the flexible clasp and the case by magnetic force, and the clasp provides a means of withdrawing the holder from the pocket.

4 Claims, 5 Drawing Figures



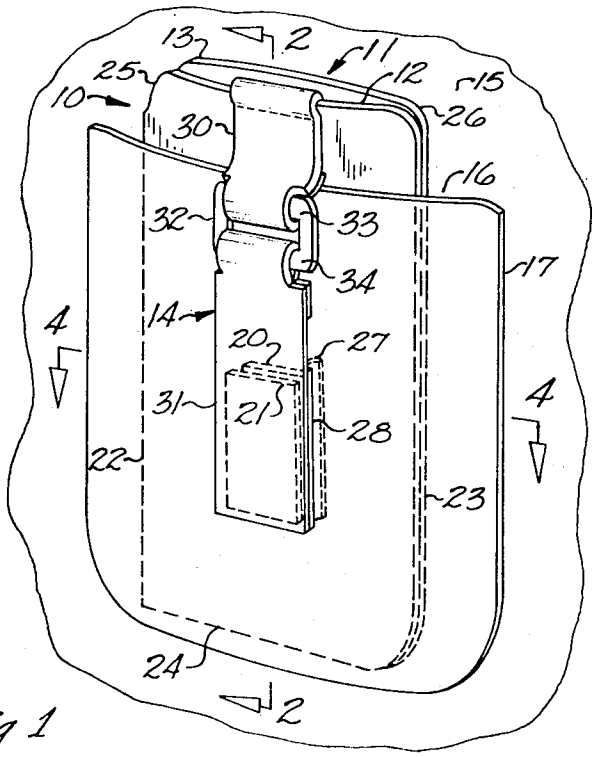


Fig 1

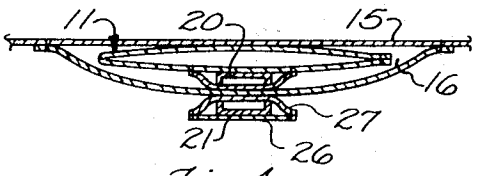


Fig 4

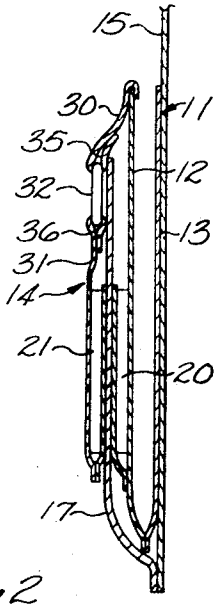


Fig 2

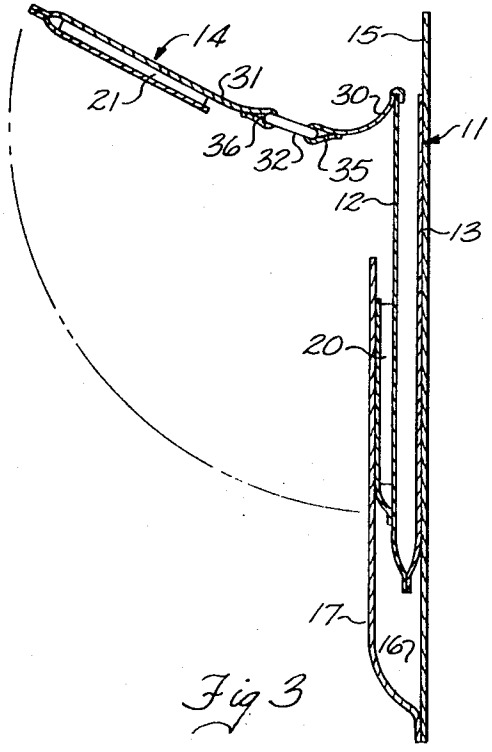


Fig 3

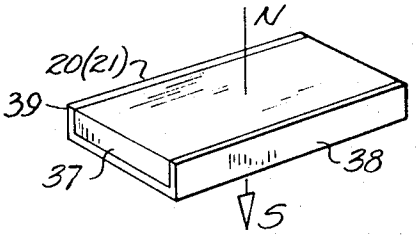


Fig 5

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POCKET HOLDER WITH MAGNETIC CLASP

BACKGROUND OF THE INVENTION

This invention relates in general to a pocket-engaging holder having a magnetic clasp and in particular to an eyeglass case having a flexible, magnetic strap attached.

Almost without exception, the many millions of persons who depend on eyeglasses to augment their vision, utilize some form of carrying case to contain and protect the eyeglasses when they are not in use. Men, in particular, prefer to use a case which can be conveniently carried in shirt breast pocket. If such cases are not equipped with a clasp or clip of some sort, then the case is very likely to fall from the pocket, particularly when the owner bends over. Moreover, because eyeglass cases are relatively narrow, they are likely to fall askew in the pocket unless held.

In order to retain eyeglass cases and the like in a pocket, resilient clips are commonly used. These clips depend, for their effectiveness, on the gripping capability of the clip acting on the pocket material disposed between the clip and the case. If the resilience of the clip is too great, then the case cannot easily be withdrawn from the pocket with one hand, and if this is attempted, there is a tendency for the clip to drag or tear the pocket. Alternatively, if the clip resilience is insufficient, then the clip is ineffective. Further, each clip is normally designed to suit one thickness of pocket material and is not adaptable to a different thickness of material. Thus, a clip design for a shirt pocket is likely to be unsuitable for use with a jacket or vest pocket.

Of the known devices in the prior art, only one utilizes any form of magnetized clip or clasp to effectuate the holding action. However, in this device, the clip is structurally rigid and cannot be utilized as a strap to facilitate removal of the case. Further, the magnetic action provides a clamping function for an abrasive material provided on the underside of the clip, and in this sense, augments, rather than provides, the holding action.

SUMMARY OF THE INVENTION

This pocket-engaging holder includes a case suitable for eyeglasses and the like and a flexible clasp which holds the case in place by magnetic attraction between the clasp and the case.

The material of the pocket in which the case is held, is not susceptible to abrading by the clasp action and the device is adaptable to varying thicknesses of pocket material.

By virtue of its inherent flexibility and articulated structure, the clasp may be utilized as a stray to withdraw the case from the pocket and the clasp is movable independently of the case.

The case is received inside the pocket and it includes a magnetically attractive element. The clasp provides a flexible member having upper and lower portions. The upper portion is attached to the case and the lower portion, which also includes a magnetically attractive element is disposed outside of the pocket. The flexibility of the clasp provides it with a capability of movement in more than one direction, relative to the case, and renders it suitable for use as a strap for withdrawing the case from the pocket.

At least one of the magnetically attractive elements is a permanent magnet. The weight of the magnetically attractive element of the clasp, acting in conjunction with the clasp flexibility, facilitates vertical orientation and automatic alignment of the clasp with the case.

The upper and lower portions of the clasp are interconnected by a ring-like buckle element which provides the clasp with compound hinge action providing articulation perpendicularly to the pocket, and also in a sideways direction.

The underside of the clasp and the front face of the case include opposing pouch portions accommodating associated magnetically attractive elements, each pouch providing a smooth facing piece adapted to cover its associated elements and engage the pocket material therebetween.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of the holder received within a pocket;

FIG. 2 is a sectional elevational view taken on line 2—2 of FIG. 1;

FIG. 3 is a similar view illustrating the juxtaposition of parts as the holder is being removed from the pocket;

FIG. 4 is a sectional plan view taken on line 4—4 of FIG. 1, and

FIG. 5 is a perspective view of one of the magnetic elements.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now by characters of reference to the drawing, and first to FIG. 1, it will be understood that the holder, generally indicated by numeral **10**, includes a case **11** having front and rear panels **12** and **13** respectively and a flexible, articulated clasp **14** which is attached at one end to the case **11**.

In the preferred embodiment, the case **11**, which constitutes a first member, is received within a pocket **16** such as the breast pocket of a shirt **15**, the pocket **16** being formed from a rectangular patch of material **17**, stitched or otherwise attached to the shirt **15**.

The case **11** is supported at the bottom of the pocket **16**, and the clasp **14** which constitutes a second member, is disposed outside of the pocket **16**. The pocket material **17** is disposed between the clasp **14** and the case **11**. This material **17** is securely held by magnetic attraction between the flexible clasp **14** and the case **11** by mutually attracted magnetic elements **20** and **21** carried respectively by the clasp **14** and the front panel **12** of the case **11**.

In the preferred embodiment, the case **11** is formed from a single sheet of material folded double and stitched to provide a folded side margin **22**, and stitched side and bottom margins **23** and **24** respectively. The upper portion of the folded margin **22** is cut away and the upper portion of the stitched margin **23** is left unstitched to provide each of the front and rear panels **12** and **13** with flap portions **25** and **26** which facilitate entry into the open-ended case **11**.

The front panel **12** includes a pouch **27** formed from a strip of material stitched or otherwise attached to the front fact of said panel **12**. This pouch **27** provides a pocket for the associated magnetic element **20**.

The flexible clasp **14** is preferably formed from the same material as the case **11**, namely leather or plastic, and includes a relatively short upper portion **30** and a relatively long lower portion **31**. The upper and lower

portions 30 and 31 are interconnected by means of a rigid ring-like member, such as the buckle 32. The buckle 32 is preferably of metal and includes interconnected, opposed bar portions 33 and 34.

As shown in FIGS. 2 and 3, the material at one end of the clasp upper portion 30 is folded around the upper margin of the front flap 26 and attached thereto by stitching. The material at the other end of the clasp upper portion 30 is suitably narrowed and wrapped around the buckle bar portion 30 and stitched to form a loop 36 accommodating said buckle bar portion 33. The upper end of the clasp lower portion 31 is likewise narrowed and wrapped around the buckle bar portion 34 and stitched to form a loop 36 accommodating said buckle bar portion 34.

Each of the loops 35 and 36 is relatively loosely wrapped around its associated buckle bar, so that the buckle, in effect, constitutes a compound hinge which provides that the upper and lower portions 30 and 31 of the clasp 14 may be oriented in different directions relative to each other as indicated in FIG. 3. Moreover, the inherent flexibility of the clasp material and the ring-like nature of the buckle 32 permit a degree of side movement as well as compound hinge movement. Thus, the clasp 14 may conveniently be utilized as a hand strap capable of a universality of movement relative to the case 11.

At its lower end, the clasp lower portion 31 includes a strip of material attached as by stitching, to its underside to provide a pouch 28. This pouch 28 is substantially the same size as the pouch 27 provided on the case front panel 12 and the two pouches 27 and 28 are substantially in register. The pouch 28 provides a pocket for a similar magnetically attractive element 21 to that accommodated within the pouch 27.

As shown in FIG. 5, each magnetically attractive element consists, in the preferred embodiment, of a strip of plastic, magnetic material 37, such as that known under the trade name Plastiform and manufactured by Minnesota Mining and Manufacturing Company. This strip 37 is held in a channel-shaped ferrous holder portion 38 and consists essentially of ferrite particles bound together by a plastic matrix. The ferrous holder 38 is designed to collect and concentrate flux at the point of contact with the object to be held. If necessary, the arms 39 of the ferrous holder 38 may be extended beyond the face of the plastic strip 37 to increase the efficiency of the magnet. This arrangement is particularly advantageous in the situation in which the channel-shaped holders 38 are reversely disposed, as illustrated in FIG. 4.

It will be understood that only one of the magnetically attractive elements need be magnetized so long as the other element is of a material, such as a ferrous material, which is magnetically attracted by said one magnetized element.

It is thought that the functional advantages of this device have become fully apparent from the foregoing description of parts, but for completeness of disclosure, the use of the holder and specific features thereof will be briefly described.

The flexible magnetic clasp 14 is particularly useful in combination with an eyeglass case. Because of the flexibility of the clasp 14, which is achieved both by using flexible material for the upper and lower portions 30 and 31, and also by providing a buckle 32 interconnecting these two portions, it may be subjected to a considerable amount of movement independently of the case 11. The buckle 32, in particular, permits the clasp upper and lower portions 30 and 31 to be moved relative to each other in a direction parallel to the plane of the case 11, as well as transversely of said plane. The clasp upper and lower portions 30 and 31 can also be rotated to a limited extent about their longitudinal axes. In fact, a universality of clasp movement is permitted without substantial strain to the stitched connection between the clasp 14 and the top of the case 11. Moreover, because of the inherent flexibility of the clasp material, the attachment between the upper portion 30 and the top of the front panel 12 acts as a hinge which adds to the high degree of articulation versatility of the clasp parts. As indicated in FIG. 3, this acticulation feature permits the clasp 14 to be utilized as a strap to permit easy withdrawal of the case 11. There is no tendency to rotate the lower portion of the case 11 against the pocket 16 containing said case.

The provision of pouches 27 and 28 to hold the magnetic elements 20 and 21 in place insures that neither the material of the plastic magnetic strip 37, nor the metal holder 38 comes into direct contact with the pocket material 17 of the shirt 15. The strip material, forming the pouches 27 and 28 is preferably of thin, smooth leather or plastic to assist in the separation of the magnetically attractive elements. Further, the use of a material such as Plastiform for the magnetically attractive elements 20 and 21 provides sufficient magnetic force to hold the clasp 14 securely in place, even though the magnetic elements are separated from each other by three thicknesses of material. There is no necessity to augment the holding power of the clasp 14 by using abrasives or other substances harmful to the shirt material.

The use of metal holders 38 for the magnetically attractive elements 20 and 21, in addition to collecting and concentrating flux at the point of contact with the held object, also serves to weight the clasp 14. Thus, there is a distinct tendency for the clasp 14 to fall under gravity action into a vertical orientation and alignment with the case 11. The mutually attractive elements 20 and 21 are thereby self-aligning and the magnetically attractive element 20 on the clasp 14 is quickly and automatically brought within the orbit of attraction of the magnetically attractive element 21 carried by the front of the case 11. Further, the weight of the metal holders 38 assists in retaining the case 11 within the shirt pocket 16.

The lower portion of the clasp 14 is substantially longer than the upper portion 30 and provides a convenient strap for withdrawal of the device from the pocket as indicated in FIG. 3. The particular advantage of this arrangement is that the breaking of magnetic contact and the lifting of the case 11 from the shirt pocket 16 is achieved by a single, one-handed movement.

Although conventional ferrous magnets may be used in place of the Plastiform material, Plastiform is preferred for the reason that it is anisotropic material having a preferred direction of magnetization through the thickness, as indicated by the north-south arrow in FIG. 5. Thus, identical flat magnetic strips may be conveniently selected and easily oriented so that a flat north face is oppositely disposed to a flat south face. Plastiform is a resilient material which may be readily pro-

portioned for a push-fit within the channel-shaped metal holder **38.**

Although the flexible clasp **14** as described is used in conjunction with an eyeglass case **11,** it is not limited to this use. For example, the flexible clasp **14** may be readily attached to a pocket-engaging backing piece carrying a magnetically attractive element and an identification photograph may be attached to the front of the clasp **14** to provide a convenient identification means without the necessity of using pins or the like.

I claim as my invention:

1. A pocket-engaging holder, comprising:

a. a container member adapted to be received inside the pocket and including a front panel, a rear panel and a first magnetically attractive element carried by the front panel,

b. a flexible hand strap clasp member including upper and lower portions and hinge means interconnecting said upper and lower portions, the upper portion being attached to the front panel, the lower portion including a second, magnetically attractive element adapted to be disposed outside of the pocket, said lower portion being elongate and substantially narrower than said front panel, the hinge means permitting substantially universal movement of said hand strap clasp member relative to said front panel, and

c. at least one of said magnetically attractive elements being a permanent magnet, whereby said first and second members are adapted to be magnetically alignable on opposite sides of the pocket.

2. A pocket-engaging holder as defined in claim **1,** in which:

d. the hinge means includes interconnected, opposed bar portions longitudinally spaced from each other, each of said bar portions being attached to an associated clasp member portion to define spaced hinge axes providing compound hinge capability between said upper and lower portions.

3. A pocket-engaging holder as defined in claim **1,** in which:

d. the flexible clasp member includes separate upper and lower portions, and

e. hinge means including a buckle interconnects said separate upper and lower portions in spaced relation from each other.

4. A pocket-engaging holder as defined in claim **1,** in which:

d. each of said container and clasp members includes an open top pouch portion accommodating its associated magnetically attractive element, and

e. each pouch portion includes a facing piece, said facing pieces being oppositely disposed to each other, each being adapted to engage the pocket material between said pieces.

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