

[54] UNIVERSAL HOLDING DEVICES
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 [51] Int. Cl. H01f 7/20
 [58] Field of Search 335/285, 295, 302, 303, 335/306; 248/206 A

3,629,756 12/1971 Holtz 335/303 X
 Primary Examiner—George Harris

[57] **ABSTRACT**
 A universal holding device for securing a memo pad of paper sheets and the like on a supporting wall includes an outer mounting unit and an inner coupling unit that is attached to the wall by an adhesive coated member. Both the mounting and coupling units are provided with suitable magnetic means which are aligned to operatively hold the memo pad in a sandwich manner therebetween. The use of the adhesive coated device eliminates the use of fastener means such as nails and screws that could scar or mar the wall.

[56] **References Cited**
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7 Claims, 11 Drawing Figures

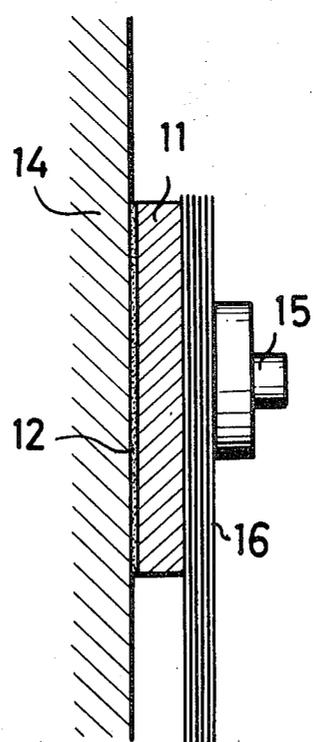


Fig. 1

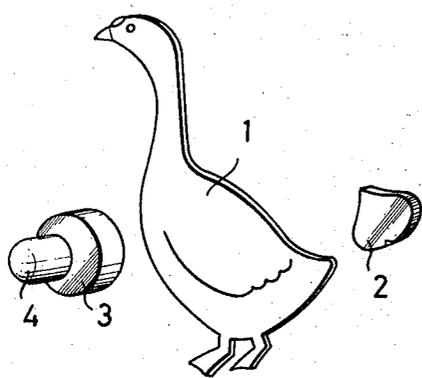


Fig. 2

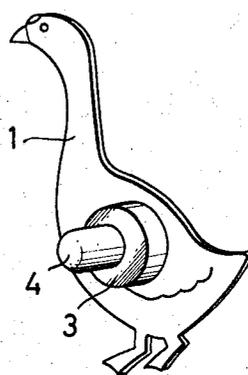


Fig. 3

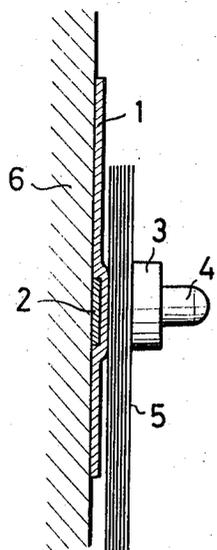


Fig. 4

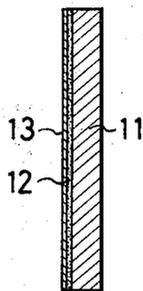


Fig. 5

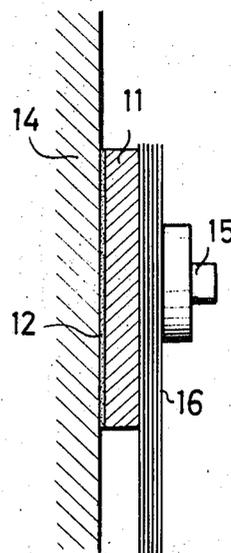


Fig. 6

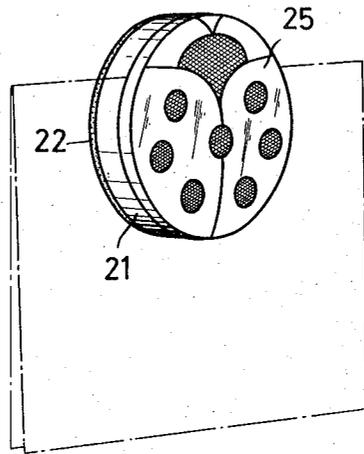


Fig. 7

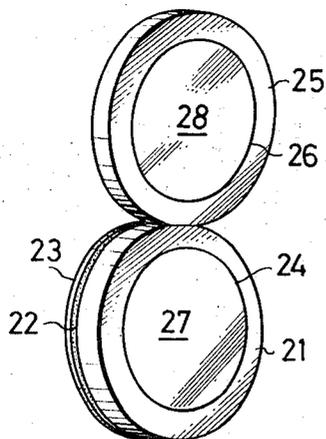


Fig. 8

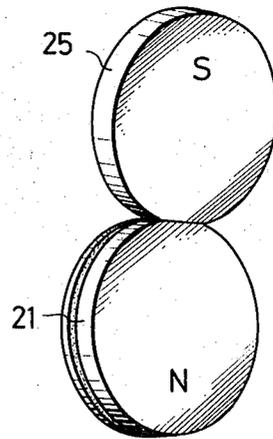


Fig. 9

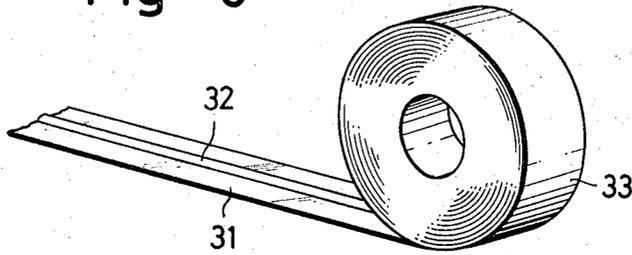


Fig. 10

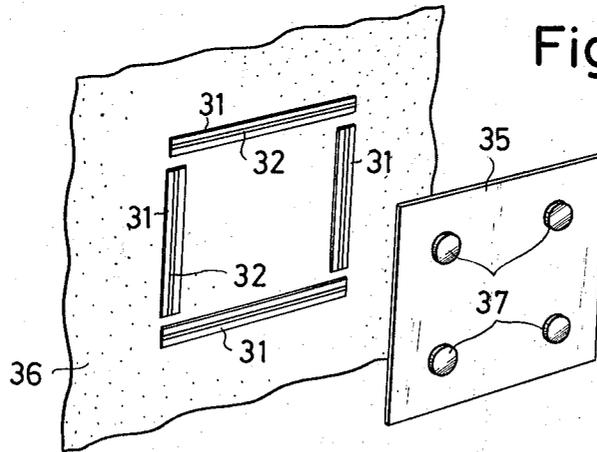
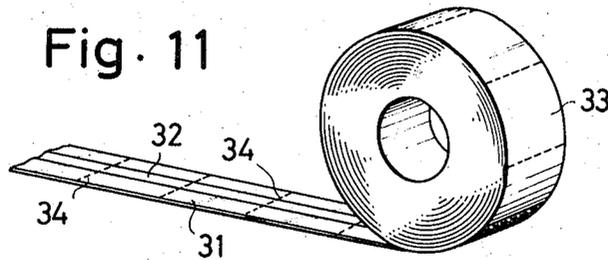


Fig. 11



UNIVERSAL HOLDING DEVICES

BACKGROUND OF THE INVENTION

This invention relates to a universal holding device for securing an article such as a memo pad of paper sheets on a supporting wall and the like. An inner coupling unit is attached to the wall by an adhesive coated member. The memo pad is sandwiched between the inner coupling unit and an outer mounting unit. Both the coupling and mounting units are provided with suitable magnetic means of the proper polarity which are aligned to operatively hold the memo pad therebetween.

The magnetic holding devices for suspending articles on walls, tables and the like of the prior art have certain disadvantages. Although article holding devices are widely used, all previous magnetic holding devices require at least one of the parts of the magnetic holders to be fastened in place by types of fasteners such as nails or screws which require penetration of the supporting wall. The use of the adhesive coated holding device of the present invention distinguishes from previous holding devices by completely obviating the necessity of penetrating fastener means such as nails, screws or the like that could scar or mar the wall.

SUMMARY OF THE INVENTION

An object of this invention, therefore, is to provide an improved article holding device.

Another object is to provide an improved holding device for suspending an article such as a memo pad of thin paper sheets on a support wall.

Still another object is to provide a holding device characterized by the ease and simplicity of installation and removal of the article from its suspended position.

Another object is to provide an article holding device of the type described, which is of simple and inexpensive construction.

Yet another object is to provide such an article holding device which does not require the use of fasteners such as nails and screws which require penetration of the wall and thus would scar or mar the supporting wall.

With the above objects in view the present invention includes, in a universal holding device for securing an article of a thin sheet-like material to a wall support, a coupling unit having magnetic means of a certain polarity embedded therein, the coupling unit adapted to be juxtapositioned on the wall support, a member formed of an adhesive material on one side thereof and attached to the coupling unit, the adhesive member adapted to be engageable with and attachable to the wall support to hold the coupling unit suspended on the wall support, a mounting unit positioned to overlie the coupling unit and adapted to sandwich the sheet-like article in a face to face relation between the coupling and mounting units, the mounting unit having magnetic means of a polarity opposite to the polarity of the magnetic means of the coupling unit, the coupling and mounting units being operatively aligned in a magnetically attractive relationship to each other to retain the sheet-like article in a rigid and fixed position therebetween.

These and other objects and aspects of the invention will be clearly understood from the following descrip-

tion of the four embodiments of the invention shown, by way of examples only, in the accompanying drawings in which like reference numerals denote corresponding parts throughout the several views.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the invention, reference should be made to the accompanying drawings, forming part of this specification, in which:

FIG. 1 is an exploded perspective view of the holding device of the first embodiment;

FIG. 2 is an assembly view of the device of FIG. 1;

FIG. 3 is a vertical cross sectional side view illustrating the holding device of the first embodiment in use;

FIG. 4 is a cross sectional side view showing a part of the holding device of the second embodiment;

FIG. 5 is a vertical cross sectional side view showing the holding device of the second embodiment in use;

FIG. 6 is a perspective view of the holding device of the third embodiment;

FIG. 7 is a perspective view of the holding device similar to FIG. 6 illustrating the principal parts in an open and pivotal position;

FIG. 8 is a perspective view similar to FIG. 7 illustrating the magnetic polarity of the principal parts;

FIG. 9 is a perspective view of the holding device of the fourth embodiment;

FIG. 10 is a partial exploded perspective view illustrating the holding device of the fourth embodiment in use; and

FIG. 11 is a perspective view similar to FIG. 9 illustrating segments of the roll formed by line perforations.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIGS. 1, 2 and 3 illustrate a first embodiment of the present invention. Numeral 1 denotes a plate member preferably formed of a material such as vinyl or cellophane and has an adhesive surface coated on one side thereof. The adhesive used with the plate is conventional and commercially available. There is a variety of adhesives, some being pressure sensitive, although it is not essential that a pressure sensitive adhesive be used. A coupling member or unit 2 is constructed as a thin plate permanent magnet or a plate of magnetizable material and is firmly embedded in a cavity located in a medial portion of the adhesive surface of plate member 1 as shown in FIG. 3. The configurations of plate member 1 and coupling member 2 are merely examples of the shapes that may be given to such members.

A cylindrical shaped mounting member or unit designated by numeral 3 is constructed as a magnet member or a structure of magnetizable material. The magnetic means of mounting member 3 is formed of a polarity opposite to the polarity of the magnetic means of the coupling member 2 whereby when the coupling and mounting members are operatively aligned, there is provided a magnetically attractive relationship to each other. A knob or handle 4 is integrally attached to the outer surface of mounting member 3 for manipulation thereof.

In use a memo pad 5 of thin paper sheets is selected as the article to be supported on a wall 6. Firstly, the coupling member 2 is fixed on the wall 6 by means of the adhesive member 1. Secondly, one side of the

memo pad 5 is held in position by the hand of the user to contact the outer surface of the bulged out portion of adhesive member 1 as shown in FIG. 3. Thirdly, the other hand of the user manipulates knob 4 to position mounting member 3 against the other side of memo pad 5. Thus, the memo 5 is sandwiched between the coupling and mounting members and the alignment of the respective magnetic means of the members provides a sufficient magnetic force therebetween to maintain the memo pad 5 in a suspended position.

FIGS. 4 and 5 illustrate a second embodiment of the present invention and has similar characteristics to the first embodiment. Numeral 11 denotes a base or coupling member and is constructed as a plate magnet or a plate of magnetizable material. A thin plate member 12 is permanently attached on its outside to coupling member 11. The inner side of plate member 12 has an adhesive surface coated thereon. A cover sheet 13 is detachably mounted as illustrated in FIG. 4 on the adhesive surface of plate member 12 and is peeled off before the adhesive coated unit 11, 12 is placed on wall 14.

It is to be understood that a suitable pictorial design and the like may be applied, printed or the like to the outer surface of coupling member 11 to make the holding device more attractive. Also, it is obvious that the coupling member may be molded and the like in various configurations.

In FIG. 5 there is disclosed a mounting unit 15 similar to mounting unit 3, 4. The unit 15 includes a cylindrical member formed of a permanent magnetic or a magnetizable material and a knob or handle integrally attached to the outer surface of the cylindrical member. A memo pad 16 is sandwiched and magnetically held between the coupling member 11 and the mounting unit 15.

In use, the second embodiment performs a magnetic holding action of the memo pad 16 as is performed by the first embodiment.

FIGS. 6, 7 and 8 illustrate a third embodiment of the present invention and has similar characteristics to the first and second embodiments. Numeral 21 denotes a fixing or coupling member and is shaped in the form of a thin cylinder. A disc plate member or tape 22 is permanently attached on its outer side to coupling member 21. On its inner side, an adhesive surface is coated thereon and protected by a detachable cover disc tape 23.

A concave portion 24 is formed on the outer side of the coupling member 21 and a thin disc 27 formed of a permanent magnetic or a magnetizable material is embedded therein. Likewise, a concave portion 26 is formed on the inner side of a mounting or cover member 25 and a thin disc 28 formed of a permanent magnetic or a magnetizable material is embedded therein. The coupling and mounting members may be formed by injection molding of rubber or plastic and thereby the respective magnetic disc means are easily embedded therein.

In FIGS. 7 and 8, a mounting member 25 is shown supported on the upper portion of coupling member 21. The mounting member 25 may be pivotally supported on the coupling member 21 by a conventional hinge type construction (not shown).

It is to be noted that a suitable design or advertisement may be applied to the outer surface of the mounting or cover member 25.

In use, after peeling off the detachable disc cover 23, the coupling member 21 is coupled and fixed on the wall by means of the adhesive tape 22. Then the sandwiching cover member 25 is pivotally turned and the cover member 25 is thereby released from its closed to open position as illustrated in FIGS. 7 and 8. A suitable portion of the suspended article such as memo pad, calendar, poster and the like is placed in contact with the outer surface of the coupling member 21. The sandwiching cover member 25 is secured by means of the magnetic attractive force developed therein between the cover member 25 and the coupling member 21. The memo pad is sandwiched and fixed between the coupling member 21 and the cover member 25. It is to be understood that in the case of holding a large sized calendar or poster, four corners or the like may be sandwiched and secured by means of a plurality of holding devices.

FIGS. 9, 10 and 11 illustrate a fourth embodiment of the present invention and has similar characteristics to the other three embodiments. Numeral 31 denotes a belt like or strip adhesive member which may be formed of vinyl or cellophane and which has adhesive surface coated on its inner or back side. At the intermediate portion of the non-adhesive or outer surface of adhesive member 31, a belt like coupling member 32 is bonded thereon and is made of a thin plate like magnet or a plate of magnetizable material. The adhesive backed coupling member 32 defines a tape roll 33 and may be constructed of the desired width configuration. A plurality of perforated lines as illustrated in FIG. 11 is formed in a traverse manner to the length of the tape roll. Thus, the formed tape roll may be separated at its desired location by the perforation lines therein.

In use, when an article 35 such as a large sized calendar or poster is to be secured on the wall 36 by means of the adhesive surface of the adhesive member 31, strips are formed from the tape roll 33 to match the size or shape of the article 35 as illustrated in FIG. 10. Accordingly, a mounting unit consists of a plurality of disc magnetic means 37 may be utilized for holding the large sized article by virtue of the magnetic attractions between the magnetic means of coupling member 32 and the plurality of disc magnetic means 37.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed is:

1. A holding device for attachably and detachably securing a pad of paper sheets for vertical positioning on a wall support, said device comprising an inner coupling flat unit having magnetic means of a certain polarity embedded therein, said inner coupling flat unit adapted to be juxtapositioned on said wall support; adhesive means corresponding in area to that of said inner coupling flat unit and being attached to the rearward side of said inner coupling flat unit; said adhesive backed side of said inner coupling flat unit being adapted to be attached on said wall support to hold said inner coupling flat unit suspended on said wall support; and an outer mounting flat unit positioned to overlie said inner coupling flat unit and adapted to sandwich

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said pad of paper sheets in a face to face relation between said coupling and mounting units, said outer mounting flat unit having magnetic means of a polarity opposite to the polarity of said magnetic means of said inner coupling flat unit; said coupling and mounting units being operatively aligned in a magnetically attractive relationship to each other to retain said pad of paper sheets in a rigid and fixed position therebetween; whereby said adhesive backed inner coupling flat unit and said outer mounting flat unit operatively cooperate to support said pad of paper sheets substantially upright on said wall support.

2. A holding device as defined in claim 1 wherein one of said magnetic means consists of magnetic particles embedded therein.

3. A holding device as defined in claim 1 wherein said adhesive backed inner coupling flat unit and said outer mounting flat unit constitute cylindrical shaped members that are pivotably mounted with respect to each other.

4. A holding device as defined in claim 1 wherein said coupling and mounting units have concave portions and the magnetic means of the respective units are embedded in said concave portions.

5. A holding device as defined in claim 1 wherein said adhesive backed inner coupling flat unit constitutes elongated strip members and said outer mounting flat unit constitutes a plurality of disc members.

6. A holding device for attachably and detachably securing a pad of paper sheets for vertical positioning on a wall support, said device comprising an inner cou-

pling elongated strip means having magnetic means of a certain polarity embedded therein, said inner coupling elongated strip means adapted to be juxtapositioned on said wall support; adhesive means corresponding in area to that of said inner coupling elongated strip means and being attached to the rearward side of said inner coupling elongated strip means; said adhesive backed side of said inner coupling elongated strip means being adapted to be attached on said wall support to hold said inner coupling elongated strip means suspended on said wall support; and an outer mounting unit including a plurality of disc means positioned to overlie said inner coupling elongated strip means and adapted to sandwich said pad of paper sheets in a face to face relation between said coupling means and said disc means, said disc means having magnetic means of a polarity opposite to the polarity of said magnetic means of said inner coupling elongated strip means; said coupling means and said disc means being operatively aligned in a magnetically attractive relationship to each other to retain said pad of paper sheets in a rigid and fixed position therebetween; whereby said adhesive backed inner coupling elongated strip means and said disc means operatively cooperate to support said pad of paper sheets substantially upright on said wall support.

7. A holding device as defined in claim 6 wherein one of said magnetic means consists of magnetic particles embedded therein.

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