

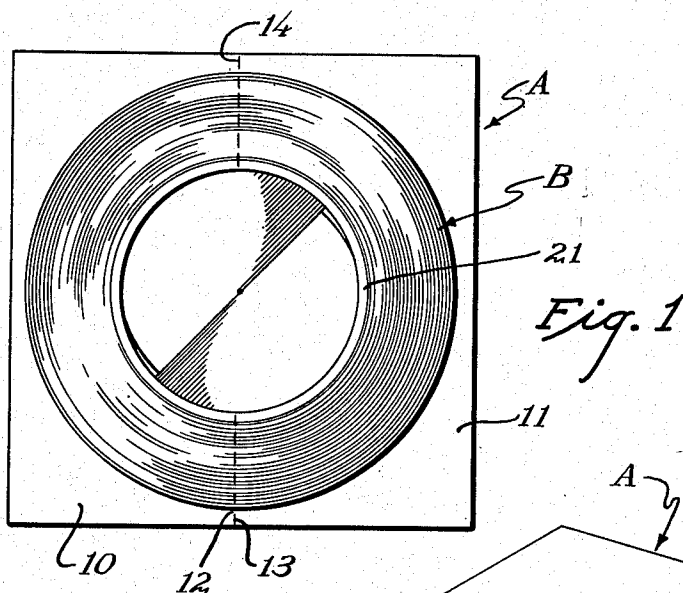
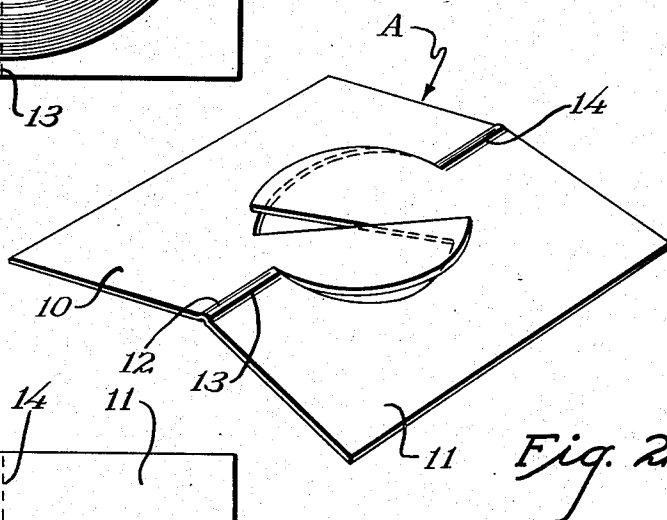
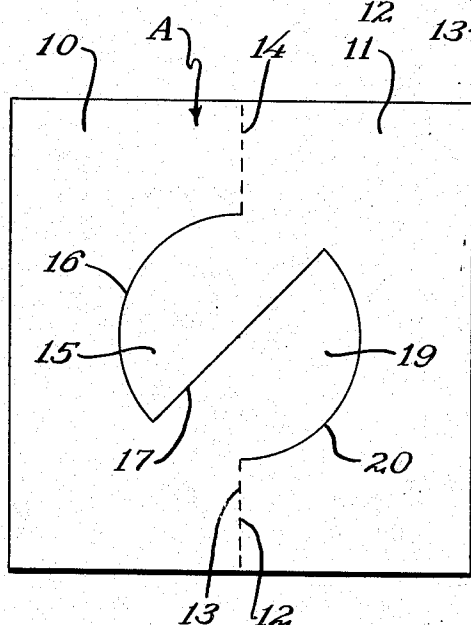
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ROLL SUPPORT

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ROLL SUPPORT

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My invention relates to an improvement in roll support and deals particularly with a device for engaging the interior of a hollow article such as a roll of tape or the like.

In the shipping of various articles it is desirable that the article be held in predetermined relation within an outer container. For example in shipping pressure sensitive tape, it is desirable to support the roll of tape in spaced relation to the peripheral walls of the enclosing package so that undue pressure is not exerted against one side of the roll. Pads of paperboard and the like have previously been constructed for accomplishing this result. The present structure is designed to eliminate certain of the disadvantages of previous structures and to include certain novel features.

An object of the present invention is to provide a pad designed to engage opposite sides of the interior of a hollow core of a tape roll or similar article and to hold the core in fixed relation to the pad. The pad is designed to fold at an intermediate point in such a way that the tape roll engaging portions may swing toward or away from one another. When the pad is folded along the fold line, the roll core engaging portions are pivoted toward one another so as to readily accommodate the core. When the pad is flattened out the core engaging portions spread apart so as to firmly engage the tape roll core.

A feature of the present invention resides in the provision of a pad for supporting a hollow article such as a roll of tape or the like and in providing a pair of ears in the pad preferably provided with arcuate surfaces to generally follow the contour of the tape roll core. One of these tabs is designed to usually remain flat with one portion of the tab on one side of a line of fold, while the other tab is designed to normally remain flat with the remainder of the pad on the other side of the fold line. When the pad is folded along the fold line so that the portions on opposite sides of the fold line fold out of a common plane, the tabs swing toward one another. When the pad is folded toward a common plane, the tabs fold away from one another so as to engage against the interior of a tape roll or the like and to hold the tape roll firmly in position.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of my specification:

Figure 1 is a plan view of a tape roll support with a tape roll supported thereupon.

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Figure 2 illustrates the pad shown in Figure 1 with the parts thereof on opposite sides of the fold line being folded out of a common plane.

Figure 3 is a diagrammatic view of the blank of which the pad is formed.

The pad A is shown as being generally rectangular in shape, although if desired the corners of the pad may be cut off to simplify insertion into a box or container, or if preferred the pad may be circular or oval in shape.

The pad A is divided into two panels 10 and 11 by an intermediate line of fold indicated at 12. As will be later pointed out the fold line 12 comprises in effect two aligned fold line portions 13 and 14 which are spaced by the ear structure.

Two ears or tabs are shown between the fold line portions 13 and 14. The tabs are usually similarly shaped although it is not essential that they be identical. One tab 15 is defined by an arcuate cut line 16 and a diagonal line 17 passing through the line of fold of the pad. The other ear 19 is defined by an arcuate cut line 20 and the diagonal cut line 17.

The arcuate lines 16 and 20 preferably do not have the same center of arcuation. The center of arcuation of the cut line 16 is preferably spaced laterally a short distance from the center of curvature of the cut line 20. As a result the arcuate cut lines 16 and 20 actually extend slightly beyond the periphery of a circle having as its center point the mid-point between the centers of arcuation of the cut lines 16 and 20.

It will thus be seen that the ear 15 projects from and is integral with the panel 11 while the ear 19 is integral with and projects from the panel 10. When the panel has been cut and folded as disclosed the pad may be folded along the aligned fold line portions 13 and 14 so that the panels 10 and 11 are arranged on planes intersecting the fold line 12 at angles somewhat less than 180°. When thus arranged the respective ears remain in the plane of the panel to which they are connected and from which they extend.

If the panels 10 and 11 are folded downwardly from the position shown in Figure 2, the ears 15 and 19 will swing upwardly in such a way that the free ends of these tabs approach one another. While in this position the cut lines 16 and 20 defining the outer edges of the tabs will readily fit into the core 21 of a tape roll B. Thus when the pads are bent in the manner shown in Figure 2, the roll of tape may be easily inserted over the tabs. However, when the panels 10 and 11 are folded toward a common plane, the tabs engage opposite sides of the tape core interior of

the core 21 to lock the tape roll in fixed position relative to the tab.

As the pad is made of somewhat flexible and resilient material, the panels 10 and 11 may fold into a common plane while the tabs 15 and 19 engage the tape roll core interior. As the curved edges 16 and 20 of the tabs normally extend beyond the diameter of the tape roll core inner surface, the tabs will engage the core wall and will flex resiliently from the planes of the panels to which they are attached. As a result the tape roll is firmly held in place and remains in fixed position as long as the pad remains in a common plane.

In actual practice it has been found that the weight of the tape normally is sufficient to cause the pad to flatten out even though the tabs 16 and 19 are in engagement with the tape roll core. In shipping, however, the pad and tape are usually contained in a carton which is but slightly thicker than the width of the tape roll so that the pad is definitely held in substantially flat condition while contained in the carton.

In accordance with the patent statutes, I have described the principles of construction and operation of my roll support, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A pad for holding a hollow article including a paper board body divided along a fold line into two foldably connected panels, a tab connected to one of said panels and extending beyond the line of fold into the other of said panels, and a tab on said other panel extending beyond the common line of fold into said one panel, said tabs having substantially arcuate outer edges, the centers of arcuation of said tabs being spaced apart in flat condition of the pad so that the tabs project beyond a circle having a radius equal to the radius of curvature of said tabs and having its center midway between the centers of arcuation of said tabs.

2. The structure described in claim 1 and in which the arcuate edges of said tabs extend more than ninety degrees.

3. The structure described in claim 1 and in which the arcuate edges of said tabs are connected by a common cut line.

4. In combination, a hollow article and a supporting pad, the pad including a pair of panels hingedly connected together along a fold line, a tab integral with one of said panels and projecting beyond said fold line and into the other panel and a second tab on the said other panel extending beyond the fold line into said one panel, said panels being on substantially a common plane with the exception of said tabs, said tabs being bent out of said common plane and against opposite sides of the interior of said hollow article.

5. The structure defined in claim 4 and in which the ends of said tabs and the interior of the hollow article are arcuate.

6. The structure defined in claim 4 and in which the tabs are connected by a cut line.

7. A pad for holding a hollow article including a paper board body divided along a fold line into two foldably connected panels, a tab connected to one of said panels and extending beyond the line of fold into the other of said panels, and a tab on said other panel extending beyond the common line of fold into said one panel, said tabs being adjacent to each other and formed by a continuous cut line, said tabs having substantially arcuate outer end edges of considerable length, the centers of arcuation of said tabs being spaced apart in flat condition of the pad so that the tabs project beyond a circle having a radius equal to the radius of curvature of said tabs and having its center midway between the centers of arcuation of said tabs.

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