

Dec. 20, 1960

D. D. PRICE

2,965,016

PAPER RACK

Filed Sept. 21, 1959

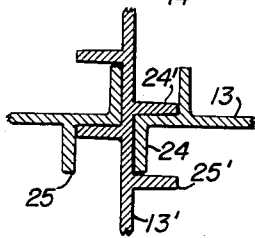
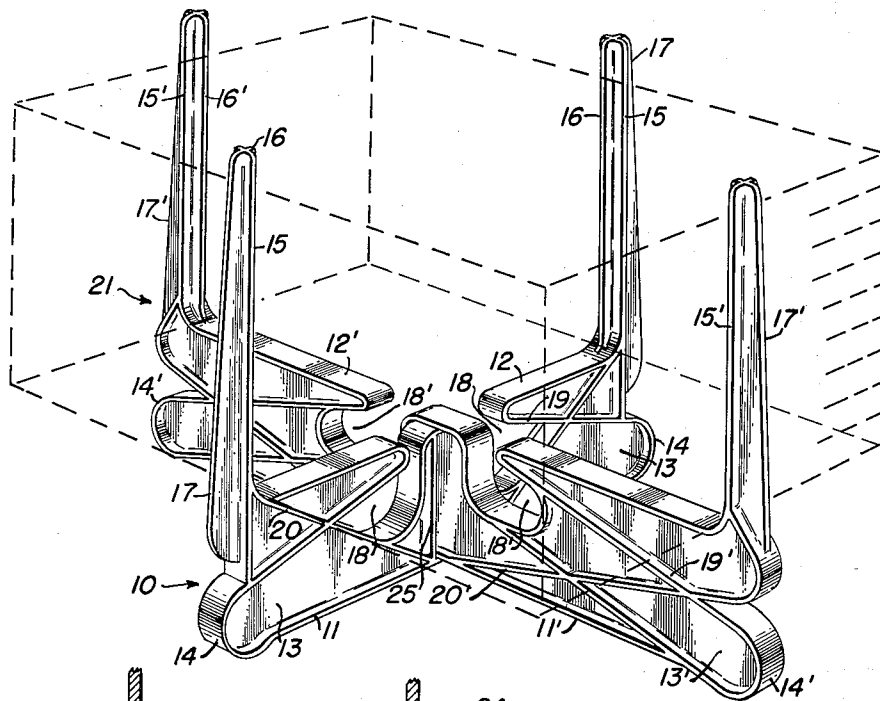


FIG. 4.

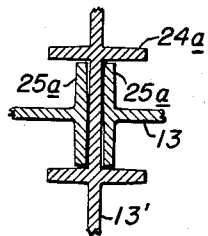


FIG. 5.

FIG. 1.

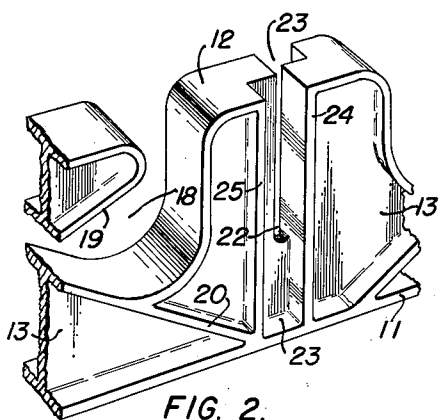


FIG. 2.

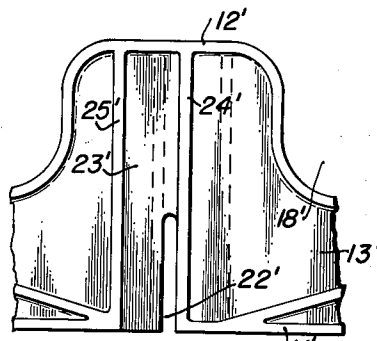


FIG. 3.

DAVID D. PRICE
INVENTOR.

BY *Herbert J. Brown*
ATTORNEY

2,965,016

PAPER RACK

David D. Price, 24 W. Park Place, Oklahoma City, Okla.

Filed Sept. 21, 1959, Ser. No. 841,208

6 Claims. (Cl. 100-1)

This invention relates to storage for accumulated newspapers, magazines and miscellaneous papers, and has reference to a rack of separable members adapted to align and support a stack of papers and means to facilitate baling and binding the same.

An object of the present invention is to provide a rack which may be used in a home for the orderly accumulation, baling and binding of discarded papers of various kinds.

Another object of the invention is to provide a rack for the accumulation of papers, which rack may be quickly and easily disassembled for storage or shipping.

A further object of the invention is to provide a storage rack for papers which is simple in construction and suitable for use in a living area of a home.

Another object of the invention is to provide an accumulation rack for papers which is economical in its fabrication and structurally suitable for compression of papers contained therein.

An additional object of the invention is to provide a receptacle for accumulated papers which will permit the binding of bales of papers without removal of the same from the receptacle.

Figure 1 is a perspective view of a paper rack embodying the features of the present invention and showing papers stacked therein by means of dotted lines.

Figure 2 is an enlarged broken perspective view of the center portion of the base member.

Figure 3 is an enlarged broken elevational view of the center portion of the cross member which mates with the base member.

Figure 4 is a broken horizontal sectional view of the center portion of the assembled base and cross member, and

Figure 5 is a sectional view similar to Figure 4, but showing a modified form of the invention having a different arrangement of vertical stabilizing plates where the base member and cross member engage each other.

In the drawing, a base member 10, generally in the form of a modified I beam, is slightly longer than the width of a folded standard size newspaper and includes a horizontally disposed lower flange 11, a horizontal upper flange 12 and a vertical web 13 therebetween. At opposite ends of the base member 10 there are arcuately formed pedestals 14 which are continuations of the lower flange 11. Vertical continuations of the pedestals 14 provide retaining arms 15, and which arms include inner and outer vertical ribs 16 and 17, the lower ends of the outer vertical ribs being arcuately formed just above the pedestals 14.

A feature of the invention is directed to inwardly and upwardly disposed transverse twine or cord receiving slots 18 on opposite sides of the upper center portion of the base 10. These slots 18, in conjunction with other slots to be described, have to do with tying stacks of paper received in the rack and will be referred to in the description of operation to follow. The upper surface of each slot 18 is defined by a diagonal rib 19 ex-

tending from the top of each pedestal 14 to the upper horizontal flange 12 where the same are arcuately joined. Similarly, the bottom surface of the slot 18 is an arcuate continuation of the center portion of the upper flange 12 which joins the diagonal rib 19. An additional rib 20 extends from each upper and outer end of the base member 10 to the lower flange 11 at a point just outwardly of the center of the base member. The described ribs 19 and 20 reduce bending strains, and the vertical ribs 16 and 17 also resist bending moments as well as torsion loads. These ribs 16, 17, 19 and 20, together with corresponding ribs to be described, make possible the use of molded synthetic resins or other relatively inexpensive material, such as cast aluminum.

A cross member 21, constructed with lateral dimensions identical to those of the base member 10, is slightly longer than the length of a folded standard size newspaper and includes all of the thus far described components which are herein referred to by prime numbers; that is, lower horizontal flange 11', upper horizontal flange 12', vertical web 13', pedestals 14', vertical arms 15', inner and outer vertical ribs 16' and 17', transverse cord slots 18' near the center of the cross member, and diagonal ribs 19' and 20'.

At the upper center of the base 10 there is a downwardly extending vertical recess 22 of a width to receive the web 13' of the cross member 21. Diagonally of the vertical recess 22 there are vertical slots 23, substantially square in cross section, and which slots extend through the upper flange 12 and to the lower flange 11. Adjacent the sides of the vertical recess 22 there are laterally projecting vertical check plates 24, and spaced therefrom, also projecting from the web 13, there are lateral vertical boss plates 25. Corresponding components are provided in the cross member 21 and carry corresponding prime numbers; that is, a vertical recess 22', vertical slots 23', check plates 24' and boss plates 25'. The arrangement of the last referred to parts is identical with those described in connection with the base member 10, except the vertical recess 22' extends upwardly, and the vertical slots 23' extend upwardly through the lower horizontal flange 11' to the upper horizontal flange 12'. Thus, the base member 10 and cross member 21 may be interfitted to receive papers as illustrated in Figure 1. The members 10 and 21 are secured at right angles when assembled by reason of the interfitting of check plates 24-24' and boss plates 25-25', as illustrated in Figure 4. It is to be noted that the upper center flange 12' rests on the upper center of the base upper flange 12 when the rack is assembled, and that the dimensions of the pedestals 14-14' are such that all four rest on a horizontal surface.

The modified form of the invention illustrated in Figure 5 is in accordance with the foregoing except the check plates 24-24' and flange plates 25-25' are rearranged. In this form of the invention flange plates 25a are spaced from each other on the web 13 to receive the thickness of the corresponding web 13' therebetween. The check plates 24a are mounted on the last referred to web 13' to receive the vertical edges of the flange plates 25a, it being understood that this form of the invention includes the recesses 22-22' as previously described.

The assembled rack is placed at some convenient location for accumulating papers, and after being so accumulated twine or cord is positioned around the stack and through the cord receiving slots 18-18'. By reason of the angular disposition of the upper portions in the slots 18-18', the cord is moved toward the bottom center of the stack when the cord is tightened and tied. In view of the foregoing description, it will be apparent that the present invention may be made of inexpensive

3

molded or cast material, that the same will be durable and may be readily assembled or disassembled.

The invention is not limited to the exemplary constructions herein shown and described, but may be made in various ways within the scope of the appended claims.

What is claimed is:

1. A paper receiving rack comprising an elongate horizontal base member, retaining arms extending vertically from the ends of said base member, a vertical recess at the center of said base member and extending through a horizontal edge thereof, laterally projecting vertical plates on said base member and on opposite sides of said recess, an elongate horizontal cross member, retaining arms extending vertically from the ends of said cross member, a vertical recess at the center of said cross member and extending through an edge thereof, the recess of said base member being adapted to receive a center portion of said cross member and the recess of said cross member being adapted to receive a center portion of said base member, and laterally projecting vertical plates on said cross member positioned to receive the vertical plates on said base member.

2. A paper receiving rack as defined in claim 1, and wherein said base member and said cross member each include at least one cord receiving slot in the upper edge thereof adjacent vertical recess therein.

3. A paper receiving rack as defined in claim 1, and wherein said base member and said cross member are I beam sections, and wherein said retaining arms include vertical ribs on the inner and outer surfaces thereof.

4. A paper receiving rack as defined in claim 3, and wherein the sides of said base member and said cross member include diagonal reinforcing ribs on the side surfaces thereof.

5. A paper receiving rack as defined in claim 2, and wherein said cord receiving slots are diagonally disposed

4

in said members and have their upper surfaces converging toward the upper centers of their respective said members.

6. A paper receiving rack comprising an elongate horizontal base member, retaining arms extending vertically from the ends of said base member, a vertical recess at the center portion of said base member and extending through a horizontal edge thereof, laterally projecting vertical plates on said base member and on opposite sides of said recess, an elongate horizontal cross member, retaining arms extending vertically from the ends of said cross member, a vertical recess at the center of said cross member and extending through an edge thereof, the recess of said base member being adapted to receive a center portion of said cross member and the recess of said cross member being adapted to receive a center portion of said base member, laterally projecting vertical plates on said cross member positioned to receive the vertical plates of said base member, said base member and said cross member each including at least one cord receiving slot in the upper edge thereof adjacent the vertical recess therein, said cord receiving slots being diagonally disposed in said base and said cross members and having their upper portions converging toward the upper centers of their respective said members, said base member and said cross member each being of I beam construction and wherein said retaining arms include vertical ribs on the outer surfaces thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

2,474,250	Howard	June 28, 1949
2,474,318	Molla	June 28, 1949
2,521,126	Price	Sept. 5, 1950
2,606,763	Wilson	Aug. 16, 1952
2,815,998	Jones	Dec. 10, 1957