April 29, 1924. 1,492,547

E. RYAN

DISPLAY RACK OR HOLDER

Filed Oct. 9, 1920

FIG. 1

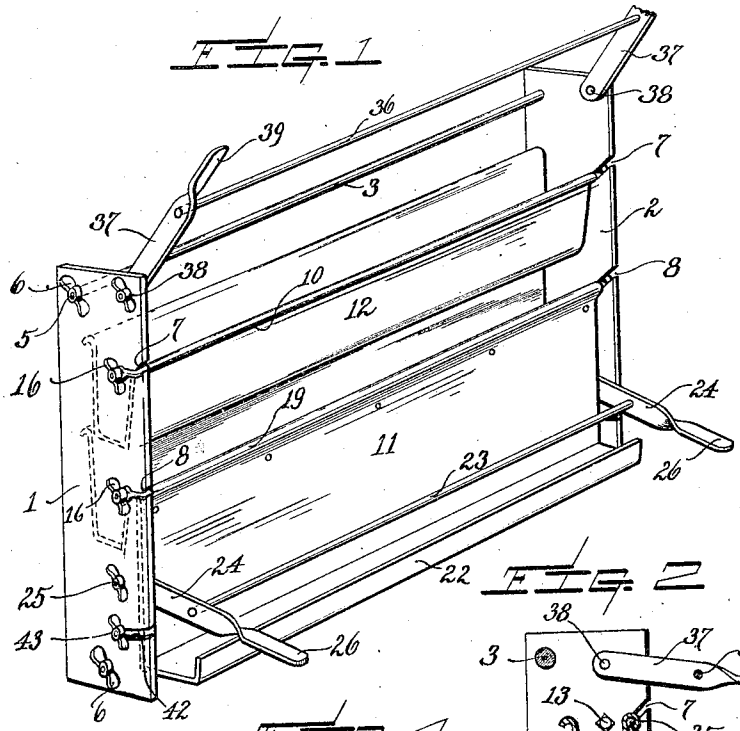


FIG. 2

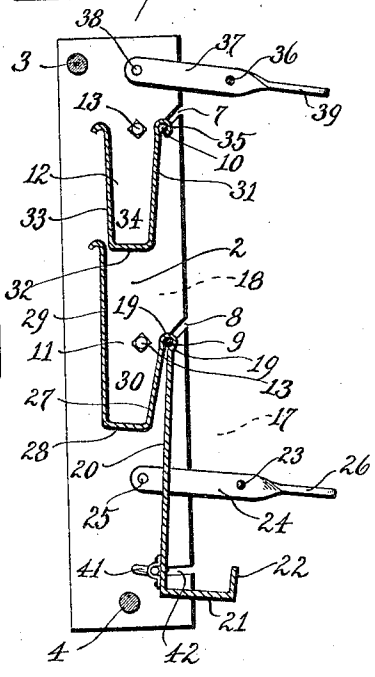


FIG. 4

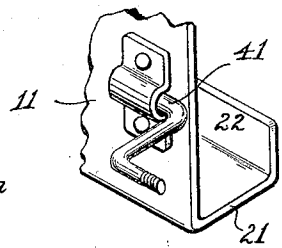
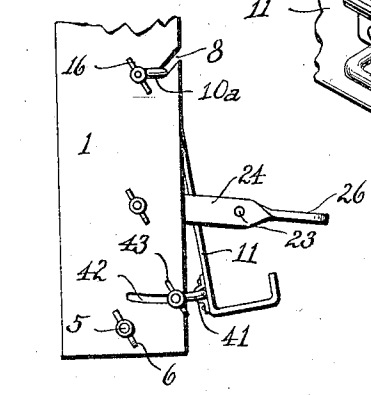


FIG. 3



INVENTOR.

Edward Ryan

BY William L. Morris

His ATTORNEY.

Patented Apr. 29, 1924. 1,492,547

UNITED STATES PATENT OFFICE.

EDWARD RYAN, OF NEW YORK, N. Y.

DISPLAY RACK OR HOLDER.

Application filed October 9, 1920. Serial No. 415,755.

To all whom it may concern:

Be it known that I, EDWARD RYAN, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in a Display Rack or Holder, of which the following is a specification.

The present invention relates to display racks for magazines, books and other articles, and has especial reference to the display of such articles for sale or distribution, or for advertising purposes, as in news stands, railway stations, hotels and the like.

The objects of the invention are: The provision, in a rack of the character mentioned, of means for effecting, in a small space, a so-called flat display of a large number of magazines which may vary greatly in size; the provision of means whereby the magazines may be held snugly against their tendency to fold over and obscure their titles, and nevertheless be removable by a simple pull; the provision of holding means, expansible to permit the magazines or other articles to be superposed in quantity on each other, and automatically contractible to engage and snugly hold those of the superposed articles remaining after one or more have been removed; the provision of means whereby a vertical or a variable angular setting of the articles may be had; and the provision of means whereby holding units may be added or removed to vary the capacity of the rack.

It will be understood that within the scope of the invention certain of the foregoing features may be omitted.

A brief statement of the general means by which I attain the above objects, in a preferred form of the invention, is as follows:

In order that the total display area may be condensed, I so arrange the units that the articles supported by each successively higher unit be behind, but protrude above the articles on the next lower unit, sufficiently to display above such lower article the titles or other identifying surfaces of the higher articles. Preferably each unit is in the form of a suspended plate against which the articles may rest and which has a foot piece or flange on which the articles stand; and, overlapping adjacent plates form pockets in which the articles are held. By supporting the plates on pivots and by turning the same on their pivots the spacing of the face of one plate from the next may be varied to increase or decrease the depth or capacity of the pocket or unit; and by having the plates free to turn on their pivots, by force of gravity, the depth of the pockets is automatically determined by the thickness or number of superposed copies in the unit, and furthermore the weight of the units causes the plates automatically to pinch and hold the magazines or other articles from falling forward or otherwise becoming displaced. The gravity hang of the units causes the same to tend to assume the ordinarily desired vertical position. The same may however be locked against gravity in any desired angular position. By removing an intermediate unit, the depth of capacity of another unit may be doubled. An end unit can be locked in any desired angular position and thus determines the setting of the entire display. The magazines in any unit may be overlapped laterally and the number of the same displayed in a rack of given size be thus greatly increased; in fact the sizes of the magazines have no necessary relation to the size of the rack.

Fig. 1 is a perspective view from the front and left of an assembled rack embodying the invention.

Fig. 2 is a view in cross section of the device shown in Fig. 1.

Fig. 3 is a detail view, in end elevation showing the manner in which the lower unit is pivoted and locked on the end plate.

Fig. 4 is a perspective view showing further details of the locking device for the lower unit.

Referring to the drawings, the rack frame is composed of two end plates 1 and 2 connected by the rods 3 and 4 which have threaded ends 5 passing through holes in the plates. The tie rods are reduced at the threaded ends to provide shoulders against which the insides of the end plates rest; and winged units 6 serve to hold the frame together, while permitting the same to be knocked down at will.

The front edges of the end plates have slots 7 and 8 for receiving the several magazine or book carrying units. The slots are inclined downward; and lying in the ends thereof, in substantially vertical aline-

ment are the rods 9 and 10 on which the lower and upper carrying units, 11 and 12, respectively, are pivotally supported. As shown in Fig. 3, the rods 9 and 10 have their ends bent over at 10^a flat against the outsides of the end plates, and are removably secured to the end plates by means of bolts 13 which pass through holes in the plates just behind the slots 7 and 8, and through holes in the flat ends of the rods. The heads of the bolts 13 bear against the insides of the end plates, and winged nuts 16 engage the threads of the bolts 13 on the outside of the end plates to lock the rods in place.

In the form of the invention shown in Figure 1, the lower unit 11 is a double unit in the sense that it is designed to carry two rows of articles, to wit, the front and lower row, and the next higher row. To this end, the unit 11 is shown as a sheet metal plate turned on itself and restricted as at 19 (see Fig. 2) to loosely embrace the rod 9 from which it hangs. The front portion 20 hangs like an apron to form a back rest for the articles in the lower row, and at its lower end is turned to form a flange or foot rest 21 for the articles. The foot piece 21 is turned up at 22 to form a lip to hold in the lower ends of the magazines or other articles. The articles may be held against the back rest 20 by means of a rod 23, carried on arms 24, pivoted to the end plates at 25 and having handles 26 for swinging the same.

Behind the supporting rod 9, the unit 11 is turned downward at 27, then rearward at 28, then upward at 29, to form a trough or pocket 30, in the base 28 of which the second row of magazines rest. The foot rest 28 is at a higher elevation than the foot rest 21, so that the magazines on the rest 28 may protrude and be displayed in part above those on the rest 21.

The upper unit 12 resembles the rear section of the unit 11 in that it has a front wall 31, a base 32 and a rear wall 33, preferably in a single piece of sheet metal, to form a trough or pocket 34; the front portion 31 of which is curled at its upper end 35 (see Fig. 2) loosely to embrace and be pivotally supported from the rod 10. A rod 36, carried on arms 37, pivoted at 38 to the end plates, and having handles 39 for swinging the same may be used in Fig. 1 position to hold the magazine in the upper unit 12, vertically against the back 33 or tie rod 3; or may be swung down to Fig. 2 position to hold the magazine of the second row, against the front piece 31 of the top unit 12. Independently of the rod 36, the magazines of the second row will be pinched by and held between the upper portion of the front wall 27 of the pocket 30 and the lower end of the front wall 31 of the pocket 34 when the unit 12 is swung forward on its pivot 10. If, however, the magazines are so long, thin, or flexible as to make it desirable that the upper ends be supported against folding over forward, then the rod 36 may be brought into use for such purpose; otherwise the rod 36 may be used to prevent folding-over or collapse of flexible or thin magazines in the upper unit 12.

The edge of the lower unit 11, as at 41, may carry a pin, working in a slot 42 in one of the end-plates, and may be threaded to receive a nut 43 by means of which the unit 11 may be adjustably locked in any desired angular position. The upper end of the rear wall 29 of the unit 11 may overlap the rear wall 33 of the unit 12, so that as the member 20 is pushed back into vertical position, the wall 29 will engage and push more vertically forward, the unit 12. In other words, the settings of the unit 11 may determine the setting of the upper units. This action of the unit 11 on the unit 12 will cause the magazines 18 to be pinched between the upper front portion of unit 11 and the lower front portion of unit 12. Unless and until the unit 11 is locked in some angular position, the weight of that unit and the weight of the articles thereon will cause the same to tend to assume a vertical position, and, by acting on unit 12, tend to cause the latter also to assume a vertical position. Furthermore, the weight of unit 12 and the articles thereon, tend to cause that unit to assume a vertical position, whether acted on by the unit 11, or not, so that there is a tendency automatically to display the magazines vertically, and automatically to cause the magazines to be pinched between the two units, no matter how thick or thin the magazines or layers thereof, may be. By rocking the unit 11 forward, and the unit 12 backward more clearance will be allowed for the intermediate tier of magazines, and when the unit 11 is swung sufficiently forward, the unit 12 may, on being swung backward, clear the top of the wall 29 which will then be depressed, so that any desired amount of space will be available for the magazines 18. The shape of the pocket 34 is such that although the unit 12 be swung considerably backwards, the magazines therein may nevertheless be held substantially vertical, and may be pinched between the rod 36 and the rod 3, or held by the rod 36 against the upper end of the back wall 33.

The pocket 30 may or may not be used. The rack may be higher, and other units, like unit 11 be added, and the capacity of the rack thus changed at will. Furthermore, and intermediate unit may be removed to provide for a greater thickness of articles intermediate a lower unit and a higher one.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A display rack comprising a standard, units independently pivoted to the standard and having facings against which articles to be displayed may rest, and means on the units for supporting the articles; the article-support on one unit being stepped with respect to that on another unit so that articles on one unit may protrude above articles in front of the same on another unit.

2. A display rack comprising a standard, units independently pivoted one above the other on the standard, and having facings against which articles to be displayed may rest, and means on each unit for supporting the articles thereon; one unit overlapping another unit so that the articles supported between the two units may be pinched by the overlapping parts.

3. A display rack comprising a standard, units independently pivoted one above the other on the standard, and having facings against which articles to be displayed may rest, means on each unit for supporting the articles thereon; one unit overlapping another unit so that the articles supported between the two units may be pinched by the overlapping parts, and means whereby opposing units may be caused to assume such angular setting on their pivots as to pinch the articles between the same.

4. A display rack comprising a standard, units independently loosely pivoted one above the other on the standard, and having facings against which articles to be displayed may rest, means on each unit for supporting the articles thereon; one unit overlapping another unit so that the articles supported between the two units may be pinched by the overlapping parts, and the units being so supported on their pivots that gravity will cause them to pinch the articles between the same.

5. A display rack comprising a standard, units independently pivoted on the standard, each having means for supporting articles thereon, and means for effecting an angular movement of one unit to cause it and the next unit to pinch articles supported between the two.

6. A display rack comprising a standard, overlapping units independently pivoted on the standard, each having means for supporting articles thereon, and means operating on one unit to swing the same, and through the overlaps to swing the other units, to any desired angular setting.

7. A display rack comprising a standard, and units overlapping to form pockets for articles between the same, said units being so pivoted to the standard as to permit the units to be swung to vary the distance between their opposed overlapping parts, thus varying the size of said pockets.

8. A display rack comprising a standard, units pivoted thereon and overlapping to form a pocket for articles between the same, one of the opposed overlapping parts having an offset for supporting articles in the pocket, said offset telescoping with the opposing unit so that when the distance between the pocket walls formed by opposing units is varied by angular movement of the units, the telescoping offset will continue to close the bottom of the pocket against escape of the articles therein.

9. A display rack comprising a standard, two channel shaped carrying units pivotally suspended one above the other, by the forward walls thereof from the standard; the rear wall of the lower unit overlapping the rear wall of the upper unit so that a backward swing of the lower unit may effect a forward swing of the upper unit.

10. A display rack comprising a standard, two channel shaped carrying units pivotally suspended, one above the other, by the forward walls thereof from the standard; the rear wall of the lower unit overlapping the rear wall of the upper unit so that a backward swing of the lower unit may effect a forward swing of the upper unit, said overlap being of such length that by swinging forward the lower unit it will be withdrawn from the path of the upper unit to permit the latter to be swung backward without engagement with the lower unit; and means on the lower unit for supporting articles in front of said forward wall thereof.

In testimony whereof I affix my signature.

EDWARD RYAN.