Aug. 20, 1929. J. C. ROUSHAR ET AL 1,725,422

MAGAZINE AND BOOK RACK

Filed Jan. 25, 1928 2 Sheets-Sheet 1

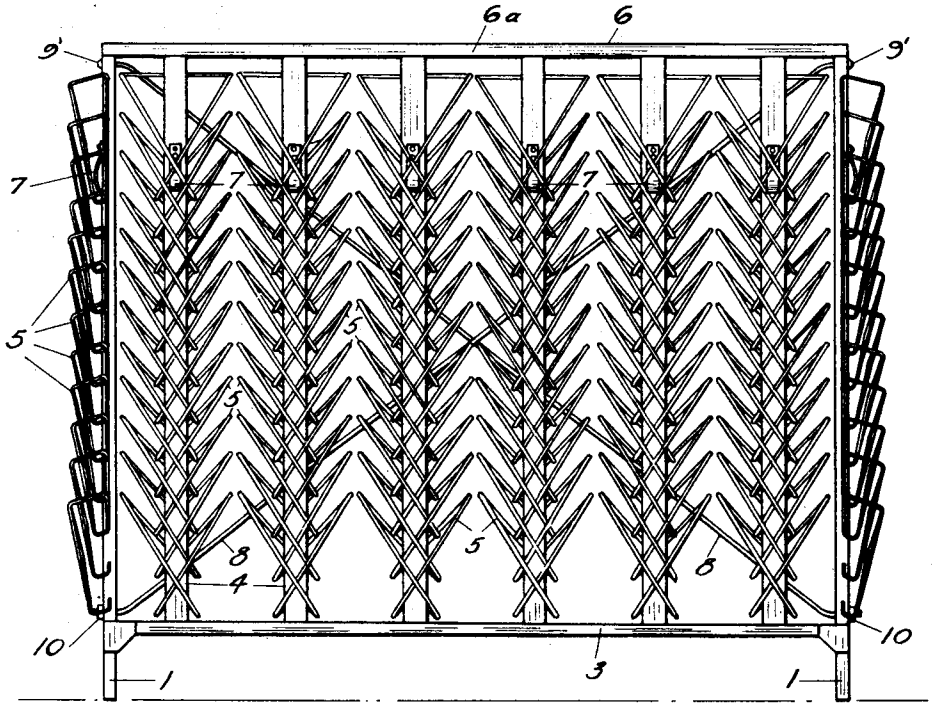


FIG-1

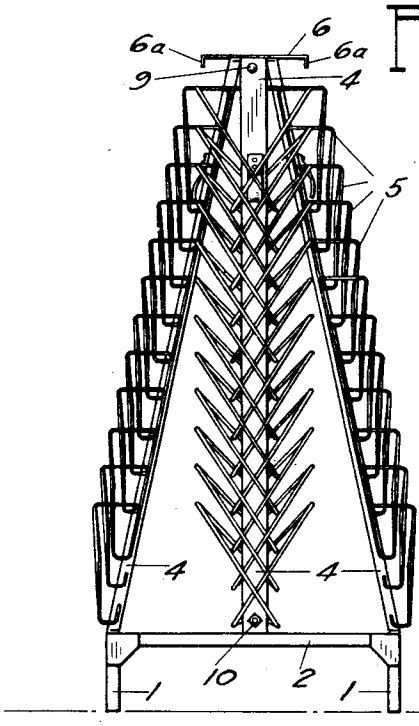


FIG-2

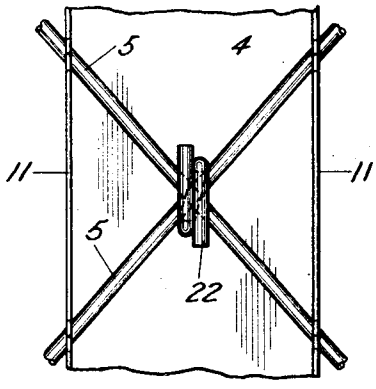


FIG-5

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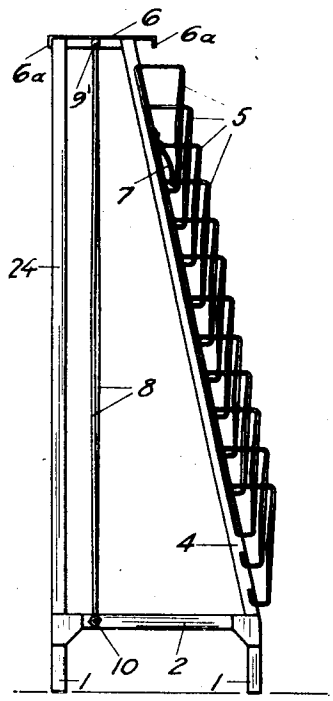


FIG-3

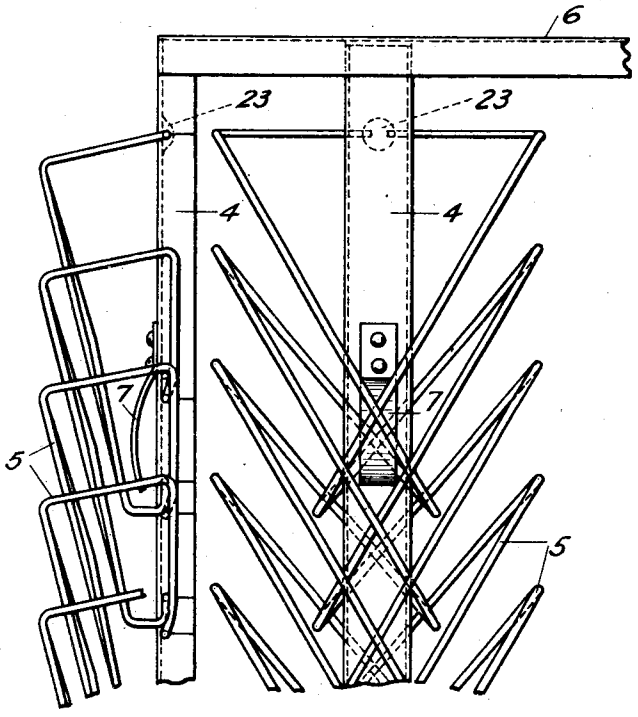


FIG-4

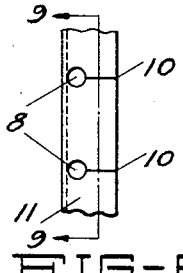


FIG-6

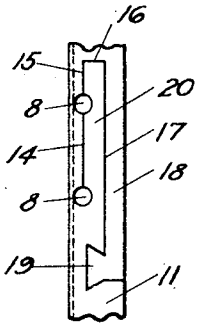


FIG-7

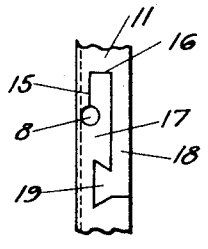


FIG-8

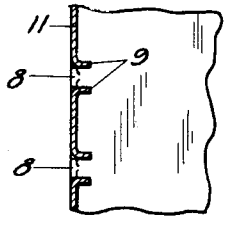


FIG-9

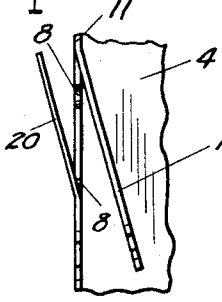


FIG-10

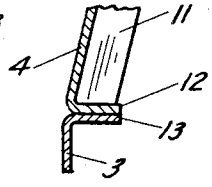


FIG-11

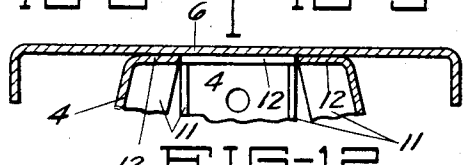


FIG-12

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UNITED STATES PATENT OFFICE.

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MAGAZINE AND BOOK RACK.

Application filed January 25, 1928. Serial No. 249,234.

Our invention pertains to racks for supporting magazine, books, and the like, for display purposes, particularly in stores and news stands, in order to make it possible to easily see the same and to have same in position for easy access for the purpose of sales.

Among the objects of this invention are to provide a rack of the character stated which will hold the displayed articles in a position for easy examination; to provide a rack of the character indicated which will hold magazines in an upright position without substantial bending of the bottom portion thereof; to provide a rack in which there will be a minimum amount of manual labor involved in the assembly thereof; to provide a rack of the character indicated which will be sturdy and durable in construction; to provide a rack of the character indicated which will support a large number of books or magazines for display purposes and yet will not be subject to warping due to the weight of the load; to provide a structure of the character indicated which can be moved from place to place without being distorted out of shape, even though loaded; to provide a structure of the character indicated which is adapted for the holding of books and magazines of different sizes; to provide a structure of the character indicated in which the supporting members can be secured in place with a minimum amount of solder or the equivalent; to provide a novel and attractive rack of the character indicated; to provide a rack of the type described in which the held articles may be easily put in place and will be accurately held therein after being installed; to provide in a rack of the character indicated means to conveniently support a plurality of books, magazines, or the like, while they are being put into the individual compartments; to provide novel means of securing together the parts of a rack of the character indicated; and such further objects. advantages and capabilities as will hereafter appear and as are inherent in the construction disclosed.

Our invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing and, while we have shown therein what is now believed to be the preferred embodiment of our invention, we desire it understood that this disclosure is to be interpreted as illustrative only and is not to be construed in a limiting sense.

In the drawings annexed hereto and forming a part hereof, Figs. 1 and 2 show respectively a front and an end elevation of a complete rack embodying our invention; Fig. 3 is an end view of what we choose to call a half rack, the same being designed to be used against a wall, or against some other structure where it is impossible or undesirable to have magazines displayed on both sides of the rack; Fig. 4 is an enlarged fragmentary view of one corner of the construction shown in Fig. 1, the brace rod being omitted; Fig. 5 is a back face view of a portion of a rib, showing two of the wires crossing behind the same and held in place by a modified or auxiliary form of securing means; Fig. 6 is an edge view of a portion of a rib showing one means of mounting the holding wires therein; Figs. 7 and 8 are elaborated forms of the construction shown in Fig. 6; Fig. 9 is a section through a flange of a rib, substantially along the plane indicated by the line 9—9, Fig. 6; Fig. 10 is a view at a right angle to Fig. 7, with the parts opened up to permit the insertion of the supporting wires; Fig. 11 is a fragmentary view of a transverse section through a bottom rail and a longitudinal section through the bottom end of a rib to show how these parts are connected; Fig. 12 is a transverse section through the upper part of Fig. 1 in a plane extending through any one of the ribs.

Referring more in detail to the annexed drawings, a supporting base is provided which comprises legs 1, end rails 2 and side rails 3. Secured to the rails 2 and 3 are supporting ribs 4 which serve to support the wires 5 forming the pockets which receive the magazines, books and the like. The side ribs 4 rise from the side rails 3 and slope inwardly, being joined at their upper ends to the table 6 (having flanges 6^a along the edges thereof) which serves to rigidly hold the upper ends of the ribs and to furnish a table for the support of magazines and the like, when they are being put into the pockets in the rack or to receive same after a customer has examined them and desires to lay them down. The end ribs 4 of Figs. 1, 2, and 4 rise vertically from the end rails 2 to the table 6, instead of be-

ing inclined, as in the case of the side ribs. It will of course be understood that the table may be shortened somewhat if desired and the end ribs so attached as to have an inclination. Curved springs 7 are secured to the ribs near the lower ends of the upper pockets in order to hold the bottoms of the magazines out against the wires and prevent them from curling up at the bottom. Diagonal cross braces 8 connect the upper part of one end of the rack with the lower portion of the opposite end, preferably being headed as indicated at 9 and being screw threaded at the opposite end for the application of nuts 10. Preferably, there is one nut upon each side of a rib 4 in order to adjust the braces to the diagonal length of the rack and to make it possible to tighten up these tie rods and hold the rack against endwise strains which would tend to warp or rack it out of shape.

As shown in Fig. 4, a rib assembly comprises a rib 4 carrying a spring 7 and a pair of continuous wires 5 bent into successive loops and mounted on the rib to form a plurality of pockets spaced vertically along the rib. There are various ways in which these wires may be secured to the ribs as, for example, by being placed in front thereof and soldered thereto, but it is believed preferably to perforate and slot the flanges 11 of the ribs as indicated in Figs. 6 to 10, inclusive, and then slip the rib through the loops of the two wires, after which the wires crossing behind the ribs are inserted in the perforations 8. Fig. 6 shows the position which the metal of the flanges occupies after this has been done and the edges of the metal bent back into place. In Fig. 9, the edges 9 of the slots 10 are shown in the positions which they occupy after the perforations and slotting of the ribs but before these edges 9 have been bent back again into position shown in Fig. 6. If desired, a little solder can be applied on the inside of the flange of the rib to hold the edges 9 together and thus strengthen the rib. It will of course be understood that these ribs are made in channel form in order to make them stronger for the amount of metal used in their construction. It will also be understood from Figs. 11 and 12 that portions of the ends of the flanges 11 of the ribs are cut away and the web is then bent over as shown at 12 to be secured to the web 13 of the lower rails 3 or the table 6. This can be done in any one of various ways, but it is considered preferable to spot weld the ribs to the rails and table.

The construction provided in Figs. 7, 8, and 10 is for the purpose of strengthening the ribs by interlocking the two portions of the flange. In this construction, a pair of adjacent perforations 8 are connected by a slot 14 which slot extends longitudinally of the flange as indicated at 15 and then transversely, as shown at 16 and again longitudinally as shown at 17, leaving a narrow strip 18 along the free edge of the flange. This is provided with a head 19 having flaring sides so that the same can not pull out of the correspondingly shaped opening in the flange under the strain of any force tending to bend the rib transversely of the plane of the web. If it is deemed advisable, solder can be used on the inside of the flange to prevent these parts from separating after the installation is complete. As shown in Fig. 10, the part 18 is bent in one direction and the part 20 in the opposite direction in order to open up the space and make it possible to insert the wires during the process of assembly. The construction shown in Fig. 8 is the same as that shown in Fig. 7 with the exception of the omission of one perforation 8 and slot 14. This arrangement will occur at the top ends of the ribs where the perforations do not occur in pairs.

Another manner of securing the crossed wires to the ribs is illustrated in Fig. 5 which represents the web of the rib as having a pair of perforations made therethrough adjacent the point of crossing of the wires. A piece of wire bent into the form of a staple 22 is then inserted through these openings and bent over upon the back of the rib and encircling the crossed wires. This can then be pressed tightly against the wires to hold them tightly against the back of the rib. This can be used in addition to passing the wires through the flanges of the ribs and instead of solder, if it be deemed desirable to use other means of holding the wires in place than merely passing them through the flanges. However, it is believed that no solder will be necessary to hold these wires in place except at the ends thereof as indicated in dotted outline at 23 in Fig. 4.

The half rack construction shown in Fig. 3 is primarily designed for use along a wall or in some other situation where it is not possible to get at both sides of the rack. In this construction vertical or substantially vertical corner posts 24 rise from the supporting base to the table 6. As a slight modification of the construction shown in the attached drawings, the pockets on one or more of the ribs can be made of graduated sizes, those at the bottom being wide, those at the top narrow and those in the middle of an intermediate width. Pockets so constructed will accommodate magazines of various sizes without surplus room which might permit the magazines to have an untidy appearance, if not constantly kept in order.

It will of course be understood that the specific description of structure set forth above may be departed from without de-

parting from the spirit of our invention as set forth in this specification and the appended claims.

Having now described our invention, we claim:

1. In a rack for magazines and the like, a rib assembly comprising a rib having flanges along its sides and perforations in the flanges, a plurality of loops forming pockets, said loops being formed from continuous strips of material and arranged diagonally to the longitudinal axis of the rib, each loop being continuous with the adjacent successive loops, part of the sides of the loops being located in the perforations in the flanges.

2. In a rack of the character described, a rib, overlapping pockets of continuous material mounted thereon for the reception of magazines and the like, the material of said pockets extending diagonally of the rib, and resilient means mounted on the rib adjacent the bottom of the upper pocket to press outwardly upon the bottom of the held article and press it against the material of the upper pocket.

3. In a rack, a base frame having legs, a substantially flat horizontal top upon which things may be laid, ribs connecting the base frame and the top, and wire pockets secured to the ribs, said pockets being formed from strips of wire shaped into successive continuous loops.

4. In a rack, a base frame having legs, a top, ribs connecting the frame and top, and wire pockets secured to the ribs, said pockets being formed from strips of wire shaped into successive continuous loops and secured to the ribs at intervals.

5. In a rack, a base frame having legs, a top, ribs connecting the frame and top, said ribs having flanges extending toward the interior of the rack, the flanges having perforations therein, continuous wires extending through the perforations on the flanges diagonally of the ribs and forming pockets arranged successively along the ribs.

6. In a rack, a pair of wires bent into series of flattened substantially spiral loops, the planes of the loops being arranged diagonally to the axes of the loop assemblies, and a rib passing through the loops to support same, the loops being secured to the rib and forming article receiving pockets.

7. In a rack, a pair of wires bent into series of flattened substantially spiral loops, the planes of the loops being arranged diagonally to the axes of the loop assemblies, and a rib passing through the loops to support same, the rib having perforations therein for the reception of the wires, and the loops being secured in the perforations and forming pockets for the reception of articles.

8. In a rack, a perforated rib to support wire pockets, wire strips forming continuous successive loops extending diagonally to the rib, the wires being mounted in the perforations, and means to hold the strips in the perforations.

9. In a rack of the character stated, a rib having flanges along its edges, said flanges being perforated and slotted to make it possible to slip pocket forming material into the perforations, in combination with supporting members of wire, said supporting members being inserted through the slots and held in place by reason of the fact that the metal of the flanges is bent back into the planes of the flanges.

10. In a rack, pocket supporting ribs, having flanges provided with perforations, said flanges being slotted to connect the perforations with the edges of the flanges so that the material of the pockets may be inserted in the perforations, in combination with continuously formed integrally connected loops of wire inserted in the perforations and held therein by the closing of the slots.

11. The method of making a rack of the character described comprising cutting a strip of sheet metal of the necessary length and width, making a series of perforations along each longitudinal edge, bending a portion along each longitudinal edge to form a flange extending substantially at a right angle to the body of the metal and having the perforations therein, bending wire into a series of flattened loops, the loops having a direction diagonal to the longitudinal axes of the series, inserting a part of each loop into some of the perforations, and securing the loops in place in the metal.

12. The method of making a rack of the character described comprising cutting a strip of metal of the necessary length, breadth and thickness, making a series of perforations along each longitudinal edge, forming slots in the metal to connect the perforations with the edges of the metal, bending the metal so as to open the slots to permit wire to be inserted therethrough into the perforations, bending a portion of the metal along each longitudinal edge to form a flange extending substantially at a right angle to the body of the metal and having the perforations therein, bending wire into a series of loops having a direction diagonal to the longitudinal axes of the series, inserting a part of each loop in some of the perforations, and bending the metal adjacent the slots back into the plane of the flanges to secure the loops in place in the perforations.

In witness whereof, we hereunto subscribe our names to this specification.

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SYLVESTER M. KOUTNIK.
MERRILL M. BLACKBURN.