March 31, 1936. J. A. GAGE 2,035,874

DISPLAY RACK

Filed Feb. 13, 1934 2 Sheets-Sheet 1

Fig. 1

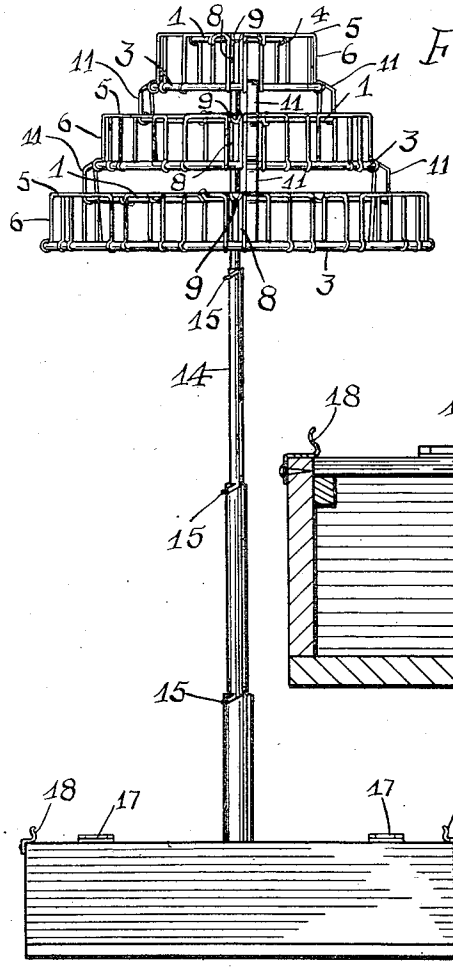


Fig. 2

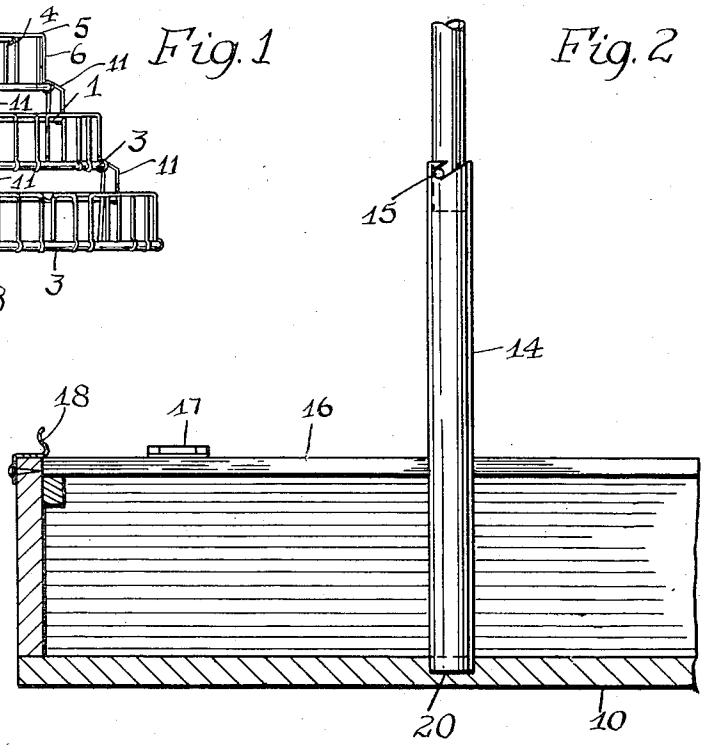


Fig. 3

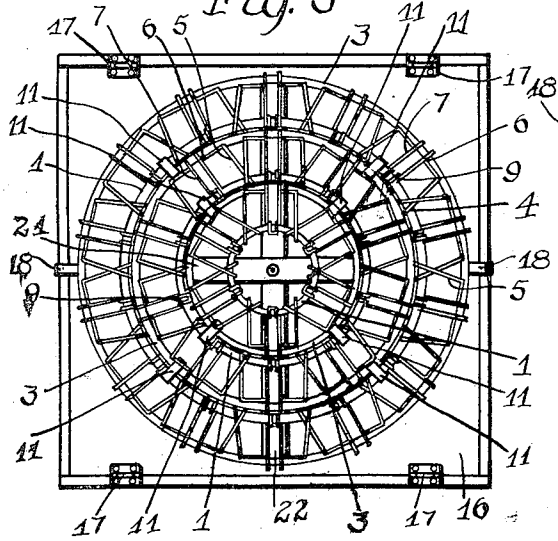
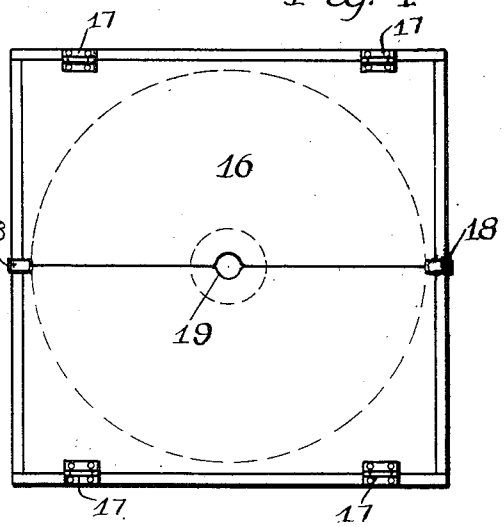


Fig. 4



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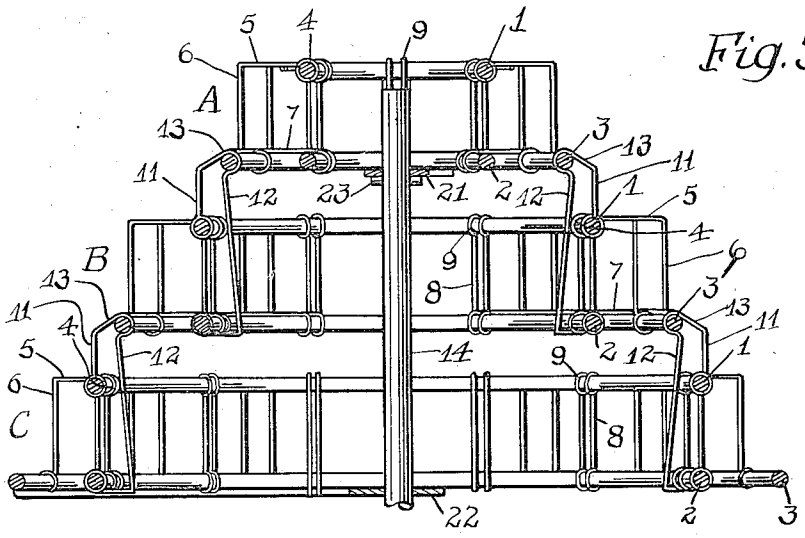


Fig. 5

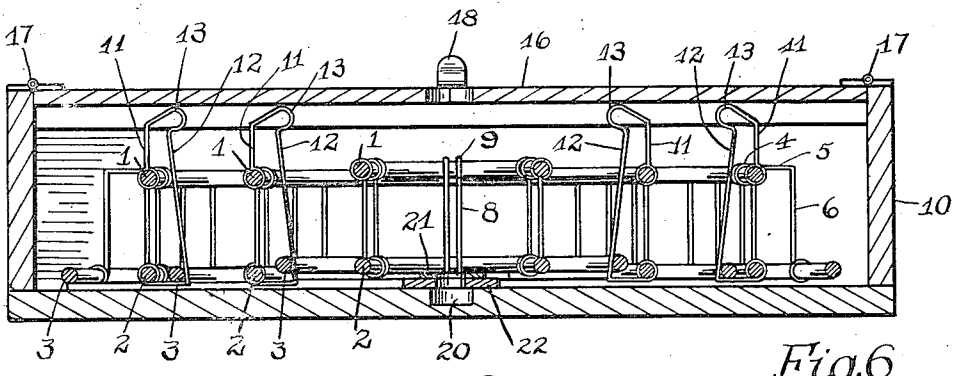


Fig. 6

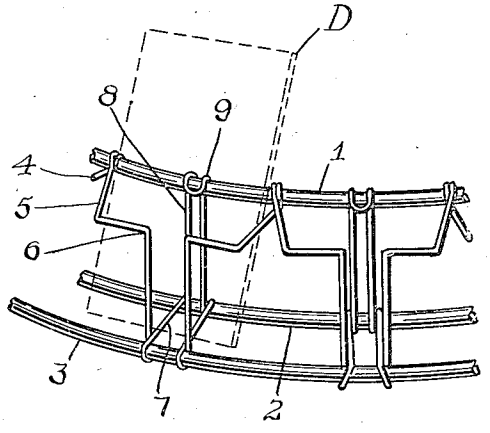


Fig. 7

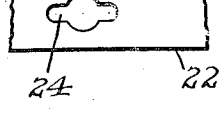


Fig. 8

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2,035,874

UNITED STATES PATENT OFFICE

2,035,874

DISPLAY RACK

John A. Gage, Canandaigua, N. Y.

Application February 13, 1934, Serial No. 711,011

8 Claims. (Cl. 211—55)

My present invention relates to display apparatus and more particularly to racks and stands, and it has for its object to provide a neat, light and efficient device of this character that will be convenient in the display of small articles, such as garden seed packets. The improvements are directed in part toward rendering the rack collapsible and extensible in a simple way; toward the construction of the rack units themselves, and toward means whereby the rack may be utilized as a stand in connection with a container in which latter all of the parts may be housed for storage and transportation purposes. To these and other ends, the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings:

Fig. 1 is an elevation of a rack constructed in accordance with and illustrating one embodiment of my invention shown in use as a stand;

Fig. 2 is an enlarged fragmentary central vertical section through the container-base;

Fig. 3 is a plan view of the rack and container-base disposed as in Fig. 1;

Fig. 4 is a top plan view of the container-base with the stand removed;

Fig. 5 is an enlarged central vertical section through the rack, extended, with the central standard broken away;

Fig. 6 is a similar section through the rack collapsed, and nested within the container-base;

Fig. 7 is an enlarged fragmentary perspective of a portion of one of the rack units better showing the formation of the pockets and the manner in which the packets are accommodated therein, and

Fig. 8 is an enlarged fragmentary detail of the tie bar on the lower rack.

Similar reference numerals throughout the several views indicate the same parts.

Referring more particularly to the drawings, the rack proper consists of a plurality of units of progressively decreasing diameter which, when extended, have a pyramidal form, as shown in Figs. 1 and 5. In the present instance, there are three, indicated generally at A, B and C. Each unit comprises upper and lower vertically spaced concentric inner rings 1 and 2 of the same size and a concentric ring 3 of larger diameter in the plane of the lower ring 2. An interlacing of wires between the three rings of each unit produces an annular series of packets therein in a manner best shown in Fig. 7 where, in dotted lines, is shown a seed packet D occupying one of these packets on display. Tracing the wire on this figure, it is bound on the upper ring 1 at 4, proceeds outwardly horizontally at 5 to constitute a side wall or support, thence circumferentially and downwardly in an angle at 6 to provide a front wall or outer support around ring 3 and back to ring 2 to form a bottom support at 7, thence upwardly at 8 to constitute a back. The wire is here hooped and hooked over ring 1 at 9 and then the bending is repeated in reverse order to produce the same elements and complete the other side of the pocket, as clearly shown in the figure. It is immaterial whether one length of wire or a series of lengths is used, though it is possible to use but one length.

When the device is collapsed, as in Fig. 6, the upper units A and B nest within each other and both of them nest within the bottom unit C, as shown in Fig. 6, so that they are comprised within the confines of the larger unit and may be accommodated within a relatively flat container box 10. Suitably secured to the two inner rings 1 and 2 of each of the lower units of the rack and spaced at intervals circumferentially thereabout are a plurality of spring latches 11 having inner inclined guide portions 12 terminating in offset loops 13 at the top constituting clips or catch portions. The outer ring 3 of the unit next above slides vertically in these guides and when the unit is fully raised or extended, such ring snaps into the catch portions 13 and is securely held thereby in both directions or, conversely, the latches snap into interlocking engagement with the ring, as in Figs. 1 and 5, and the rack is in condition for use. Subsequent inward pressure with the fingers on the spring latches accompanied by downward pressure on the engaged unit allows the latter to slip back down the guides into nesting position again. Thus, the rack as so far described may stand on lower unit C as a base for a counter display or it may be suspended from the upper unit A as a hanging display or it may be used as a floor stand in the following manner:

I provide a knock-down standard or post 14, the sections of which are detachably connected as by the bayonet joints shown at 15 in Figs. 1 and 2. These sections are preferably of a length which, when disconnected, permits them to be stored in the same container box 10 with the collapsed rack. This same container box is preferably also used as a base for the stand, as shown in Figs. 2 and 4. It has, for this purpose,

a divided cover 16, the parts of which are hinged to the box at opposite sides, as indicated at 17, and held at the sides and center by suitable clips 18. At their meeting edges, the cover portions are notched to jointly form a circular opening 19, below which and in alinement therewith is a step 20 in the bottom of the box. The lower end of the standard 14 is inserted in the opening 19 and lodged in the step 20, whereby it is adequately supported and braced in all directions by the cover.

Spanning diametrically the lower rings 2 and 3 of the top unit A and the bottom unit C are tie bars or bridge pieces 21 and 22 having central openings through which the standard 14 may pass. The upper bridge piece 21 rests upon a pin or shoulder 23 on the standard, while the lower bridge piece 22 merely braces against it, its opening being enlarged, as indicated at 24 in Fig. 8, to accommodate the pin 23 when the rack is placed on the standard. The units are thus hung from the upper one and the rack as a whole is free to rotate on the standard to better inspect the contents.

I claim as my invention:

1. A display stand of the character described embodying a plurality of racks supported one upon the other and rising in tiers, said racks having progressively smaller maximum diameters, an upper rack being adapted to collapse and nest within the one next below, the rack units being guided one upon the other and being provided with interlocking latch means for releasably holding them in relatively extended position against vertical movement in both directions.

2. A display stand of the character described embodying a plurality of racks supported one upon the other and rising in tiers, said racks having progressively smaller maximum diameters, an upper rack being adapted to collapse and nest within the one next below, each rack comprising upper and lower rings connected by wires woven between the two to provide pockets.

3. A display stand of the character described, the combination with a central standard, of a plurality of racks dependingly supported one from the other, the upper rack being supported on the standard and adapted to be collapsed and nested within a lower rack, a box-like base adapted to contain the racks when collapsed and being provided with a cover, and means on the cover for supporting the standard in erect position.

4. In a display stand of the character described, the combination with a central standard, of a plurality of hollow racks of different sizes dependingly supported one from the other, the upper rack being supported on the standard and adapted to be collapsed and nested within a lower rack, a base adapted to contain the racks when collapsed and being provided with a two part cover, and means comprised between the cover and base for supporting the standard in erect position.

5. A display stand of the character described embodying a plurality of racks supported one upon the other and rising in tiers, said racks having progressively smaller maximum diameters, an upper rack being adapted to collapse and nest within the one next below, the rack units being guided one upon the other and being provided with guides also constituting relatively interlocking latch means for releasably holding them in relatively extended position against vertical movement in both directions.

6. A display stand of the character described embodying a plurality of racks supported one upon the other and rising in tiers, said racks having progressively smaller maximum diameters, an upper rack being adapted to collapse and nest within the one next below, each rack comprising upper and lower rings connected by wires woven between the two to provide pockets in combination with guide members mounted on a ring of one rack and engaging a ring of the adjacent rack, said guide members being also formed to constitute spring latches for holding the racks in relatively extended position.

7. A display rack of the character described, comprising a supporting post having a seat thereon, means for displaying merchandise detachably mounted on said post and including sections adapted to nest one within the other when removed from the post and to be suspended one below the other when in a display position on the post, and means connecting said display sections for relative movement into and out of their nesting position, one of said sections having a suspension member engaging said post-seat and another of said sections having a guide member engaging the post.

8. A display rack of the character described, comprising a supporting post having a seat thereon, means for displaying merchandise detachably mounted on said post and including sections adapted to nest one within the other when removed from the post and to be suspended one below the other when in a display position on the post, one of said display sections constituting a support for the remaining sections and having a suspension member thereon engageable with said post-seat, a guide member applied to another of said sections and engageable with said post, and complementary inter-engaging means applied to the contiguous portions of the display sections for guiding the relative movements thereof into and out of their nested position, for maintaining them in alinement and for limiting their extended movements in display position.

JOHN A. GAGE.