

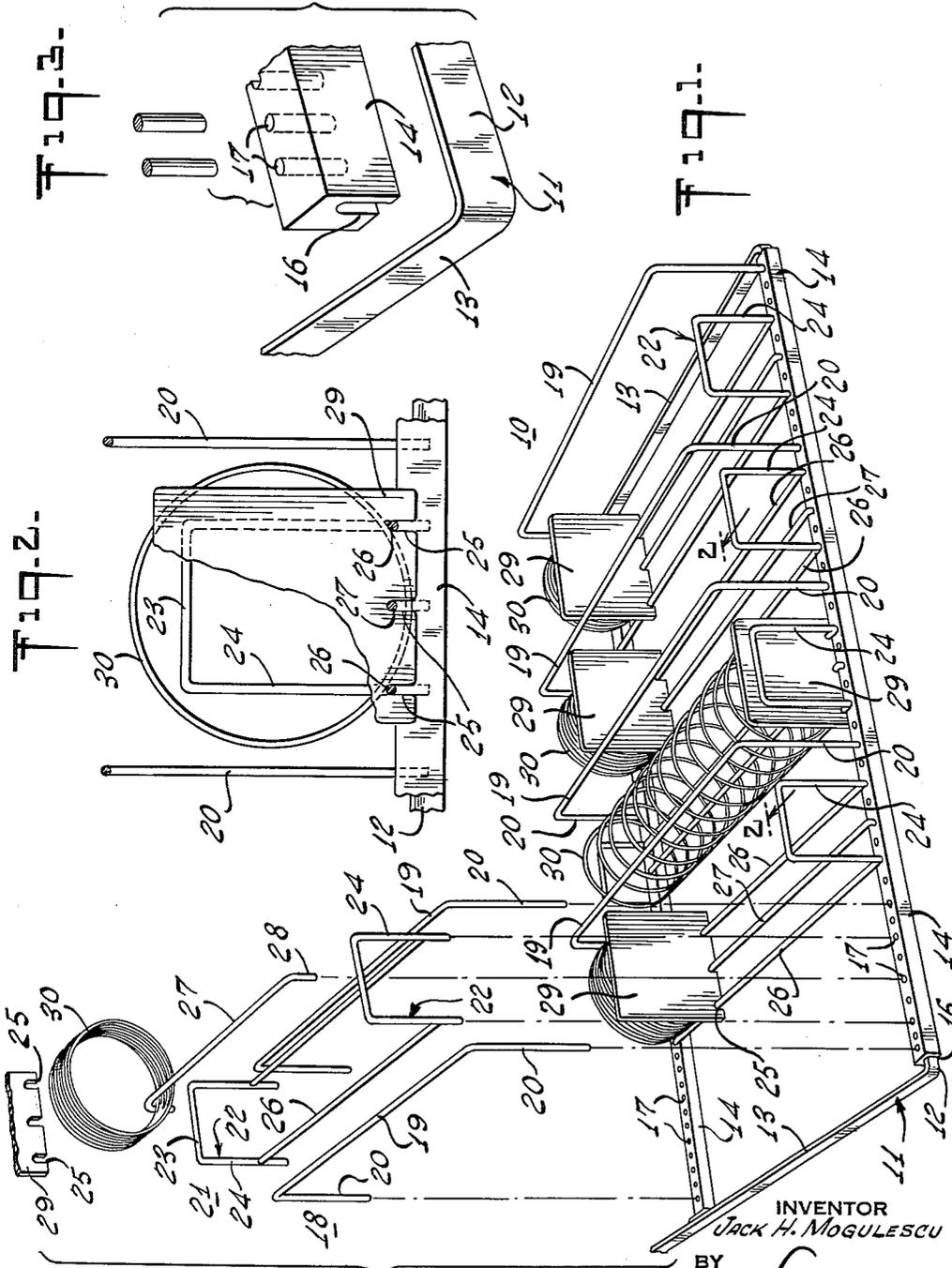
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ADJUSTABLE DISPLAY RACK

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ADJUSTABLE DISPLAY RACK

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1 Claim. (Cl. 211-49)

The present invention relates generally to improvements in display and dispensing devices, and it relates in particular to an improved collapsible, adjustable, display and dispensing rack.

Dispensing racks for packages or the like, of the type wherein a row of packages are forwardly advanced by a spring-urged follower or pusher upon the removal of the leading package, are commonly employed. While these possess many advantages in that they attractively display the packages being dispensed and are highly convenient to use, those heretofore employed possess numerous drawbacks. They are relatively rigid inflexible structures of a bulky nature and are thus difficult and inconvenient to ship and store. Moreover, they possess a further drawback in that they lack versatility, and are suited only for packages of predetermined size. For the above and other reasons, the conventional spring-follower advanced package display and dispensing rack leaves much to be desired.

It is, therefore, a principal object of the present invention to provide an improved display and dispensing device.

Another object of the present invention is to provide an improved display and dispensing rack of the type wherein one or more rows of packages are forwardly advanced by spring-influenced followers or pusher members upon the removal of a package from a corresponding row.

Still another object of the present invention is to provide an improved package display and dispensing rack which may be easily and rapidly assembled and erected or disassembled and collapsed to facilitate the storing, packaging and shipping thereof.

A further object of the present invention is to provide an improved package display and dispensing rack which is adjustable quickly and easily to accommodate packages of different sizes and configurations.

Still a further object of the present invention is to provide an improved package display and dispensing rack of the above nature characterized by its simplicity, ruggedness, ease of operation and low cost.

The above and other objects of the present invention will in part be specifically pointed out and in part will become apparent from a reading of the following description, taken in conjunction with the accompanying drawings, wherein

FIGURE 1 is a front perspective view of a display and dispensing rack embodying the present invention and illustrated in a partially disassembled condition;

FIGURE 2 is a fragmentary sectional view taken along line 2-2 in FIGURE 1; and

FIGURE 3 is an enlarged detailed fragmentary exploded perspective view of the front corner of the rack assembly.

In a sense, the present invention contemplates the provision of an improved collapsible display and dispensing rack comprising a pair of transversely-spaced parallel, longitudinally-extending, mounting bars having longitudinally spaced socket-defining openings formed in the top face thereof, a plurality of longitudinally-spaced parallel, removable partition members extending between and disposed above said bars, each of said partition members including a pair of depending legs releasably engaging a transversely aligned pair of said sockets, a transversely-extending base member disposed between adjacent pairs of partition members and including depend-

ing legs releasably engaging opposite sockets in said pair of bars, front and rear stop members disposed at opposite ends of said base member, a pusher member located above and slidable along the length of said base member, and spring means urging said pusher member toward said front stop member.

According to a preferred form of the present invention, there is provided a rectangular support frame including transversely-spaced longitudinally-extending front and rear frame members, the mounting bars having deep longitudinally extending grooves formed in their underfaces and engaging the front and rear frame members by which they are supported. The partition members are formed of single lengths of wire and each includes an upper transverse bar terminating in integrally formed depending legs. The stop members are of substantially inverted U-shaped configuration, the legs engaging corresponding pairs of sockets, and each base is defined by a pair of rods extending transversely between the legs of corresponding pairs of stop members and secured thereto at points above their bottom ends. Likewise formed of wire are the guide rods which are located between the base rods, the pusher member being defined by a vertical plate having bottom recesses registering with the base and guide rods. The pusher springs are helical compression springs resting on the base rods and encircling the guide rods and are entrapped between the rear stop members and the pusher members. The rack assembly may rest on a counter top or on vertically spaced horizontal or inclined shelves or side tracks, or may be secured to side legs to form a column of vertically superpositioned racks if so desired.

Referring now to the drawing, which illustrates a preferred embodiment of the present invention, reference numeral 10 designates generally the improved display and dispensing rack which includes a support frame 11 of rectangular configuration formed preferably of a band of any suitable metal. Support frame 11 consists of transversely-spaced longitudinally-extending parallel front and back frame members, as 12, connected at their ends by transversely extending side members, as 13, which latter project rearwardly of the back from member 12 to facilitate the mounting and support of the frame member. It is to be noted that the frame member 11 may be individually employed with a single rack assembly, or that a plurality of the frame members 11 may be associated in any desired arrangement, as earlier set forth, and to accommodate thereby a correspond number of racks.

Resting on and associated with each of front and rear frame members 12 is a longitudinally extending mounting bar 14 of rectangular transverse cross section and formed of metal such as, for example, aluminum or of wood, plastic or other suitable sufficiently rigid material. Extending along the length and in the underface of each of mounting bars 14 is a deep, narrow, transversely-offset groove 16 which tightly releasably registers with a corresponding frame member 12. The width of groove 16 is slightly greater than the thickness of frame member 12, and the length of the mounting bar 14 is approximately that of the frame member 11. Formed in the top face of each mounting bar 14, along a line transversely spaced relative to groove 16, are a plurality of regularly, longitudinally-spaced socket-defining vertical wells or bores 17, sockets 17 in the front and rear bars 14 being in transverse alignment thereby to define corresponding socket pairs.

Dividing rack 10 into adjacent successively transversely-extending rows or compartments are a plurality of partition members 18, each of which is suitably formed of a single length of wire and includes a transversely extending linear upper member 19 terminating in depending vertical legs 20. The lower ends of each leg 20 of the partition member 18 register with a selected, transverse pair of sockets 17, the diameter of the sockets 17 and of

the partition wire being such as to effect a snug releasable mutual engagement, so that the partitions 18 are firmly supported in vertical positions. The spacing between successive partition members 18 is adjustable in accordance with the registering sockets 17 and is such as to best accommodate the particularly dimensioned packages being dispensed.

A stop-carrying base member 21 is supported by bars 12 between successive partition members 18 and is likewise formed of wire and includes a pair of front and rear inverted U-shaped stop members 22 defined by upper longitudinal bridge sections 23 and depending legs 24. The lower ends of legs 24 of the stop members releasably engage respective pairs of sockets 17. Extending between and suitably affixed to the transversely-aligned legs 24 of each front and rear pair of stop members 22 are parallel coplanar pairs of base defining rods 26, the length of the legs 24 projecting below the rods being substantially about the depth of sockets 17, so that base rods 26 are positioned at about the level of the upper faces of mounting bars 14. A transversely extending wire guide rod 27 is located between and at the level of each pair of base rods 26 and terminates in depending stub legs 28 releasably engaging a pair of sockets 17 between the sockets engaged by the corresponding stop members 22.

A follower or pusher plate 29 is vertically disposed and located between successive partition members 18. Pusher plate 29 extends longitudinally and is of rectangular configuration. It has formed in its bottom edge notches or recesses 25 which register with the rods 26 and 27, whereby the pusher plates 29 are transversely movable. Each pusher plate 29 is resiliently urged forwardly toward the front stop member 22 by a helical compression spring 30 encircling the guide rod 27, resting on the base rods 26, and entrapped between the rear stop member 22 and the rearwardly directed face of the pusher plates 29.

The assembly of the improved dispensing and display rack described above is effected by resting the mounting bars 14 on the frame members 12 which register with the grooves 16 therein. The partition member legs 20 are inserted in selected sockets 17 to divide the rack into a number of compartments of the desired width, and then base-carrying stop member legs 24 are inserted into sockets 17 located between the successive partitions 18. The guide rods 27 are inserted through the helical springs 30 and the legs 28 thereof are inserted into sockets 17 between pairs thereof engaged by the respective stop members 22, the spring 30 resting on base rods 26. The pusher plates 29 are then positioned between the leading ends of the springs 30 and the front stop members 22 with the recesses 25 engaging the rods 26 and 27. In use, the pusher plates 29 are retracted against the influence of the respective springs 30 and a row of packages inserted in each of the compartments between the corresponding pusher plate 29 and the front stop member 22. As the leading package is removed from a compartment, the row of packages is advanced by the spring-urged pusher plate 29 until the next leading package abuts the front stop

member 22. The rack may be easily collapsed merely by separating the various components, primarily by disengaging the various leg members from the sockets 17 thereby facilitating the storing and shipping of the rack. The simple adjustment of the rack is obvious from the above.

While there has been described and illustrated a preferred embodiment of the present invention, it is apparent that numerous alterations, omissions and additions may be made without departing from the spirit thereof.

What is claimed is:

A collapsible display and dispensing rack comprising a rectangular support frame having front and rear longitudinally extending frame members, a pair of transversely-spaced, parallel, longitudinally-extending mounting bars, each having a plurality of regularly longitudinally-spaced upwardly directed socket-defining apertures formed in the top face thereof and a longitudinally extending groove formed in the underface thereof and engaging a corresponding of said frame members, a plurality of longitudinally-spaced partition members each including an upper transversely extending section terminating in depending legs the ends of which releasably engage a corresponding pair of transversely aligned sockets and being substantially restrained by the peripheral walls of said sockets against horizontal movement, a base member disposed between adjacent pairs of said partition members and including a pair of longitudinally-spaced transversely-extending parallel rods terminating in front and rear stop members of inverted U-shape configuration having legs extending below said rods and releasably engaging corresponding sockets and being substantially restrained by the peripheral walls of said sockets against horizontal movement, a transversely-extending guide rod located between said base rods and terminating in depending legs releasably engaging corresponding sockets and being substantially restrained by the peripheral walls of said sockets against horizontal movement, a pusher member slidable along each of said base members and defined by an upright plate having longitudinally spaced openings formed in the lower edge thereof registering with corresponding of said base rods and guide rods, and a helical compression spring resting on said transversely extending base rods and encircling said guide rod, and entrapped between said pusher member plate and said rear stop member.

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