Feb. 9, 1937. H. D. KING 2,070,168

APPARATUS FOR THE STORAGE AND DISPLAY OF GOODS

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FIG. 3.

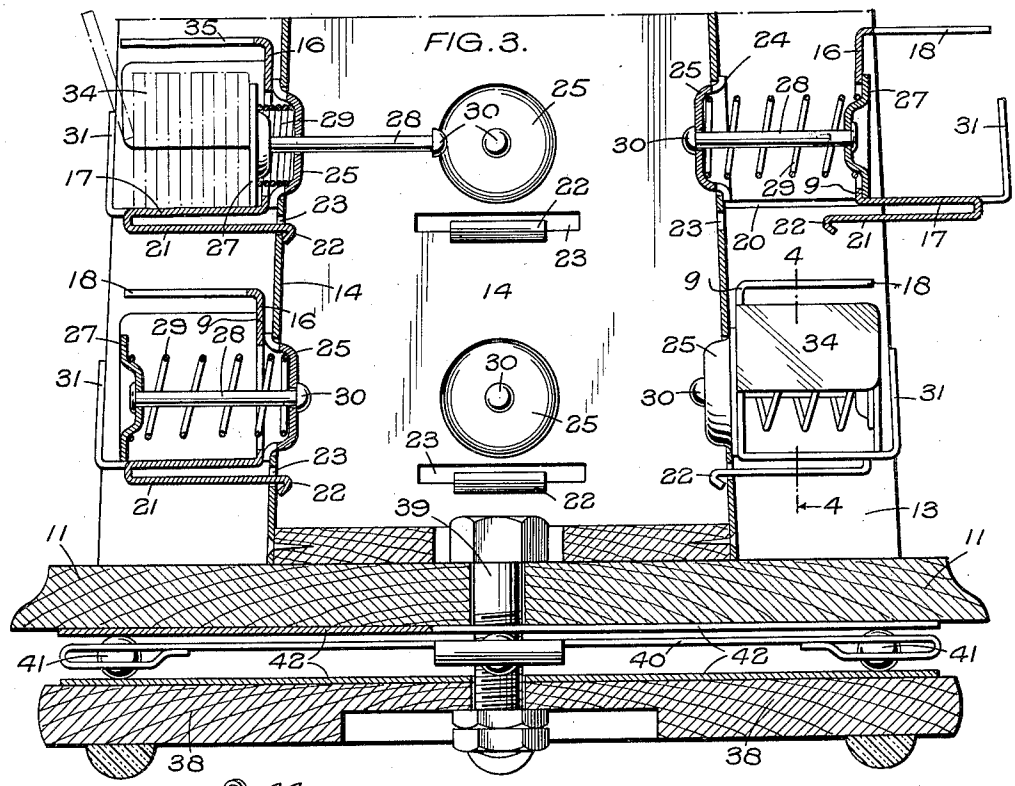


FIG. 1.

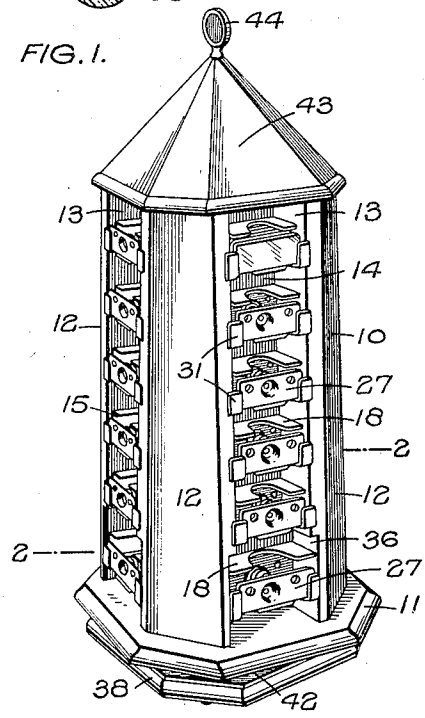
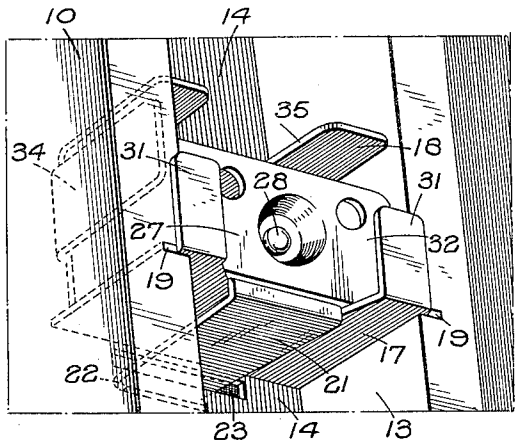


FIG. 5.



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FIG. 4.

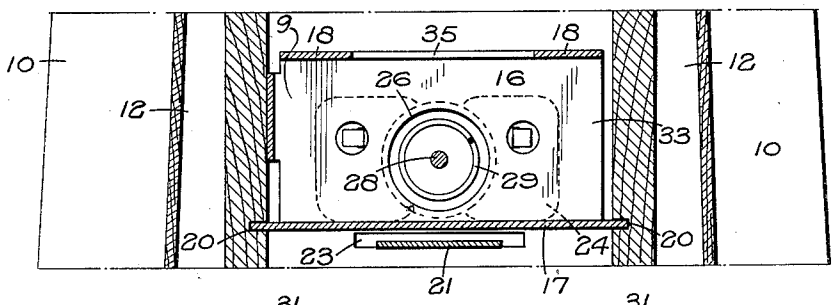
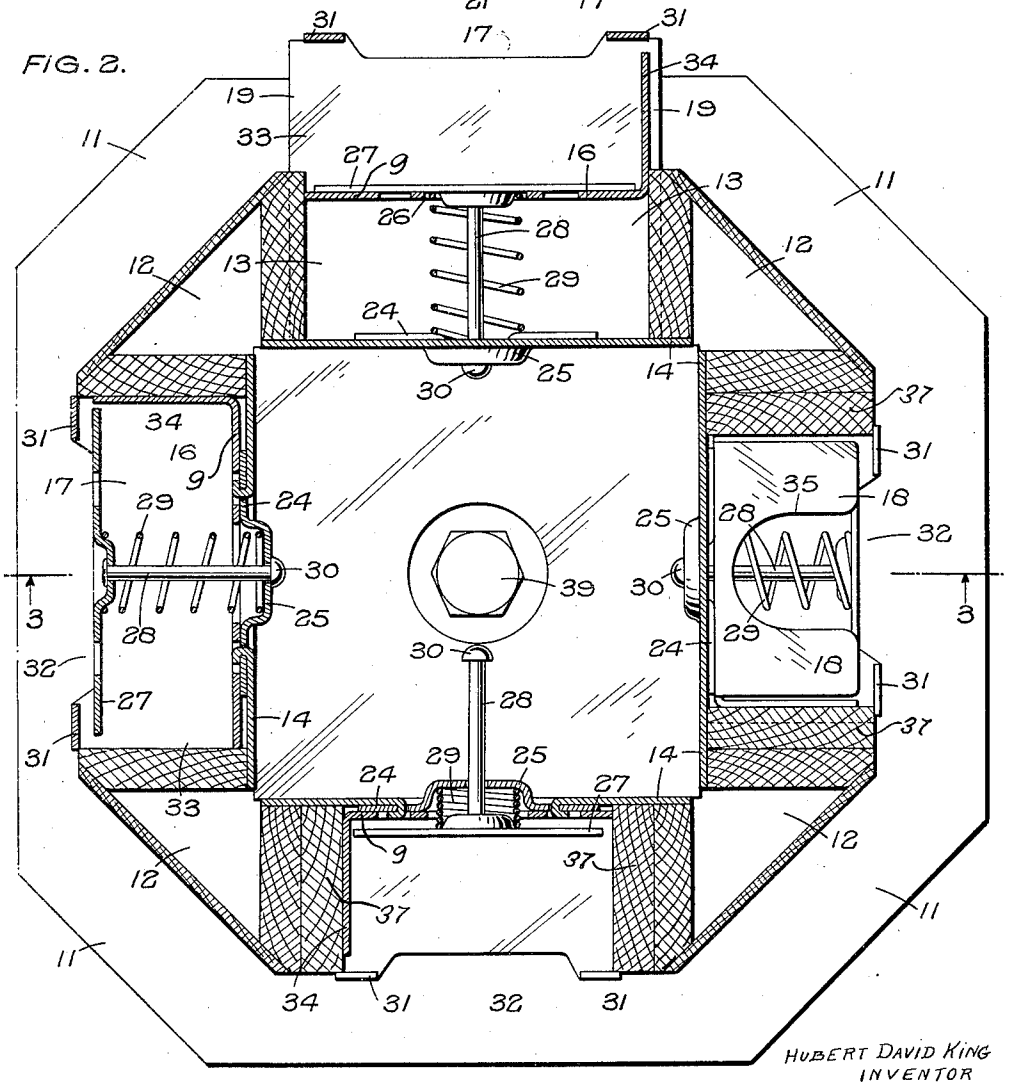


FIG. 2.



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UNITED STATES PATENT OFFICE

2,070,168

APPARATUS FOR THE STORAGE AND DISPLAY OF GOODS

Hubert David King, Studley, England, assignor to The English Needle & Fishing Tackle Company, Limited

Application February 8, 1935, Serial No. 5,592
In Great Britain February 12, 1934

5 Claims. (Cl. 312—71)

This invention relates to apparatus for the storage and display of goods for sale and inspection, and is concerned with such apparatus for the display and storage of goods or articles of substantially flat form or contained in packets of that shape such as, for example, rectangular parallel sided flat packets containing needles, razor blades, or other flat or elongated articles.

The primary object of this invention is to provide an improved form of apparatus particularly suitable for storing or displaying articles of this nature, and a further object of the invention is to provide a display apparatus having a particularly sightly appearance and which appears usually to be full even when the majority of the packets have been removed.

Referring to the drawings:—

Figure 1 is a perspective view of a display stand embodying storage and display apparatus constructed in accordance with this invention and adapted for displaying packets of needles.

Figure 2 is a sectional plan view on the line 2—2 of Figure 1.

Figure 3 is a cross sectional view on the line 3—3 of Figure 2 showing the lower portion of the apparatus illustrated in Figure 1.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a detail perspective view of the apparatus shown in Figure 1.

In the construction illustrated, the display stand comprises a vertical structure shown generally at 10, of octagonal form including an octagonal plinth 11 and a plurality of pillars 12 of hollow form extending upwardly therefrom conveniently four in number; the sides of the pillars converging inwardly from the plinth so that the whole structure is of somewhat tapered form.

The pillars 12 are spaced apart to provide therebetween vertical openings or recesses 13 the backs of which are closed by vertical sheet metal back plates 14.

Housed within the recesses 13 are a number, for example six, of packet carriers shown generally at 15, each carrier comprising an open frame 16 of rectangular configuration adapted to support the needle packets in a vertical position, each frame being formed from resilient sheet metal bent to channel or U shape arranged with its two sides 17 and 18 disposed horizontally, and with the frame base 9 arranged adjacent the back plate 14 so that the open side of each frame is disposed outwardly of the stand.

The lower of the two sides 17 is formed at each end with an integral extension 19 which engages slidably one of a plurality of pairs of horizontal grooves 20 formed oppositely in the adjacent sides of the recesses 13; the arrangement being such that each frame can be slidden from a display position in which it is contained wholly within its recess to a supply position in which it is projected therefrom for substantially its full depth as shown in Figures 2 and 3.

For retaining each frame in its display position, the lower side 17 thereof is formed at its front edge with an integral tongue 21 which is bent backwardly towards the back plate 14 and provided at its rear end with an integral lip 22 for engaging detachably one of a plurality of horizontal slots 23 formed in the plate 14.

Immediately above each of the slots 23 the back plate 14 is formed with an opening, which is closed by a rectangular plate 24 formed centrally with a circular recess 25 which extends rearwardly through the opening. Adjacent the latter, the base 9 of each frame 16 is formed with a further opening 26.

For urging packets in a forward direction outwardly of the stand there is provided for each carrier a presser plate 27 of rectangular form carried upon the front end of a horizontal pin 28 which extends rearwardly through the opening 26 and through the aperture formed in the recessed portion of the plate 24 so that it can slide relative thereto.

Disposed between the rear side of the presser plate 27 and the plate 24 is a compression spring 29 which when the presser plate is in its innermost position is housed partially within the recessed portion of the plate 24.

For limiting the forward movement of the plate, the inner end of the pin is headed as shown at 30.

For retaining the packets within the frame, the lower side thereof is formed at each corner of its free or forward edge with one of a pair of upwardly extending lugs 31 which are spaced apart to provide therebetween an opening 32 for displaying the forward side of the outermost packet to view. Conveniently the lugs extend upwardly for a distance somewhat less than the width of the frame to permit of the packets being withdrawn singly as shown in Figure 3 between the upper edge of the lugs 31 and the adjacent edge of the upper side 18 of the frame.

Thus, the outermost packet can be withdrawn readily from the forward side of each packet carrier by gripping it between the thumb and finger, while on withdrawal, the remaining pack-

ets are advanced automatically by the spring 29 acting on the presser plate 27 and the packet adjacent the withdrawn one is advanced automatically until it engages the stop on either side of the opening 32 whereupon it is held displayed to view and can be withdrawn subsequently when required.

In order that the packets may be inserted in pack form into the frames, one end of this is left open as shown at 33 the remaining end being closed by an extension 34 formed integrally with one edge of the base 9 so that when the frame is projected into the supply position the packets may be inserted into or withdrawn from the frame in pack form through the open end 33.

The length of each frame is conveniently the same as that of the packets, and these are retained in pack form by engagement therewith of the stops, frame side 17 and presser plate 27 so that they present a particularly sightly appearance and further, since each packet is disposed in a vertical position, only the outermost packet is visible to the eye when the stand is viewed in a horizontal direction so that in such circumstances, each frame appears to be full even when only two or possibly one packet remains therein.

In order however that the number of packets remaining in a frame may be ascertained readily, the upper side thereof is formed centrally with a rearwardly extending recess 35 so that the upper edges of the packets are exposed.

Conveniently, the frames within each recess 13 are of varying dimensions to take packets of different sizes and the arrangement is such that the largest packets are carried adjacent the plinth 11.

For this purpose the lower portions of the sides of the recesses 13 are recessed as at 36 by providing the opposed faces of the hollow pillars 12 with fillets 37 which extend from the upper end of the pillar for a portion only of the depth thereof.

The plinth 11 is mounted rotatably upon a base 38 having an octagonal configuration similar to that of the plinth, as by providing the latter with a central spindle 39 carrying a spider 40 rotatably mounted thereon, the arms of which carry bearing balls 41 which engage metal bearing plates 42 provided on the opposed faces of the plinth and base.

With such an arrangement, the stand can be readily rotated to facilitate access to individual packet carriers.

The pillars 12 are conveniently surmounted by a pyramidal shaped top 43 the apex of which carries a disc 44, and the latter may bear the price of the individual packets and may serve also as a thumb piece for rotating the stand.

The base 38 is conveniently of substantial weight to prevent the stand from being overturned during use.

Although in the foregoing description of the apparatus illustrated in the drawings and in the appended claims hereinafter set forth, I have referred solely to the displayed goods by the term "packet", it should be understood that my invention is not to be considered limited in any way by the use of this expression, and where hereinafter employed in the appended claims, it is to be construed as embracing any goods or articles of flat form whether in containers or otherwise.

What I claim then is:—

1. Apparatus for the storage and display of packets and like goods of flat form, comprising a plurality of channel members each adapted to receive a plurality of packets in pack configuration, a presser plate disposed transversely within each of said channel members, a spring acting on said presser plate so as to advance said packets away from the base of said channel members towards a delivery and display position, stop means provided on one side wall of each of said channel members and extending towards the other side wall thereof to retain said packets in pack configuration, said stop means being spaced from said other side wall so as to allow removal of the foremost packet in a direction transverse to said channel members, a display rack or stand having therein a plurality of recesses, each of said recesses being closed at the back and of sufficient width to snugly accommodate one of said channel members, a channel member being slidably mounted in each of said recesses with the free edges of its side walls normally adjacent the mouth thereof so that the members forming the walls of said recess prevent said packets from being moved longitudinally of said channel member, a hooked member formed integrally with said channel member and adapted to be engaged with the member forming the back of said recess, said hooked member normally retaining said channel member within said recess, but being releasable so that said channel member can be slidden forwardly and outwardly of said recess to permit insertion of a pack of packets into said channel member at one end thereof.

2. Apparatus for the storage and display of packets and like goods of flat form, comprising a plurality of channel members each adapted to receive a plurality of packets in pack configuration, a presser plate disposed transversely within each of said channel members, a spring acting on said presser plate so as to advance said packets away from the base of said channel members towards a delivery and display position, stop means provided on one side wall of each of said channel members and extending towards the other side wall thereof to retain said packets in pack configuration, said stop means being spaced from said other side wall so as to allow removal of the foremost packet in a direction transverse to said channel member, a display rack or stand having therein a plurality of recesses, each of said recesses being closed at the back and of sufficient width to snugly accommodate one of said channel members, a channel member being slidably mounted in each of said recesses with the free edges of its side walls normally adjacent the mouth thereof, so that the members forming the walls of said recess prevent said packets from being moved longitudinally of said channel member, a hooked member formed integrally with said channel member and adapted to be engaged with the member forming the back of said recess, said hooked member normally retaining said channel member within said recess, but being releasable so that said channel member can be slidden forwardly and outwardly of said recess to permit insertion of a pack of packets into said channel member at one end thereof, and connecting means between the member forming the back of said recess and said presser plate to limit the movement of the latter when said channel member is slidden forwardly and outwardly of said recess, said connecting means including a headed stem fixed to said presser plate and slidably guided in the member forming the back of said recess whereby tilting of said presser plate relatively to the base of said channel member is prevented.

3. Apparatus for the storage and display of packets and like goods of flat form, comprising a plurality of channel members each adapted to

receive a plurality of packets in pack configuration, a presser plate disposed transversely within each of said channel members, a spring acting on said presser plate so as to advance said packets away from the base of said channel member towards a delivery and display position, stop means provided on one side wall of each of said channel members and extending towards the other side wall thereof to retain said packets in pack configuration, said stop means being spaced from said other side wall so as to allow removal of the foremost packet in a direction transverse to said channel member, a display rack or stand having therein a plurality of recesses, each of said recesses being closed at the back by a back plate and of sufficient width to snugly accommodate one of said channel members, a channel member being slidably mounted in each of said recesses, with the free edges of its side walls normally adjacent the mouth thereof, so that the members forming the walls of said recess prevent said packets from being moved longitudinally of said channel member, a hooked member formed integrally with said channel member and adapted to be sprung into engagement with an aperture in said back plate, said hooked member normally retaining said channel member within said recess, but being releasable so that said channel member can be slidden forwardly and outwardly of said recess to permit insertion of a pack of packets into said channel member at one end thereof, and connecting means between said back plate and said presser plate to limit the movement of the latter when said channel member is slidden forwardly and outwardly of said recess, said connecting means including a headed stem fixed to said presser plate and slidably guided in a plate attached to said back plate whereby tilting of said presser plate relatively to the base of said channel member is prevented.

4. Apparatus for the storage and display of packets and like goods of flat form, comprising a channel member adapted to receive a plurality of packets in pack configuration, spring means for advancing said packets away from the base of said channel member towards a delivery and display position, stop means formed integrally with one side wall of said channel member and extending towards the other side wall thereof to retain said packets in pack configuration, said stop means being spaced from said other side wall to allow removal of the foremost packet in a direction transverse to said channel member, a barrier formed integrally with said channel member at one end thereof, a display rack or stand having therein a recess which is closed at the back and of sufficient width to snugly accommodate said channel member, said channel member being slidably mounted in said recess with the free edges of its side walls normally adjacent the mouth thereof, so that the members forming the walls of said recess prevent said packets from being moved longitudinally of said channel member, and a hooked member formed integrally with said channel member, said hooked member normally retaining said channel member within said recess, but being releasable so that said channel member can be slidden forwardly and outwardly of said recess to permit insertion of a pack of packets into said channel member at one end thereof.

5. Apparatus for the storage and display of packets and like goods of flat form, comprising a channel member adapted to receive a plurality of packets in pack configuration, spring means for advancing said packets away from the base of said channel member towards a delivery and display position, stop means formed integrally with one side wall of said channel member and extending towards the other side wall thereof to retain said packets in pack configuration, said stop means being spaced from said other side wall to allow removal of the foremost packet in a direction transverse to said channel member, a barrier formed integrally with said channel member at one end thereof, a display rack or stand having therein a recess which is closed at the back and of sufficient width to snugly accommodate said channel member, a back plate forming the back of said recess, said channel member being slidably mounted in said recess with the free edges of its side walls normally adjacent the mouth thereof, so that the members forming the walls of said recess prevent said packets from being moved longitudinally of said channel member, and a hooked member formed integrally with one of said free edges of the channel member side walls, said hooked member extending rearwardly of said channel member and normally being sprung into engagement with an aperture in said back plate to retain said channel member within said recess, but being releasable so that said channel member can be slidden forwardly and outwardly of said recess to permit insertion of a pack of packets into said channel member at one end thereof.

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