F. W. GIBSON.

DISPLAY RACK OR STAND.

APPLICATION FILED FEB. 12, 1916.

1,293,752. Patented Feb. 11, 1919.

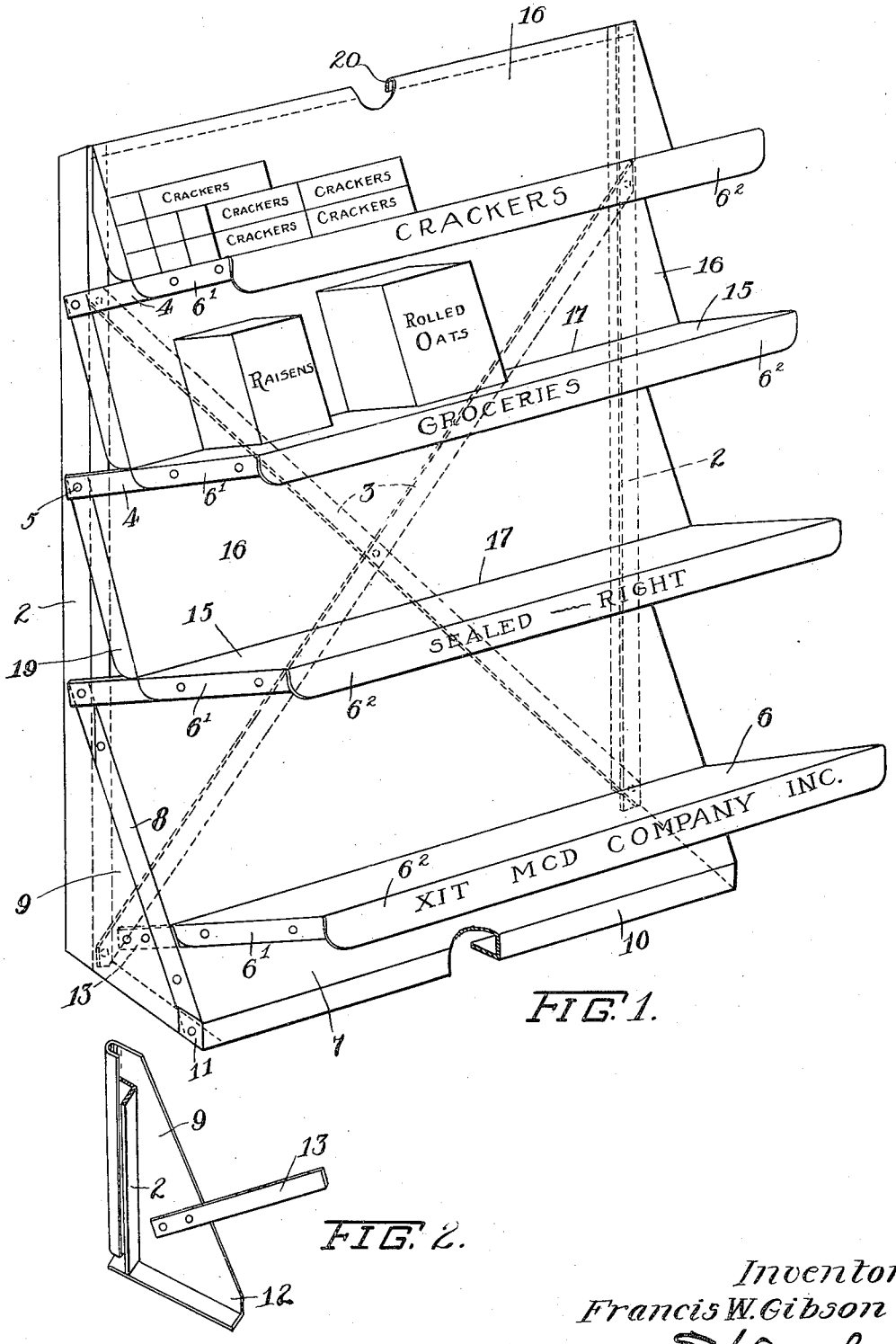


FIG. 1.

FIG. 2.

Inventor
Francis W. Gibson
By Ellis Spear Jr.
Attorney

UNITED STATES PATENT OFFICE.

FRANCIS W. GIBSON, OF WEST ROXBURY, MASSACHUSETTS, ASSIGNOR TO H. D. BEACH COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF OHIO.

DISPLAY RACK OR STAND.

1,293,752. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed February 12, 1916. Serial No. 77,999.

To all whom it may concern:

Be it known that I, FRANCIS W. GIBSON, a citizen of the United States, residing at West Roxbury, county of Suffolk, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Display Racks or Stands, of which the following is a specification.

This invention relates to display apparatus and particularly to a rack or stand for the efficient display and dispensing of various assortments of goods ordinarily dispensed in sealed containers, packages or cartons.

Many varieties of food stuffs and other materials are put up in packages or cartons which eliminate the weighing and handling of the material in bulk or loose quantities, and it is an object of the present invention to provide a stand or rack which will at once serve as a holder for considerable quantities of the stock in their packages or cartons and provide for the arrangement of the packages in stacks, the individual packages being so disposed upon the rack or stand as to make an attractive display of the goods and permit of the ready identification of the packages or the reading of the labels on the packages. It is further desirable to provide a package display and stock rack in which the packages are so arranged as to be readily selected therefrom when sales are made.

Owing to the considerable diversity in the sizes, forms and proportions of the various packages in which goods are put up, it is desirable to provide a rack or stand of such design and construction as to permit of the most convenient and efficacious stacking or arrangement of the packages to be stacked and displayed. A common objection to stock displaying apparatus is that by reason of their construction the packages or cartons cannot be most effectively nor easily arranged upon the shelves and it is a further object of the present invention to provide a rack which will avoid this objection.

It is a further object of the invention to provide a display rack which is of simple, substantial construction, is inexpensive, of large capacity, and will require but a comparatively small floor space.

With these and other objects in view as will appear in the following specification, the invention consists of a display stand or rack having a plurality of superposed, spaced, horizontally arranged and inclined shelves providing for the ready dispensing and efficient display of packaged, boxed and sealed goods as hereinafter more fully described in the specification and an embodiment of which is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the rack, portions of the parts of which are broken away to show details of construction, and

Fig. 2 is a detail, in perspective, showing one of the foot pieces and its manner of attachment to one of the legs of the back-frame.

Containers or packages in which goods to be dispensed are put up, vary in size and form and in some cases the labels or legends descriptive of the contents of the packages are placed to be read longitudinally of the package as, for instance, cartons containing crackers, cakes, etc., and sometimes are placed to be read when the packages are in vertical position, for example cartons of meal, raisins, etc., and the present invention is intended to provide a rack or stand in which packages or cartons may be most effectively arranged in either horizontal or vertical position in stacks of rows from which the individual packages or cartons may be easily removed and in which stacks the stock of packages is presented plainly to the eye of the observer or customer with their front or face side tilted upwardly from the shelves. In the illustrative form of the present invention the rack comprises a series of vertically superposed open ended, hod-shaped or V-shaped shelves arranged horizontally with their supporting portions disposed obliquely to the horizontal so that packages or cartons will readily stack upon the shelves with their front faces or sides disposed plainly to the vision. The rack or stand shown comprises a suitable support or back-frame formed of a plurality of vertical leg-members 2 arranged in parallel positions, and for the purpose of obtaining inexpensive construction may be formed angle-shaped in cross section and of light weight sheet metal; the vertical members 2 being diagonally braced as at 3 to secure rigidity. The stock supporting shelves referred to are connected to respective sets of forwardly projecting and upwardly inclined arms or

braces 4 the rear ends of which are connected at 5 to the contiguous portions of the vertical members or legs 2 of the back frame.

The container package or carton shelves comprise each a bottom portion and a back or rest-portion; these preferably being arranged perpendicularly to each other the backs projecting upwardly from the rear edges of the shelves to support superposed rows of cartons of goods as these are stacked upon the inclined bottoms of the shelves.

In the form of construction adopted in the illustrated embodiment of the invention, the lowermost back 7 is provided on its opposite ends with down-turned flanges 8 which overlap, and are riveted to the upper edges of triangular foot plates 9, Fig. 2. These plates are secured respectively to the lower portions of the end legs 2 of the back-frame and extend perpendicularly and forwardly to form a foot or base for the stand and receive and support the superimposed, longitudinally extending, inclined lowermost back 7 which is connected at its upper and rear corners to the contiguous portions of the legs 2. The lower and forward edge of the back 7 at the bottom of the stand is formed with a down-turned and inwardly directed L-shaped flange 10 which serves the several purposes of stiffening the back 7; of forming a supporting rest for the stand, and also provides a vertically exposed front area for the application of suitable advertising matter, etc. The ends of the stiffening flange 10 of the back 7 may be folded rearwardly as at 11 and secured by riveting or otherwise to the front and lowermost corners 12 of the triangular foot-plate 9.

The lowermost shelf 6 is secured on the outwardly extending portions of respective arms or brackets 13 which are riveted or otherwise secured to the inside faces of the foot plates 9. The attachment of the shelf-bottom 6 to the ends of the arms 13, which project through apertures provided therefor in the back 7, may be accomplished in different ways in actual practice. As here shown, the bottom 6 is provided with end-flanges 6^1 which are turned down and riveted to the obliquely disposed arms 13 while the front and longitudinal edge of the shelf 6 is stiffened by a down-turned flange 6^2 which adds to the appearance or finish of the structure as well as providing a curtain useful for the application of suitable advertising matter.

While the form of construction as adopted for the lowermost shelf formed by the parts 6 and 7 is especially adaptable because of its cheapness and for providing a continuous back portion 7 the upper portion of which is utilized to support articles and the lower portion is continued downwardly below the bottom 6 to cover the foot structure of the stand, it is preferred that the upper shelves be constructed in a simpler manner, and, as shown, each of these shelves above the lowermost is formed of one piece of metal having a bottom portion 15 and a back portion 16 at an angle, preferably at 90 degrees thereto, these portions being bent along the line 17 at the rear edge of the bottom 15. These integrally constructed upper shelves are provided at the end-edges of the bottom portions 15 with down-turned flanges 6^1 which overlap and are secured to the respective set of forwardly projecting, diagonal braces 4; these latter being arranged at the desired angle with relation to the back frame structure to present supports at the requisite angle for the shelf bottom 15.

The several shelves, respectively, decrease in size upwardly though any other arrangement may be made. The backs 16 incline rearwardly and upwardly and are preferably provided with end flanges 19 which ornament and finish the appearance of the structure and also provide means for the connection of the upper corners of the backs 16 to the legs 2 of the back frame. The disposition of the brackets 4 is such that they are connected to the vertical legs 2 in such relation thereon as to overlap the point of connection therewith of the upper rear corners of the flanges 19 of the backs 16 which latter serve not only as back rests for stacks of packages, or packages placed thereagainst, but also as a supporting connection between their respective forwardly projecting arms or brackets 4 and the legs 2.

The uppermost shelf has its back 16 provided with a downwardly turned flange 20. Fig. 1, which stiffens or reinforces the longitudinal upper edge of the back 16 and also provides for riveting or other attachment to the upper ends of the frame members 2, over which the flange 20 hooks.

In the use of the rack, those packages or cartons upon which the reading matter is disposed to be read longitudinally of the package are laid or stacked longitudinally and horizontally in rows and superposed rows on the shelves to thus effectively display the carton and permit the ready identification or reading of the labels, such an arrangement being shown for instance in a stack of horizontally disposed packages on the uppermost shelf. Other packages or containers on which the reading matter is disposed to be read transversely across the face of the container when the latter is vertically disposed may be placed upon the shelves or near them as is indicated on the second lower shelf of the rack. A particular advantage of the rack designed as here disclosed, resides in the capacity of arrangement of various shapes and sizes of packages on the shelves without limitation or confinement in the ar-

rangement of stacks of packages such as would be the case when the ends of the shelves are closed. This advantage is achieved because it is possible to permit some of the packages to overhang the ends of the shelves, in cases where a complete row is longer than the shelf.

Various modifications in the form and construction of my invention may be resorted to if within the limits of the appended claims.

What I therefore claim and desire to secure by Letters Patent is:

1. A stock and display rack having a back-frame, series of superposed alined oblique, forwardly projecting braces connected at their rear ends to the said frame, and hod-shaped open ended shelves supported on their respective braces, each consisting of a relatively angular intersecting back and bottom, the latter connected to and lying in the plane of its respective set of braces, the backs of the shelves inclining toward and connecting with the frame at the points of connection therewith of the said braces, whereby the said backs serve as a rest for stacks of packages on the inclined bottoms of the shelves and also serve as an outer supporting connection for the outwardly projecting braces.

2. A stock display rack having a back-frame, a series of sets of forwardly and upwardly inclined braces secured at their rear ends to said frame, horizontally arranged shelf-forming bottoms or plates, one for each coördinate set of braces and secured thereby in an inclined plane, and rearwardly and upwardly inclined backs or rests rigidly connecting and trussing the said braces and the said frame.

3. A package display and stock rack comprising a truss-back frame having spaced end posts, a foot structure for the frame comprising an upwardly and rearwardly inclined back member at the bottom of the frame extending continuously from one end of the frame to the other horizontally, and a series of superposed rearwardly and downwardly inclined trussed shelves connected by said frame.

4. A package display and stock rack comprising a truss-back frame having spaced end posts, a foot structure for the frame comprising an upwardly and rearwardly inclined back member at the bottom of the frame and extending continuously from one end of the frame to the other horizontally, and a series of superposed rearwardly and downwardly inclined trussed shelves connected by said frame, the trussing means for the shelves comprising upwardly and rearwardly inclined and horizontally continuous back forming members disposed between the shelves, and extending from shelf to shelf.

5. A rack structure comprising a pair of spaced braced end members forming a back frame, a pair of horizontally alined and forwardly and upwardly inclined bracket arms having upwardly extending trussed connections with said frame, and a shelf member extending horizontally between and resting upon and inclining with the said brackets.

6. A rack structure comprising a pair of spaced braced end members forming a back frame, a pair of horizontally alined and forwardly and upwardly inclined bracket arms having upwardly extending trussed connections with said frame, and a shelf or leaf member extending horizontally between and resting upon and inclining with the said brackets, the said trussed connection comprising a continuous back forming panel intersecting with the lower rear edge of said shelf and having its upper corners secured to said frame, at the under face of the shelf next above.

7. In a rack for supporting packages to be displayed and stacked, a shelf comprising hod-shaped back and bottom members disposed in angularly intersecting relation and a support having inclined brackets upon which said bottom members are secured coplanar with the brackets the back forming member having its upper portion secured to the support.

8. A package display and stock rack comprising a back frame and outwardly projecting downwardly inclined foot portion having a panel forming a back extending from the projected foot portion up to the frame and from side to side thereof, a series of opposed sets of forwardly projecting inclined brackets and hod-shaped shelves having bottoms coplanar with and fastened to said brackets, the back portions of the shelves inclining from rear edges of the shelves up to the back frame, all rigidly connected.

9. A package display and stock rack comprising a back frame and outwardly projecting downwardly inclined foot portion having a panel forming a back extending from the projected foot portion up to the frame and from side to side thereof, a series of opposed sets of forwardly projecting inclined brackets and hod-shaped shelves of sheet material having bottoms coplanar with and fastened to said brackets and said bottoms having down-turned flanges adapted for the display of advertising and descriptive matter, the back portions of the shelves inclining from rear edges of the shelves up to the back frame, all rigidly connected, and presenting from the front a continuous wall from top to bottom and end to end of the rack.

10. A display rack, comprising spaced uprights, and a superposed series of article supporting shelves, each shelf consisting of a pair of upwardly and outwardly extending side-forming members, an upwardly and

outwardly inclined bottom-forming member connecting said side members and angularly disposed as to the horizontal, and a back-forming member angularly intersecting said bottom member near its rear edge and extending upwardly and rearwardly to the spaced uprights.

11. A display rack, comprising a pair of spaced uprights, and a series of spaced superposed open-ended shelves extending between said uprights, each shelf including relatively angularly intersecting bottom and back portions, and upwardly and forwardly extending braces at each end of a shelf and lying in substantially the plane of the inclined bottom of the shelves, and rigidly connected at their forward ends to said shelves and at their rear ends, respectively, to the pair of spaced uprights.

12. A display rack, comprising spaced uprights, a superposed series of spaced, open-ended shelves between said uprights, each shelf including a bottom-forming member and a back-forming member angularly intersecting said bottom member and extending continuously upwardly and rearwardly to the spaced uprights and said back-forming members uniformly and symmetrically disposed relative to each other to form a substantially unbroken back for the display rack.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS W. GIBSON.

Witnesses:
VICTORIA LOWDEN,
M. P. WOTHERSPOON.