

Nov. 6, 1934.

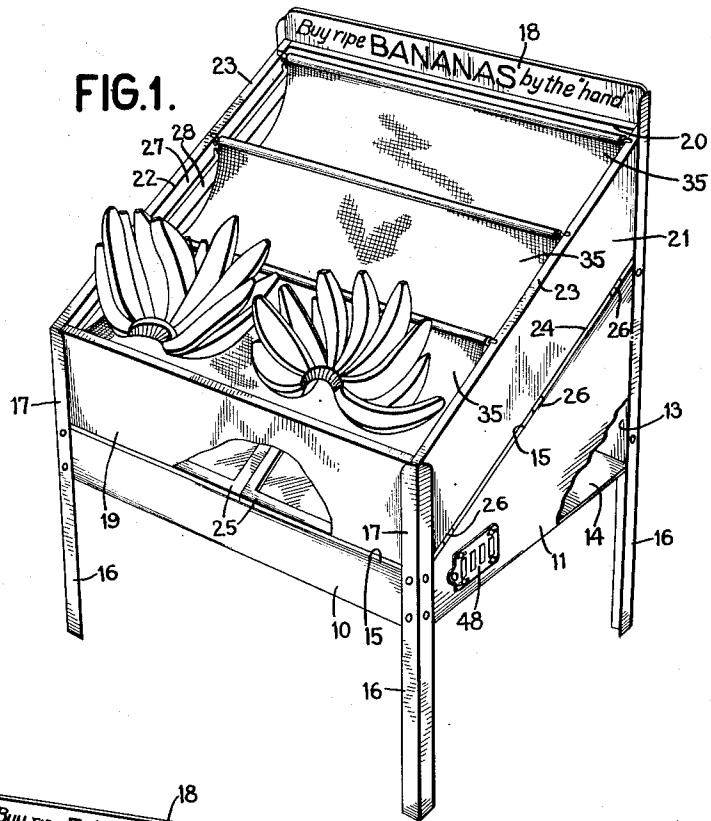
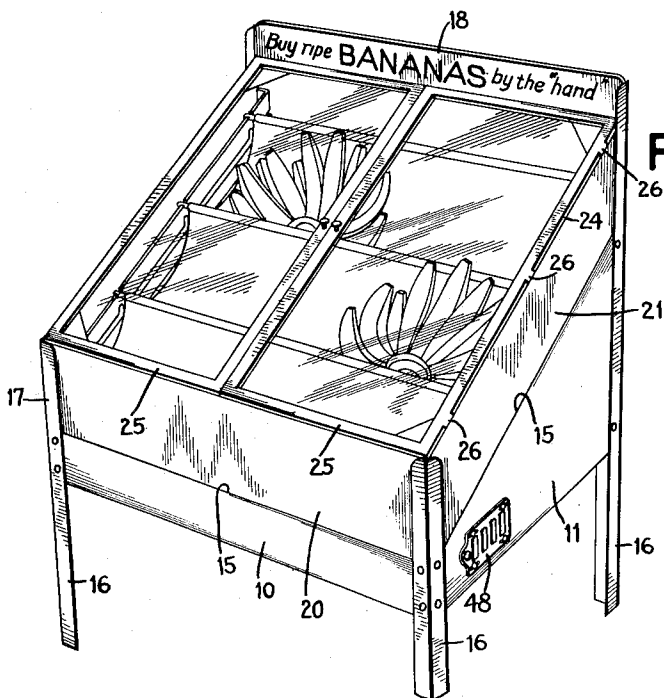
R. M. WILSON

1,979,514

DISPLAY STAND

Filed March 14, 1933

2 Sheets-Sheet 1



INVENTOR-
Robert M. Wilson
BY
H.C. Thieserud
ATTORNEY

UNITED STATES PATENT OFFICE

1,979,514

DISPLAY STAND

Robert M. Wilson, Jackson Heights, N. Y., assignor to United Fruit Company, New York, N. Y., a corporation of New Jersey

Application March 14, 1933, Serial No. 660,635

11 Claims. (Cl. 312—114)

This invention relates to display stands and has particular reference to a stand adapted for the advantageous display of fruit, such as bananas and the like.

5 A special feature of the invention is the provision of a convertible device which will serve to display the fruit in a completely exposed condition in the warmer months and may be converted to enclose and protect the fruit during 10 the colder months. For this purpose I have devised a frame or enclosure with a supporting surface adapted to be arranged near the top of the frame whenever desired or to be located well within the frame at other times to permit the 15 fruit to be supported beneath a glass closure across the top of the frame. Suitable heating means will preferably be associated with the frame so as to establish a somewhat elevated temperature during the colder periods. The heater, further- 20 more, is desirably controlled by a thermostat appropriately situated to bring about a proper regulation of the temperature. In this way a very effective display is provided at all times. While the fruit is somewhat less conspicuous when enclosed, it is nevertheless displayed to considerable advantage by the present structure without danger of spoiling due to reduced tempera- 25 tures.

In accomplishing the foregoing results I provide a stand and a separable, invertible display 30 section adapted to be applied to the stand for either cold or warm weather display. For supporting the fruit I preferably provide a series of separate, flexible, fabric surfaces suitably positioned for the effective display of the fruit. The 35 surfaces thus formed are admirably suited for the support and display of hands of bananas. An advantage of forming the supports as separable members is that one or more of a plurality 40 employed in a device may be replaced without necessitating replacement of others. Thus if one of the flexible supports should become torn or soiled in some way, while the others are still in good condition, the one may be economically re- 45 placed. A construction of this character is also more readily adapted for variation in the number and size of the pockets employed in a particular stand. The separate construction of the pockets, furthermore, makes it possible to provide 50 more readily for the circulation of air. This is particularly desirable when the stand is to be heated. The heating means and control element employed are preferably also formed as a readily detachable unit so that it may be omitted 55

when not desired and may be replaced when not functioning properly.

Other objects and advantages of the invention will appear from the detailed description of an illustrative form of the same which will now be 60 given in conjunction with the accompanying drawings, in which:

Figure 1 is a perspective view of the stand with portions broken away to more clearly illustrate the interior construction, the stand being ar- 65 ranged for warm weather display.

Figure 2 is a perspective view of the stand as converted for winter display.

Figure 3 is a longitudinal, vertical, central section through the upper portion of the stand. 70

Figure 4 is a similar detailed view in section illustrating the arrangement of the parts during the colder weather.

Figure 5 is a transverse section through the upper portion of the stand taken substantially 75 along the plane 5—5 of Figure 3, and

Figure 6 is a view similar to Figure 4 but showing a modified form of construction.

Referring now to the drawings, the illustrative structure embodying the invention comprises an 80 enclosed frame having a front member 10, side members 11 and 12, back member 13, and a bottom member 14. The top of this frame is left open, except for the small, inturned edges 15 at the tops of the front, back and side walls. The 85 upper edges of the side walls are preferably inclined at an angle of about 30° to the horizontal, although this angle may be varied to suit particular requirements. At each corner of the frame there is provided a leg 16, preferably in the form 90 of an angle member, which is riveted or otherwise secured to the frame. While the invention is in no sense restricted to the use of sheet metal in the construction of the major portions of the stand, the drawings indicate such a construction. 95 This affords a simple, inexpensive and sturdy structure capable of withstanding considerable rough usage. A satisfactory construction could, however, be produced largely from wood or other materials. 100

Each of the legs 16 is preferably extended, as indicated at 17, a distance of 6 or 8 inches above the upper edge of the enclosed frame. The extensions 17 of the rear legs may be somewhat 105 longer than those of the forward legs so as to provide for the support of a sign or panel 18 bearing any suitable advertising matter. The extensions 17 form angled guide members at the four corners of the stand adapted to slidably receive an upper frame comprised by a front mem- 110

ber 19, back member 20 and sides 21 and 22, as illustrated in Figure 1. These elements form a box-like frame without top or bottom and having the upper edges 23 and the lower edges 24 of the side members arranged in planes at an angle of approximately 60° to the vertical edges at the corners of the frame. This relation is such that when the frame is mounted between the uprights 17, the top and bottom surfaces of the frame will be parallel with the edges 15 of the lower fixed frame. Should the angle of these edges be modified, a corresponding change should be made in the angle of the above mentioned planes.

It will be apparent from an inspection of the drawings that the upper frame is adapted to be disposed in either of two positions bearing an inverted relation to each other, indicated in Figures 1 and 2, respectively. When the frame is inverted from the Figure 1 position into the Figure 2 position the member 19 becomes the back element of the frame and the member 20 becomes the front element. When the frame is in the Figure 2 position, its top is closed by a pair of doors 25, or similar closure means, permitting ready access to the interior of the frame. These doors may be hingedly secured to the sides 21 and 22 by means of hinges 26. They preferably comprise a metallic frame retaining sections of glass through which the contents of the stand may be readily viewed. When the upper frame is in the Figure 1 position, the doors 25 rest upon the upper edges of the lower fixed frame and are thus concealed and out of the way.

Referring now particularly to Figures 3, 4 and 5, the means providing a supporting surface for the hands of bananas or other articles to be displayed will be described. At each side of the invertible frame there is provided a pair of bars 27 and 28 extending parallel with the top and bottom edges of the frame. The bars 27 are preferably located at or near the top edges 23 of the side members so as to be adjacent the top when the invertible frame is in the Figure 1 position. As shown in Figure 5, the bars 27 may conveniently be formed as bent-over portions of the sides 21 and 22, although they, as well as the lower bars 28, may be riveted, or otherwise conveniently secured, to the side members. Along the upper edge of each bar 27 there is provided a series of notches 29 and along the lower edge a corresponding series of notches 30. Similarly, the upper edges of the bars 28 carry notches 31 while the lower edges of these bars are provided with notches 32. These series of notches are adapted to receive and retain rods 33 and 34 forming the support for flexible pockets 35. The pockets may be formed of any suitable material, such as canvas or other fabrics, with or without a waterproof coating that will not impart an objectionable taste or odor to the bananas or other food supported by it. A flexible netting, or the like, might also be suitably employed. When the upper frame is in the position illustrated in Figures 1 and 3, the rods 33 of the series of pockets will be engaged in the notches 31 of the bars 28 while the rods 34 will be engaged in the notches 29 of the bars 27. Each pocket should be provided with sufficient fabric to form a concave supporting surface adapted to appropriately retain and display the hands of bananas or other articles. It will be found that a most effective display of bananas or similar articles will be produced if the planes passing through the rods 33 and 34 of each pocket are disposed at an angle of about 45°. It is not necessary in the display

of such articles that the loops formed by the flexible members should droop below the lower supporting rod. In fact a more effective display is frequently afforded if this condition is avoided. It will be apparent from Figures 1 and 3 that the hands of bananas placed in the pockets so formed and arranged will be displayed from all portions of a store in which the stand may be located. The importance of this will be appreciated when it is considered that the attractive and prominent display of food commodities determines to a very large degree the extent to which they will be selected by the purchasing public.

Now, when the stand is to be converted into a winter display device, the upper frame is simply turned from the Figure 1 position into the Figure 2 position. At the same time the rods 33 and 34 of the several pockets are shifted from the notches 31 and 29, respectively, to the notches 32 and 30, respectively. When so arranged the pockets are disposed more nearly adjacent the bottom of the invertible frame so that they may conveniently support hands of bananas, or the like, beneath the doors 25. The bananas are thus protected and are, at the same time, quite effectively displayed. They are not visible from a remote point to the same extent as when the frame is in the Figure 1 position but the bananas will be readily seen by anyone within a reasonable distance of the stand. It is due to the better visibility of the bananas in the Figure 1 position that it is desirable to convert the stand into this form as soon as the weather conditions will permit.

In Figure 6 there is indicated a slightly modified construction. In lieu of the pair of bars 27 and 28 at each side of the invertible frame, there may be provided a single pair 36. This is preferably formed with a series of pairs of notches 37 along its upper edge, when in the winter display position, and corresponding pairs of notches 38 along its lower edge. These notches are adapted to receive rods 39 and 40 carried at the ends of flexible pocket elements 41. It will be apparent that when the stand is converted into the summer display arrangement, the rods will be shifted into the notches 38. By the provision of a number of extra sets of notches, it is possible to adapt the construction to the employment of a variable number of pockets of different sizes. When smaller pockets than those disclosed are employed, a small gap may be left between the pockets or adjacent one or both ends, or sufficient notches may be provided appropriately spaced to permit the variable number of pockets to just fill the space provided.

It may be mentioned that it is quite customary in the distribution of bananas to send those of a certain size to one territory and those of another size to a different territory. This, then, enables a single standard type of display stand to be used to advantage in all localities. If it is used in a locality where the larger bananas are distributed, it may be provided with three pockets, as indicated in Figure 6. On the other hand, if it is to be used in a territory where smaller bananas are being distributed, it may be provided with four separate pockets. Should it be found that bananas of distinctly different sizes are being sold in one locality, the stand may be provided with pockets of different sizes. Furthermore, this construction, like the first form disclosed, will permit the replacement of one pocket, which may have become soiled or torn, without necessitating the replacement of other pockets. In lieu of providing the double sets of notches, in

either of the forms of the invention disclosed, suitable latches or retainers might be associated with a single set so as to detachably retain the rods whether the frame is in the Figure 1 or the Figure 2 position. This would provide for the ready detachment and replacement of the pockets but would not necessitate shifting them when the upper frame is inverted.

When the stand is used during the colder months and in colder climates, it will be desirable to provide suitable heating means within the lower, fixed frame. For this purpose I preferably employ a readily detachable heating unit 42 which may be secured to the back wall of the lower frame by a screw or any other convenient means. This will enable the heating unit to be applied to stands whenever desired and to be omitted from those stands used in territories where no heating is required. The casing of the unit is preferably perforated on all sides or otherwise apertured to permit the free circulation of air from within the stand around the heating element. The heating unit may be of any convenient construction. It may comprise, for example, a base or socket 43 adapted to receive a lamp or a special heating element 44. In series with the heating element there is preferably provided a thermostatically controlled switch 45. A cable or cord 46 connected with the heating element and thermostat may be passed through a suitable aperture at the back of the frame and may be provided with a suitable fitting for connecting the heater with a convenient source of electricity. If desired the cable 46 may simply terminate in a plug or fitting at the back of the frame to permit a complementary fitting on another cable to be plugged in. In order that the thermostat will not be affected by the radiant heat from the heater, a shield 47, formed preferably of asbestos or similar insulating material, is interposed between the heater and thermostat. This may be supported in any suitable way by the casing of the unit and is preferably so arranged that air may freely circulate around it into the heating zone but no heat is radiated directly from the heating element to the thermostatic member.

It will be apparent that the heat developed by the heater will cause a current of air to rise from the unit and will thus induce circulation of air within the cabinet. When the heater is in operation, it will be understood that the doors 25 will be at the top, as in Figure 4, so that a substantially closed cabinet is formed from the bottom 14 to the top of the upper frame. In this connection it will be noted that the space provided between the rods 33 and 34, in the Figure 4 construction, will afford a passage for free circulation of air from beneath the pockets into the space above. Generally it will be desirable to provide for a limited amount of ventilation of the interior of the cabinet. It may be found, for example, that on a cold day the moisture of the air within the cabinet will deposit upon the under surfaces of the doors 25, unless the air within the cabinet is kept somewhat dry by the introduction of fresh air. For this purpose a small ventilator 48 is preferably provided at one side of the lower fixed frame and a similar ventilator 49 is preferably provided at a higher point at the opposite side. These ventilators may include any suitable means for varying the size of the openings through which the air is admitted. One or more of the ventilators may be placed in the front, the bottom, or the back of the frame, if desired. In lieu

of the ventilators the lower frame may, if desired, simply be provided with a series of openings of fixed size in the front, bottom, back or sides.

While several devices embodying the features of the invention have been explained in considerable detail, it will be understood that numerous variations may be made in the size, form, proportion and inter-relation of the various elements of the construction without departing from the general spirit and scope of the invention as defined by the claims. If desired, the construction of Figures 3 and 4 may be provided with more notches in the bars 27 and 28 to permit a variable number of pockets of different sizes to be employed, as in the Figure 6 construction.

What I claim is:

1. A display stand comprising a supporting structure having inclined supporting edges, retaining means secured to said structure extending above said edges, an invertible frame having its top and bottom edges in substantially parallel planes, said frame being receivable by said retaining means in either of two positions inverted with relation to each other, and article supporting means within said frame adjacent one of said planes.

2. A display stand comprising a supporting structure having inclined supporting edges, retaining means secured to said structure extending above said edges, an invertible frame having its top and bottom edges in substantially parallel planes, said frame being receivable by said retaining means in either of two positions inverted with relation to each other, article supporting means within said frame adjacent one of said planes, and means extending across the edges in the other of said planes forming a transparent closure for said frame.

3. A display stand comprising a supporting structure having inclined supporting edges, an invertible frame having its top and bottom edges in substantially parallel planes, said frame being mountable on said supporting structure in either of two positions inverted with relation to each other, means for retaining the frame on said structure in either position, means forming a transparent closure across the edges in one of said planes, said means being at the top in one position of said frame and being adjacent said supporting edges in the other position of said frame, and means within said frame adjacent the edges in the other of said planes for retaining articles to be displayed.

4. A display stand comprising a supporting structure having inclined supporting edges, an invertible frame having its top and bottom edges in substantially parallel planes, said frame being mountable on said supporting structure in either of two positions inverted with relation to each other, means for retaining the frame on said structure in either position, means forming a transparent closure across the edges in one of said planes, said means being at the top in one position of said frame and being adjacent said supporting edges in the other position of said frame, and a series of separate, detachable pockets formed of flexible material within said frame adjacent the edges of the other of said planes for retaining articles to be displayed.

5. A display stand comprising a supporting structure having legs and a substantially enclosed portion with an open inclined top, the legs of said structure being extended above said top, a frame adapted to be retained by the extensions of said

legs in either of two positions in inverted relation, said frame having side and end walls and an access closure across the top, said closure being retained at the bottom of the frame when the latter is in one of its positions, and means within the frame forming a series of flexible pockets for retaining articles to be displayed.

6. In a device of the class described a pair of parallel frame members, means for supporting said members at an angle to the horizontal, a plurality of rods extending between said frame members and supported thereby, said rods being arranged in two planes, and a series of flexible pockets carried by said rods, each of said pockets extending from a rod in one of said planes to a rod in the other plane.

7. In a device of the class described a pair of parallel, notched frame members, means for supporting said members at an angle to the horizontal, a plurality of rods extending between said frame members and detachably mounted in the notches in said members, said rods being arranged in two planes, and a series of flexible pockets carried by said rods, each of said pockets extending from a rod in one of said planes to a rod in the other plane.

8. In a device of the class described an invertible frame, a plurality of bars carried by said frame in spaced parallel relation, said bars having pairs of notches at spaced intervals along the upper and lower edges thereof adapted to receive pocket supporting rods at variable spacing, and a series of separate pockets each having a pair of supporting rods engaged in certain of said notches.

9. In a device of the class described a frame having an inclined supporting surface, a detachable frame adapted to be supported by said first mentioned frame in either of two positions in inverted relation to each other, means within said detachable frame for supporting articles to be displayed, and transparent closure means for one face of said detachable frame, said first mentioned frame having an enclosed chamber in communication with said detachable frame when said closure means is at the top.

10. A display stand comprising a supporting structure having inclined supporting edges, an invertible frame having its top and bottom edges in substantially parallel planes, said frame being mountable on said supporting structure in either of two positions inverted with relation to each other, means for retaining the frame in either position on said structure, and article supporting means within said frame adjacent one of said planes.

11. In a device of the class described a frame having an inclined supporting surface, a detachable frame adapted to be supported by said first mentioned frame in either of two positions in inverted relation to each other, means within said detachable frame for supporting articles to be displayed, said means comprising separate elements having their adjacent ends spaced to provide openings between them, and transparent closure means for one face of said detachable frame, said first mentioned frame having an enclosed chamber in communication with said detachable frame when said closure means is at the top.

ROBERT M. WILSON.

40

115

45

120

50

125

55

130

60

135

65

140

70

145

75

150