

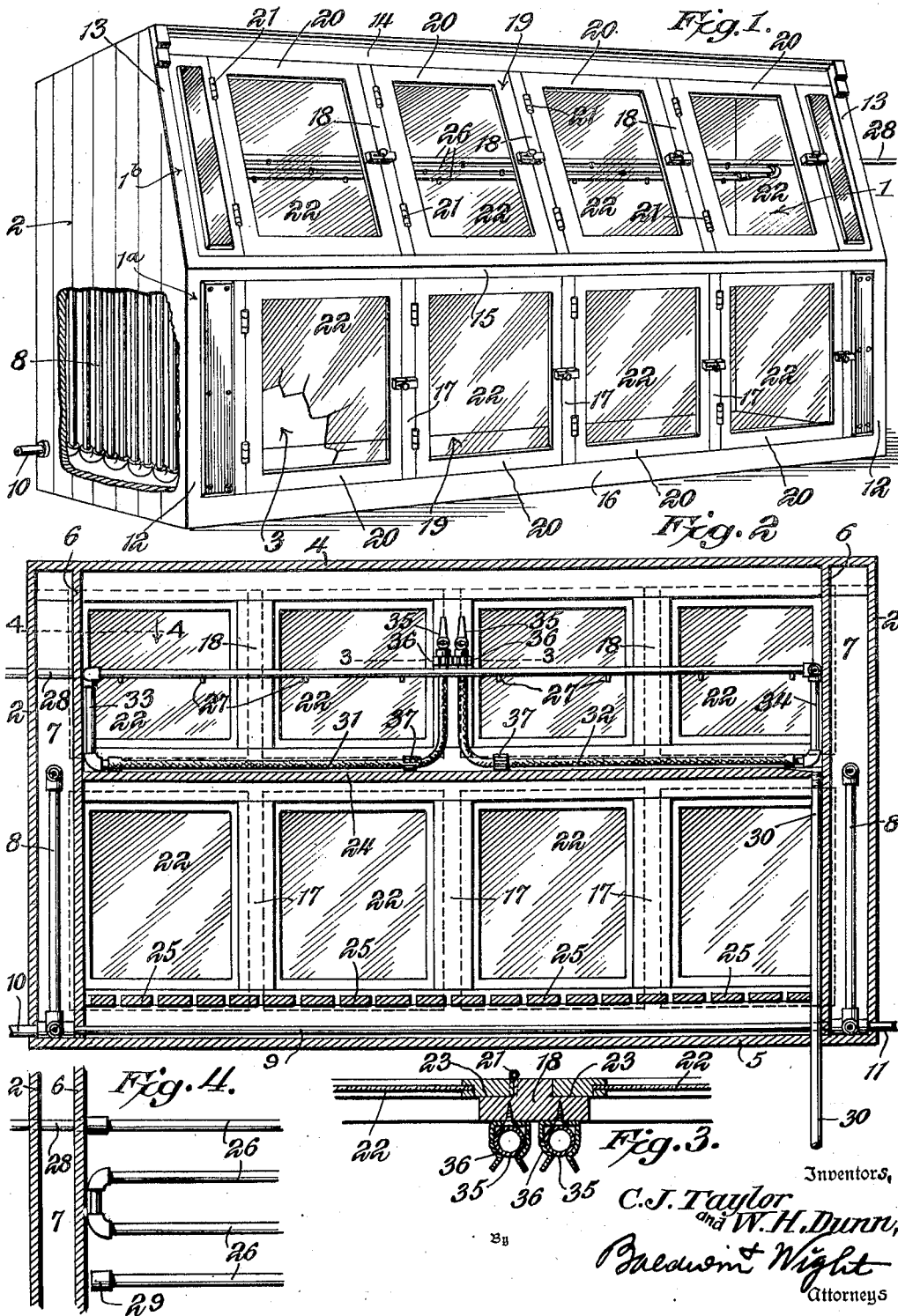
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C. J. TAYLOR ET AL

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DISPLAY CASE

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Inventors,
C. J. Taylor
and W. H. Dunn,
Pulver & Wright
Attorneys

UNITED STATES PATENT OFFICE

CLIFFORD JOHN TAYLOR AND WILLIAM HENRY DUNN, OF LUBBOCK, TEXAS

DISPLAY CASE

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Our invention relates to display cases, and more particularly to an improved refrigerated display case having novel means for maintaining the freshness of the foodstuffs, particularly vegetables, fruits or the like, stored in the case.

It is well known that certain foods such as vegetables, when displayed in open racks quickly lose their freshness, and it has further been found that the mere refrigeration of such foods does not in itself satisfactorily preserve the desired qualities. These qualities may be best preserved by frequent sprinkling with water and at the same time maintaining the foods at a suitably low temperature.

One object of the present invention is to provide an improved display stand or case having novel means for easily sprinkling vegetables or the like stored therein, the sprinkling means being so arranged that any desired part of the storage space may be sprinkled independently of the remainder of said space. Other objects will become apparent from the description which is to follow.

In accordance with our invention, we provide a closed stand or case which is preferably refrigerated and which is provided with transparent doors in its front, the arrangement being such as to adapt the stand or case for display as well as storage use in grocery stores, especially those of the self-service kind. By means of this arrangement, the foods, which are kept in a constant state of freshness, are attractively displayed and are accessible for examination so that sales are promoted.

The invention will be understood from the following detail description and the accompanying drawings, in which:

Fig. 1 is a perspective view of our improved display case, looking from the front;

Fig. 2 is a central vertical sectional view of the case;

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 2; and

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 2.

As illustrative of a practical embodiment of an invention we have shown in the draw-

ings a display case including a front wall generally designated 1, and comprising a vertical lower section 1^a, and an inclined upper section 1^b, outer end walls 2—2, a back wall 3, a top 4, and a bottom 5. In the interest of simplicity and clearness of illustration these walls have been shown as being solid, but may be suitably insulated by well known means and provided with a durable interior finish of porcelain enamel.

Inner end walls 6—6 respectively spaced from the outer end walls conjointly form refrigerating compartments 7—7 with said outer end walls and the adjacent portions of the top, bottom, and front and back walls. Refrigerating pipe coils 8—8 are respectively mounted in the compartments 7—7 and are connected together by means of a pipe 9 extending through the case and adjacent the bottom thereof. A pipe 10 provides for the introduction to one coil of the cooling medium from a refrigerating machine (not shown), and the medium after flowing through said coil passes through the pipe 9 and into the other coil from whence the medium then returns to the machine through a return pipe 11.

The front wall 1 includes vertical and inclined end portions 12 and 13 respectively, spaced upper, intermediate and lower horizontal wall portions 14, 15 and 16 respectively, and spaced vertical and inclined intermediate wall portions 17 and 18 respectively, all of which are preferably opaque and conjointly form a plurality of openings which are closed by means of doors 19. Each door includes a marginal frame 20 one edge of which is hinged to the adjacent vertical wall portion as at 21, and a glass plate 22 mounted in the frame. It will be noted that the marginal door frames and the adjacent front wall portions together constitute opaque front wall portions. Preferably the wall portions 12, 13, 14, 15, 16, 17 and 18 are recessed as shown in Figure 3 in order to form seats 23 for receiving the doors and thus effecting a neat appearance. It is obvious that the number of doors may be varied in accordance with the circumstances and with the size of the case, but the illustrative embodiment shown in-

cludes four doors, both in the lower front wall section 1^a and in the upper section 1^b. Since an even number of doors are provided in both sections, that is, there are four doors
 5 from one end of the case to the other, one of the vertical front wall portions 17 and one of the intermediate front wall portions 18 are located at the center of the case, and thus constitute central intermediate vertical front
 10 wall sections.

A horizontal partition 24 disposed substantially intermediate the top and bottom of the case, and preferably on a level with the intermediate horizontal front wall portion
 15 15, divides the case into upper and lower food storage compartments, the upper compartment being conveniently disposed for the storage and display of "moving stock", and the lower serving for the convenient storage
 20 of reserve stocks readily accessible for replenishing the stock in the upper compartment. The lower compartment is preferably provided with a floor comprising a plurality of spaced slats or bars 25 disposed
 25 above the bottom 5 of the case and the pipe 9.

It is desirable that means be provided for periodically sprinkling the entire contents of the upper food compartment in order to maintain the freshness of the contents and
 30 to this end we provide a pipe coil comprising a plurality of connected pipes 26 which extend longitudinally through the case substantially from end to end and which are disposed at a level somewhat above the partition 24. These pipes are each provided
 35 with a plurality of spaced sprinkler elements 27, and one end of the coil is connected to a water supply pipe 28 which may be provided with a suitable valve (not shown), the other end of the coil being closed
 40 by a cap 29. When it is desired to sprinkle the entire contents of the upper compartment, water is admitted to the pipe coil and thence issues from all of the sprinkler elements 27, the water thus reaching all parts
 45 of the compartment in a short time. In order that water which subsequently drains from the sprinkled vegetables be disposed of, the partition 24 is slightly inclined downwardly toward one end of the case (the right
 50 hand end as viewed in the drawings) at which point the water is discharged through a drain pipe 30 which extends upwardly through the bottom 5 and the partition 24, the upper end of the pipe having threaded
 55 connection with said partition.

At times it is desirable that the contents of only certain parts of the case be sprinkled and to this end we, in the present instance, provide two flexible hoses 31—32 respectively
 60 having one end connected to water supply connections 33—34 respectively located at opposite ends of the compartment. The water supply connections 33 and 34 for simplicity may be and preferably are connected

to the pipe coil at opposite ends of the compartment as shown in Fig. 2.

The other or free end of each hose is preferably provided with a sprinkling head 35 which preferably includes a cock or valve 36,
 70 although the valves may, if desired, be located at some other point between the sprinkling head and the source of water supply. Each hose is of a length to extend from the associated water supply connection to a point
 75 somewhat beyond the central intermediate wall portion 18, so that any desired point in the case may be reached with one or the other of the hoses and localized sprinkling of any part of the contents may be thereby readily
 80 effected.

It is desirable that when the hoses are not in use, they be concealed from view and also be maintained in a predetermined location
 85 out of contact with the contents of the case. To this end we have provided means on the inner face of the opaque front wall portions for releasably supporting the hoses directly to the rear of said opaque wall portions
 90 and hence not visible through the glass door plates. The supporting means for each hose comprises a spring clip 36 secured to the rear face of the central intermediate front wall section 18 at a level somewhat above
 95 the intermediate horizontal front wall section 15 for releasably supporting the free end portion of the associated hose directly behind the vertical wall portion 18, and another spring clip 37 secured to the rear face of the horizontal wall section 15 for releasably supporting the intermediate portion of the hose directly behind said wall portion.
 100 It will be observed that the hose, when supported by the spring clips as shown in Figure 2, will be totally obscured from view from the front of the case but will be available for instant use when desired for sprinkling any part of the contents of either the
 105 upper or lower compartment.

From the foregoing it will be apparent
 110 that a display case constructed in accordance with our invention includes means for maintaining the contents at a low temperature together with means for sprinkling the entire contents or any part thereof. The stored
 115 vegetables, fruits, or the like are thereby maintained in a fresh and salable condition, and the novel arrangement of sprinkling means provides for the neat appearance desirable in a self-service display case.
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We claim:

1. A display case having a compartment, a substantially horizontal water pipe coil in said compartment constituting a shelf and disposed at a distance from the top and bottom thereof, said coil being imperforate at the upper surface and having sprinkling outlets in the lower surface thereof, a down-
 125 pipe at one end of said coil engaging the bottom wall of the compartment, and a pipe 130

leading from the free end of said down-pipe adapted for use in localizing the spray of water particularly on goods supported by the said pipe coil, said down-pipe functioning
5 dually to aid in supporting the coil and to supply water to said pipe from the same source which supplies the coil.

2. A display case having a display compartment provided with a wall consisting of
10 transparent and opaque portions, a substantially horizontal water supply pipe coil in said compartment constituting a shelf and disposed at a distance from the top and bottom thereof, said coil being imperforate at
15 the upper surface and having sprinkling outlets in the lower surface thereof, a down-pipe at one end of said coil engaging the bottom wall of the compartment, and a flexible pipe leading from the free end of said down-pipe
20 adapted for use in localizing the spraying of water particularly on goods supported by the coil, said down-pipe functioning dually to aid in supporting the coil and to supply water to said pipe from the same source
25 which supplies the coil, and means within the compartment to releasably support and guide the free end of said flexible pipe to a position in the rear of the aforesaid opaque portion.

30 In testimony whereof, we have hereunto subscribed our names.

C. J. TAYLOR.
W. H. DUNN.

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