April 15, 1958 R. R. NYDEGGER 2,830,405

PLANT PACKAGING CONTAINERS AND POTS THEREFOR

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Fig. 1

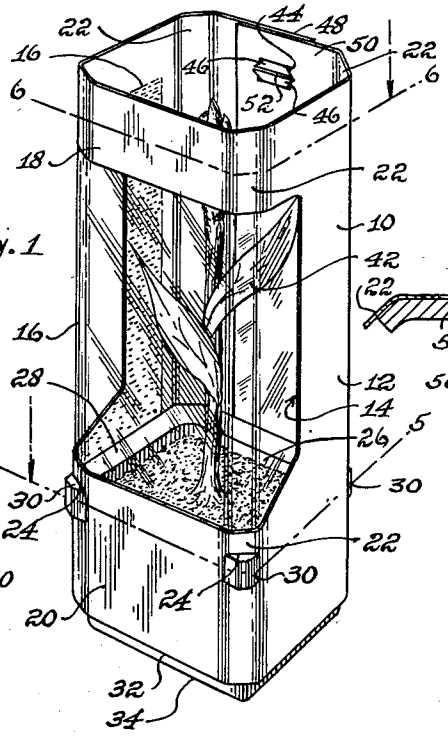


Fig. 2

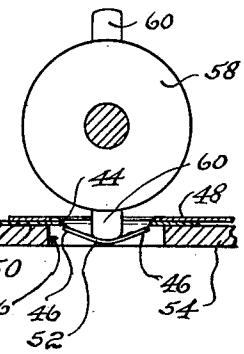


Fig. 4

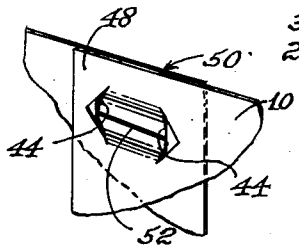


Fig. 3

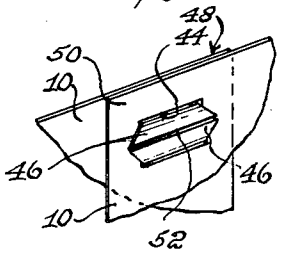


Fig. 5

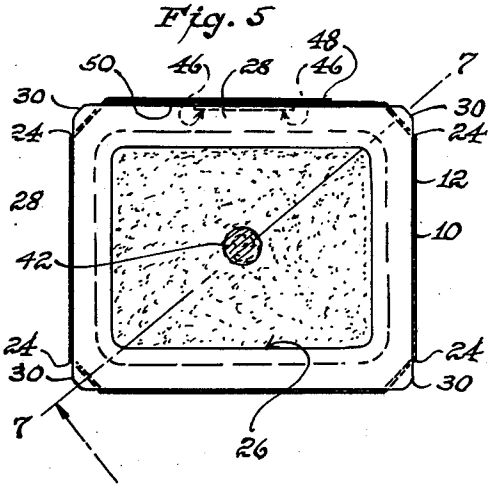
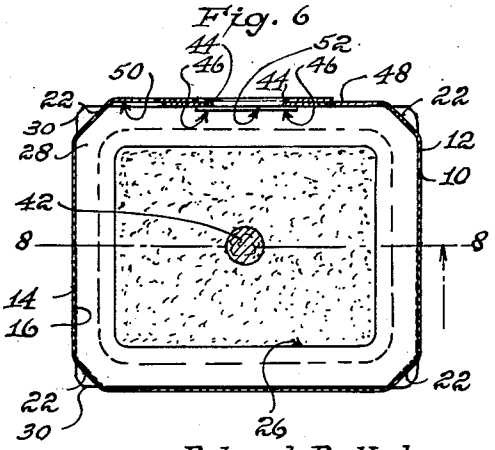


Fig. 6



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PLANT PACKAGING CONTAINERS AND POTS THEREFOR

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Fig. 7

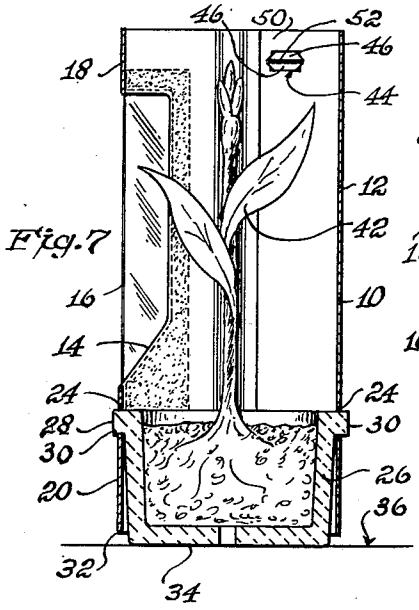


Fig. 11

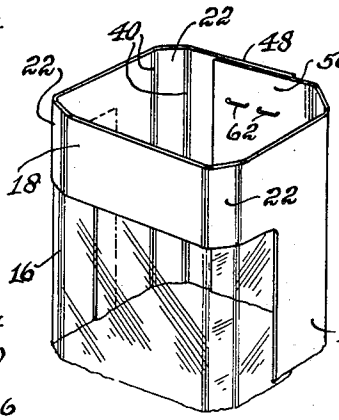


Fig. 8

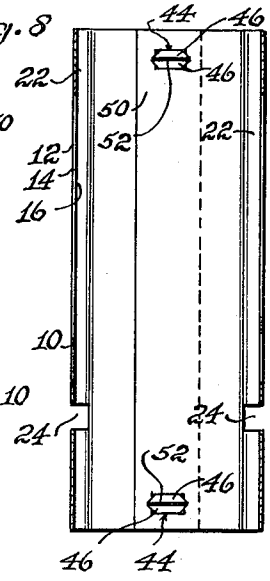


Fig. 9

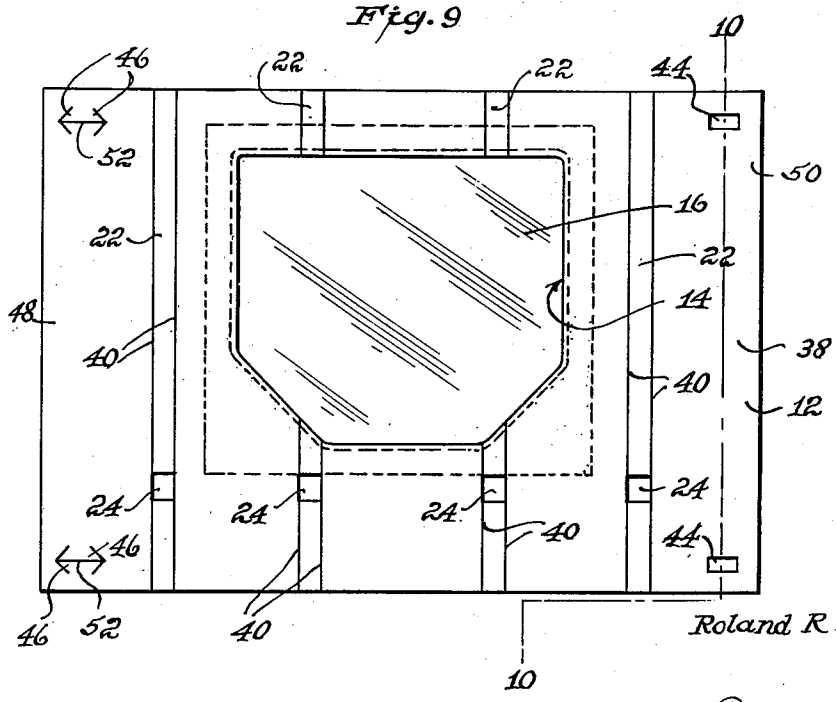
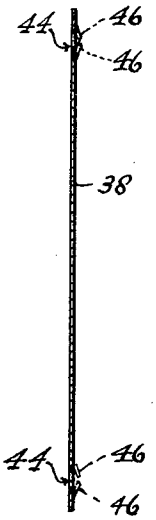


Fig. 10



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PLANT PACKAGING CONTAINERS AND POTS THEREFOR

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Application August 31, 1953, Serial No. 377,501

6 Claims. (Cl. 47—37)

This invention relates generally to the packaging of flower bearing or other types of plants for shipment or other commercial handling and more particularly to the construction of specially designed cartons or wrappers and pots for such packaging.

Heretofore it has been a common practice to wrap the roots of plants in water-proof paper with moist humus inside the wrapper. The pre-wrapped plants were then placed in a carton provided with a window for display purposes. In other practicies the plants were rooted in pots and the pot together with the plant placed in a carton.

Especially in the latter practice it has been necessary to line the inside of the carton or wrapper with water-proof paper or otherwise water-proof the inner wall of the carton for the reason that, the bottom of the carton being closed and the pot being of terra cotta construction, which becomes moist from the moisture of the soil in the pot, the moisture would drain into the bottom of the carton and cause it to disintegrate. Such damage is also increased by careless or excessive watering of the plants. Moreover, unless foldable flaps or other effective means are provided in such packages to hold the pot against the bottom of the carton, the pot will shift axially of the carton when the package is inverted and crush or otherwise destroy or cause serious damage to the plant in the pot and carton. Not only are the cartons more expensive to fabricate with foldable flaps and water-proof lining or coating, but additional time and labor are required to tuck the flaps into folded position in the packaging operation.

Therefore, one of the principal objects of the present invention is to provide a simple and inexpensive container or wrapper and a specially designed pot, each having cooperative means for attaching the pot fixedly inside the wall of the container, so that no flaps or other devices are necessary to prevent axial shifting of the pot in the container.

Another object of the invention is to provide a container and pot of the character mentioned in which at least the bottom end of the container is left open and in which the bottom end of the pot also projects below the lower end of the container, so that the package will be supported on a floor by the pot, with the bottom edge of the package spaced from the floor, thus insuring that all moisture from the pot will drain onto the floor without damage to the carton or wrapper.

A further object of this invention is to provide a combination plant and pot container, and a specially designed pot cooperative therewith for attaching them together without means apart from the container and pot.

A still further object of the invention is to provide a container of the character mentioned having means for attaching the opposed edge portions of the wall together without means separate from the container.

Another object of the present invention is to provide a blank of sheet material for the formation of my improved container, the blank having therein the necessary openings and other requisites for the complete container with means cooperative with the pot and means for fastening the opposed edge portions of the wall together,

when the blank is wrapped around the pot, in such a manner as to permit watering the plant before packaging without resulting water damage to the container.

Other objects, novel features and advantages will be apparent from the following specification, together with reference to the accompanying drawings forming a part hereof, in which

Fig. 1 is a perspective view of one embodiment of a plant container and pot in accordance with my invention;

Fig. 2 is a view of one form of device for forcing the wall fastening tabs into locked position;

Fig. 3 is a perspective view of the wall fastening means illustrated in Figs. 1 and 2, as viewed from inside the container wall;

Fig. 4 is a view similar to Fig. 3, but as viewed from outside the container wall;

Fig. 5 is a section taken on the line 5—5 of Fig. 1;

Fig. 6 is a section taken on the line 6—6 of Fig. 1;

Fig. 7 is a section taken on the line 7—7 of Fig. 5;

Fig. 8 is a section taken on the line 8—8 of Fig. 6, with the pot and plant omitted;

Fig. 9 is a plan view of a blank from which one form of my improved container is made;

Fig. 10 is a section taken on the line 10—10 of Fig. 9; and

Fig. 11 is a fragmentary perspective view of a container similar to that of Fig. 1, but with the opposed edge portions of the wall fastened with conventional staples.

Referring to the drawings in which like numerals designate like parts or portions in the several views, my improved plant packaging container 10 is of exceedingly simple and inexpensive construction, which may be formed from a single sheet of cardboard or other suitable material 12 having therein a window 14 cut in the material and covered by a thin sheet of suitable transparent material 16 cemented or otherwise secured to the inner wall of the container, thus affording a view of a plant wrapped inside the container. The window 14 extends nearer to the top than the bottom of the center thereby providing a relatively narrow front band portion 18 at the top, to surround the top portion of the plant, and a substantially wider front band portion 20 at the bottom. In the form of container illustrated, it is long rectangular in plan but having angular web portions 22 extending across the corners and lengthwise of the container. Arranged in a plane near the upper end of the wider band portion 20 are lateral openings 24 formed in the web portions 22 to receive lateral projections from a plant supporting pot 26 and thereby attach the pot in fixed position to the inner wall of the container, to prevent axial shifting of the pot in the sleeve, and also to support the sleeve when the pot is at rest. The form of pot illustrated is also of long rectangular form provided with a rectangular flange 28 about its upper edge, and the corner portions 30 of the flange project through the openings, with the flange and pot inside the container. The purpose of the long rectangular form is to space a number of plants farther apart during the growing period than would be possible with square containers standing adjacent in columns. However, for many types of plants a square container is adequate. The pot 26 may not only be of any desired form, but it may be provided with any suitable lateral projections for insertion in the openings 24 of the container 10 to attach the pot to the inner wall of the container.

As shown more clearly in Fig. 7 the pot 26 is tapered from the flange 28 downwardly, so that any moisture from the pot will drain between the wall of the container and pot without coming into contact with the container, which may be made of relatively thin cardboard and would disintegrate if saturated with moisture.

Also, it will be seen that when the pot is attached to the container wall through the projecting corner portions **30** of the flange **28** and the openings **24**, the plane of the lower end **32** of the container is slightly above the bottom end **34** of the pot. With this arrangement any moisture from the pot, caused by seepage or excessive watering of the plant will drain between the outer surface of the pot **26** and the inner wall of the container **10** onto the floor **36** without danger of damaging the container.

As already mentioned, the container **10** may be formed from a single sheet of material. The blank **38** from which the container is formed is shown in plan in Fig. 9. The blank is transversely scored, and in the embodiment illustrated the scoring **40** is in parallel pairs spaced relatively close to each other, so that when formed around the plant **42** and pot **26** the container will be in tubular, rectangular shape, and its corners provided with the angular web portions **22**. The openings **24** are cut or punched in the blank **38** in longitudinal alignment, and after the blank is formed into a tubular sleeve the openings will be in the same horizontal plane, when the container is in upright position. The window **14** is also cut out of the blank and the sheet of transparent material **16** is secured to the edges, preferably on the inside of the wall of the container. Also cut or punched in the blank **38** are rectangular openings **44** near one edge and pairs of tabs **46** near the opposite edge, the openings and tabs being in longitudinal alignment with one another, and the openings and tabs also being transversely aligned with corresponding formations. With this arrangement when the blank **38** is formed into a tubular sleeve the tabs **46**, which may be tapered, and pointing away from each other, as shown, are forced from the outside of the container through the openings **44** into engagement with the inner horizontal edges of the openings **44**. In this manner the opposed edge portions **48** and **50** of the blank **38** are locked together without the use of metal or other fastening means separate from the container. The tabs **46** are preferably split longitudinally as indicated at **52** to render the tabs more resilient in being forced through and back of the openings **44**.

One form of device for forcing the tabs **46** through the openings **44** into locked position is shown in Fig. 2 and may include a thin board or plate **54** which is insertable inside the walls of the container. This plate has an opening **56**, through which the tabs **46** may be pressed by projections **60** on a rotatable wheel **58**. When the pressure on the middle portion of the tabs is released the pointed ends will spring outwardly in a longitudinal direction into locked position inside the edges of the opening **44**, as clearly shown in Figs. 1, 3, 4, and 6. Various other suitable devices may also be used to force the tabs **46** into locked position. Also, if desired, the opposed edge portions **48** and **50** of the container may be fastened together with conventional staples **62**, as shown in Fig. 11.

From the foregoing description it will be seen that my improved container can be made from a single blank formed around the pot and plant into a tubular sleeve; that the pot, together with the plant supported therein, is effectively fastened in fixed position to the wall of the container as the latter is formed into its tubular shape, by reason of the openings **24** in the container wall and the corner projections **30** of the pot which project into the openings **24**. It will also be seen that the opposed edge portions of the blank are simply and easily fastened together by the means illustrated, or other suitable means. My improved container requires no flaps or other structural appendages to be tucked into folded position. Moreover, all drainage contact with the wall of the container is precluded.

The container and the plant supporting pot provide a simple cooperative and inexpensive combination by means of which flower and other plants may be efficiently

packed for safe shipping or other commercial handling.

Obviously, various changes may be made in the details of my improved plant packaging container and plant supporting pot without departing from the spirit and scope of my invention. Therefore, it should be understood that the embodiments of my invention shown and described are intended to be illustrative only, and not restricted to such specific construction.

I claim:

1. A package for a potted plant comprising, in combination, a tubular container open at its bottom end and a plant supporting pot, said container and pot being provided with cooperative means for attaching said pot in fixed relation to the inner wall of said container with the lower end of said container in a plane above that of the bottom end of said pot.

2. A package for a potted plant comprising, in combination, a tubular container, a plant supporting pot, said pot having a lateral flange including corner portions projecting outwardly from its upper edge, and spaced openings in the corners of the wall of said container arranged in horizontal co-planary relation and for the insertion therethrough of said corner portions of said flange for attaching said pot in fixed relation to the inner wall of said container.

3. In a combination of the character described, a tubular container open at its bottom end and made from a blank of sheet material formed into a tubular sleeve said blank having spaced, longitudinally aligned openings therein for insertion therethrough of lateral projections of a plant supporting pot, and also having means formed in said blank for fastening the opposed edge portions of said blank together in tubular form, the longitudinally aligned openings in said tubular container being so positioned that the lower end of said container is in a plane above that of the bottom end of said pot.

4. A tubular container as claimed in claim 3 in which said container is rectangular in plan, and in which said spaced openings for insertion therethrough of lateral projections of a plant supporting pot are located in the corners of said container.

5. A package comprising in combination a tubular container for an object having a lateral flange including corner portions projecting outward from its edge, and spaced openings in the corners of the wall of said container arranged in horizontal co-planary relation and for the insertion therethrough of said corner portions of said flange for attaching said object in fixed relation to the inner wall of said container, said tubular container having flat sides joined by beveled corners extending lengthwise of the container to engage said corner portions and wherein the plane of the bottom of said object extends below the plane of the bottom of said tubular container whereby the object may be set directly on a surface while in its container.

6. The invention as set forth in claim 5 and wherein said object is a potted plant which may be set on a moist surface when packaged without damaging the container as a result of the moisture.

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