

[54] POLLUTION CONTROL DEVICE

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[51] Int. Cl. A47f 13/06

[58] Field of Search 294/1 R, 19 R, 50, 50.5, 294/50.7, 55, 99 R, 100, 115; 15/104.8, 257.1, 257.2, 257.6, 257.7; 119/1 R; 220/29; 229/38, 39

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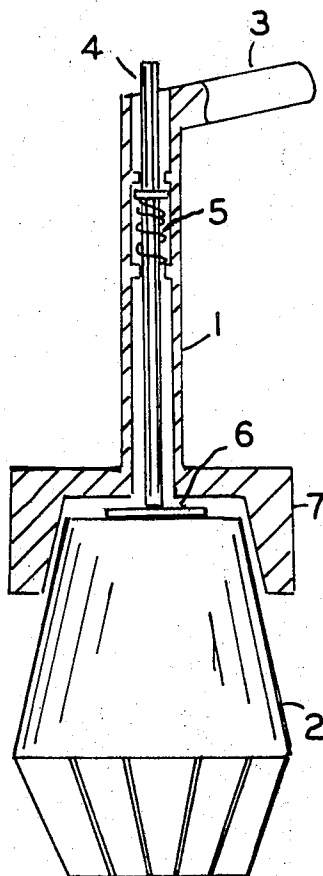
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Assistant Examiner—Johnny D. Cherry
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[57] ABSTRACT

A containerization device for picking up material comprising a container, a handle to hold the container for positioning the container during the operation of the device. A releasing means is in the handle to enable efficient ejection of the container for disposal purposes. The container is adapted to fit into the handle for holding purposes and is configured to enable the container to entrap and collect various materials. The container is also designed to lock in the closed position when used so that the material is enclosed and may be stored or disposed of in an efficient and sanitary manner.

1 Claim, 7 Drawing Figures



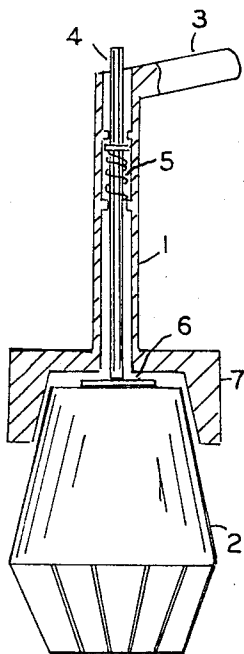


FIG 1

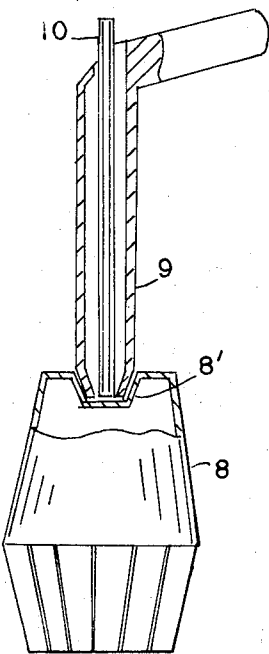


FIG 2

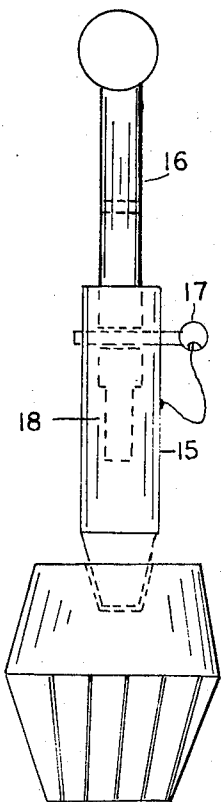


FIG 5

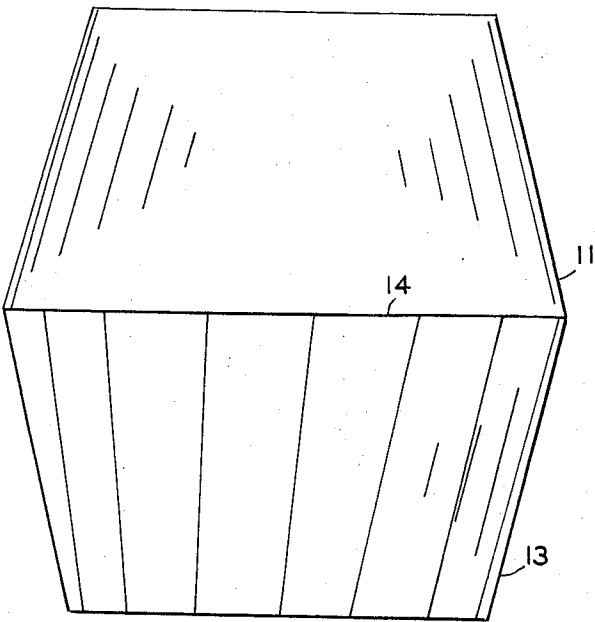


FIG 3

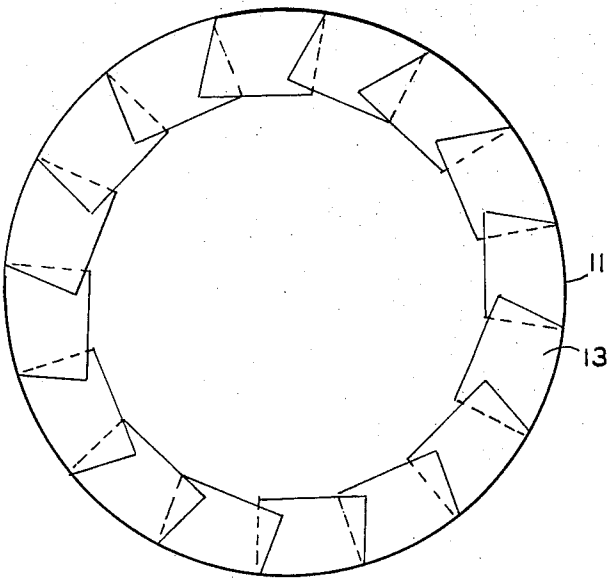


FIG 3A

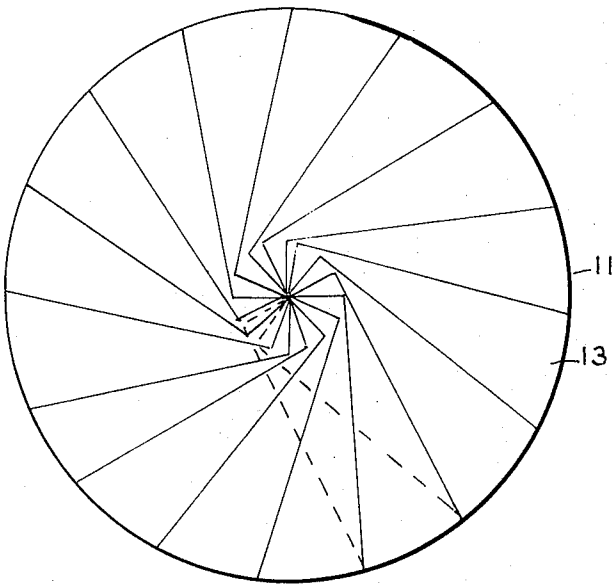


FIG 4A

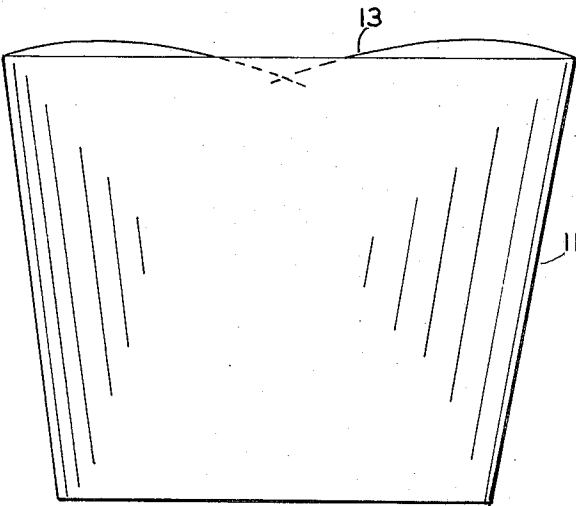


FIG 4

POLLUTION CONTROL DEVICE

This invention pertains generally to pollution control apparatus and more specifically to apparatus for handling and disposing of excrement of animals and the like.

The pollution control problem associated with the handling and the disposal of excrement of animals, particularly pets, has become critical especially in cities where the population density is greater. Many communities have enacted legislation which requires that pet owners remove any excrement left on the ground by their pets. Many devices have been suggested to solve the problem of disposing of the excrement. However, these solutions have suffered from a number of important deficiencies. Most often the device comes in contact with the excrement and requires frequent cleaning by the owner. This also involves coming into close contact with the excrement, which most people find offensive.

Another problem associated with some of the other proposed solutions involve getting close to the excrement in order to trap or contain the material in order to dispose of it. This is also found to be offensive to most people. Another limitation of some of the devices suggested earlier is the lack of preparation of the excrement for proper disposal such as proper packaging. The present invention solves all of these problems and provides a sound, convenient and dependable method for handling and disposing of the excrement.

Accordingly it is the principal object of this invention to provide an improved method for controlling the pollution caused by the excrement of animals.

Another object of the invention is to provide a device for collecting material to be disposed of or to be stored.

Another object is to package the material for proper disposal or handling.

Another object is to provide a device to enable material to be collected remotely so that a person need not come in contact with the material.

Another object is to provide an efficient closing method and/or locking method so that the material is properly contained for disposal or handling.

Another object is to provide a method for convenient disposal of the contained excrement by proper ejection.

Another object is to provide inexpensive disposable containers for sanitary disposal and convenient operation.

Another object is to provide a collapsible device that will be small in size for convenient handling and storage when not in use.

Another object is to provide a container which is convenient to fill, close and lock.

Other features and advantages of the present invention will be apparent from the following descriptions and drawings.

FIG. 1 shows a side view of a handle and container ready for use.

FIG. 2 is a side view of an alternate configuration of the handle and the container.

FIG. 3 is a side view of a typical container in the open ready to use position.

FIG. 3A is a bottom view of FIG. 3.

FIG. 4 is a typical container in the closed or locked position.

FIG. 4A is a bottom view of FIG. 4.

FIG. 5 is a side view of means for collapsing the handle portion.

Referring to FIG. 1, the device is made up of two main parts, the handle portion 1 and the container 2. The handle has a hand grip 3 and an ejector rod 4 for ejecting the container. The ejector rod can be spring loaded as with spring 5. The bottom of the ejector rod is connected to a disc 6 which pushes on the container when the ejector rod is actuated. The container is held in the handle portion by member 7 which may be a tapered cylinder into which the container is placed. The container can be held in place by the friction between the holder 7 and the container itself.

FIG. 2 shows an alternate handle and container configuration. The container 8 is designed with a depression 8' in its base to receive the tapered section of the handle 9. The handle contains an ejector rod 10 which will push the container away from the handle when it is actuated.

FIGS. 3 and 3A show a typical container 11. The container which can be made of plastic, paper or other suitable material may have the general shape shown in FIG. 3. The main section of the container is designed to provide the storage capacity of the container. The open end of the container has a number of integral finger like elements 13, which are connected to the container at their base 14.

When the container is made, the finger like elements are formed to have a natural position tapered in, and overlapping as shown in FIG. 3a. The fingers are arranged such that they overlap and interfere when folded in toward the center. This feature provides a self locking action when the device is closed.

FIGS. 4 and 4A show the container in the typical closed condition. When the container is closed by pressing the fingers against a surface, the fingers will bend toward the center with section 14 acting as a hinge for each finger. When the container is pressed so that section 14 is flush with the surface, the fingers will assume the position shown in FIG. 4. Because of the action of the fingers they will assume a position depressed within the container and will lock in this position. This results in a closed container which is stable in the locked closed position. The fingers are preferably longer than the radius at the open end of the container.

FIG. 5 shows a typical method for collapsing the handle to reduce its size when not in use. The handle is made of telescoping sections 15 and 16. The pin 17 is used to lock the telescoping sections in place by locking one to the other. For ejecting the container in this version of the device an ejection plug 18 connected to the handle section 16 will eject the container when the handle is collapsed.

The following is an explanation of how the device is used. The container is first placed into the handle as shown in the figures. Normally, the friction between the container and the holder in the handle is sufficient to hold the container in place. The next step is to place the container over the excrement. With the container in place, the handle is pushed down toward the ground so that the fingers of the container tend to collapse. As the fingers collapse they will close toward the center and envelop the excrement or other matter within the container. The action of the fingers is to scrape along the ground and collect the material within the container. When the fingers are fully collapsed they will

lock in position to securely hold the material for disposal. The handle and container are then taken to an appropriate disposal point and the container is ejected and properly disposed of. It has been found desirable to use a rotary motion along with the downward motion in using the device to get a smooth closing of the container when collecting the excrement. Containers have been made with finger designs where the fingers are cut parallel to the axis of the cup and where they are cut at an angle to provide smoother collapsing action under rotary motion. Both designs produce the desired result.

The unique locking action provided in this invention can be applied to other uses where it is desired to have a closed container without the use of a separate cover. For example, food containers, etc.

The present invention provides a means for handling the excrement without having to come in contact with it. The container is the only element which comes in contact with the excrement and the container is disposed of after each use. The container is clean when inserted into the handle and after its use it is ejected remotely so that the person using the device need not handle the material or the container.

The device is made to collapse so that it is small and easy to store when not in use and when being carried

from place to place. The containers are inexpensive and designed to package the excrement for proper disposal. This provides a good solution to eliminating the pollution problem.

A person can use the container without using the handle. That is, the person can collect and dispose of the material by operating the container without the use of the handle.

As a container for other materials, such as food, etc. The container may be filled and then closed and locked with an appropriate movement of the fingers.

Many modifications may be made by those desiring to practice the invention which is defined by the following claims.

We claim:

1. A container having an open end, a plurality of finger members connected to said open end of said container, said finger members being long enough to interlock in closed position, said finger members being adapted to interlock with each other to thereby close and lock said open end of said container, when said fingers are pushed against a surface and pick up material on said surface, a handle member adapted to hold said container, and ejection means in said handle to eject said container.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No 3,823,970

Dated July 16, 1974

Inventor(s) WILLIAM BRENNER and HERBERT COOPER

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the heading to the printed Specification, after
"Neil Court" delete "Port Washington" and insert
----Levittown----; delete "Tony" and substitute
----Toms----.

Signed and sealed this 8th day of October 1974.

(SEAL)

Attest:

McCOY M. GIBSON JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents