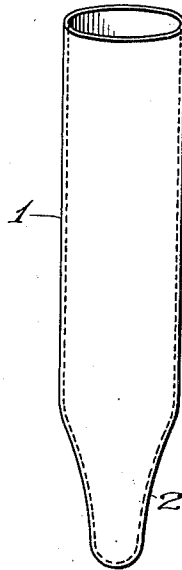


W. W. PALMER.  
PRESERVING CONTAINER.  
APPLICATION FILED JULY 3, 1918.

1,343,579.

Patented June 15, 1920.



*Inventor:*  
*Walter H. Palmer*  
*by his Atlys:*  
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# UNITED STATES PATENT OFFICE.

WALTER W. PALMER, OF MONTCLAIR, NEW JERSEY, ASSIGNOR OF ONE-HALF TO  
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## PRESERVING-CONTAINER.

1,343,579.

Specification of Letters Patent. Patented June 15, 1920.

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*To all whom it may concern:*

Be it known that I, WALTER W. PALMER, a citizen of the United States, residing at Montclair, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Preserving-Containers, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to certain improvements in containers for shipping and storing and has for its object to produce an improved container which shall be efficient and inexpensive in construction for the purpose indicated.

In a more limited aspect, the object of the invention is to produce a container for use in preserving and shipping medical specimens, such, for instance, as specimens of urine.

With this and other objects in view, the invention consists in the construction hereinafter described and more particularly pointed out.

The drawing represents in vertical section a preferred form of the improved container.

In carrying the invention into effect, the interior of the container has applied thereto a deposit of a soluble preservative in dry form. The use of the preservative in dry form presents many advantages, particularly in the preparation and subsequent use of the container, as the containers may be easily prepared and no special care is necessary to keep the preservative in condition for use. Further, the dry coating of the preservative enables very limited quantities to be used, that is, quantities not in excess of those necessary for the preservation of the substances placed in the container.

Much difficulty has been met in the preservation of medical specimens, and particularly urine, due to the fact that only very limited quantities of the preservatives are required, and if excessive amounts are used, the characteristics of the urine are changed, so that the subsequent analysis is affected and inaccurate results obtained.

In the preferred construction, and particularly where the container is to be used for the storage and shipment of urine specimens, the container will be formed as illustrated in the drawing, that is, it will have a vertical wall 1, and a conical base portion 2. This construction adapts the container to

be placed directly in a centrifuge machine which is used in the analysis of urine specimens. In the practice which obtains at present, the specimens are shipped in containers and when they are to be analyzed, they have to be emptied into glass receptacles of the shape shown in the drawing, these latter receptacles being placed in the centrifuge machine. The transfer from the shipping receptacles to the centrifuge receptacles requires considerable time, and unless considerable care is exercised, mistakes are liable to occur in transferring the identifying marks of the shipping container to the centrifuge receptacle, so that the identity of the specimen is lost. It will be readily understood that if the wrong identification marks are placed on the centrifuge receptacles serious mistakes will occur.

While the improved containers may be prepared in various ways, a simple method is to fill them with a forty per cent. solution of formalin, the containers being then emptied, allowed to drain, and thoroughly dried. When dry, the interior of the container will have thereon a thin deposit of a dry formaldehyde, the formaldehyde specified being usually termed paraformaldehyde. This thin deposit will be found to be entirely sufficient for preservative purposes and yet will not be sufficient to affect the characteristics of specimens placed therein.

It is the practice among the larger insurance companies to require all urine specimens to be sent to the home office for analysis. These specimens are frequently a long time in transit and the problem of properly preserving them has been a serious one. Attempts to furnish the physicians who collect the specimens with preservatives to be used by them have met with failure and where the judgment of the physician as to the use of the preservatives has been relied upon the results have also been unsuccessful. Containers prepared in accordance with this invention entirely eliminate the difficulties heretofore met with. The thin deposit of a dry formaldehyde such as paraformaldehyde on the interior of the container is sufficient for preserving purposes if the specimen fills the container, and at the same time the amount of preservative is not excessive if the specimen only partly fills it.

In what is regarded as the best construction, the container will be made of a pyroxy-

lin composition and preferably pyroxylin compositions in which camphor is used. It has been found in practice that the desired thin deposit of a formaldehyde, such as para-  
5 formaldehyde is very readily obtained with containers made of such composition and they are not easily broken and can be readily shipped through the mails.

What is claimed is:—

- 10 1. A preserving container for decomposable products having on its interior a thin, dry deposit of a soluble preservative.
2. A preserving container for decomposable products having on its interior a thin,  
15 dry deposit of a formaldehyde.
3. A preserving container for decomposable products made from a pyroxylin composition and having on its interior a thin, dry deposit of a soluble preservative.
- 20 4. A preserving container for decomposable products made from a pyroxylin composition and having on its interior a thin, dry deposit of formaldehyde.
5. A preserving container for decomposable  
25 ble products made from a camphorated pyroxylin composition and having on its interior a thin, dry deposit of a soluble preservative.
6. A preserving container for decomposable  
30 ble products made from a camphorated pyroxylin composition and having on its interior a thin, dry deposit of a formaldehyde.
7. A preserving container for decomposable  
35 machine, said container having a conical base portion and having on its interior a thin dry deposit of a soluble preservative.

8. A preserving container for decomposable products adapted for use in a centrifuge machine, said container having a conical base  
40 portion and being made from a pyroxylin composition and having on its interior a thin, dry deposit of a soluble preservative.

9. A preserving container for decomposable products adapted for use in centrifuge  
45 machines, said container having a conical base portion and being made from a camphorated pyroxylin composition and having on its interior a thin, dry deposit of a soluble preservative. 50

10. A preserving container for decomposable products adapted for use in a centrifuge machine, said container having a conical base  
55 portion and having on its interior a thin, dry deposit of a formaldehyde.

11. A preserving container for decomposable products adapted for use in a centrifuge machine, said container having a conical base  
60 portion and being made from a pyroxylin composition and having on its interior a thin, dry deposit of a formaldehyde.

12. A preserving container for decomposable products adapted for use in a centrifuge machine, said container having a conical base  
65 portion and being made from a camphorated pyroxylin composition and having on its interior a thin, dry deposit of a formaldehyde.

In testimony whereof I have hereunto set my hand.

WALTER W. PALMER.

Witnesses:

F. V. CLOWES,  
A. D. NEY.