

No. 774,119.

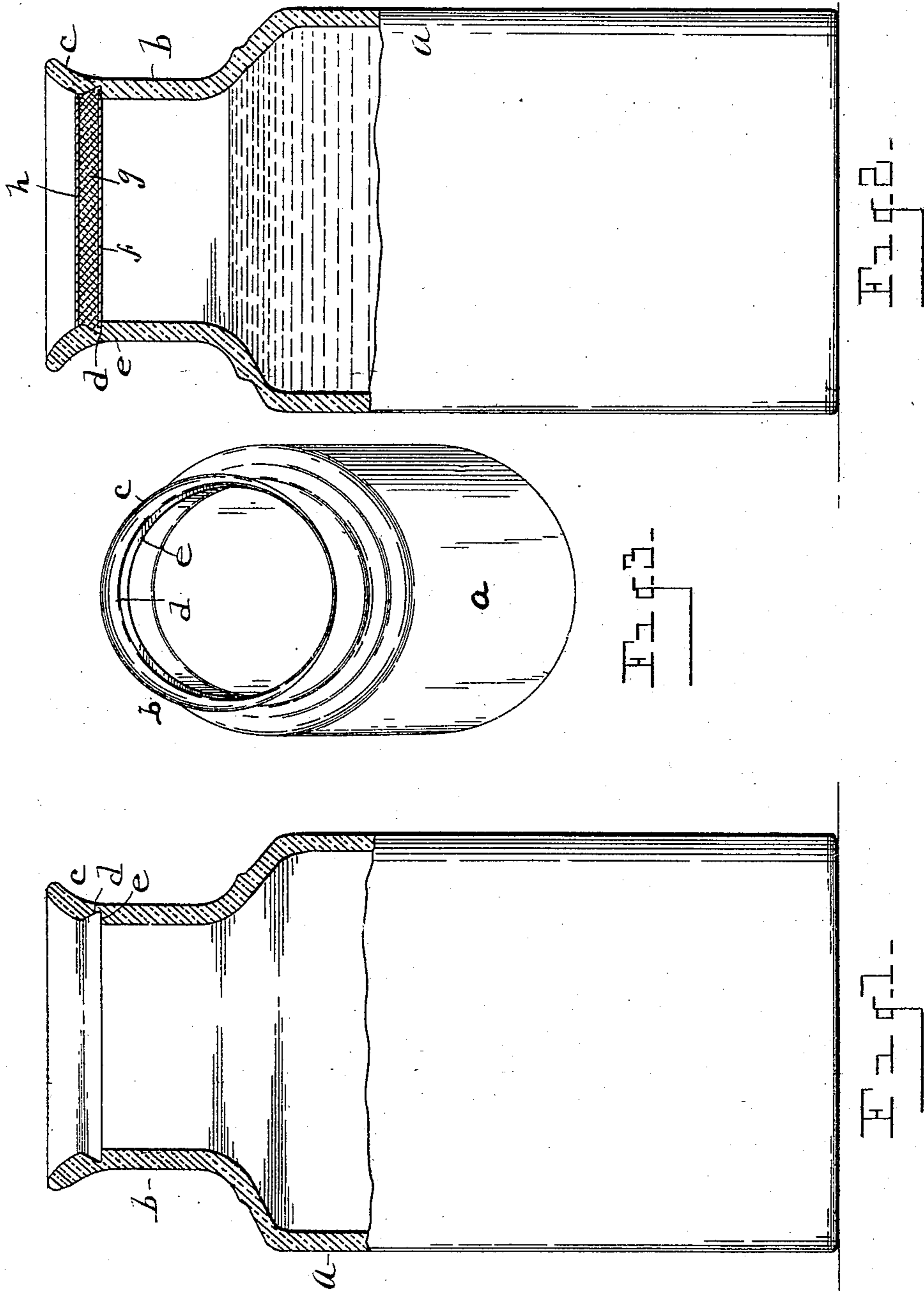
PATENTED NOV. 1, 1904.

W. W. VAUGHAN.

FRUIT JAR OR PACKAGE AND METHOD OF SEALING SAME.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.



WITNESSES:

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WILLIAM W. VAUGHAN, OF DETROIT, MICHIGAN.

FRUIT JAR OR PACKAGE AND METHOD OF SEALING SAME.

SPECIFICATION forming part of Letters Patent No. 774,119, dated November 1, 1904.

Application filed October 24, 1903. Serial No. 178,374. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. VAUGHAN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Fruit Jars or Packages and Methods of Sealing the Same, of which the following is a specification, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object a certain new and useful improvement in a fruit jar or package and in the method of sealing the same; and it consists of the construction and method hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in vertical section through the unsealed jar. Fig. 2 is a view in similar section through a sealed jar, showing the means of sealing the same when the jar has been filled. Fig. 3 is a view in perspective looking at the top of the bottle.

My invention aims to provide an improved fruit jar or package and means and method of sealing the same in a superior, efficient, and economical manner.

I carry out my invention as follows:

In the drawings, *a* represents the body of a fruit jar or package, which may be of any desired form, the same being provided with a neck *b*, preferably bell-shaped at the top thereof or constructed with an outwardly-extending bell-shaped flange, (indicated at *c*.) Below said flange the neck of the jar or package is constructed with a groove *d* on the inner periphery of the neck, the groove forming a shoulder *e*. To seal the jar or package when filled, I locate upon said shoulder a disk *f*, preferably made of porous material, as of paper-board, for example, of any desired thickness, the periphery of the disk projecting into said groove. The disk being made of porous material is also somewhat flexible, so that it can be readily pressed into place, so that its outer periphery may be so seated upon said shoulder and project into the groove. The disk, however, is designed to seat in place, so as to leave a slight space at its periphery between the disk and the adjacent

edge of the groove slight inequalities which would naturally result in the construction of the disk and also slight inequalities in the outer periphery of the groove, allowing air to escape about the edge of the disk from within the jar or package, while at the same time the disk fits with sufficient firmness to be held snugly in place when once forced into the groove upon said shoulder. Upon this disk as a support when in place I apply melted wax (indicated at *g*) or analogous material of any suitable composition. The application of the wax in heated condition is found to heat through the disk and to impart its heat to the air within the jar after the same has been filled, causing the air to correspondingly expand, and while the wax is yet plastic the air will bubble up therethrough, as about the edge of the disk, thereby rarefying the air within the package or jar, obviously to the more efficient preservation of the contents of the jar or package. While the wax is still soft and after the air has been rarefied, as above described, I further locate upon the wax a sealing-disk *h*, which may bear the imprint of the brand of the goods, the name of the manufacturer, or any other desired imprint. This upper or sealing disk is securely held in place as the wax hardens and makes a neat and desirable finish to the package or jar. It will be obvious that the melted wax will readily fill the inequalities of surface at the periphery of the groove and about the periphery of the disk *f*, as well as thoroughly flow over the entire surface of said disk, so that when the wax hardens the jar or package will be effectually sealed and made air-tight, the air within the jar or package, as already described, being rarefied in the process of sealing the jar or package. I prefer that the groove from the outer periphery of the shoulder should rise a sufficient height to allow a sufficient quantity of wax to be flowed thereinto to effectually seal the package or jar. The superiority of this construction and method of sealing will readily be seen in comparison with other constructions and operations of sealing analogous articles. It has been common heretofore to seal packages or jars of this description with a cover and an intermediate flexible packing-ring, for ex-

ample; but owing to inequalities of surface it has often been difficult to secure a perfectly air-tight closure of the jar or package, so that contents of said jars or packages have been liable to leak out and be damaged by the entrance of air.

The desirability of securing a partial vacuum above the contents of the jar or package is well understood, and my invention obviously greatly facilitates securing this desired result.

It is important to the proper operation of sealing the device that the groove should be located on the inside of the neck and below the flange, as contemplated in my invention. This affords opportunity for the wax to be forced into the groove to thoroughly fill the same. In the application of the upper disk while yet the wax is soft and plastic pressure is readily applied, whereby the wax is forced effectually into the groove, the application of pressure also effectually closing any and all openings where the air has escaped through the melted wax. The application of the upper disk thus not only affords a good finish in sealing the jar, but the process of applying the same also, as above stated, presses the wax into place, closing all apertures and effectually sealing the contents of the jar. By making the flange *c* of the bottle flaring or bell-shaped it is obvious that the placing of both the lower and upper disks in position is facilitated.

What I claim as my invention is—

1. A sealed fruit jar or package, comprising a body formed with a neck having a groove on the inner periphery of said neck forming a shoulder, a disk having its periphery seated in said groove upon said shoulder, and wax flowed over said disk and into the groove above the disk, and a sealing-disk located upon the upper surface of the wax and adhered thereto.

2. A sealed fruit jar or package comprising a body formed with a neck, with a groove on the inner periphery of the neck and forming a shoulder, a disk having its periphery extended into said groove and seated upon said shoulder, wax flowed in a heated condition over said disk and into the groove above the disk, and an additional disk located above the wax when heated.

3. The method herein described of sealing a fruit jar or package provided with a shoulder on the inner periphery of the neck of the jar or package consisting of loosely seating upon said shoulder a disk, applying wax in a

heated condition and flowing it over the upper surface of said disk whereby the air within the jar or package will be heated and expanded thereby causing a portion of the air to pass upward about said disk and through the wax, and then applying upon the melted wax an upper sealing-disk thereby closing the openings by which the air has escaped through and about the melted wax substantially as described.

4. A sealed jar or package comprising a body formed with a neck terminating at the upper end in an outwardly-projecting flange, and with a groove on the inner periphery of the neck projecting in under said flange and forming a shoulder, a disk having its periphery extending into said groove and resting upon said shoulder, wax flowed in a heated condition over said disk and into the groove above the disk, and an additional disk applied upon the wax substantially as described.

5. A sealed jar or package comprising a body formed with a neck, a disk seated in the neck, wax flowed over said disk, and an additional disk applied upon the wax.

6. The method herein described of sealing a fruit jar or package having a neck grooved on the interior periphery thereof consisting of loosely seating in said groove a disk of narrower diameter than the diameter of the groove, applying wax in a heated condition and flowing it over the upper surface of said disk and into the groove, whereby the air within the jar or package will be heated and expanded, causing a portion of the air to pass upward about the periphery of the disk and through the wax, and then applying upon the heated wax an upper sealing-disk substantially as and in the manner described.

7. A sealed jar or package comprising a body formed with a neck, a shoulder on the inner periphery of the neck, a disk having its periphery loosely seated upon said shoulder, wax flowed over said disk, and a sealing-disk located upon the upper surface of the wax and adhered thereto.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM W. VAUGHAN.

Witnesses:

N. S. WRIGHT,
IDA B. VAUGHAN.