May 13 , 1924. 1,493,624

G. G. FREUND

VACUUM BOTTLE

Filed Aug. 24, 1923

Fig.1.

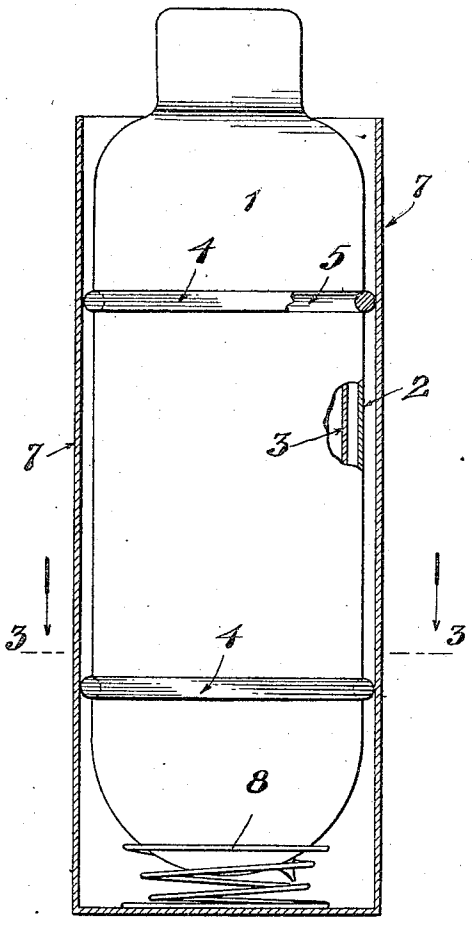


Fig.2.

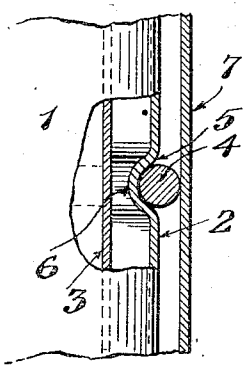
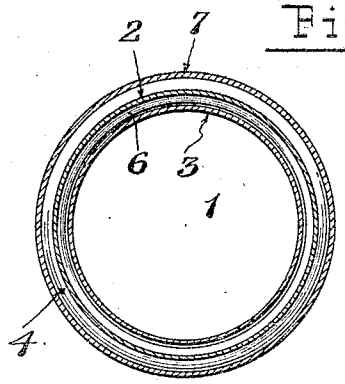


Fig.3.



Inventor

Gerson G. Freund

By his Attorney

Joseph L. Levy

Patented May 13, 1924. 1,493,624

UNITED STATES PATENT OFFICE.

GERSON G. FREUND, OF NEW YORK, N. Y.

VACUUM BOTTLE.

Application filed August 24, 1923. Serial No. 659,039.

To all whom it may concern:

Be it known that I, GERSON G. FREUND, a citizen of the United States, and a resident of the city, county, and State of New York, have invented a certain new and useful Improvement in Vacuum Bottles, of which the following is a specification.

This invention relates to an improvement in vacuum bottles and particularly to the means for holding the interior double-walled containing chamber properly within the outer casing.

Many of the vacuum bottles manufactured at the present time protect the double-walled chamber by interposing between it and the outer metal casing a section of corrugated card-board or like material. Such material is usually of an absorbent nature and soon becomes saturated with liquids which pass between the neck of the chamber and its outer casing, making the card-board packing smelly and disagreeable and rendering the bottle unsanitary.

The object of this invention therefore, is to provide a packing or spacing means adapted to be interposed between the outer wall of the containing chamber and the inner side of the outer casing, which may be readily placed in position or removed and which will be sanitary under all conditions of use.

With these objects, and other objects which may hereinafter appear, I have devised the particular arrangement of parts set forth hereinafter and more particularly pointed out in the claims appended hereto.

Reference is to be had to the accompanying drawing, forming a part hereof, in which,

Figure 1 is a front elevation of the containing chamber, parts being broken away to disclose construction, and the outer casing for the chamber being shown in section;

Figure 2 is a fragmentary section of a portion of the bottle, showing the annular spacing member and the groove formed in the outer wall of the bottle and in which the spacing member is held; and

Figure 3 is a sectional view on the line 3—3 of Figure 1, looking in the direction of the arrows.

Throughout the various views of the drawings, similar reference characters designate similar parts.

In the preferred embodiment of my invention as disclosed in the accompanying drawing, 1 indicates the double-walled bottle or containing chamber, which may be of any particular form and which is in most instances made of thin glass, and provided with an outer wall 2 and spaced integrally formed inner wall 3.

The bottle 1 is contained within an outer casing, usually of metal, and for protective purposes spaced therefrom by suitable packing. In carrying out my invention I make use of a number of resilient annular spacing members 4 which rest in grooves or annular depressions 5 formed in the outer wall 2 of the bottle by depressing the same inwardly at spaced points as indicated at 6.

As many of these spacing members 4 as may be required can be used. I have found it desirable to use a soft resilient and elastic rubber for said spacing members and if desired the same may be made of tubular construction. They are preferably made of such thickness that they project well out beyond the outer face of the bottle and bear with resilient pressure against the inner face of the side wall of the outer casing 7 and act to insulate the bottle from such shocks as the outer casing may be subjected to.

The outer casing 7 is usually provided with a cap or cover of the conventional form, but as the same is no part of my invention it is not shown.

The bottom or lower end of the bottle 1 is usually resiliently supported within the casing 7 in some manner, and in the drawing I have shown one of the well-known forms of support, consisting of a coil spring 8. This, however, forms no part of this invention.

The annular spacing members are preferably held in their grooves by their elasticity, but if desired, the same may be cemented in position. It is found desirable, however to have the same readily removable from their grooves so that the same can be replaceable in case of breakage.

From the foregoing, it is obvious that my invention is not to be restricted to the exact embodiment shown, but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:—

1. An article of the class described comprising a vacuum bottle having a double-walled receptacle, an outer casing for said receptacle, a recess formed in the outer wall of the receptacle, an elastic spacing member

held in said recess and adapted to hold said receptacle spaced from its casing.

2. An article of the class described comprising a vacuum bottle, an outer casing therefor, a plurality of spaced grooves in said bottle and spacing members seated in said grooves and holding the bottle spaced from its casing.

3. An article of the class described comprising a double-walled receptacle having spaced depressions in its outer wall, an outer casing for said receptacle and resilient spacing members seated in said depressions and adapted to hold the receptacle spaced from its casing.

4. An article of the class described comprising a double-walled receptacle having an annular groove in its outer wall, an annular elastic spacing member resting in said groove and extending beyond the outer face of said outer wall, and a casing for the receptacle adapted to be held away from the sides of said receptacle by the said spacing member.

5. An article of the class described comprising a receptacle having a plurality of annular grooves in its outer face, annular spacing members held in said grooves and extending beyond the outer face of said wall, and a casing for the receptacle adapted to be held away from the sides of said receptacle by said spacing members.

Signed at the city, county and State of New York, this 20th day of August, 1923.

GERSON G. FREUND.