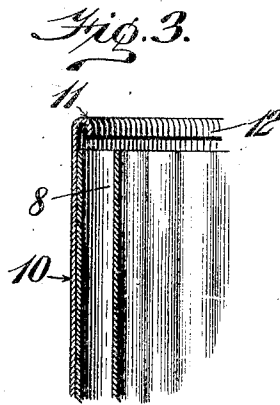
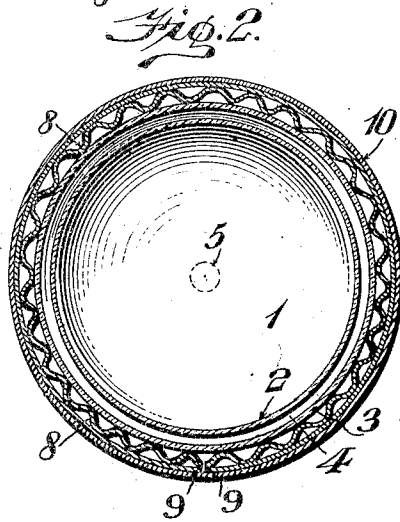
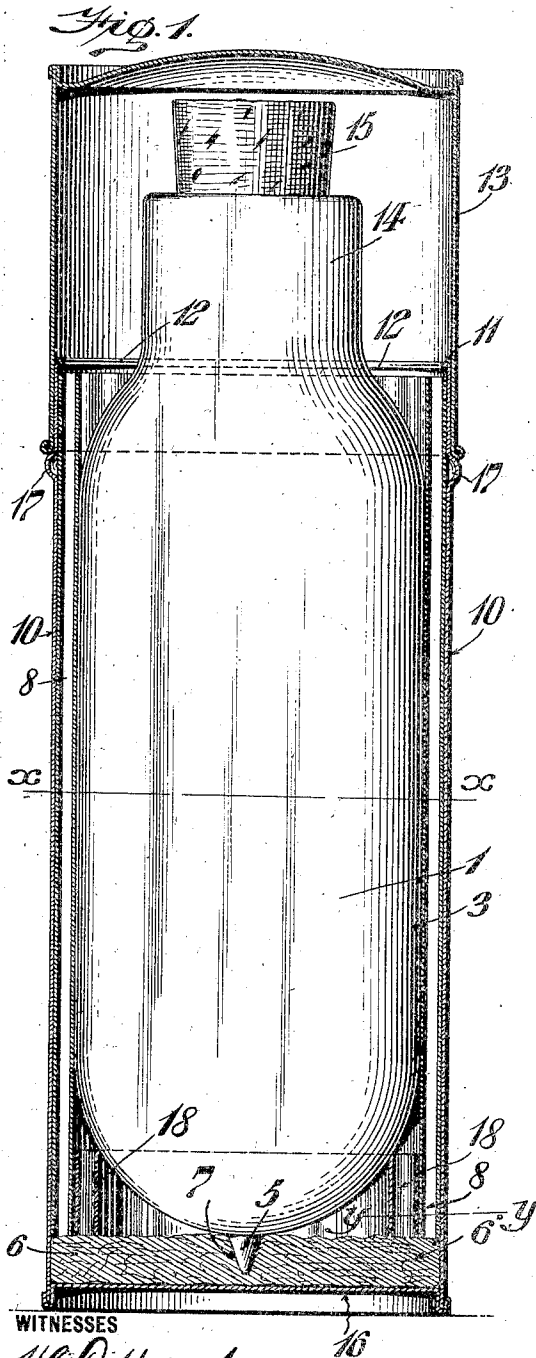


S. W. HEATON.
VACUUM BOTTLE CASING.
APPLICATION FILED DEC. 29, 1910.

1,002,686.

Patented Sept. 5, 1911.



WITNESSES

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SAMUEL WILSON HEATON, OF PHILADELPHIA, PENNSYLVANIA.

VACUUM-BOTTLE CASING.

1,002,686.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed December 29, 1910. Serial No. 599,935.

To all whom it may concern:

Be it known that I, SAMUEL WILSON HEATON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Vacuum-Bottle Casing, of which the following is a specification.

My invention relates to a novel construction of a vacuum bottle, wherein a receptacle comprising inner and outer glass vessels inclosing a rarefied or vacuum space between them is located within a suitable casing, provision being made whereby in the blowing of the bottle, a single sealing teat is employed which is centrally located and is adapted to be received in a suitable seat in a cushioning material located at the bottom of the casing, the latter holding in place an annular lining of corrugated material, such as paper, papier-mâché, card-board or the like, against which the outer periphery of said vacuum bottle is adapted to contact and I further provide an annular support which is preferably of corrugated material which support is adapted to rest upon the cushioning material and to engage a suitable part of the lower portion of the bottle. I further provide means for preventing the dislodgment of the annular lining by reason of an inwardly and downwardly turned lip on the upper edge of the lower portion of the inclosing casing and the mouth of the latter being closed by a suitable cover adapted to protect the mouth of the vacuum bottle.

By the above construction, I am enabled to provide a cheap and novel device which can be readily manufactured and assembled at slight expense and wherein the bottle is held tightly in position by frictional contact at its side and lower portions so that the breakage thereof is reduced to a minimum and the device is capable of fulfilling all the requirements of bottles having higher prices and more expensive casings.

To the above ends my invention consists of a novel construction of vacuum bottle casing and its adjuncts, the novel features of which will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and

reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a vertical sectional view of a vacuum bottle casing embodying my invention, the bottle being shown in elevation. Fig. 2 represents a section on line $x-x$ Fig. 1. Fig. 3 represents, on an enlarged scale, a section of the upper portion of the casing, showing the corrugated cushioning material in position and the downwardly turned lip adapted for the purpose of preventing dislodgment of the annular corrugated cushioning material. Fig. 4 represents a section on line $y-y$ Fig. 1.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a vacuum bottle having the inner and outer walls 2 and 3 respectively, between which is the space 4 from which the air is exhausted through the medium of the sealing teat 5, which latter after being utilized to create the vacuum between the walls 2 and 3, is sealed and located in such a position that it is substantially in line with the longitudinal axis of the bottle, as will be apparent from Fig. 1.

6 designates a cushioning device of fabric or other suitable material having therein the conical seat 7 which is adapted for the reception of the sealing teat 5.

8 designates an annular lining or corrugated cushioning material such as paper, papier-mâché, card-board, which latter normally comes in flat strips but is cut and then bent into circular shape so that the edges, as 9, are juxtaposed to each other, whereby an annular cushioning device is formed, which can be sprung into the outer casing 10 so as to tightly engage the wall thereof, said casing being provided at its upper portion with the bead 17 and the lateral or inwardly extending lip or flange 11 which has the downwardly deflected portion 12, as will be understood from Fig. 3, whereby the annular cushioning material 8 is prevented from dislodgment when it is desired to withdraw the bottle 1, longitudinally from the casing,

for the purpose of inspection, sterilizing or repairs.

18 designates an annular support or supporting member which is preferably of corrugated cushioning material such as paper, papier-mâché, card-board or the like, which is sprung within the annular lining engaging the same, and rests upon the cushioning device. This support is of suitable height in order to engage a suitable part of the lower portion of the bottle, in order to assist in supporting the same to take some of the strain from the sealing teat and to provide a resilient annular support which obviates any undue outward pressure of the bottle.

13 designates a cap or cover for the casing 10 and is adapted to receive the neck and mouth 14 of the vacuum bottle which is provided with a closure 15 of a suitable construction.

In assembling my novel device, the vacuum bottle is produced in the usual way except that care is taken to have the sealing teat 5 at the lower portion preferably centrally located or substantially in line with the longitudinal axis of the bottle. The cushioning material 6 which may be of suitable fabric or felt is then placed within the casing in proximity to the bottom 16 thereof, after which the corrugated annular cushion 8 after having been properly cut and shaped, is sprung into position so as to engage the inner wall of the casing 10, by frictional contact, said annular cushioning device 8 being held in position by reason of the downwardly turned lip 12. The support 18 is sprung into position, within the lining 8, and rests upon the cushioning material 6. The bottle 1 is next placed in position and is held centrally within the annular cushioning lining 8 and rests upon the support 18 while the teat 5 is seated within its seat 7 and as it is centrally located any turning of the bottle will not injure the said teat, it being understood that said bottle is held tightly by friction against the inner wall of the annular cushioning lining 8, so that when the cover 13 and the closure 15 are removed, the bottle can be inverted for the purpose of pouring therefrom its contents, and will, at the same time be held tightly within the casing 10 and the annular cushioning device 8.

It will be apparent that my novel device can be very cheaply manufactured and assembled and that by reason of the collocation of the cushioning material 6 with the annular cushioning material 8 and the downwardly turned lip 12, said cushioning material will be held in its proper position under all conditions and the bottle will be prevented from breakage.

It will, of course, be understood that the cushioning material 6 and 8 can be com-

posed of any suitable non-conducting resilient material, as paper, papier-mâché, artificial leather, woven or knitted fabric or the like, without departing from the spirit of my invention and it will be apparent that the shape or contour of the outer casing 10 and the cover 13 can be given such ornamental contour or configuration as may be desired.

It will now be apparent that I have devised a novel and useful construction of a vacuum bottle which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while I have, in the present instance, shown and described a preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination of a vacuum bottle with a casing therefor, said casing having outer walls and a base, a strip of cushioning material supported on said base, an annular strip of cushioning material located against the inner periphery of said casing, a lateral inwardly extending and downwardly turned lip upon the upper edge of said casing, said lip being adapted to prevent said annular cushioning material from withdrawal, said vacuum bottle being held within and against said cushioning material by friction and a sealing teat located at the lower portion of said bottle substantially in line with its longitudinal axis and adapted to be received in a conical seat in said cushioning material supported on the bottom of said casing.

2. The combination of a vacuum bottle with a casing therefor, said casing having outer walls and a base, a layer of cushioning material supported on said base, an annular lining of cushioning material located against the inner periphery of said casing, an annular support seated within said lining and against said lining, and resting upon said cushioning material, said vacuum bottle resting upon said annular support and being embraced by said cushioning lining and held by friction within said lining, and a sealing teat located at the lower portion of said bottle substantially in line with its longitudinal axis and adapted to be received in a conical seat in said cushioning material.

3. The combination of a vacuum bottle with a casing therefor, said casing having outer walls and a base, a layer of cushioning material supported on said base, an annular lining of cushioning material located

against the inner periphery of said casing,
an annular support seated within said lin-
ing, said vacuum bottle resting upon said
annular support and being embraced by said
5 cushioning lining and held by friction with-
in said lining, and a sealing teat located at
the lower portion of said bottle, substan-

tially in line with its longitudinal axis and
adapted to be received in a conical seat in
said cushioning material.

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