

Nov. 17, 1931.

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1,832,798

THERMOS JAR

Filed Nov. 26, 1929

2 Sheets-Sheet 1

Fig. 1.

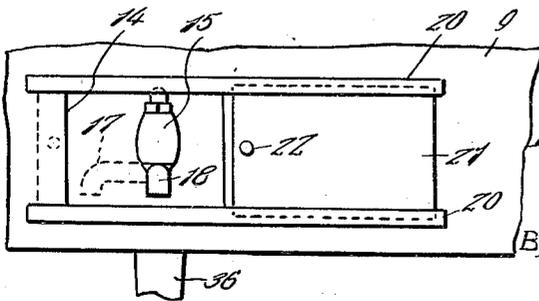
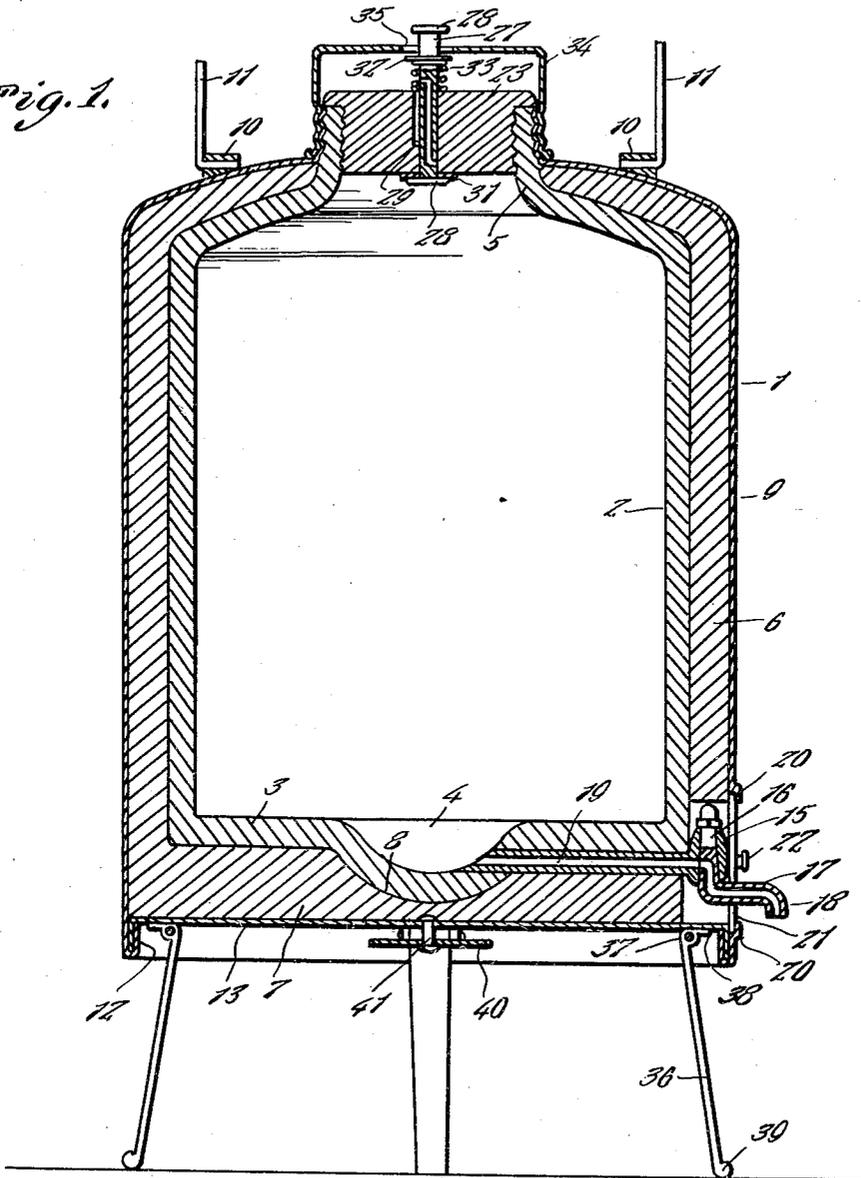


Fig. 3.

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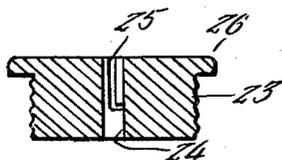
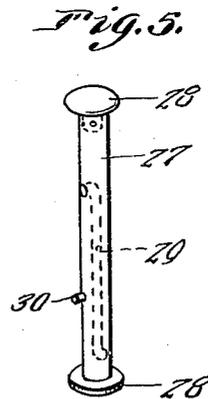
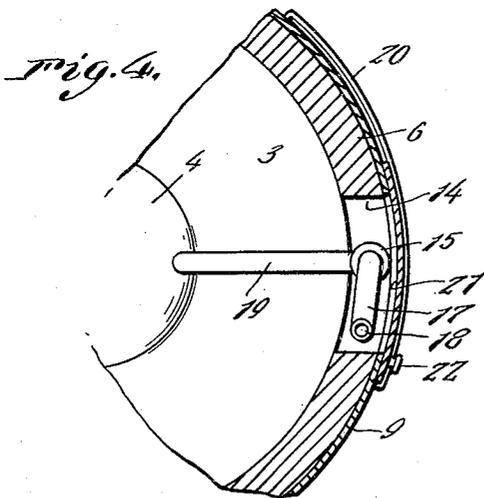
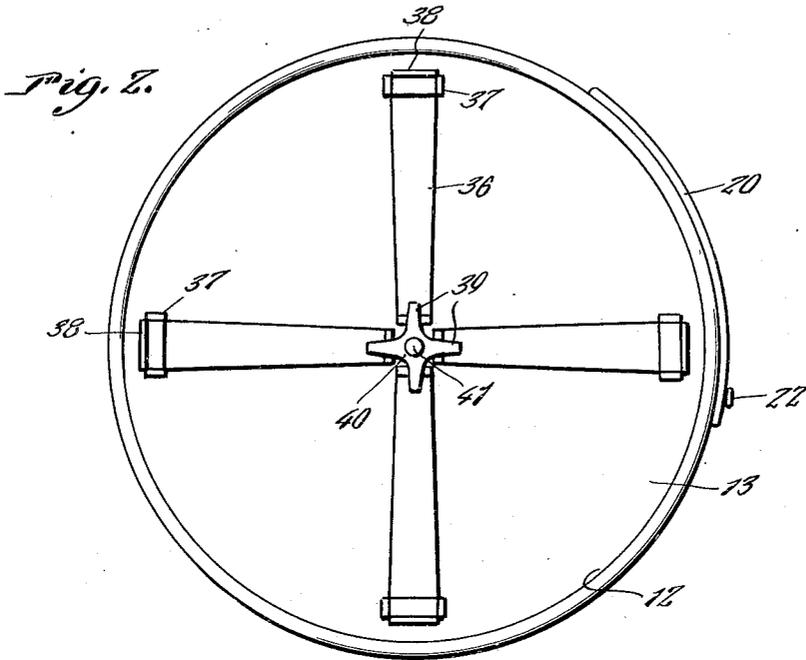
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THERMOS JAR

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This invention relates to a thermos jar and particularly to a device of this character which is adapted to be taken on outings, such as picnics and which is adapted to contain any desired liquid and maintain said liquid in a hot or cold condition for a prolonged period of time.

An important object of the invention is to provide, in a manner as hereinafter set forth, a thermos jar of the aforementioned character having novel means for discharging the contents therefrom without the necessity of removing the closure or cap with the resultant entrance of warm air thereinto when the contents of the jar are cold or to prevent the entrance of comparatively cold air when the jar contains hot or warm liquid.

Another important feature of the invention resides in the provision of a novel discharge spout and valve for the thermos jar.

A further important feature of the invention resides in the provision of novel means for emitting air to the top of the interior of the container to prevent the same from becoming air-bound and permitting the contents to flow freely from the bottom thereof when desired.

A still further important feature of the invention resides in the provision of novel supporting means whereby the jar may either rest on its lower end or be supported in elevated position on a plurality of foldable supporting legs or arms.

Other objects of the invention are to provide, in a manner as hereinafter set forth, a thermos jar of the aforementioned character which will be simple in construction, strong, durable, efficient in its use and which may be manufactured at low cost.

Other objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a vertical sectional view of a thermos jar constructed in accordance with this invention.

Figure 2 is a bottom plan view thereof

with the supporting legs in folded position therebeneath.

Figure 3 is a detail fragmentary view in elevation showing the discharge spout, control valve associated therewith and the slidable closure mounted on the outer face of the wall of the thermos jar which is adapted to enclose said discharge spout.

Figure 4 is a horizontal sectional view looking upwardly from the bottom of the jar with the lower ply of the bottom wall removed therefrom, said view being taken substantially on the horizontal plane of the lower side of the inner wall of the bottom and showing the discharge spout in folded or retracted position and the slidable door closed.

Figure 5 is a detail view in perspective showing the slidable air admission valve.

Figure 6 is a detail view in vertical section of the closure plug in which the valve illustrated in Figure 5 is slidably mounted.

Referring to the drawings in detail, the reference character 1 designates generally the body of the jar which includes an inner container 2 having a bottom 3 provided with a centrally disposed depression or sump 4 and a restricted discharge neck or opening 5 at its upper end which is internally and externally threaded, as clearly seen in Figure 1 of the drawings. The inner container 2 may be of any desired material such as glass or porcelain and it is to be understood that the said container may also be of any desired configuration.

The inner container 2 is enclosed in a covering 6 of suitable heat resisting material such as cork and said covering 6 has its bottom wall 7 provided with a depression 8 for the reception of the sump 4. As best illustrated in Figure 1, the upper end of the covering 6 is provided with a restricted opening through which the threaded neck 5 of the inner container 2 projects upwardly. A metallic casing 9 encloses the insulating covering 6 and is provided with an upwardly extending neck on its upper end which is threaded on the exterior threads of the neck 5 of the inner container. Adjacent diametrically at opposite side, the top of the casing

9 is provided with apertured lugs 10 in which are journaled the inturned end portion of a bail 11. The casing 9 extends below the bottom of the covering 6 and is mounted inwardly and upwardly as at 12 to provide a channel for the reception of the down turned marginal flange of the bottom wall 13 of said casing. As will be obvious, the downwardly projecting portion of the casing 9 provides means whereby the bottom wall 13 will be spaced from any support upon which the jar may be disposed.

At its lower end and on one side, the heat insulating covering 6 is recessed as at 14, to provide a chamber in which a discharge control valve 15 is disposed. The valve 15 includes a casing having a tapered bore extending therethrough in which is mounted for rotation a valve plug 16 which has an integral lateral extension 17 terminating in a downwardly directed end portion 18 providing a swingable discharge spout for the valve. The plug 16 and the extensions 17 and 18 are, of course, provided with a continuous fluid passage, as best illustrated in Figure 1. The valve casing 15 is provided with a laterally extending conduit 19 which extends between the bottom walls 3 and 7 of the inner container 2 and the heat insulating covering 7 respectively, and communicates with the bottom portion of the sump 4 of said inner container and said conduit 19 constitutes supporting means for the valve and discharge spout. The passage in the valve plug 16 is adapted to be brought into communication with the bore in the conduit 19, as will be apparent.

On upper and lower sides of the chamber provided by the recess 14, opposed flanges 20—20 are formed integrally with the casing 6 and extends circumferentially thereon for slidably supporting a closure plate or door 21 upon the outer side of which is provided the hand knob 22.

A heat insulating closure plug 23 is threaded into the neck 5 of the inner container 2 and is provided with a centrally disposed bore 24 (see Figure 6) provided with a longitudinally extending groove 25. A circumferential stop flange 26 is formed integral on the upper end of the plug 23 for engagement with the upper end of the neck 5 to limit the movement of the plug into said neck. An air admission valve is slidably disposed through the bore 24 of the plug 23 and said valve comprises a shank 27 of circular cross section having the heads 28—28 on its opposite end. The intermediate portion of the shank 27 is provided with a longitudinally extending bore 29 the opposite ends of which are directed laterally in opposite directions and extend to opposite sides of said shank in spaced relation to the ends thereof. An intermediate portion of the shank 27 has mounted thereon a laterally projecting guide

pin 38 which is adapted to travel in the groove 25 of the bore 24 in a manner to maintain the valve in proper position therein. A washer 31 is mounted on the lower end of the plug 23 in registry with the bore 24 and through which the valve shank 27 extends. A washer 32 is fixed on the shank 27 in spaced relation to the upper end of the plug 23 and an expansible coil spring 33 encircles said shank 27 and has its upper and lower ends impinged against the washer 32 and the plug 23 respectively. A metallic cap 34 is threaded on the upwardly extending neck of the outer casing 9 and the upper wall thereof is spaced from the upper end of the plug 23 as clearly illustrated in Figure 1. The cap 34 is provided with a centrally disposed opening 35 through which the upper end portion of the valve shank 27 extends.

When it is desired to remove the contents, or a portion thereof, from the jar, the door 21 is shifted from over the compartment 14 and the discharge spout 17 is swung from the position shown in Figure 4 to the position illustrated in Figure 1 of the drawings which operation brings the passage in said discharge spout and the plug 16 into registration with the bore in the conduit 19. The valve shank 27 is then depressed against the tension of the coil spring 33 by placing a sump or finger on the uppermost head 28 of the shank 27 until the lower end of the bore 29 is below the lower end of the plug 23 and in communication with the interior of the inner container 2. When this is done the upper laterally directed end portion of the bore 29 is disposed in the plug 23 and communicates with the groove 25 and thus air is free to enter the inner container 2 through the groove 25 of the plug and the bore 29 of the valve. It will thus be readily obvious that any desired quantity of the contents of the can will be free to flow therefrom and the necessity for removing the closure plug and cap 34 is eliminated. When pressure is released from the head 28, the spring 33 automatically raises the air control valve to its uppermost position at which the lowermost end of the bore 29 is disposed in the bore 24 of the closure plug and no air can get into the container 2. The discharge spout 17 is swung in a horizontal plane to a position within the compartment 14 where it is entirely out of the way and the slidable door 21 is closed.

A plurality of supporting legs 36 are hingedly connected, as at 37 to the marginal portion of the bottom wall 13 of the casing 9 and the hinged ends of said legs are provided with the angularly disposed stop lugs 38 for engagement with the adjacent portions of the wall 13 for limiting the outwardly swinging movement of said legs to a position slightly beyond a vertical plane, as clearly illustrated in Figure 1. The free ends

of the legs 36 are provided with foot portions 39. A retaining latch or spider 40 is rotatably mounted in spaced relation beneath the bottom wall 13 through the medium of the supporting bolt or pin 41 and, as best illustrated in Figure 2 of the drawings, said latch includes a plurality of radially extending fingers adapted to engage the free end portions of the legs 36 when the latter are in folded position against said wall 13. Should it be desired to rest the jar 1 directly on a suitable support such as a table or chair, the legs are folded against the bottom wall 13 and the latch 40 is manipulated so that one of the fingers thereon extends over each of the legs and the jar may be positioned adjacent one edge of the supporting chair or table so that the discharge spout may extend thereover to permit a receptacle to be disposed therebeneath for receiving the contents from the jar. When such a support is not conveniently at hand, the latch 40 is manipulated to release the legs 36 and the same are swung to the position illustrated in Figure 1 of the drawings and the jar 1 is thus supported in elevated position in a manner to permit a suitable receptacle to be disposed beneath the discharge spout thereof.

It is believed that the many advantages of a thermos jar constructed in accordance with this invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction may be had which will fall within the scope of the invention as claimed.

What is claimed is:—

A device of the class described comprising a container having a sump in its bottom, a lining of heat non-conducting material enclosing the container, and having a portion cut-away at one side thereof at the bottom of the device to provide a recess, a tube leading from the sump into the recess and located between portions of the bottom of the container and the lining, and a faucet located in the recess and connected to the outer end of the tube and a door for closing the recess.

In testimony whereof I affix my signature.

RAYMOND A. TAYLOR.