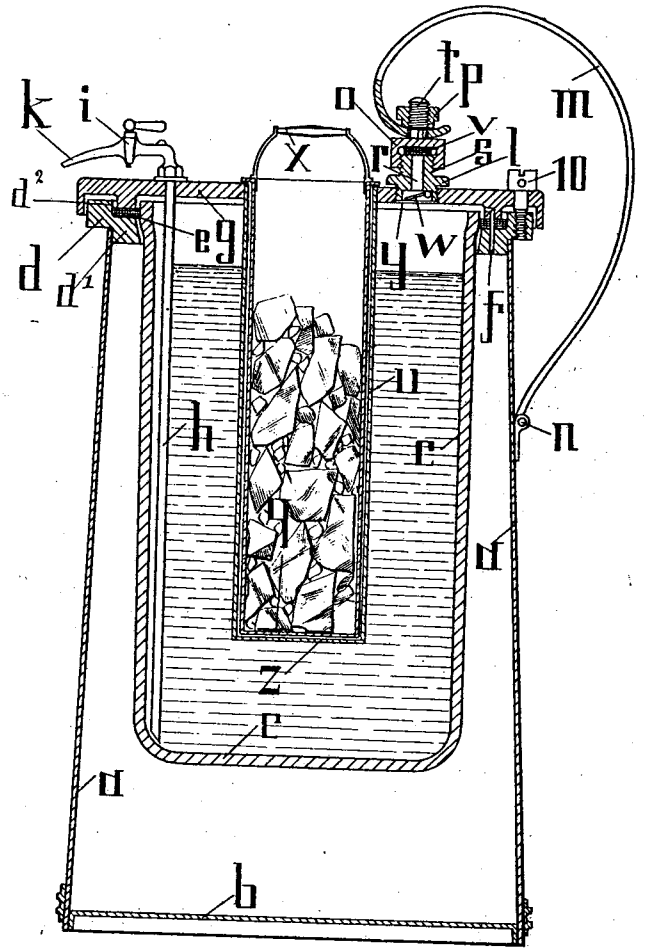
(No Model.)

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VESSEL FOR TRANSPORTING AND PRESERVING LIQUIDS.

No. 590,993. Patented Oct. 5, 1897.



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VESSEL FOR TRANSPORTING AND PRESERVING LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 590,993, dated October 5, 1897.

Application filed December 14, 1896. Serial No. 615,603. (No model.)

To all whom it may concern:

Be it known that I, PAUL LOCHMANN, a subject of the King of Saxony, residing at Leipsic-Gohlis, Saxony, Germany, have invented a new and useful Improvement in Vessels for Transporting and Preserving Liquids, of which the following is a full and exact specification.

This invention relates to a vessel for transporting and preserving liquids; and the object of the same is to surround the liquid-containing chamber with the body of gas acting upon the liquid within the chamber in such a way that the pressure of the gas both inside and outside the liquid-containing chamber will be the same, while the liquid itself is discharged by the pressure of the preserving-gas.

My invention consists of certain features of construction and combinations of parts to be hereinafter described and then particularly claimed.

The accompanying drawing represents a longitudinal vertical section of a vessel for transporting and preserving liquids according to this invention.

Referring to the drawing, *a* indicates the exterior casing of the device, and *b* the bottom of the casing. Fitted upon the mouth of the casing *a* is a ring *d*, which is provided with a reduced portion *d'*, that is inserted within the mouth of the casing, and which is further provided with a rabbet-groove d^2, extending around the inner upper corner or part of the ring *d*. The ring *d* serves both for fixing the lid or cover *g* of the casing to the same through the medium of a connecting screw or screws 10 and for supporting the liquid-containing chamber *c*. To make the connections perfectly air-tight, an annular packing *e* is seated in the rabbet-groove d^2 of the ring *d*, the lid or cover *g* resting and being firmly pressed upon said packing *e*, while the inner periphery of the ring engages with the upper part of the liquid-containing chamber *c*, and thereby supports said chamber and forms a perfectly gas and air tight connection with the same. The supporting-ring *d* may be made of any suitable material, such as glass, porcelain, or earthenware. Extending through one side of the supporting-ring *d* is a vertical duct or channel *f*, which establishes communication between the interior of the casing *a* and the interior of the liquid-containing chamber *c*, so that the preserving-gas, which is contained in the casing in more or less compressed condition, can pass through the said duct into the chamber *c*, and thereby equalize the pressure of the gas both inside and outside of said chamber. The liquid which is contained in chamber *c* is discharged through a siphon, which consists of a leg *h*, cock *i*, and discharge-nozzle *k*, the discharge being accomplished, when the cock is opened, through the medium of the gas-pressure upon the surface of the liquid.

Inasmuch as the canal or duct *f* is rather constricted, the pressure of the gas from the casing *a* in the chamber *c* will only be gradually lowered when discharging the chamber *c* by opening the cock *i*. The liquid in the chamber *c* can thus be discharged therefrom at a low pressure through the siphon, and this pressure is gradually reduced as the liquid is forced out, so that an excessive foaming of the liquid is prevented. After the stop-cock has been closed and has remained closed for some time the pressure inside and outside the liquid-chamber will gradually assume an equilibrium.

To facilitate the introduction of the preserving-gas into the casing *a*, a screw-threaded opening is formed in the lid or cover *g*, which receives the exteriorly-screw-threaded end *y* of a plug *s*, which is provided with a flange *l* and a bore or passage *r*. A valve *w* is applied to the lower end of the plug, so as to close the passage *r* therein and prevent the gas escaping through the same. A screw-cap *o* is screwed onto the screw-threaded upper end of the plug *s*, and a packing *v* is interposed between the cap and the upper end of the plug, so that when the cap is tightly screwed home no gas can possibly pass out.

m is a handle which is hinged at *n* to the casing *a*, and which at its upper end is perforated, so as to receive a screw-threaded stud *t*, extending upwardly from the screw-cap *o*, said upper end of the handle being secured to the cap by means of a nut *p*, screwed onto the stud *t*.

For the purpose of cooling or warming the liquid contained in the chamber *c* a deep pocket *u* is arranged in the lid and extends into the chamber for the purpose of receiv-

ing a tubular receptacle *g*, which may receive cold or hot water. The receptacle *g* can be readily removed and replaced in the pocket *u* through the medium of a handle *x* at its upper end.

As the chamber *e* is suspended or arranged within the casing *a*, said chamber is subjected to no pressure or strain excepting that which is exerted by the weight of the liquid contained therein, inasmuch as the preserving-gas presses equally on both the inside and the outside of the chamber. Inasmuch as the preserving-gas enters the chamber *c* through the duct *f* when the liquid is being discharged, the full pressure of the preserving-gas does not permanently act on the liquid excepting at the commencement of the discharge, while a gradual equilibrium of the pressure of the gas in the chamber *c* and in the casing *a* is maintained. By inclosing or enveloping the liquid-containing chamber *c* in the casing *a* it is prevented from being damaged from the exterior, as it hangs completely isolated in the preserving-gas. The firm connection and hermetic joining of the chamber *c* and the vessel *a* are effectuated through the medium of the packing *e*, before referred to, which can be renewed from time to time, if desired, while by disconnecting the supporting-ring *b*, packing *e*, lid *g*, and the connecting screw or screws 10 the chamber and casing may be separated for the purpose of cleaning them.

Having thus described my invention, what I claim is—

1. The combination with an exterior casing, a supporting-ring applied to the casing, and a lid or cover applied to said supporting-ring and closing the upper end of the casing, of a liquid-containing chamber suspended within said casing from said supporting-ring and having communication with the interior of the casing, substantially as set forth.

2. The combination with an exterior casing, a ring fixed to the upper end of the casing, a lid or cover, and a liquid-containing chamber provided with a siphon, of a packing-ring interposed between the lid or cover and the first-named ring and resting against the exterior of the inner chamber, and being arranged to contact with the exterior of the inner chamber for the purpose of packing the exterior casing, the inner chamber, and the lid or cover.

3. In a vessel for transporting and preserving liquids, an exterior casing, a handle movably connected therewith, a lid or cover connected with the upper end of the handle and adapted to be supported on the vessel by the handle, and means for detachably connecting the lid or cover with the casing, substantially as set forth.

4. In a vessel for transporting and preserving liquids, an inclosing casing, a lid or cover fixed to the casing, a plug fixed to the lid and provided with an inlet opening or passage, a cap secured to said perforated plug, a handle movably connected with the exterior casing, and means for detachably connecting the upper end of the handle with the said cap, substantially as set forth.

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

PAUL LOCHMANN.

Witnesses:

OTTO ROESLER,

RUDOLPH FRICKE.