

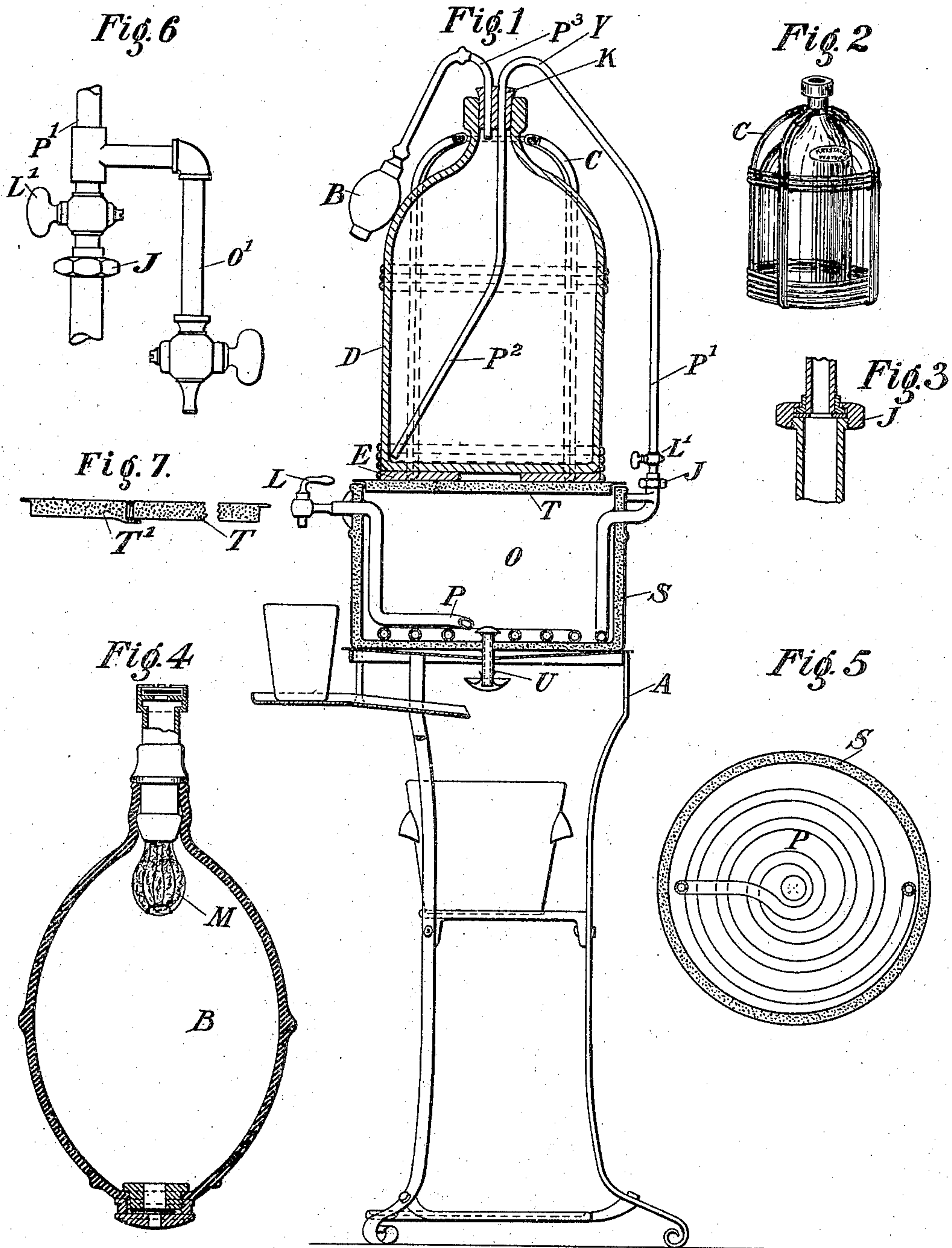
No. 690,896.

Patented Jan. 7, 1902.

S. S. SHEARS.  
SANITARY WATER FOUNTAIN AND COOLER.

(Application filed Oct. 24, 1899.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SANITARY WATER FOUNTAIN AND COOLER.

SPECIFICATION forming part of Letters Patent No. 690,896, dated January 7, 1902

Application filed October 24, 1899. Serial No. 734,629. (No model.)

*To all whom it may concern:*

Be it known that I, SIDNEY SUMNER SHEARS, a citizen of the United States, residing at the borough of Manhattan, in the city of New York, county of New York, and State of New York, have invented a new and useful Sanitary Water Fountain and Cooler, of which the following is a specification.

My invention relates to improvements in water fountains and coolers, and particularly to devices for easily emptying portable vessels containing drinking-water and other liquids, for cooling the same, for changing or substituting the portable vessels, for protecting the water or other liquid from contamination by dirt or by germ infection, for economizing ice or whatever other cooling medium may be used, and also for economizing time and labor in the whole operation. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a part elevation and a part vertical sectional view of the entire apparatus, and Figs. 2, 3, 4, 5, 6, and 7 are detail views.

Similar letters relate to similar parts throughout the several views.

The primary source of the water-supply, which preferably consists of distilled or other pure water, is a demijohn D of suitable size, which for convenient handling purposes and for protection is covered by a crating C, consisting of open rattan-work surrounding and secured to the demijohn and preferably supplied with a wooden bottom E, one function of which is to act as a non-conductor to prevent or check the transfer of heat between the demijohn and its contents on the one side and the cooling-chamber or ice-box O on the other through its cover T, on the top of which the demijohn D is made to rest. The cooling-chamber O is double and provided with a removable non-conducting top T and non-conducting bottom and sides S, all of which may be made non-conducting by packing charcoal or other non-conducting material between the inner and outer sheet-metal walls or by any other usual means. The cooling-chamber O is preferably separable from and made to rest on any usual support or stand constructed like the stand A or in any other suitable manner.

The cooling-chamber O is provided with a

protected drip-tube U in the bottom, and also with a coil of block-tin pipe P, placed in the bottom of the cooling-chamber and provided at the outer end, where it extends through and beyond the walls of the cooling-chamber, with any ordinary cock or valve L for permitting or preventing the escape of the water, and at the other end is connected with the long-leg portion P' of a siphon Y, the short leg P<sup>2</sup> of which enters and reaches the bottom of the demijohn, as shown, passing through a cork K, which closes the mouth of the demijohn, through which cork also passes a pipe P<sup>3</sup>, connected at its outer end with an ordinary syringe-bulb B. The syringe-bulb is constructed in any ordinary way, except that it has or may have, inclosed in a wire netting, a sufficient quantity of antisepticized cotton or other like antisepticized material to sift and purify the entering air on its way to the carboy D and forming a strainer M. The antisepticized cotton or other strainer material may be changed from time to time.

Located as shown the air entering and forced out of the bulb is compelled to pass through the antisepticized material and is sifted and antisepticized in the operation, so that the air entering the demijohn is free from dust and other particles and in a thoroughly-antisepticized condition. The cork K is preferably tapered or may be changed for a cork of a different size to accommodate different-sized demijohns.

To prepare for operating the device, it is necessary to place the demijohn D on top of the cooler O, remove the original stopper, and insert the stopper or cork K, carrying the siphon-pipe Y and the bulb-pipe P<sup>3</sup>, so as to make the demijohn air-tight. On connecting the pipe P with the pipe P' at and by the union J the next step is to operate the bulb, and thereby force air into the top of the demijohn D until sufficient pressure is thereby produced upon the top surface of the water to force and lift the water in the short leg P<sup>2</sup> of the siphon over the summit of the siphon in sufficient quantity to fill the long leg P' and the coil P, whereupon the water will flow from the cock L when opened without further operating the bulb, unless a greater pressure and stronger flow are required, when the bulb may be pressed at any time to increase the pres-



sure and accelerate the flow until the entire contents of the demijohn have been siphoned out.

Before placing the demijohn in position the ice or cooling medium is of course to be placed in the cooler, resting upon the coil P in the bottom of the cooler and in position to cool the water contained in the pipe P. When the cool water is drawn off by opening the cock L, an additional supply of water follows into the coil and becomes cooled in turn as it lies therein or is passing through the coil, which is partly or entirely covered with the water of the melted ice.

Fig. 6 shows another outlet and terminal O' of the long leg P' of the siphon, which may be used together with the demijohn D, the bulb with its connections, and the siphon to empty the contents of the demijohn in any other position at any time and independently—as, for instance, the demijohn may be set upon a table or other support, in a tub containing ice, or in any sufficiently-elevated refrigerator of any kind—in which position, instead of being compelled to handle the heavy demijohn in order to decant or remove its contents, the contents may be removed in the same way through the outlet O', the long leg of the siphon being disconnected and then plugged or corked at the union J, and the outlet of that part of the long leg of the siphon being closed by a cork, plug, or any other usual form of closure the part O' will become part of the long leg of the siphon and help empty the demijohn independently of the stand or cooler—that is to say, the demijohn with its siphon and bulb in position may be used entirely independent of the cooler or the stand and the contents of the demijohn decanted and utilized in the way described.

For convenience in case the demijohn is to be at any time removed before it is empty I prefer to locate a small petcock L' just above the union J, to be closed temporarily at any time in order to prevent the escape of the water. This petcock may be used as a closure instead of a cork when the extension O' is used to draw off the contents of the demijohn, but must be opened or left open when it is desired to draw water from the cock L.

To avoid the necessity for disconnecting at the joint J and removing and returning the demijohn D to position and making the connection anew whenever the ice is required to be renewed in the cooler, instead of making the top T in one piece I make one side T' of the top T—say one-third, more or less—in a separate piece, but hinged to the other part of the top T, as shown in Fig. 7 in sectional

view. Arranged in this way the demijohn D may be moved to one side far enough to allow the movable part T' of the cover to be lifted to make an opening through which the ice may be placed in the bottom of the cooler and the cooler may be cleaned.

The stopper K of the demijohn may be made of cork, or preferably of soft india-rubber, so as to permit the two pipes or tubes that pass therethrough to be moved without permanently opening the air-tight joint that should be formed between the outside surface of the pipes and the adjacent surfaces of the stopper through which they pass.

I claim as my invention—

1. In a portable water tank and cooler the following elements in combination: a portable receptacle for water provided with an inlet and outlet opening at the top; a siphon-pipe, the short leg of which passes through the inlet cork or stopper, and the long leg of which extends outside of the receptacle; a rubber air-bulb having antisepticizing material located in the bulb and also a pipe connection passing through the inlet cork or stopper of the receptacle; and a support supporting an ice-box or refrigerating-chamber containing a coil of pipe detachably connected with the long leg of the siphon-pipe and extending through and out of the chamber and having a terminal cock, on or over which refrigerating-chamber the portable receptacle is placed and supported, substantially as shown and described.

2. In a portable water tank and cooler the following elements in combination: a portable receptacle for water provided with an inlet and outlet opening at the top; a siphon-pipe, the short leg of which passes through the inlet cork or stopper, and the long leg of which extends outside of the receptacle and is provided with a branch outlet and cock; a rubber bulb having antisepticizing material located in the bulb and also a pipe connection passing through the inlet cork or stopper of the receptacle; and a support supporting an ice-box or refrigerating-chamber containing a coil of pipe detachably connected with the long leg of the siphon-pipe and extending through and out of the chamber and having a terminal cock, on or over which refrigerating-chamber the portable receptacle is placed and supported, substantially as shown and described.

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