

R. Long. Water Filter, Cooler & Ice Chest

No. 120,294.

Patented Oct. 24, 1871.

Fig. 1.

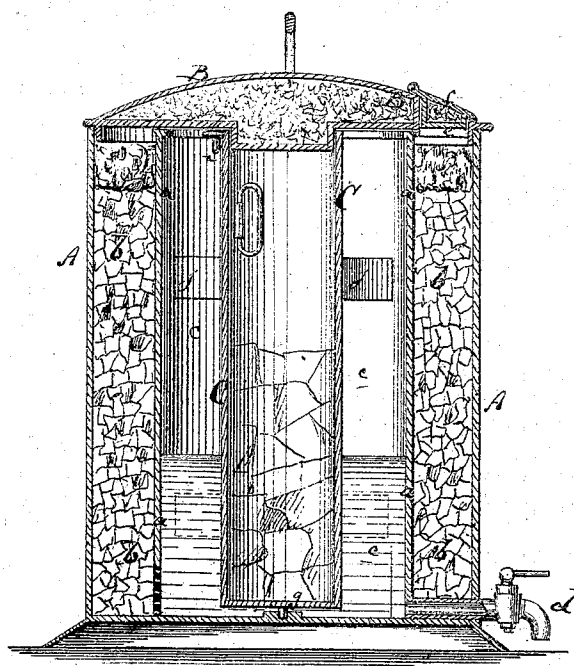
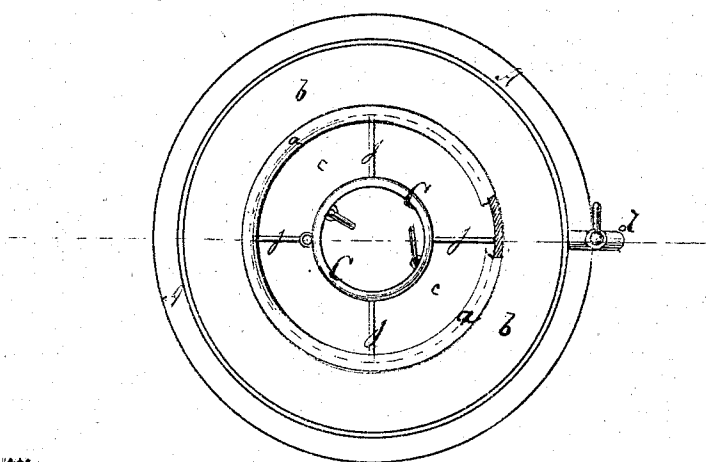


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WATER-COOLERS, FILTERS, AND ICE-CHESTS COMBINED.

Specification forming part of Letters Patent No. 120,294, dated October 24, 1871; antedated October 11, 1871.

To all whom it may concern:

Be it known that I, RICHARD LONG, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Combined Water-Filter, Cooler, and Ice-Chest; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a vertical central section of my improved water-filter, cooler, and ice-chest. Fig. 2 is a plan or top view, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

My invention consists in certain improvements upon water-coolers, which will first be fully described and then clearly pointed out in the claims.

The invention consists, first, in providing a perforated partition between the water-receptacle and the chamber which contains the non-conducting lining, so that said lining, composed of charcoal or equivalent matter, may also be utilized for the filtering of the water poured into the same. The invention consists, also, in providing an opening in the cover of the refrigerator and a bed therefor, so that through the same water may be poured into the aforesaid non-conducting filtering-chamber. The invention consists, also, in the use of an interior ice chest, which is set up within the water-chamber, to contain the cooling substance; also, in swiveling said chest and providing it with projecting arms, so that when turned it will agitate the water and cause it to be rapidly cooled. Finally, the invention consists in connecting said swiveled ice-chest with the cover to permit its being turned by means of said cover and not requiring the removal of the latter during the agitating process.

A is a cylindrical vessel, similar in appearance to the ordinary water-cooler, and of suitable size. It contains a fixed circular partition, *a*, which forms an outer annular chamber, *b*, and an inner water-tank, *c*. The outer chamber *b* constitutes the filter, being filled with the ingre-

dients usually used for filtering purposes, the same serving also as non-conductors of heat to the water-tank. The partition *a* is perforated near the bottom of the vessel A, so that water pouring into *b* will, after having been filtered, pass into the tank *c*, whence it can be withdrawn through a faucet, *d*; thus all the water used in this apparatus will be purified. B is the cover of the vessel A. It is filled with non heat-conducting material, and has an aperture, *e*, above the chamber *b*, and a lid, *f*, to close said aperture. Water can thus be poured into the apparatus without removing the cover. C is the ice-chest. It is a cylindrical vessel, set up within the tank *c* and reaching up to the cover B. It is set upon a step, *g*, provided in the bottom of the vessel A, and can revolve thereon. An eye, *h*, projects from the upper part of the chest C and receives a pin, *i*, of the cover B, so that by means of the latter the ice-chest can be revolved. Arms *j j* project from the ice-chest into the water-tank and serve, when the chest is revolved, to agitate the water and to throw all its particles against the cooling-surface of C. More rapid refrigeration is thereby obtained.

The ice within the chest C is not in contact with the water it cools, and is, consequently, less rapidly dissolved than by the ordinary method of placing it within water.

If not quite filled with ice the chest may also constitute a receptacle for articles to be cooled.

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

1. The wings *j j*, rotating with the central ice-chamber C and within a water-chamber *c* to agitate and thereby more rapidly cool the water.

2. The ice-chamber C, the water-chamber *c* surrounding it, and the filtering-chamber *b* surrounding the latter, all combined as described, so that the water first passes through the charcoal, then into the water-chamber, and is finally cooled without contact with the ice.

3. The combination of the cover B and pin *i* with the swiveled agitator, ice-chest, and loop *h*, substantially as described, to operate as set forth.

RICHARD LONG.

Witnesses:

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