

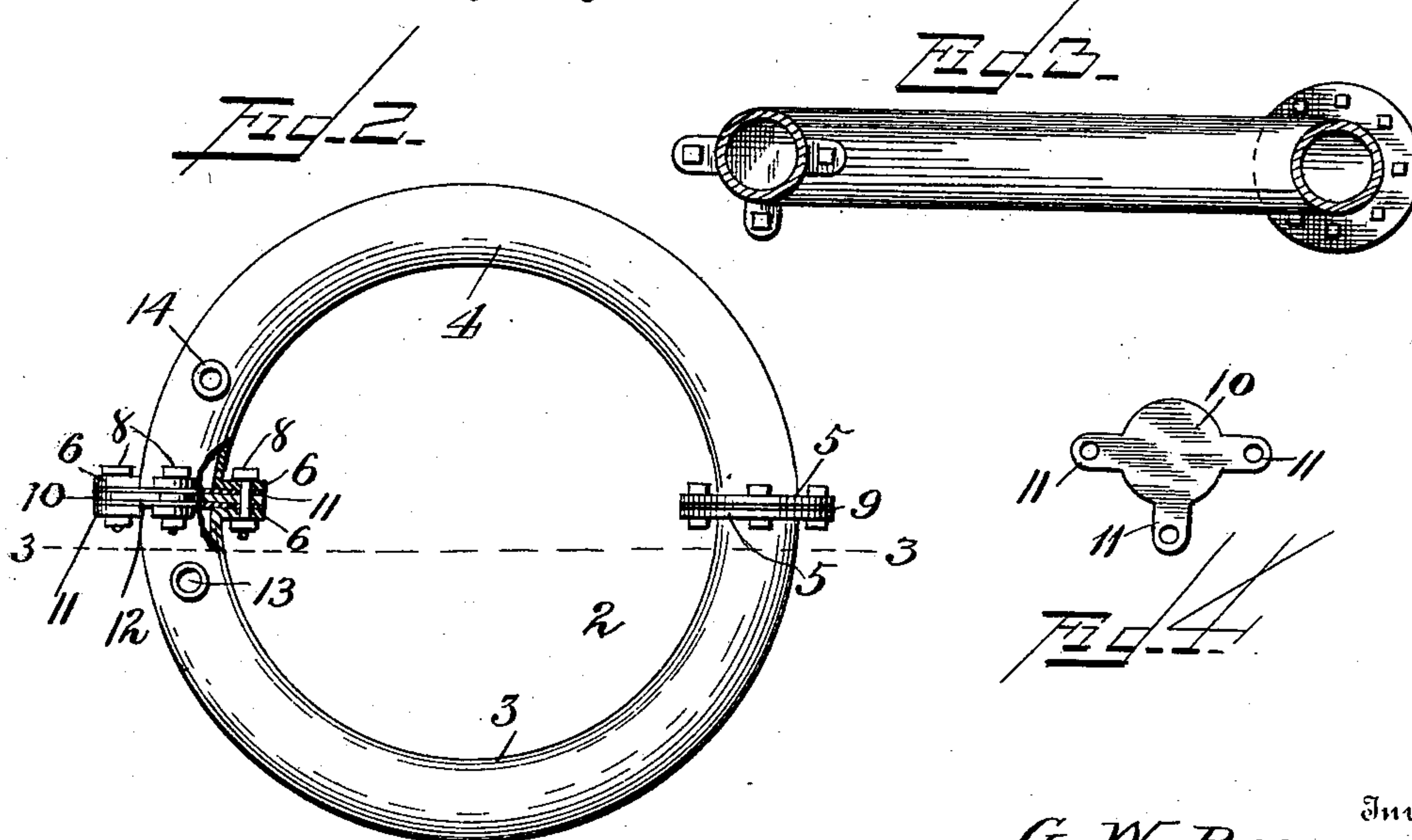
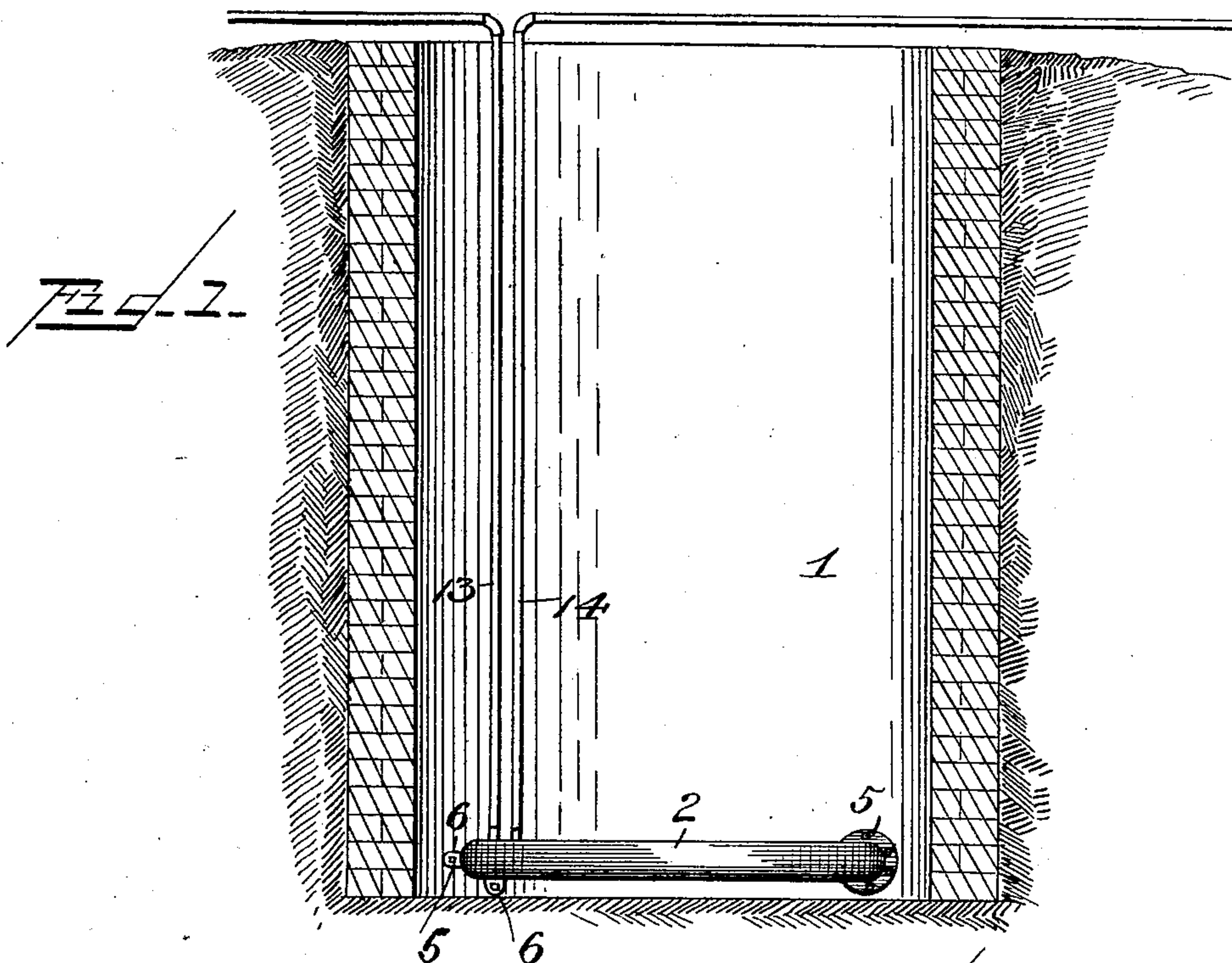
No. 705,376.

Patented July 22, 1902.

G. W. BORN.
WATER COOLER.

(Application filed Mar. 3, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE W. BORN, OF GRAYSFLAT, WEST VIRGINIA.

WATER-COOLER.

SPECIFICATION forming part of Letters Patent No. 705,376, dated July 22, 1902.

Application filed March 3, 1902. Serial No. 96,434. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BORN, a citizen of the United States, residing at Graysflat, in the county of Marion and State of West Virginia, have invented certain new and useful Improvements in Water-Coolers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in water-coolers, and particularly to a type of cooler in which the water is cooled in its passage through a cooling-chamber immersed in the natural water of a cistern or well.

In some localities the water of wells is impure and wholly or partially unfit for drinking, on account of organic matter it contains or from natural causes, and at the same time of a low temperature. The object of the invention is to utilize such water, or the water of a cistern, to extract a portion of the heat from water-works or artesian-well water, the natural temperature of which is comparatively high, and to provide a simple and efficient form of device for carrying this object into practical effect.

The invention consists of certain novel features and parts and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

A practical embodiment of the invention is illustrated in the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a central section through a cistern or well, showing the cooling device arranged therein. Fig. 2 is a top plan view of the cooling-chamber with parts broken away to show the construction. Fig. 3 is a cross-section of the same on line 3 3 of Fig. 2. Fig. 4 is a view of the partition.

Referring now more particularly to the drawings, the numeral 1 represents a cistern or well in the water of which is submerged the cooling device 2, which comprises a hollow ring or open-center hollow body, which may be made round, square, or otherwise in cross-section and outline to suit the shape of the well or taste and fancy of the user. This cooling-chamber is horizontally disposed and may be arranged at the bottom or at any de-

sired point in the well, as may be found necessary or most desirable.

As shown, the chamber is preferably constructed of two similar sections 3 and 4, each formed at one end with a head or flange 5 and at the opposite end with apertured lugs 6. These sections are connected by bolts 7, passing through the heads 5 and bolts 8, passing through the apertured lugs 6, a gasket 9 being inserted between said heads to form a water-tight joint. The headed or flanged ends of the sections are in open communication, while the opposite ends thereof, on which are formed the lugs 6, are separated by a partition consisting of a plate 10, provided with lugs 11, through which the bolts 8 pass, whereby the partition and suitable gaskets 12 are united to the adjoining ends of the two sections. The warm water enters the section 3 through the inlet-pipe 13, and the cooled water discharges from the section 4 through the pipe 14. The water to be cooled is thus caused to flow practically entirely around the chamber 2 and is reduced to the temperature of the cool water in the well 1. The pipes 13 and 14 attach to suitable nipples formed on the sections. The construction of the chamber in sections, constructed in the manner shown and described, permits of the ready detachment of the sections for the purpose of cleaning the chamber of deposits.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my improved water-cooler will be readily apparent without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

In a water-cooling device, the combination with supply and discharge pipes; of an open-center chambered body formed of sections and adapted to be submerged in the water of a cistern or well, said sections having at their opposite ends connecting flanges and

lugs, and water inlet and discharge nipples adjacent to the lugs and connecting with said pipes, a partition-plate interposed between the ends of the sections provided with the
5 lugs and provided with coacting lugs, and bolts passing through the flanges and lugs and connecting the parts together, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEO. W. BORN.

Witnesses:

J. C. BURCHINAL,
E. C. WEEKLY.