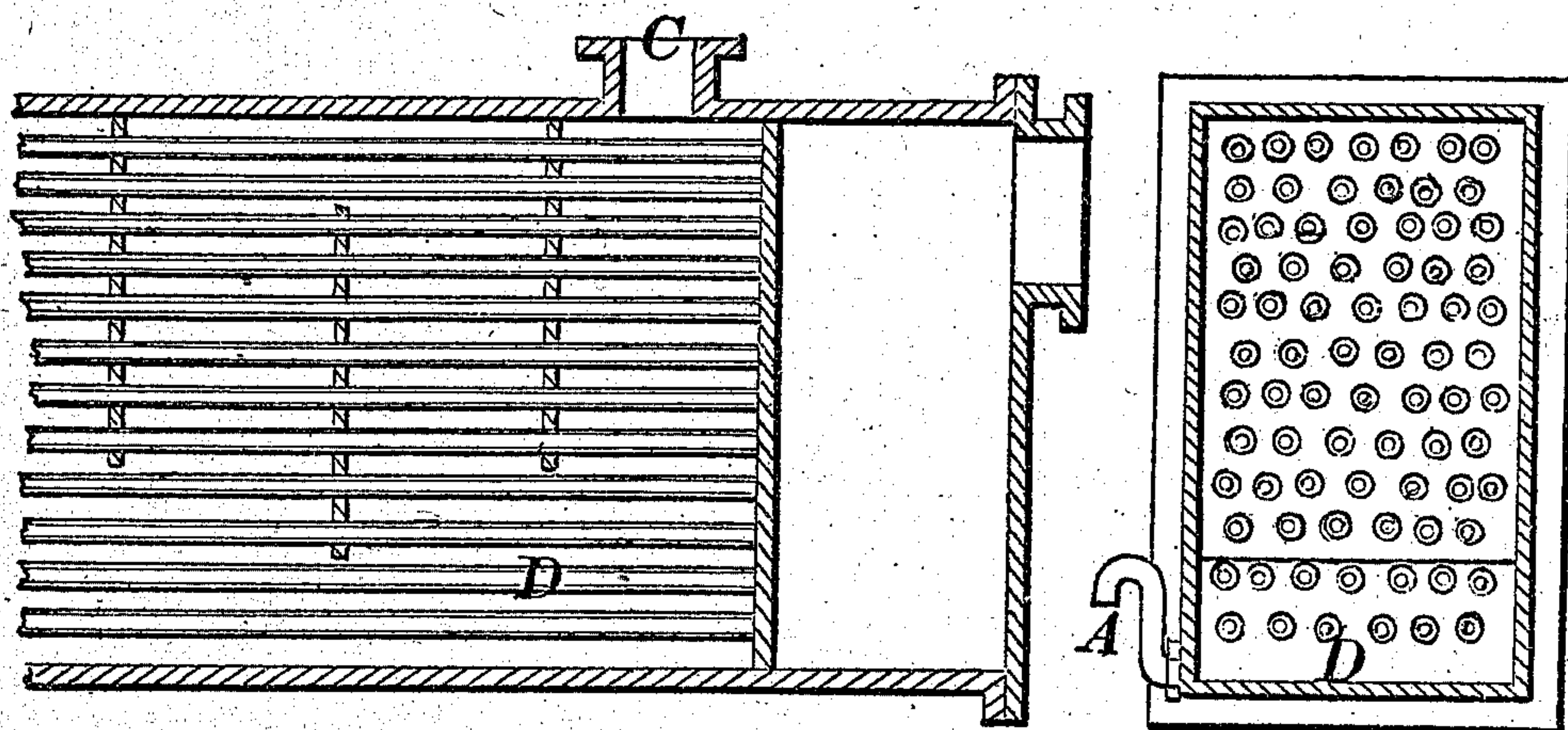


W. A. LIGHTHALL.  
CONDENSER FOR MAKING POTABLE WATER.

No. 35,319.

PATENTED MAY 20, 1862.



TAKEN FROM PATENT OFFICE REPORT  
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ONLY DRAWING ACCESSIBLE (1911)



# UNITED STATES PATENT OFFICE.

WILLIAM A. LIDTHALL, OF NEW YORK, N. Y.

## IMPROVEMENT IN CONDENSERS FOR MAKING POTABLE WATER.

Specification forming part of Letters Patent No. 35,319, dated May 20, 1862.

*To all whom it may concern:*

Be it known that I, WILLIAM A. LIDTHALL, of the city, county, and State of New York, have invented a certain new and useful Improvement in Condensers for Making Potable Water from Salt or other Unpotable Water; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation; Fig. 2, a central longitudinal vertical section; and Fig. 3, a cross-section taken through the line *xx*, Fig. 2.

My invention is a further improvement upon the ones secured to me by Letters Patent of the United States bearing date of December 17, 1861, and April 22, 1862; and it consists in dispensing with the "drip-plate" shown and described therein, (to which reference is hereby made,) and substituting therefor a water-bed to serve the purpose thereof in changing the direction of the current of steam received into the condenser to pass between the division-plates, and also to serve to receive the water of condensation, as set forth in the Letters Patent above named. The case of the condenser, its division-plates, and tubes and reservoir being constructed and arranged as set forth in the Letters Patent above named, the alterations (constituting, in

combination with the above, my improvement) are in dispensing with the drip-plate therein shown and in so arranging and constructing the discharge-pipe A, for the discharge of the water of condensation, as to retain within the bottom part of the condenser (forming the reservoir thereof) a sufficient quantity of the water of condensation to cover the lower ends of the division-plates B B', so that the steam entering into the condenser through the nozzle C shall be passed from section to section the same as though the drip-plate above named were used, the discharge-pipe taking off the colder water that collects at the bottom of the reservoir at the same time that it keeps always a sufficient supply in the reservoir to effect the purpose above named, the water in the reservoir being subjected to the cooling action of the lower series of tubes, D, of the condenser the same as in the improvement patented April 22, 1862.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the discharge-pipe A with the series of cooling-tubes D, arranged and operated as and for the purpose herein set forth.

WM. A. LIDTHALL.

Witnesses:

FRANCIS S. LOW,  
JOSEPH BISHOP.