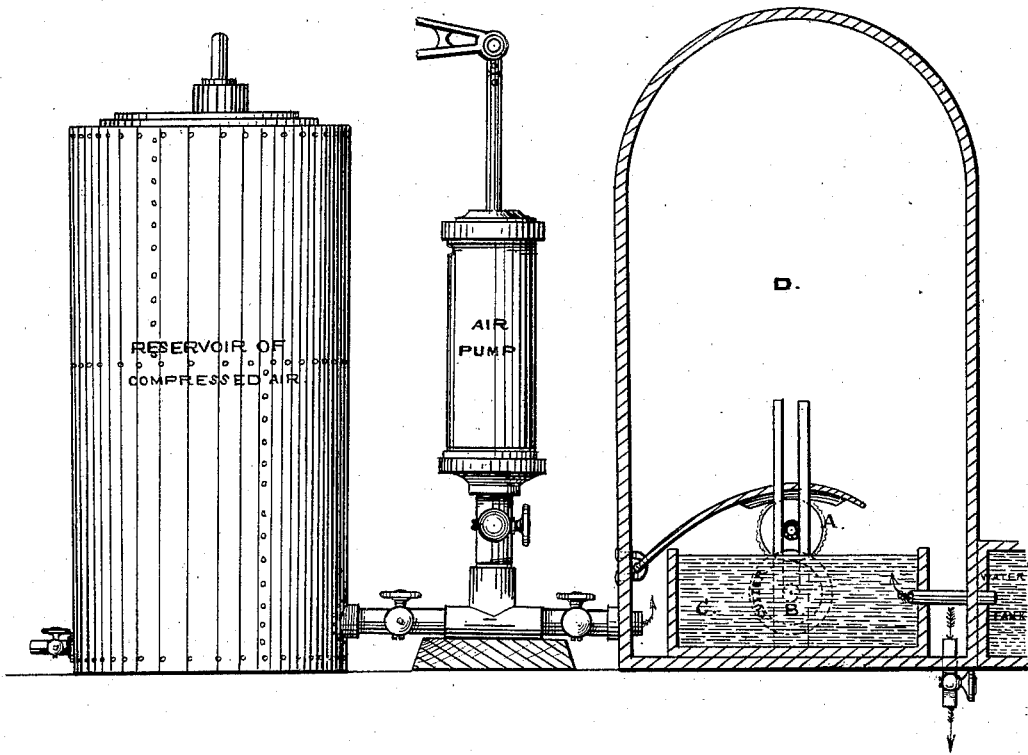


A. ALBERTSON.
Ice Machines.

No. 198,831.

Patented Jan. 1. 1878.



WITNESSES

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IMPROVEMENT IN ICE-MACHINES.

Specification forming part of Letters Patent No. **198,831**, dated January 1, 1878; application filed August 6, 1877.

To all whom it may concern:

Be it known that I, ALBERT ALBERTSON, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Processes for Making Ice; 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 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of improvements employed in the manufacture of artificial ice by the use of compressed atmospheric air, either direct from a force-pump or from a storing-reservoir, or from both, at the same time the pump being operated by any suitable motor-power, either to charge the reservoir with compressed air, to be kept in reserve, to be used separately or in combination with the air-pump, to charge the double walled non-conducting ice-forming chamber D with said compressed air by means of suitable valves and pipes, arranged as shown in the drawing, or otherwise, to suit the exigencies of the situation.

The air or force pump and storing-chamber or reservoir are arranged on the outside of the ice-chamber D, and connect with the same by means of any suitable pipe and valve or regulating cut-off. (See drawing.) The ice-forming core A in chamber D is provided with a short journal at each end thereof, to hold it (the core) on a vertical line with the axis of the driving-roller B, operating under the water in the tank C by means of any suitable outside gearing. These journals are held on a line as the revolving core A rises by the increasing jacket of ice forming around the same by means of slotted uprights secured to the sides of the tank C on a line opposite to each other.

I cover the submerged driving-roller B with a flexible covering, which acts upon the ice-forming core A with better results, and I also employ a circular cutter upon each end of the

fixed driving-roller B, which keeps the ends of the core A free from ice during the process of forming the same.

The storing-reservoir is charged with twenty or more atmospheres when the valve is closed, connecting it with the air-pump, and this compressed air is held ready to be thrown broadcast and utilized in the ice-chamber D when an increased volume of air is required to more rapidly absorb the caloric in the said freezing-chamber D for the purpose of producing ice.

My Patent No. 115,409 fully covers the use of compressed air revolving hollow cores operating between two rigid submerged driving-rollers arranged in an ice-forming chamber without specifying from what source the air is received or compressed. Therefore my present invention is confined to the improved mode of supplying the freezing-chamber D with compressed air by an air-pump alone, or by the combination of the pump and storing-reservoir; also, the use of a single flexible jacketed roller, B, operating immediately under the ice-forming core A, which is held in position by journals operating in the open or slotted standards, as above set forth; also the circular revolving cutters, when secured to and forming a part of the submerged driving-roller B.

I claim—

1. In a machine for producing ice, the revolving ice-forming core A, moving vertically in open slotted standards, in combination with water-tank C and ice-chamber D, as and for the purpose set forth.

2. The ice-core A, in combination with rotary cutters to free said core of accumulated ice, as and for the purpose set forth.

3. In an ice-forming machine, the flexible roller B provided with cutters, as described, in combination with the ice-forming core A, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALBERT ALBERTSON.

Witnesses:

ROBERT A. MORRISON,
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