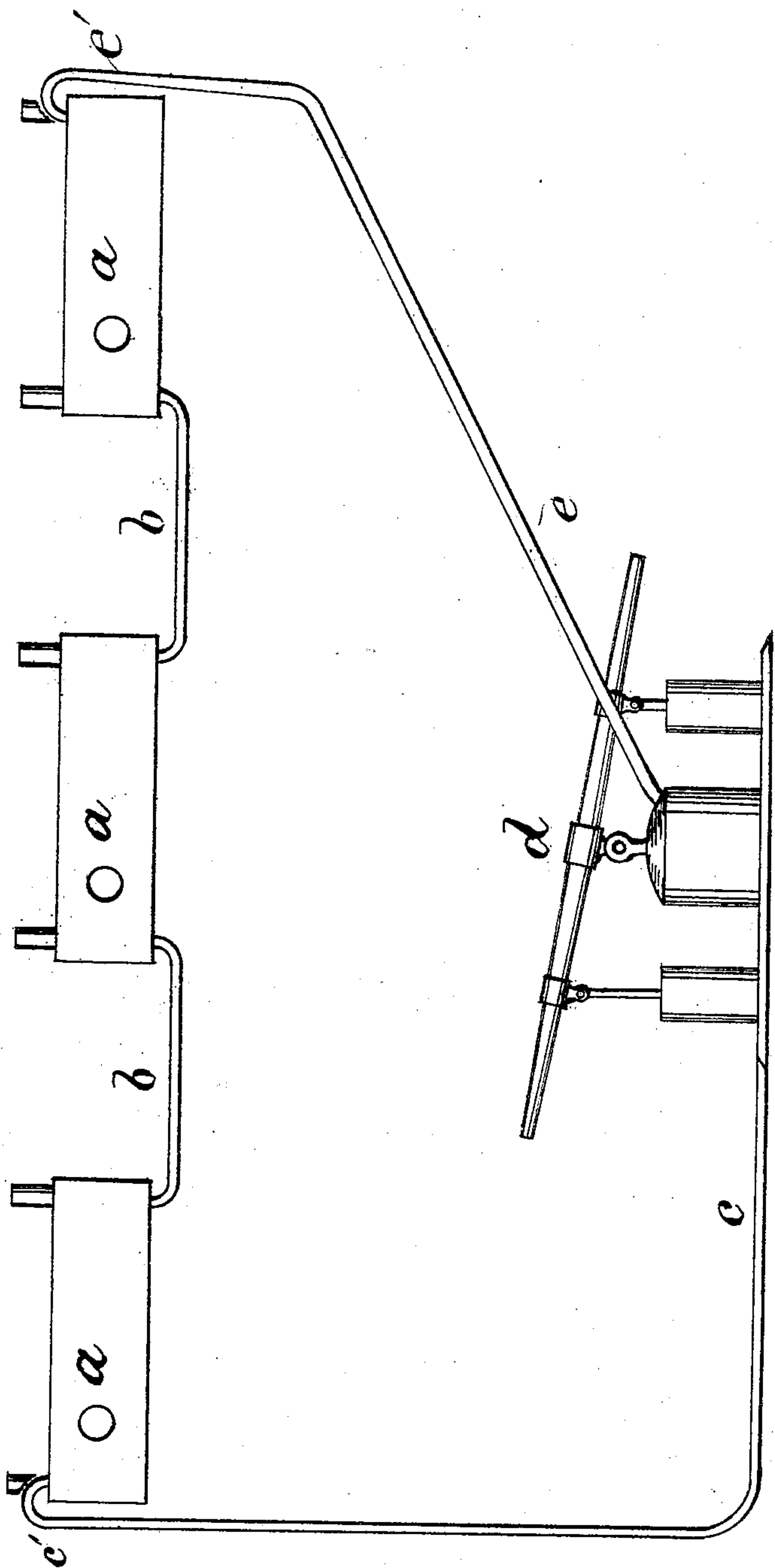


T. D. KINGAN.

Apparatus for Cooling Air.

No. 140,375.

Patented July 1, 1873.



Witnesses

Isaac Werhe

F. M. McDonald

Thomas D. Kingan

Inventor

UNITED STATES PATENT OFFICE.

THOMAS D. KINGAN, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN APPARATUS FOR COOLING AIR.

Specification forming part of Letters Patent No. **140,375**, dated July 1, 1873; application filed June 18, 1873.

To all whom it may concern:

Be it known that I, THOMAS D. KINGAN, of the city of Indianapolis, county of Marion, State of Indiana, have invented a new and useful improvement upon Patent No. 138,411, granted to me on the 29th day of April, 1873, for an Apparatus for Cooling Rooms and Buildings, of which the following is a specification:

The nature and object of the invention will be fully understood from the following general description:

a, *a*, and *a*, of the accompanying drawings, represent three of the air-refrigerators, for which said patent was granted, arranged in convenient order. They are to be connected, as shown in the drawing, by the pipes *b* and *b*, through which brine in each can flow into the others. *d* is a force-pump of any convenient construction, which draws brine through the pipe *c'* *c*, and discharges it through the pipe *e'* *e*. The end *c'* of the pipe *c'* *c* nearly reaches the bottom of the box or refrigerator *a*; the whole device to be arranged substantially as represented in the drawing.

The said refrigerators *a*, *a*, and *a*, having been placed near the ceiling of the curing-room, and charged with ice and salt, as described in my said patent No. 138,411, it will be found, after a brine has collected in the bottom of the said refrigerator from the melting of the salt and

ice with which it was charged, that it is often desirable, and of great profit, to cause a circulation of the brine through the various refrigerators to equalize their temperature. To accomplish this the apparatus set forth in this specification has been devised.

As soon as the operator begins to work the pump *d* brine will be withdrawn from the refrigerator in which *c'* is placed, and discharged into the refrigerator in which *e'* is placed. This disturbance of equilibrium will cause a current of brine to flow through the refrigerators *a*, *a*, and *a*, and the tubes *b* and *b*, from *e'* to *c'*, which may be continued until the temperature of all the refrigerators is thoroughly equalized, greatly aiding the efficiency and usefulness of the device.

I claim as an improvement upon the said Patent No. 138,411—

The combination of the pump *d*, the tubes *c'* *c* and *e'* *e*, and the tubes *b* and *b*, with the refrigerators *a*, *a*, and *a*, for the purpose and in the way substantially as set forth.

In testimony that I claim the foregoing specification I have hereunto set my hand this 13th day of June, 1873.

THOS. D. KINGAN.

Attest:

FRED. WERBE,
F. M. McDONALD.