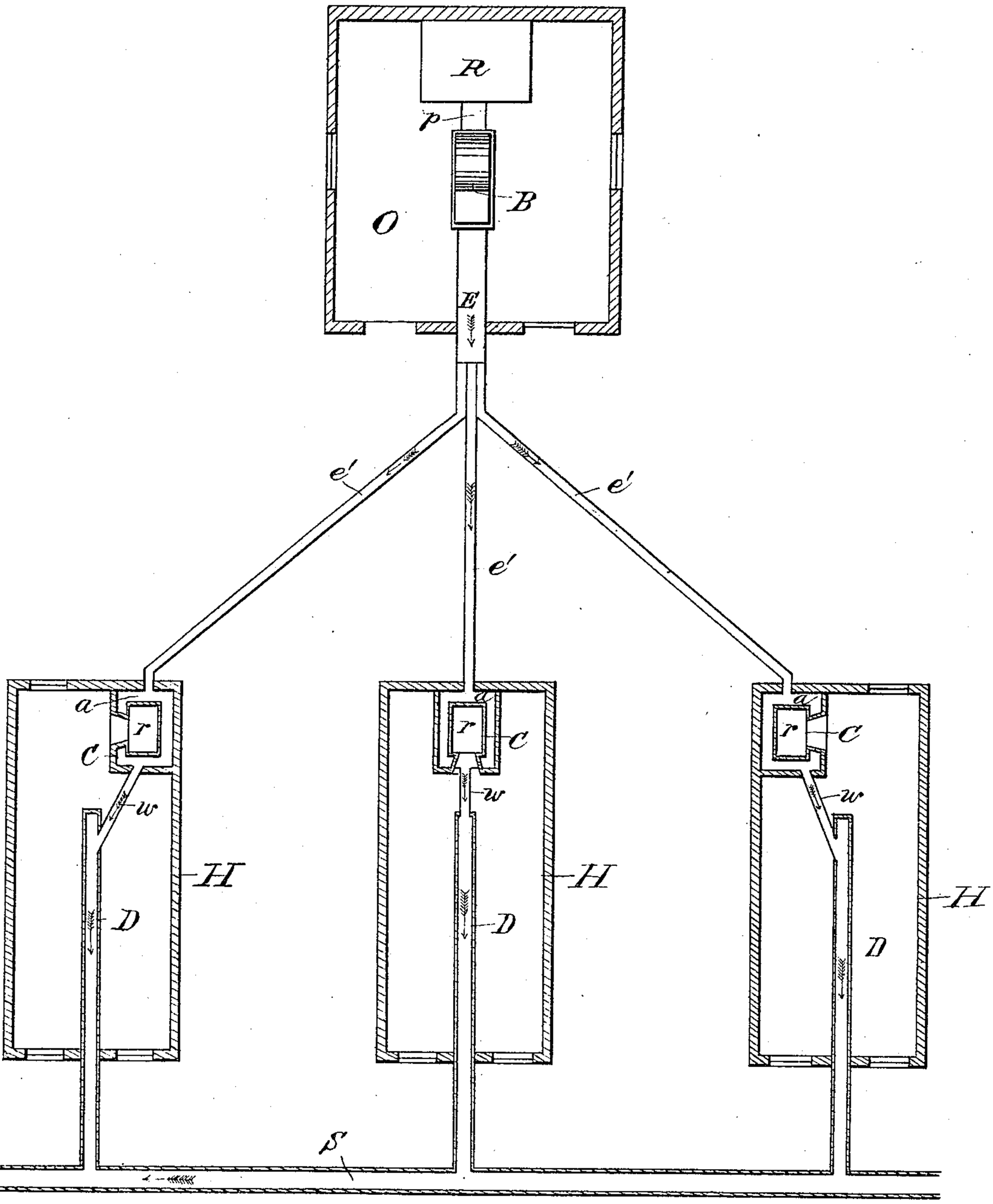
(No Model.)

T. S. VERY.

METHOD OF AND APPARATUS FOR REFRIGERATING.

No. 252,553. Patented Jan. 17, 1882.



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UNITED STATES PATENT OFFICE.

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METHOD OF AND APPARATUS FOR REFRIGERATING.

SPECIFICATION forming part of Letters Patent No. 252,553, dated January 17, 1882.

Application filed January 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, THEODORE S. VERY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Method of and Apparatus for Refrigerating, of which the following is a specification.

This invention relates to the preservation of food, and also to combined refrigeration and sewer-ventilation in houses or other buildings; and it consists in apparatus for supplying one or more buildings with cold air from a central station, and also in the provision of means whereby said cold air, after fulfilling the purpose of refrigeration, may be utilized for the ventilation and purification of the drains in the building, and finally discharged into the street-sewer.

In carrying out my invention I make use of the apparatus shown in the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a plan view of buildings supplied with cold air for the purposes above set forth by means of apparatus combined and arranged in the manner embodying my invention, all of which I will now proceed to specifically describe.

In the drawing, O represents a central operating station or building, in which is placed an air-cooling or refrigerating machine, R, of large size and any approved construction—as, for instance, that described in United States Patent No. 198,830, issued January 1, 1878, to Albert Albertson. I do not, however, limit myself to apparatus of this class, as a chamber containing ice over which fresh air may be passed will equally subserve the purpose of my invention.

Connected with the refrigerating apparatus R is an ordinary air-blower, B, adapted to take air from R through the pipe *p*, and to force the same with a continuous and powerful pressure outwardly through the main eduction-pipe E, placed beneath the surface of the ground. Branch pipes *e' e' e'* lead from the main eduction-pipe E to refrigerating or storage chambers C, placed in any convenient location within one or more houses or other buildings, H H H, and adapted to receive articles of food to be preserved. These storage-chambers may be either portable refrigerators or each may be constructed within the house, forming an integral part of the same, and each consists preferably of an inner food-receptacle, *r*, and a surrounding air-passage, *a*. The branch pipes *e'* connect with these air-passages *a* in such a manner that a constant current of cold air may enter said air-passages from the blower B. Waste-air pipes *w* connect the air-passages *a* of the storage-chambers C with the main house-drain D, which drain leads to the street-sewer S.

The operation of my invention is as follows: Pure air is passed through the refrigerating apparatus R, located at the central station, and, after being cooled to any desired temperature, is by means of the blower B operated by any suitable motor, forced through the eduction pipe or conduit E, and thence through the branch pipes *e' e' e'* into the air-passages *a a a* of the several storage-chambers C C C, and so over and around the food-receptacles *r r r*, thus reducing the temperature within said receptacles to the point necessary for the preservation of their contents. After passing through the air-passages *a* the waste air is forced out by the continuous pressure of the current of fresh air entering from the pipes *e'*, through the waste-air pipes *w*, into the main house-drains D, and through said drains into the street-sewer S.

The continuous current of cold air surrounding the receptacles *r* of the refrigerators or storage-chambers C subserve the purpose of refrigeration, as above described, while the constant outward flow of air of a low temperature through the main drains of the building, into which the various subsidiary drains empty, will tend to deodorize their contents, and thus purify them, all deleterious gases being immediately carried away, and at the same time the entrance of noxious gases from the street-sewers will be prevented.

It is evident that by means of my invention several refrigerators or storage-chambers in the same building may be connected and the cold air passed to each successively, and finally from the cold-air passage *a* of the last chamber into the drain D, as before described. If desired, the cold air may pass into and through each receptacle *r*, instead of around the same through the spaces *a*.

Having thus described my invention, what I claim is—

1. The improved method of utilizing cold air, which consists in forcing it first around or into a refrigerating-chamber to preserve articles of food, and then into a drain or sewer to purify the same and prevent back action of gas.

2. The combination of a refrigerating apparatus, R, an air-forcing apparatus, B, a trunk, E, branch pipes *e'*, refrigerators C, and escape-pipes, all constructed and arranged to operate substantially as specified.

3. The combination of a refrigerating machine or apparatus, a series of refrigerating-chambers connected with said machine by pipes or conduits, and pipes leading from said refrigerating-chambers to drains or sewers, and air-forcing apparatus to force cold air from the refrigerating machine or apparatus first to the refrigerating-chambers and then into the drains or sewers, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 13th day of January, A. D. 1881.

THEODORE S. VERY.

Witnesses:
C. F. BROWN,
W. CLIMO.