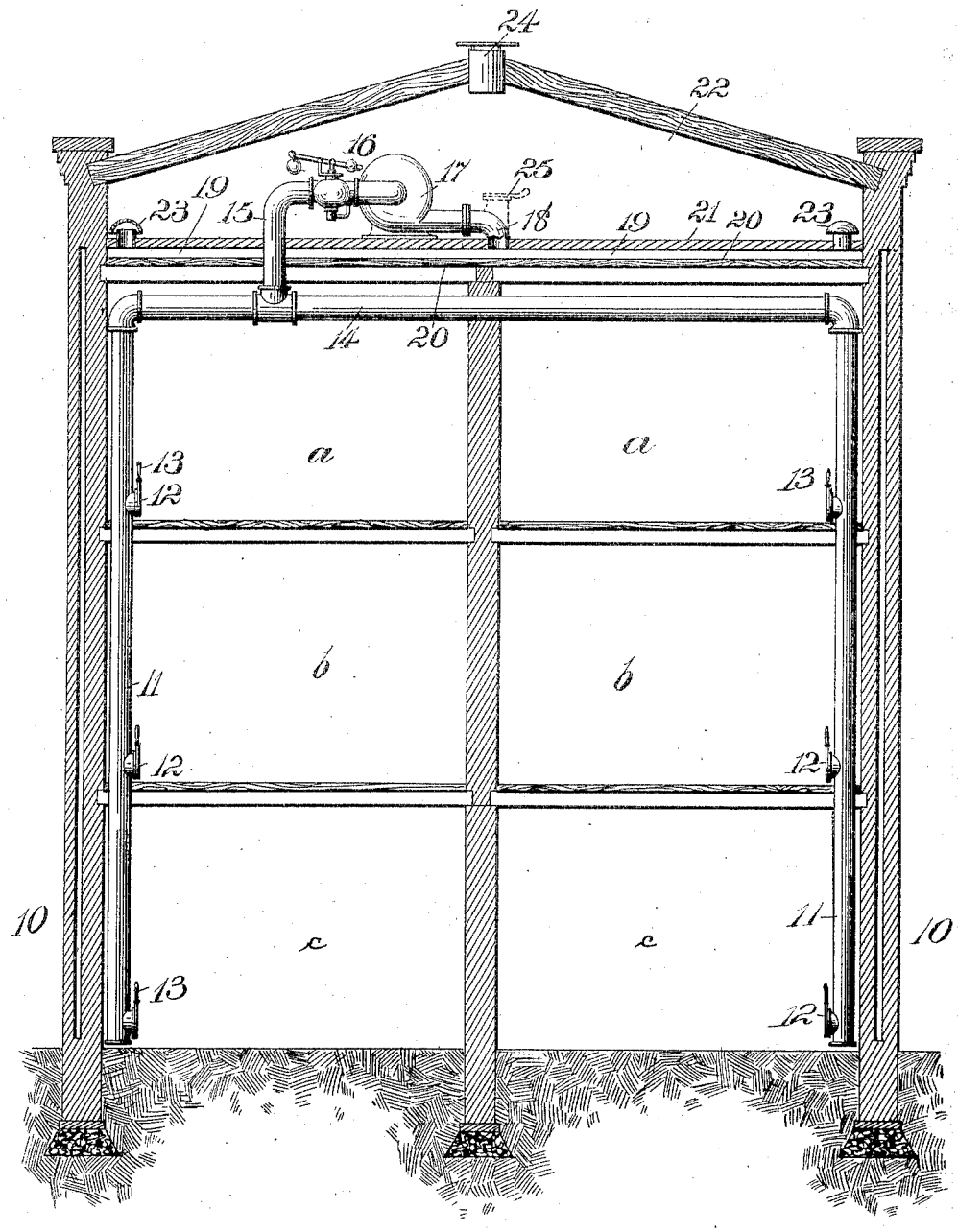
No. 776,888. PATENTED DEC. 6, 1904.

C. H. CASPAR.

VENTILATING SYSTEM.

APPLICATION FILED DEC. 1, 1903.

NO MODEL.



WITNESSES:

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No. 776,888. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

CHARLES HAYES CASPAR, OF NEWARK, NEW JERSEY.

VENTILATING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 776,888, dated December 6, 1904.

Application filed December 1, 1903. Serial No. 183,328. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HAYES CASPAR, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Ventilating System, of which the following is a full, clear, and exact description.

This invention refers to a ventilating system that is arranged to exhaust the air from rooms or the chambers of a building and transmit it to the open air in a cheap and positive manner.

Another object is to provide a system in which the air is not expelled directly into the open air, but travels through an intermediate or auxiliary chamber, thereby forming between the ventilated rooms and the open air a protective layer.

The invention refers more particularly to the ventilating of refrigerating plants or cold-storage buildings and is shown in the present case as particularly applied to a brewery structure.

The invention is illustrated in the accompanying drawing, which illustrates a building in cross-section and being provided with three sets of rooms *a a*, *b b*, and *c c*.

Running down on either side inside the walls 10 are vertical pipes 11, that have the inlets 12 suitably arranged, but illustrated in the lower part of the rooms, and a regulating-handle 13 can be placed to regulate the amount of air admitted to the pipes 11. These pipes 11 lead the air to the pipes 14 and 15 and through a pressure-regulator 16 and thence into an exhauster 17. This exhauster can be driven by any suitable power and emptied by means of the pipe 18 into an air-space 19. This air-space lies between the ceilings 20 of the rooms *a a* and the floor 21 of the auxiliary chamber 22. The outlets 23 of the air-space 19 allow the air then to flow into the auxiliary chamber 22, and an outlet 24 in the roof admits of the final outlet of the air. Now taking it for granted that a brewery is being ventilated, the chambers *a a* would probably be the fermenting-rooms, *b b* would be the lager-cellars, and *c c* would be the chip-cellars. As is usual in breweries, the air is taken from the bottom of the rooms, as shown in the drawings, and would pass up through the regulator and the exhaust and would be forced into the air-space 19. Usually with the ordinary construction of ceiling or even with a closed air-space between the ceiling and the roof the low temperature in the fermenting-room or in the rooms nearest the roof acting on the ceilings and the lower temperature from the outside atmosphere acting on the opposite side of the ceilings would cause a sweating on the ceiling that is very objectionable where open tanks or vats are used, as in the fermenting-rooms of breweries. One of the objects of my invention is to overcome this sweating, and the cold air from the rooms being forced into this air-space and passing from there out into the open space 22 forms layers of air-spaces of gradually-increasing temperature toward the open air. Of course it will be understood that the space 22 can be a small housing over the roof, or it can be, as in the illustration, a space between the ceiling of the upper floor and the roof. If necessary, an outlet 25 can be arranged on the outlet 18 with a suitable regulating means, and the outlet can thus be directed directly into the open space 22, as will be evident.

The pressure-regulator 16 can be of any suitable construction and is arranged to regulate the outlet of air from the chambers when the adjusting means 13 are opened or closed.

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

1. A ventilating system, comprising a building, a set of rooms therein, pipes arranged to draw the air from the rooms, an air-space above the rooms, the pipes emptying into the air-space, an auxiliary chamber, ducts from the air-space to the auxiliary chamber, and an outlet from the auxiliary chamber to the atmosphere.

2. A ventilating system, comprising a building, a series of pipes arranged to withdraw

the air from the chambers of the building, adjustable inlets arranged in the series of piping adapted to admit the air from the rooms into the series of pipes, an air-space between the upper chambers of the building and the roof, an exhauster arranged, to direct the air from the series of pipes into the air-space, an outlet from the air-space into an auxiliary chamber and an outlet from the auxiliary chamber into the atmosphere.

CHARLES HAYES CASPAR.

Witnesses:
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