

A test with an air meter will show that the air is being changed entirely from five to eight times an hour.

Now, so much for the heating and ventilation. We have followed the air from the outside window, over the air warmer, through the register into the room, thence to the top of the room, thence to the bottom through the iron gratings along the ventilating ducts into the "foul air gathering room." Between this "gathering room" and the large ventilating shaft for taking the foul air out of the building, the dry closets are constructed. These closets consist of a closed duct from the gathering room to the ventilating shaft, over which and emptying into it the closet seats are constructed.

The foul air from the "gathering room" passing over the excreta dries it out thoroughly, so that when it is put in a stove or furnace it will burn like wood. When the duct is covered with iron seats, the excreta can be burned as it lies in the vault. After the air passes over the excreta it passes up the ventilating shaft which opens into the outer air eight or ten feet above the roof. A small heater is placed at the base of the ventilating shaft for use in warm weather. This system is widely used in the States and is rapidly coming into use in Canada. It is in operation in ten large school buildings in Toronto, and also in the cities of London, Ottawa and Montreal, besides a large number of smaller cities in Ontario.

In Cleveland, Ohio, it was adopted after a careful and extended examination. Dr. Smith, Chairman of the Committee of Investigation, concluded his report as follows:—

"We would recommend the introduction of the system for the following reasons:

1. On account of the perfect heating and ventilation for which it provides.

2. Because the temperature in each room is under perfect control of the teacher, and there is uniformity of temperature in all parts of the room.

3. The cost for repairs where this system is in use is absolutely nothing.

4. Because of the simplicity of the apparatus and the ease with which it is cared for.

5. Because the system of dry closets, which Dr. T. Clark Miller, President State Board of Health, describes as 'almost a new sun in the sanitary heavens,' is more satisfactory in its workings and costs less to introduce than any system of closets

we could adopt, and absolutely does away with all cost for repairs. Respectfully submitted.

D. B. SMITH, M.D.,

W. H. MUNRO,

*Members of Committee."*

J. F. Baldwin, M.D., editor *Columbus Medical Journal* states:

"The Smead system of heating and ventilation was placed in our new Fifth Avenue school building. This building was only opened for pupils at the beginning of the present school session, so no test has been possible—that is, no real working tests. Soon after the work was done, however, the apparatus was fired up and tested by the Board on general principles. The system was placed in the building by a close vote of the Board. A few days ago, however, the same system was ordered for another building in process of construction by a unanimous vote. The dry closets are now in daily use in two buildings, and all are loud in their praise. I think the Board has found in these two a *ne plus ultra*."

In Detroit the Smead system has been introduced into thirteen large school buildings.

Dr. George P. Andrews, President of the Detroit Board of Health, writes to W. C. Wilkinson, Esq., Secretary of the Toronto School Board as follows:

DEAR SIR,—In reply to yours of the 7th, I enclosed to you the report of a committee, of which I was one. Our examination was exhaustive, and it gives fairly my views. We have had nothing at all comparable to it in our schools. I think the floor of the vaults should be of iron. I don't like the porous bricks, for they are too favorable as absorbents. Still if the desiccation is complete and the deposit frequently removed, and especially the details of the machinery, *i.e.*, the arrangement for a constant draught in the ventilating stack maintained, I don't see any danger to be apprehended.

Very respectfully,

GEORGE P. ANDREWS.

In Toledo, Ohio, the Smead system is in use in 22 out of 23 school buildings, and of it Dr. C. L. Van Pelt, Toledo's Health Officer, speaks as follows:—

"I have personally inspected the Smead closets, and will say that they fulfil all sanitary requirements perfectly."