tion of air, preventing foul air from accumulating—stagnant—at the trap.

In a system of house drainage, one of these two tubes may be secured by running a 3 or 4-inch pipe from the sewer, just outside the house wall, up to the roof, clear of cornices and windows; whilst the other will be obtained by continuing the soil-pipe up through the roof. A difference in temperature in the pipes will cause the air to circulate through them. This latter pipe will save the traps opening into it from being forced by gas from the sewer and drain. The traps of the baths and lower closet —all traps in fact below the uppermost one— must be saved from suction by their own little vents. These minor vents may open into the extended soil-pipe above the highest trap.

In the diagram, pipes will also be seen arising from a point below the hopper of the closet, a little above the water in the trap. These pipes may serve a double purpose. By branches from the water closet tanks they may act as flushers to the water closet traps, and they may also ventilate the water closets. They may lead to the outer air, or the chimney flue of an isolated kitchen in constant use; but never into a bedroom chimney, or any other not used *constantly*, in the strictest sense of the word. This permission I would not grant in the case of any tubes which have direct connection with the drain; and yet I know this to have been done.

As for the trap shewn in dotted lines between the house wall and the street sewer, I would leave it out of this system, were the system to become generally adopted (as it should be by by-law); for a point away up thirty feet or so above our heads is surely the best place to discharge the gas from our sewers, and not at our feet. But if it were not general, then I would yield to a very pithy remark made by my friend, Dr. Joseph Workman, "not to ventilate the whole street on the house top of one" enterprising individual; although if I were the individual, and the street ventilator in front of my house, I think I would then be still worse off than by having it on the roof of my house.

I have made a large diagram, showing how some of the principles of drain ventilation have been nullified in the Asylum of one of the neighboring States, by placing both the tubes in the same furnace shaft, thereby keeping the air in both at the same temperature, and hence stagnant; whilst a trap between the two makes the "assurance (of no circulation) doubly sure."

Before closing, let me enter a protest (in which I know you, Mr. President, will join,) against the "pan" closet—the closet in most common use. Every time the handle is raised, the "pan" discharges its contents into the "receiver," and displaces, in an upward gush, the foul air contained in it, doubly foul from the repeated coatings of fœcal matter adhering to its wall as it is dropped into it from the pan.

There are good forms of patent closets; but the simple hopper, with a good swirl of water to keep its walls washed clear of fœces whilst in use, and with an occasional flush, is quite as good as any, and better than many.

Its trap should be placed above the floor, so as not to leave a long tube between the bottom of the hopper and the surface of the water in the trap. This lessens to a minimum the surface for filth accumulation. The trap is also more accessible, if broken tumblers or other impediments should get into it.

No space should be left between the seat and top of hopper, for urine or other water to slop over. This often gives rise to unpleasant accumulation. If such space exist, it should be stuffed with papers, frequently changed.

In concluding, Mr. President and Gentlemen, I must say that I am aware that this paper is somewhat confused in arrangement. This has arisen from the fact of my having departed from my original intention, and having endeavoured to say something about the disposal of all decomposable material, in country as well as in town; by which departure I have brought together parts of my subject dealing with the "dry system" of removal, and parts dealing with the "wet," or "sewer" system.

For any such confusion that may exist, I apologize, and ask your indulgence.

Out of 144 candidates who presented themselves on the 21st of May for the Primary or Anatomical and Physiological Examination for the M.R.C.S. Eng., 69 failed to acquit themselves to the satisfaction of the examiners.