

his requirements; for it unfortunately happens that the works which we have described are rarely comprised within the limits of one contract. Ordinarily, the bricklayer does the excavation and puts down the earthenware pipes; then the plumber comes on and completes his work, and gives it over to the carpenter, who cases it in and covers it up out of sight. What may have happened to it during this latter process is neither seen nor known, unless some leakage shows itself in the ceilings or walls, and failing this, nothing is known by the occupants of the condition of the works until sewer effluvium makes its appearance, or perhaps some outbreak of disease takes place, as the natural result of the utter want of supervision over that portion of the essential works of a homestead, on which, above all other, the sanitary well-being of the inmates is dependent.

I will close these notes on ventilated house drainage with an outline of the mode of testing the drainage service of a dwelling house. I have already stated that the first length of earthenware pipe between the inside of the wall and the syphon trap should have a movable cover for the proper examination of the work. After the drain and all the works connected therewith are completed according to the instructions of the inspector, the cover should be removed from this length of pipe, and the following tests made before permission is given by the inspector to use the drain. First, for flushing. Let all the wash-basins, sinks, bath and cistern be filled with water; then let all the plugs be removed together, and the passage of the united stream be watched at the uncovered pipe, which should have a small bank of clay round it to prevent overflow. The inspector will easily detect any serious displacement or damage to the soil pipe by the volume and velocity of the current, and if the pipe flows *full*, it will show that the size of the waste pipes is sufficient to flush the drain whenever required. Next, let all the basins, sinks, &c., be filled as before, and let the water from each be run off separately, and if the water passing from each is, in the opinion of the inspector, about equal to the quantity let off above—and a little experience will enable the inspector to judge with sufficient accuracy—then the cover may be cemented on to the drain pipe and covered with some puddled clay, and the whole is finished and ready for use.

All these duties may be efficiently performed for the whole city by two inspectors, and if an average fee of five dollars were levied for each new house, which is a little more than is levied for every house furnace, the inspection would be self-supporting, and although no direct revenue would perhaps accrue to the city, the direct and indirect benefits which must result from a permanently efficient system of house drainage and ventilation would be beyond all price.

*(To be continued).*