to the effects of a town, an indoor, a sedentary life; but is this an entirely satisfactory answer? The air in our towns is not so insalubrious, so utterly unchanged and unhealthy, as to account completely for the evident signs of degeneration and want of condition just named, and probably the truth is to be sought in the fact that the ordinary town dwelling does not sufficiently reproduce Nature's own provisions for man's wants. The main need of mankind is air, food occupying a second place. Air he wants every four seconds; it will suffice if he has food every four hours. Without air he cannot exist, and the main thing he wants from it is its lesser ingredient—oxygen. But man is not alone in his requirement of this essential gas. Every flame is busily consuming it, every living creature is using it, every putrifying thing is slowly absorbing it. Thus, unless the volume of air contained by a room is ample or the fresh supply generous, the quantity available will very quickly become insufficient.

We will suppose our average man to be the occupant of some "desirable villa residence" in a London suburb, of one of those little houses with a 15 ft. or 16 ft. frontage, a bay window and a glazed front door; houses of this type can be found in these districts by the thousand. The front parlour, which he uses during a winter's night, is 10 ft. or 11 ft. square, and perhaps 10 ft. high. He may have his wife with him, and possibly a relation or friend. The fire is burning, the gas has been lit, and the windows and door are carefully closed. Here we have the average Briton at home in "his castle." What happens? These three people are each of them passing about 22 cubic feet of air through their lungs per hour; collectively, they abstract the vital principle from 66 cubic feet in that time. What is their available supply? 11 by 11 by 10 = 1,210 cubic feet. This is the self-evident answer, but it is nevertheless not the right one! The gas pendant hangs down 3 ft. 6 in. from the ceiling, and the effect of its burning light is the same as if the room were that much lower. The fire is burning, and the opening into the chimney is 2 ft. 6 in. from the floor. The combined effect of these two facts is to reduce the height of the volume of air available for breathing by 3 ft. 6 in. + 2 ft. 6 in. = 6 ft., and it therefore becomes only 11 by 11 by (10 – 6) = 484 cubic feet, or less than an eight hours' supply. Long, however, before that time, indeed before half of it has gone by, it has become positively polluted, but unfortunately the human nostril will not detect a gradually increasing smell, and our party of three only think that they are "cosy and snug together."

The foregoing statement is apparently a bold one, needing proof. Here it is. Everyone knows that the upper part of a room is the hottest. Lighting the gas aggravates this condition of things very sensibly. Heated by the naked flame, the air rises rapidly to the ceiling, spreads along it in every direction, and falls down the walls to the level of the gas flame again, there to repeat the process. Hot air being lighter than cold, it is as impossible for it to fall through the latter as it is for a cork to fall through water. The fireplace chimney is taking vast quantities of air from the room, and, for reasons which will be given in a later article, only from that part of it which is lower than the chimney opening. This keeps this portion of the apartment still colder than the rest, and shuts it off from the intermediate stratum, which our friends are breathing. Every moment they linger they are reducing the available quantity of oxygen, and consequently starving themselves of necessary food (the only one beyond the reach of monopolists' greed). If this state of things were carried to excess, they would infallibly die; fortunately, however, human workmanship is not perfect, and the jerry-builder does not pretend to anything like close-fitting joints; his windows are leaky, his walls are as thin as the local by-laws will allow, and let through some of the air that these good folk so sadly need; consequently there is no paragraph in the morning papers, headed "Shocking Fatality," to record their decease. But the effects of these nightly vigils is none the less recorded in their faces; their blood is in a partly poisoned condition, and they are chronically below par.

Presently these worthy people retire to rest. The husband and wife occupy one room; lucky, indeed, if some little one has not to share it with them; the relation or friend takes possession of another, and probably a smaller. What are the conditions now? There is nether fire nor luminant to encroach upon the air supply, it is true, but these rooms are probably quite a foot less in height than the sitting-room, the period of their occupation much longer, and the chance of fresh air being admitted by someone opening the door from time to time for ingress or egress is reduced to *nil*. Their hygienic condition is, therefore, far from healthy long before the morning arrives, and hence again the whiteness of complexion referred to. Canvass the inhabitants of a whole street of such houses, and all will say:—

"Oh, but you know, I always sleep with at least one window open, let it be ever so cold. Of course, in the latter case, perhaps only a little; for you know," and here comes the burst of confidence, "*I am a firm believer in ventilation!*"

Then rise early one summer morning (never mind about the winter) and walk along that same street while the folk are yet slumbering. See how many fingers you will need to count those open windows. You will return, asking the Psalmist, "Art sure thou saidst that in thine haste?"

Mind you, these people are not fools! When buying food to eat, they are most particular; in the matter of beer, they have a discriminating taste;

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