

subject, I ask, received that attention, in the aspect now presented, it deserves?

The subject of healthy blood, also, demands attention. The matter is generally looked at in what seems to me to be a less scientific method. We hear much of bad ventilation, but this leads to pollution of the blood and acts in a variety of ways. Let us note first what we require from the air, and the quantity. The oxygen of the air is selected from the mixture of the two gases in the lungs, embodied in the red blood corpuscles, and thus carried to the tissues.

Now part of the effete matter of the system is given off from the lungs—in the form of minute broken down particles of ourselves—and our own tissues, carbonic di-oxide, is exhaled in about equal proportion with the air inhaled at the same time—vapour saturated with a kind of extract of our bodies passes off from both lungs and skin constantly. That from the skin, especially, is pregnant with injurious acid vapours; and unless the children may be cleanly—certain other injurious exhalations mingle with those that are necessarily present.

Now a school-room is perhaps the most awkward of all places in which to carry out the laws of physiology in regard to a due purification of the blood.

(1.) For every one is supposed to use his brain actively, and so require a large blood supply.

(2.) Those engaged in almost every other sphere, breathe freely, recklessly if you will—but in the school room there is enforced quiet. Hush! hush! And the chest must scarcely dare to expand. But they sing—they repeat aloud. Yes, both admirable—both essential to the development of the respiratory apparatus. Our singers never die of consumption, it might almost be said. But then it makes all the difference

what kind of air is breathed. If the air be vitiated by the unusual use of the vocal organs, additional air and so much more of the poisonous matter is pumped into the lungs.

We should like to insist just here on the value of a judicious use of the vocal organs, as in singing, for the health.

It is not essential to health that the lungs be filled to their fullest capacity all the time, but it is very desirable that they should often be filled two-thirds, and at least twice a day fully. All boys and girls should run. If it could be made fashionable for young ladies to continue the running of their girl-hood, it would be well for them and their posterity. A large heart—a deep pair of lungs. O what two fortunes in themselves! Happiness and health—vigorous health—have a closer relationship than has ever yet been fully recognized.

What then are the requirements for a full supply of oxygen? Says Huxley, "To be supplied with respiratory air in a fair state of purity, every man ought to have at least 800 cubic feet of space ($9 \times 9 \times 9 = 729$) to himself, and that space ought to be freely accessible, by direct or indirect channels to the atmosphere."

Uneasiness and headache arise when less than one per cent. of the oxygen of the air is replaced by other matters.

How to attain this result practically is a difficult problem. If school houses could be built large enough to have one room occupied only half the school session, so that it might be ventilated in the absence of the pupils while they pass from one room to another, again furnished with a completely fresh supply of air, the difficulty could be got over; but all means of ventilating while the inmates continue to remain in the room for six hours together, have, it is feared, partially failed in this respect.