

but of poisonous air, like plants in a cellar, growing to the windows; for, in this cold climate, many persons must remain, for six or seven months of the year, stilled up with a hot stove, as if under some chemical process, and whom a breath of fresh air would lay up for a week with the cold, rheumatism, or any other disease to which the system has most exposure.

A constant accession of fresh and pure air is essential to the existence of human life, and upon this principle, that it is the means of purifying the blood and rendering it fit to circulate through the body. Hence, if the supply of air be cut off—as in cases of hanging, drowning, smothering, etc., the blood stagnates in the lungs, the heart does not receive a sufficient quantity of this food to stimulate it to action, and death ensues. In breathing we perform two actions; first, the act of inspiration, whereby the air enters the lungs; second, the act of expiration, by which the air is again expelled from them. This being premised, it is necessary to remark, that the expired air differs from the air inspired, inasmuch as, while in the lungs, in the act of purifying the blood, it loses a portion of its stimulating, and acquires noxious properties.—Accordingly, crowded rooms, such as churches, school houses, places for evening meetings, etc., should be strictly ventilated. Ventilators should be large or numerous in well filled rooms; the apertures at the top should lead *straight up* to the open air, and those at the bottom should be at least as low as the floor.

In respect to bedrooms, the doors should be furnished with ventilators; and during the summer months the windows should be kept partially open during the night and day. The fire place should not be stopped up at any season of the year by a chimney board, as many rooms are made to shut up so close that this is the only aperture by which fresh air can be admitted. To this may be added, that the bed curtains should never be drawn close around the beds, which confine the air spoiled by frequent respiration, and the perspirable matter like a noxious vapor over the sleeper; but happily, the old fashion of curtains is now but little followed. Beds should never be placed close to an open window,

or in a current of air passing from one window to another or the door.

The air we breathe may prove injurious to the constitution in two ways: first, by its being loaded with poisonous matters, such as marsh miasm; and, secondly, by its surrounding us with a sudden vicissitude of temperature. In many districts on this continent, also in England, Germany, Italy and France, a marsh miasm arises from the soil, which gives rise to severe intermittent fever. During the time the wind blows from the Campagna di Roma over the city of Rome, the inhabitants of that city shut up their houses which are exposed to the current, and retire to another part of the city, in order to avoid inhaling the miasm by which the disease is produced. The nature of this miasm, which is of so subtle a nature as to defy analysis, has been a matter of much speculation. By some it is presumed to be a gas which arises from the earth; by others it is supposed to be a diseased secretion of plants, which become so diseased from the effects of the standing water by which they are surrounded: whichever theory be adopted—and neither admits at present of any satisfactory demonstration—it is certain that when such marshy soils are drained, the air of the district becomes purified, and intermittent fever disappears. For this reason, dwelling houses in the neighborhood of lakes and marshes should be avoided; indeed, the most healthy situation to build a house is on a rising ground, in an open and dry country, neither exposed to the severest degree of cold in winter nor the highest degree of heat in summer. Trees, also, of a heavy and thick foliage, ought not immediately to surround the windows of a house, because they interrupt the free current of air, have a tendency to make the rooms damp, and during the evening or night exhale odours that are often extremely injurious to health.

WAVES OF THE OCEAN.

It is said by some of the best authorities of the day that the height of the waves of the Atlantic ocean are not over forty feet. It is also asserted that there is no disturbance felt in the water of the ocean below the depth of three hundred feet.