

taking a necessary ablation; and as to the idea that she will get wet and chill the eggs on her return, it is all nonsense. Who ever saw moisture adhere to the feathers of a well-fed, healthy goose.

After the goslings are hatched, let them run with the goose on the grass, but be careful that they are not exposed to wet, the first week of their existence; after that, there is little danger, unless the rain be particularly cold and enduring. With a small allowance of boiled vegetables, mush, or oats, the flock will do well the first fortnight; after that, they will subsist almost entirely on grass and in the water. In the fall, feed well with boiled vegetables and grain, and they will soon be sufficiently fattened for the market.

In order to guard against rats, minks, weasels, and other vermin, the goslings should be penned every night, till nearly full-grown, within a tight board or iron-wire fence, (the latter is much the best) about three feet high. Be particularly careful there is no hole in nor under the fence, that a rat or weasel can crawl through; and the fence must be so constructed that they cannot climb over it.

General Science and Miscellany.

Ventilation of School Houses.

Much has been said and written of late years on the proper construction and ventilation of school-houses, and it would seem that there could be no lack of information on this subject, yet many of the more modern structures, where children receive the first rudiments of knowledge, are built with an apparently perfect contempt of health, convenience, and comfort. It is true that they have a handsomer external and internal appearance than the rude log hut, with the fissures between the logs gaping wide—its slab seats—its huge three fathom fire-place and mud chimney, but if health is at all valuable the latter is much to be preferred to the former—for the simple reason that in the one we have the air of heaven, fresh and abundant, in the other the atmosphere is poisoned by frequent imbibulations.

A school house, chaste in design and finish—surrounded with spacious play grounds which are adorned with trees, shrubbery and flowers, is beautiful to look upon. It is suggestive of pleasing thoughts and associations. It is an evidence of taste and thrift in the community, and of social and intellectual progress: but if, with improvements in appearance and design, we cannot secure proper ventilation, it would be far better to fall back to the rude log cabin, with all its unsightliness. Our Creator has surrounded our earth with an ocean of air to the depth of forty miles, and is a necessity of our physical well being, that we should have a free, all and constant supply, without it we wither, droop and die. The air is composed mainly of oxygen and nitrogen, in proportion of one of the former to four of the latter. Oxygen is the supporter of life and combustion—nitrogen is destructive of both. Any process, therefore, which deprives the air of its oxygen, renders it unfit for respiration, and destructive of health.

Breathing is such a process. At every respiration the air is deprived of a portion of oxygen, and its place is supplied with carbonic acid gas, generated in the lungs. This gas is well known to be as fatal in its effects, when pure, as the simoon of the desert. It is the same gas which is found in pits and the bottom of wells and has so often proved fatal to life. It is generated abundantly in the combustion of charcoal, and is especially dangerous in a close room. Taken into the

lungs in small quantities it produces headache, dizziness and fainting—in large quantities stupor and death. There is, then, a process constantly going on, by which the air is deprived of its life giving elements, and its place supplied with a deadly poison. It is true that nature has provided a remedy for this evil, but none which will effect a close ill-ventilated room.

Every school boy has read of the Black Hole in Calcutta—a room 18 feet square—in which 125 human beings out 146 were in one night consigned to a miserable death, solely from breathing repeatedly the same atmosphere. "This terrible example" says Dr. Comb, "ought not to be lost upon us, and, if results so appalling arose from the extreme corruption of the air, results less obvious and sudden, but not less certain may be expected from every degree of impurity."

It is, therefore, cruel to crowd a large number of children together in a small room, as is frequently done, close every door and window, compel the little sufferers to breathe, again and again the same impure air.

The construction of school houses is sometimes such that even with all the windows open, and a breeze blowing from the cardinal points of the compass, the victims of education and advanced civilization, can only snuff the air afar off. I have in my eye such a house, and there are hundreds such. Here is the picture—look at it. The house is about 16 by 18 feet, and destined for 30 or 40 scholars; a door in one end; two small square windows on each side, as near as possible to the ceiling: the window sills five or six feet from the floor; the ceiling ten feet high. Now let the windows be opened, and the air blow in all its freshness and purity through the upper part of the room, the poor panting victims below may sigh in vain for a breath of the invigorating element. This may be endurable in summer, when a perfect ventilation may be obtained, but in winter when every crack and crevice must be closed, to exclude the cold air, who can compute the ravages made on the young constitution, embittering future life and consigning it to a premature grave?

It is computed by scientific and accurate chemists; that every person destroys four cubic feet of air per minute, so as to render it unfit for respiration. Suppose now that 40 scholars be assembled in this house, they will require 160 feet of air every minute, or 9,600 every hour, and the air will be poisoned so as to be unfit to be received into the lungs every 18 minutes. But no provision being made to renew this vitiated atmosphere, it is inhaled again and again, sowing the seeds of disease and death. Such houses as this are repetitions of the Black Hole on a limited scale, less speedy in their results, but not less certain and fatal.

Is it a wonder that headaches and fainting are common in such houses? or that the scholars are dull listless, and inattentive? In addition to the causes enumerated of vitiated atmosphere, may be mentioned the vapor breathed from the lungs and the matter thrown off from the body by insensible perspiration. It might be supposed that carbonic acid gas, having a specific gravity of 1.5, air being 1, would fall to the floor and such is the fact when it is cooled, but being heated in a warm room, it is readily diffused through the atmosphere, and the inmates begin at once to inhale the poison. A volume might be written on this subject. Statistics have been collected by scientific men which are perfectly appalling, but there is not space neither is it necessary to repeat them here. Let every parent, whose eye shall meet this article, visit the school room in his neighborhood, when, during the winter months, it is almost crowded to suffocation, and the air is heated and scorched by a stove; let him remain for a day and