

The Farm Home

The Air of Our Houses

By Frank T. Shutt, M.A., F.C.S.,
Chemist, Dom. Expt. Farms.

There is certainly no blessing more liberally bestowed by nature than pure fresh air, and especially is this the case in Canada. Analyses, as well as the general healthiness of our people, furnish ample and strong evidence in support of this statement. The fact, however, remains that many of us—and this refers to residents both of the country and towns—do not sufficiently realize the value of fresh air in our houses, or, in other words, do not realize the great menace to health there is in impure air. By impure air, I mean air loaded with the products of respiration, with the stale odours of cooking, with gases produced by decay of organic matter, with sewage emanations, etc.

this gas (carbonic acid) every twenty-four hours.

Further, air given off by the lungs contains a considerable amount of organic matter, which we may rightly conclude is of a particularly deleterious nature to health when continually and constantly breathed. Indeed, recent investigations have gone to show that this is the constituent most to be dreaded in respired air. Again, such air may contain disease germs; at all events, it presents conditions most favorable for their development and propagation.

The action of impure air upon the system usually is insidious. Like polluted water, it frequently works in a slow, treacherous and stealthy way, gradually undermining the health and impairing the general vigor and tone of the body. Giddiness, fainting fits,

as for pleasure. We should heed their warnings. The unpleasant odor, and sometimes even taste, so frequently experienced on entering ill-ventilated houses and crowded rooms is a sure indication of air that will act as a slow poison. Notice the pleasurable sense of relief on going out from such into the fresh air. We should take care that we do not habituate ourselves to unpleasant odors in the house, but rather recognize them as danger signals and seek to remove their cause.

No special apparatus is necessary to supply our farm houses and country schools with a plentiful supply of fresh air. Sitting in strong draughts from open windows and doors is certainly to be avoided, but there are numerous inexpensive devices for distributing the current, so that with their aid no danger



WHEN THE HORSELESS CAB STRIKES THE JUNGLE

—Puck.

Air is vitiated by respiration. Its oxygen is thereby largely reduced. In the combustion of the food materials in the blood, between 4.5% and 5.0% of the oxygen of the air we breathe is converted into carbonic acid gas—a product distinctly inimical to health. Fresh air contains only three to four volumes of carbonic acid per 10,000, but expired air contains between 400 and 500 volumes in the same quantity. The extent to which air may be rendered impure in a poorly ventilated room may be understood when we remember that an adult individual produces or expires 16 cubic feet of

nausea and headache are among the more immediate effects of breathing air of ill-ventilated rooms, but it should be further understood that indigestion, diarrhoea and allied disorders of the alimentary track are encouraged, if not caused, by this unseen foe. It has been clearly proven that those working and living in an impure atmosphere are not so able to resist the attacks of germ diseases (such as typhoid, etc.) as those constantly breathing pure air.

Our senses of smell and taste were given to us to be used, and for our guidance in matters of health as well

need be feared, even in winter. Especially should the air of the sleeping room be pure and fresh; a headache and unpleasant taste in the mouth in the morning are often caused by breathing impure air.

There are many other phases of this subject that might be discussed, but these must be left for future articles. We have learnt that air once breathed is detrimental to health, that its action may be, and often is, of an insidious character. This is an important lesson and one that it behooves us all to act upon.