

In the interests of the public, and for their own credit, it behoves the legislature to take action in the matter, or we shall continue to have to account for a large and unnecessary waste of human life. Why not make it needful (asks the *Observer*), as in France, for every patented medicine to have its composition registered, so that the profession, at least, may know of what it consists?

*Poisonous Sweets.*—The practice of flavouring sweets with chemical, instead of real fruit flavours, is most pernicious. Pear, pineapple, and other flavours are produced from butyric acid, instead of from pears and pineapples themselves. Chemical flavours are simply poisonous, and ought to be interdicted wholly, while real fruit flavours, for the most part, are perfectly safe. Some samples of vanilla, however, now so frequently used for flavouring, owing, it has been said, to the circumstances that the beans brought from Columbia are covered, as Professor Shroff has shown, with the acrid oil of the *anacardium*, have been productive of very unpleasant effects. All the French medical journals have taken the matter up, and M. Moures has published the particulars of nine cases, and Dr. Papilland others, wherein actual poisoning ensued from partaking of ices which had been flavoured with the vanilla here spoken of.

*The Emperor Bell.*—The third largest bell in use in the world was recently placed in the southern tower of the cathedral in Cologne, Germany. Three castings were made, of metal obtained by melting French cannon captured during the Franco-Prussian war. Two were unsuccessful, but the third was perfect. The twenty guns used weighed 50,000 German pounds, and to these were added 80,000 lbs. of tin. The time of melting was but ten hours, and twenty-nine minutes sufficed to fill the mould. The cooling continued for four weeks. The bell is 10 ft. 8 in. high, and 11 ft. 2 in. in diameter. Its total weight is over 25 tons. Of the larger bells in existence, two, those of Moscow, weighing respectively 193 and 63 tons, are broken. Pekin has one bell weighing 53 tons, and Novgorod, Russia, one of 31 tons—both of which are in use.

*A word to boys.*—Parents should, by repeated admonitions and friendly advice, strive to instil into the minds of their boys the idea, that no matter what their antecedents have been, no matter what their present condition is, their future is to a great extent within their own control—that in a young and flourishing country like Canada, where there is freedom for all, with ample scope for everybody's talents and ambitions, and where true merit is the talisman of success, there is a bright prospect before every youth who starts out in life guided and governed by sound principles and honest intentions. The facilities for securing the untold advantages of education are nowhere else so good or abundant; there is, therefore, no excuse for that Ontario boy who grows to man's estate in this country and yet must plead ignorance. Better Common Schools are not to be found in the world, and they are open to every one, without distinction of class, creed or colour. The especial importance of possessing at least a groundwork on which to rear the structure of life and success, is not to be over-estimated, and no better foundation exists than that furnished by the solid rock which can be hewn out of the rich quarry of a good English education. The base may be rugged and less shining than the builder would like, but it is there, come what will, and, as time passes, may be polished to correspond with the more showy edifice as it rises symmetrical with the advantages the occupant may possess in after-life to adorn and beautify it. We dwell upon the necessity which every youth is under to store his mind with all the sound and honest knowledge that he can grasp. No better indication, perhaps, exists of the future a boy intends to carve out for himself than is afforded by his efforts to secure every particle of education he can. That lad who thirsts after information, and has parental or friendly advice to guide him into the true paths, may be esteemed as being already on the high road to success, if not to fame, for in no respect is that prognosticating proverb, that "the boy is father to the man," more true than in this. Every boy has or should have an innate ambition to become something better than he is, but he may rest content that his efforts will be hampered, if they do not result in actual defeat and disappointment, if he have not the rudiments of education. Many noble men, whose younger days were contemporary with those when there were no schools, and, who, consequently, never had adequate instruction, have struggled against apparently overwhelming odds, and by indomitable perseverance have risen

above their fellows, who had had better opportunities than they; do not they afford splendid examples for the growing generation? Self-made and self-taught as they are, they grieve over nothing so much as the lack of advantages in their youth. We have them by scores in Canada, and illustrious they are when regarded in the light of their intrinsic qualities. The youth of to-day, can make no excuses when they reach manhood; it may be that circumstances were adverse to their attending school, but they must know that not only are they protected by law, but are by law required to go to school so many days in the year. There is no lad but can go to school, if he from his heart wishes it; if others strive to prevent him, he has a friend in the law if not in flesh and blood. Canada needs thousands of intelligent farmers, tradesmen, mechanics, sailors, soldiers and even labourers, as much as learned lawyers, doctors, clergymen, and statesmen, and to every Canadian boy she holds the door of entrance wide open. Where there is no mental training, mere manual skill goes for little, but where both are combined then prospects for promotion are good, and once started what is to stop a man from ascending to the top of the ladder? These sentences are written with a desire to stimulate the lads who may read them to lose no time in selecting some honourable business, trade or profession, and then set themselves resolutely to work to achieve success in it. The youth who has no idea of what his future is to be is indeed a pitiable object, though his parents' or some one else's wealth at present seem to ensure him from future need or want. Let every boy lay aside such or any other hopes, which are often of the most delusive character, and resolve to rely on his own merits for his success in life, recollecting that it will be all the more creditable, and not forgetting that he must lay his foundation now.—*Hamilton Times.*

*How house air is spoiled*—The following will show how the air in houses becomes contaminated:—

1. An adult person consumes 34 grammes of oxygen per hour, a gramme being equal to 15 grains.
2. A stearine candle consumes about one-half as much.
3. An adult gives off 10 grammes per hour of carbonic acid.
4. A child of 50 pounds weight gives off as much as an adult of 100 pounds weight.
5. A school-room filled with children will, if not well ventilated at the beginning of the hour, contain 25 parts in 1,000 carbonic acid, at the end of the first hour 41, and at the end of the second hour 81.
6. The air is also spoiled by the perspiration of the body and by the volatile oils given out through the skin. An adult gives off through the skin in 24 hours from 500 to 800 grammes of water mixed with various excrements, poisonous if breathed.
7. A stearine candle gives off per hour 0.4 cubic feet of carbonic acid and 0.03 pounds of water.
8. Carbonic oxide is a much more dangerous gas than carbonic acid, and this obtains entrance to our rooms in many ways—through the cracks in stoves and defective stovepipes, or when the carbonic acid of the air comes in contact with a very hot stove and is converted into a carbonic oxide. The dust of the air may, on a hot stove, be burnt to produce it; or it may flow out from gas-pipes when the gas is not perfectly consumed.
9. Another form of air injury is the dust of a fungus growth which fills the air in damp and warm places. We call it miasm from a want of a true knowledge of its character.
10. Accidental vapors are the crowning source of air poisoning. These are tobacco-smoke, kitchen vapors, wash-room vapors, and the like.
11. When we heat our houses and close them from outside air the heat turns the mixture into a vile mess unfit for breathing. The only remedy is ventilation. Now that it is cold weather, and our rooms are closed from the currents of outside air, let us look after the matter thoroughly and do our best to prevent injury to ourselves from polluted air.