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The Rural Canadian.

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THE GLUCOSE HONEY BUSINESS.

The adulteration of honey with glucose, a cheap and unwholesome sweet, is carried on extensively in the United States. A convention of glucose-makers recently sat in Chicago with closed doors, which was befitting, for their schemes will not bear the scrutiny of public opinion. Not honey merely but sugar is largely adulterated with this substance. Every grade except the granulated is thus dealt with. Glucose will not granulate. Indeed its admixture with honey is said to have resulted from the ignorant prejudice of the mass of buyers against granulated honey. All honey, with the exception of a very few grades, like that made from the white sage of California, will granulate or crystallize under the influence of cold. It may therefore be taken as a safe general rule, that honey which becomes solid on the approach of winter is pure, while that which continues fluid is adulterated. Glucose was first used, it is believed, by dealers, to preserve the fluid condition of honey, because granulated honey was objected to by customers. It was found so profitable a mixture, that it came into extensive use as a money-making expedient.

No respectable bee-keeper will thus adulterate honey. At conventions and in bee journals there is a constant outcry against the practice. It is carried on by dealers and middlemen. It requires much skill, and is one of the occult tricks of trade. The work is done by large houses in cities. In the United States, petitions have been presented time and again, beseeching Legislatures to put down this nefarious business. Thus far, no effective measures have been adopted, and the American public is left to protect itself. This can be done easily if a knowledge of the evil and the means of avoiding it once becomes generally diffused. The fact that pure honey, save in the exceptional cases above noted, will granulate, needs to be universally known. It may be safely affirmed that all the pure honey put on the market in the Northern States and Canada will granulate. But there is another and better means of protection. Let consumers insist on having a guarantee in the name and trade mark of apiarists and dealers from whom they buy honey. Once a man or firm was detected in selling adulterated honey, and he might say, "Othello's occupation's gone."

Though there has been considerable alarm in this country in regard to glucose honey, it is questionable if any has yet found its way into the Canadian market. But there is danger that it will soon do so. Glucose factories are being started among us. Slowly

but surely, any line of business found profitable in the United States is apt to cross the border. Glucose making is enormously lucrative, and, once introduced here, will doubtless thrive, as it has done and is doing across the lines. It is important, therefore, that our people should be put on their guard, enlightened as to the matter of granulation, and earnestly counselled to buy honey only of responsible bee-keepers and dealers, who have no cause to be ashamed or afraid of putting their names on the article they sell.

Since the above was written, the following has come to hand in the *Prairie Farmer*:

"Congress is to consider a bill to tax and regulate the manufacture and sale of glucose. The bill is especially designed to suppress the present vile adulterations of sugars and table syrups. Gen. Raum, Commissioner of Internal Revenue, furnishes Congress with some startling statements. He says it is alleged that the alarming increase of that terrible malady, Bright's disease of the kidneys, is directly traceable to the use of glucose in various articles which it is used to cheapen. Glucose is manufactured by boiling corn-starch with sulphuric acid (oil of vitriol) and mixing the product with lime. A portion of the sulphuric acid, and sometimes copperas, sulphate of lime, and other noxious principles, remain in the glucose. In the analysis of seventeen samples of table syrup by Dr. Kedsie, fifteen were found to be made of glucose, one of them containing 141 grains of oil of vitriol and 724 grains of lime to the gallon, and one from a lot which sickened a whole family, containing seventy-two grains of vitriol, twenty-eight of sulphate of iron (copperas), and 363 of lime to the gallon. Analyses of the sugar sold in New York reveal the presence not only of glucose with its inherent poisons, but of muriate of tin, a formidable poison, which is employed in the bleaching process. Glucose is largely used to adulterate maple-sugar, candies, jellies, honey, and other sweet foods. There are, of course, two sides to the glucose question. The manufacturers show, by reputable chemists, that pure glucose is harmless. Without doubt it may be made entirely free from harmful elements, but the presumption, borne out by many analyses, is, that in but few cases the commercial article can be given a clear certificate. This matter of adulteration is a difficult one to regulate, but the necessity for regulation is none the less imperative. Local or State legislation proves, and always will prove, of little avail. Relief can only be obtained through National enactments."

IMPROVING THE CLIMATE.

Some of our American exchanges are poking fun at a plan propounded by Professor Shaler, of Harvard University, for improving the climate of the United States by widening Behring's Straits and causing an immense current of warm water to flow into the Arctic Ocean. The Professor states that once on a time the Japanese current flowed through these straits in far larger volume than now, and that a bigger artificial channel would result in a great amelioration of climate. We do not see anything so very ridiculous about the plan. The idea of it is founded on fact. Even now the wonderfully mild climate of

the Peace River and other districts in the far West, greatly to the north of us, is attributed to the influence of warm currents in the Northern Pacific Ocean, which temper and soften the air of those favoured regions. It might be a gigantic engineering task to blast out and widen the straits in question; but this is an era of great enterprise, and once proved to be worthy its cost, the feat could and would be accomplished.

But we only meant to use this matter as a text from which to say a few words in regard to climatic improvements that are entirely practicable. A grove of evergreens or even of deciduous trees around the farm house and steading would greatly amend the climate for man and beast during our long and severe winters, lessen the consumption of food by stock and of fuel indoors, and augment the comfort of life indefinitely. A belt of sheltering woods on the exposed side of farm and fields would so amend the climate that fall wheat could be grown on thousands of acres in which it is now useless to sow it. Tree-planting along the highways, and the preservation of enough of forest to keep up a supply of timber for lumbering and mechanical uses, would add a considerable percentage of improvement to a climate which has become needlessly rigorous through being stripped naked by the woodman's axe. Drainage of land would amend the climate, enabling the ploughman to take his team afield two weeks earlier in the spring than he can now do on the soggy and waterlogged soil which he is condemned to work. Proper drainage would also make the surroundings of homes both in town and country far more salubrious than they now are. There is also "a cheap and easy" way of improving the climate in malarious districts, and that is by planting sunflowers abundantly. These have the pleasing faculty of absorbing malaria, and changing it into dazzling yellow blooms. Perfect cleanliness about the dwelling and premises, the abatement of all nuisances, and the faithful observance of all known laws of health in and around our habitations are but minor specifications of possible and desirable climatic improvements. Many families, all winter long, breathe the foul air emanating from cellars in which there are decomposing vegetables. In fact, the climate we live in is very largely of our own production, and in a multitude of ways is capable of very considerable improvement.

GOVERNMENTAL AGRICULTURE IN THE UNITED STATES.

The American papers are having a lively discussion over the proposal to establish a National Bureau of Agriculture, to be presided over by a Cabinet officer, and the tide of public opinion seems to set pretty strongly against the movement. Leading agricultural papers oppose the scheme, and affirm that the farmers of the country neither desire nor ask that it should be carried into effect. It is urged that the Government has no call to take charge of the farming interests of the country, and that a Minister of Agriculture is no more needed than a Minister of Commerce, a Minister of Manufacture, or a Minister of Public Worship. One influential newspaper says: "There will be no legitimate occupation