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The Canada Farmer

TORONTO, CANADA, OCTOBER 15, 1876.

Adulterated Butter.

The adulteration of butter has been brought to such a high state of perfection that there now seems good ground to doubt the reliability of all known methods of its analysis. A case in point very recently occurred in Glasgow. One of the city sanitary inspectors purchased from a provision dealer, named McKinnon, a pound of butter which had previously been bought from a wholesale house, and on the recommendation of a chemist who pronounced it pure and of good odour. The inspector however submitted the sample to Dr. Clark, city analyst, who condemned it as not genuine. Thereupon an action was entered against the dealer who, in defence, submitted the testimony of two other chemical authorities, confirming that of the chemist who had first recommended it. Sheriff Lees who tried the case, sent the article for further inspection to Somerset House, whence he received the following report, on the strength of which judgment was given for the plaintiff and a fine of two guineas imposed upon the defendant:

"The samples of butter referred to in the preceding letter was received here on August 2, 1876. It was enclosed in a wrapper marked 215 B and 21, 31st July, 1876, and was securely sealed. We herewith certify that we have analysed the butter, and declare the results of our analysis to be as follows:

Water	14.30	per cent
Curd and impurities	60.45	"
Salt	3.81	"
Fats	51.41	"
	\$100.00	"

"From our examinations of the fats, we are of opinion that the sample is made up almost exclusively of a fat which is not of butter, and which has apparently been worked up with a little milk."

Accompanying the report was a letter signed by Mr. Bell, one of the analysts, and containing amongst others the following remarks:

"I may state that I think we have fairly investigated the butter question, that the investigation was undertaken in the interests of both the trade and the public, and that we had hoped the results would prove satisfactory to both. In the present case it is clearly of importance to all parties to have an uninterested opinion on the true character of an article which, it appears, is being imported from Holland and sold under the name of butter."

Mr. Bell was evidently not aware of Hollanders nearer home. The Glasgow News, reviewing the case, and commenting pretty severely on the decision which, it contends, should have been directed rather against the manufacturers than the dealers, proceeds with the following piece of enlightenment:—Messrs. James Smith and Sons, soap-makers and oil merchants, 20, Ropeworklane, Glasgow, have works at Kyle-street, Port-Dundas, and Ruby-street, Dalmarock-road. Up to a few weeks ago the Port-Dundas establishment was exclusively, or almost exclusively, a place for the manufacture of soap. Since then the requisite machinery has been constructed, and at the present time it is devoted entirely to the manufacture of butter. The process of manipulation is as follows:—Good beef suet, perfectly wholesome, is sorted, and every piece of coarse texture is separated from it. Having been roughly chopped up by hand, the suet is placed in a machine beaten by steam, in which it is torn, by rapidly revolving knives, into the smallest particles. The heat of the machine brings it to a melting point, and it flows into a receptacle, where it undergoes constant agitation for about two hours. The object of this is to remove from the fat the grosser substances, such as the filaments or shreds of skin which may be attached to the suet. These, with other impurities, fall with the heavier fat to the bottom. Having been allowed to settle a tapsituated some inches above the bottom of the machine is opened, and a fine, rich oil flows into cans prepared to receive it. It is allowed to cool to a butter-like consistency, and is then placed between mats, and

subjected to the squeezing of a hydraulic press. This has the effect of straining the fat through the mats, again leaving the grosser particles behind. The fat is taken to zinc vats, and once more heated. Drawn off in a liquid form, it again undergoes the straining process in the hydraulic press. It is then supposed to have been reduced to a state of purity, and ready for amalgamation with milk. This is effected in a gigantic churn, fitted up with two sets of paddles. The proportion of milk and oil may be roughly stated at about 11 gallons of the first to 30 or 33 gallons of the second. The mixture is thoroughly amalgamated by the constant and rapid motion of the paddles, which also have, of course, the effect of producing the usual proportion of new, fresh butter from the milk. It is necessary after this to drive out the whey which has formed, and to do this the substance is passed through rollers, which not only expel the water, but make the amalgamation more perfect. From this it is conveyed to kneading troughs, where it is worked by hand, and receives its due proportion of salt saltpetre, and colouring matter. Nothing more remains than to pack it into tubs usually associated with particular markets of fine butter, and issue it to the trade with any particular brand that may have been determined upon, for sale to the community, as "Fine Jersey," or any other class of good, saleable butter.

Through the indomitable energy of the same journal, the whole subject of adulteration has now been pretty freely ventilated across the Atlantic, and legislation upon it at no distant day is highly probable.

Dynamite for Stumps.

The question is frequently asked: Is dynamite profitable for eradicating stumps? We have no hesitation in replying that the results of its application in this respect are not nearly so great as was at one time claimed or expected. In a recent issue of the New York Herald we read as follows regarding an experiment which, in one case at least, seemed a success: "Some dynamite was employed to raise stumps from their position and hold in the earth. A quantity of earth was removed from the side of a stump and a hole driven below the stump with a crowbar. Into this hole a cartridge of dynamite was pressed by means of a wooden ramrod, then a detonating percussion cap, with a Blackford's fuse attached, was squeezed into a small cartridge or primer of dynamite and inserted into the hole in contact with the charge. The hole was filled up with loose earth, about a foot length of the fuse being left bare. A match was next applied to the fuse and a sufficient time was taken for the powder to reach the percussion cap to allow the operatives to retire to a safe distance. When the explosion occurred the stump was literally blown out of the ground, some of the fragments, weighing nearly twenty pounds, being thrown a distance of over 100 yards."

Now, in this case, there were no doubt some exceptional circumstances, possibly overlooked, which rendered the shattering comparatively easy. We have seen dynamite repeatedly applied for similar purposes, but, in nine cases out of ten, the only effect was the tearing away or loosening of but a very small portion of the stump, so that the charge had to be repeated again and again—in some instances as often as twenty times to an ordinarily sized stump. We quite agree with the Herald however in recommending dynamite for blasting boulders.

Agricultural Fairs.

The principal fall exhibitions are now nearly over, and we trust the practical lessons they are designed to teach will not be lost. It is gratifying to notice that, as a rule, these shows are vastly improving from year to year, if not always in the quantity, at least in the quality of the products exhibited; and it is further noticeable that this improvement is intrinsically greater or less just in proportion as practical farmers themselves take or do not take the regulation and direction of matters into their own hands. When the directors of agricultural societies used to be for the most part citizens and townsmen engaged in mercantile and other kindred pursuits, of course the success or non-success of exhibitions hinged largely, in their estimation, on the magnitude of the crowd attracted. Business was in their eye, and the amount of business transacted decided the merit of the show. As an incentive, therefore, to this consummation, every kind of attraction used to be

thrown out—horse-racing, gambling, anything to draw the multitude, in order that the multitude might enliven business by spending money. Tavern-keepers in those days were the most active promoters of exhibitions, particularly the side issues, for they reaped from them the largest harvest. Happily we have now entered upon another and a different era, when the success of exhibitions is adjudged wholly on the merits of the display when they have realized largely their original and proper aim—an index of the present and a stimulus to future prosperity. The local cattle show, says one of our English exchanges, is an important institution, stimulating the breeders of the district to improve their stock, each in gentle rivalry trying to outvie his neighbor. It is at the cattle show, when his horse, cow, pig, or sheep stands alongside his brother farmer's animals, that he finds out the failings and virtues of his own stock, and then goes homewards with a determination to go on improving its type and general character. Though, perhaps, beaten, he is not quite vanquished while he lives to fight another day.

To the healthy influence of competition at cattle shows we must greatly attribute the present fine, improved character of our flocks and herds. In the exhibited animals the breeder sees what points to avoid or to cultivate. If he determines on making a mark himself, he does not fail to procure the blood of some winning strains. He cannot well do it without. Other laborers, however, have been in the field, and he enters upon their harvest. It would be folly to attempt to perfect an old unpedigreed strain of Short-horns, while the work is already to hand in a far advanced stage, from which the breeder may at once take his starting point without loss of time. It is this consideration which puts a somewhat fictitious value, apparently, on the strains of cattle, horses, and sheep, which have made special character and the power of transmitting their best qualities to their descendants. It is not the value of the individual animal as a food producer or as a breeder of ordinary stock for sale to the grazier or butcher, but its potentiality for good for generations to come that makes it a much coveted prize. The many years of skill and science also spent in developing the strain, the costly experience gained in the face of many difficulties, all go to render highly-bred animals valuable. Were it otherwise, fancy prices would be ridiculous. The cost of producing stock is necessarily included in their market price—following a common law of commerce. Thus prices that sometimes appear sensational are frequently but a natural result of time and treasure sunk in forming the special type which, if broken, it would take a generation to repair.

To all, and especially to the farmer, these exhibitions of stock and farm implements are educational. It is therefore satisfactory to find them ever increasing in popularity. The influence they exert on modern agriculture must be great. They are deserving of every support, and we trust the present show season will be as pleasant and successful as that of any previous year.

Trade with England.

We have on several occasions noted in these columns the gratifying trade that has sprung up, and is being speedily established between Canada and Great Britain in the matter of horses and cattle. The profits of exporting have been quite large enough to encourage a wider extension of the enterprise, and stimulate to greater activity in the development of these branches of Canadian farming. In addition to the trade in live cattle and horses, we have now to chronicle the creation of another branch of business with our kinsmen over the sea. "The latest instance of Canadian enterprise," says the Liverpool Daily Courier, "is the exportation of eggs by D. D. Wilson, of Seaforth, Ontario. These eggs have found their way to Liverpool and Glasgow, and notwithstanding their journey of over 4,000 miles in the hottest season of the year, have preserved their freshness in a remarkable manner. Mr. A. G. McDougall, of Seaforth, Ont., who is now on a visit to this country, and to whom the eggs were consigned, is so pleased with the satisfactory issue of this new venture that he has made arrangements to furnish supplies of eggs to this country on an extensive scale. Considering the scarcity of eggs here particularly during the winter season, the importation of Canadian eggs will doubtless be hailed with satisfaction."