

last. Phosphate, silver, oil and salt appear to be the principal articles of increased export. Coal is less, by 24,000 tons. (320,929 tons against 344,282) Gold, iron, plumbago, copper, stone, and slate, all have decreased in amount or value, or both.

Turning to the fisheries, we find a slight increase in the quantity and value of fresh codfish: 806,899 cwts., worth \$806,899 having been sent abroad. More pickled mackerel were exported, bringing, however, less money by \$150,000. Herrings, too, and all kinds of salmon, show diminished export, except canned salmon, the quantity of which has now reached 4,974,000 lbs., worth \$616,000. Fish oil shows a trifling increase, and furs a more decided one.

Forest products, while they show increases in a few minor items, such as telegraph or other poles; oak and spruce logs; shingles, stave bolts and sugar-box shooks; show a marked decline in the important features of deals, planks, boards, and all square timber, as per the comparison below, also in potash, tan bark, and fire wood.

	1878	1879
Deals.....	\$7,844,286	\$5,183,029
Planks, &c	4,452,236	4,230,966
White Pine, sq ...	2,857,081	1,103,961
Oak sq	1,145,176	418,985

Among farm or field products, dairy produce, butter, cheese and eggs were exported in larger quantity, bringing, however, less money. For, whereas 39,371,139 lbs cheese in 1878 brought \$4,121,301, 49,616,415 lbs sold in 1879 brought only \$4,034,750. Similarly, where 13,504 lbs butter brought, in 1878, \$2,774,197, the 14,536,242 lbs sent out in 1879, returned but \$2,138,447. Lard shows a considerable increased export, so do hides and skins. The export of tallow was increased greatly, at, however, a low price, while more wool was sold, bringing, however, less money. All kinds of meats show a decrease, but 136,061 live animals added \$1,500,000 to the value of exports, as follows:

	1878	1879
Horses	14207 \$1,277,928	16,635 \$1,377,944
H'm'd cat'le	30456 1,214,773	49,257 2,294,286
Swine	3201 23,255	6948 61,147
Sheep	242989 699,337	308393 989,613

The quantity of green fruit exported was nearly doubled, with no corresponding increase in price, but the reverse. Hemp, flax, hops and malt fell off in quantity. Potatoes show an export value of \$1,267,416 for 2,665,078 bushels shipped in 1879, against only \$362,902 for 1,065,757 bushels shipped in 1878. Comparative grain exports are shown as below: Oats and beans show smaller figures.

	1878.	1879.
Wheat.....	8,509,243 bu. \$11,631,128	9,767,555 bu. \$9,748,795
Barley.....	7,543,843 " 4,488,634	5,998,212 " 4,793,887
Corn.....	3,987,600 " 2,678,289	5,429,359 " 2,754,585
Peas.....	2,480,049 " 1,984,115	2,715,252 " 2,056,079
Rye.....	452,420 " 279,169	641,694 " 364,479
Flour ...	479,245 brls. 2,757,888	580,776 brls. 2,603,118

In the list of manufactured articles exported, increases, compared with 1878, are few. There are, for example, musical instruments, furs, rope and cordage, rubber goods, and oil cake, of which rather more were sold; scrap iron, steel, oakum and junk, Grindstones and whiskey, and household furniture, are the only other increased items worthy of note. There is a decrease in machinery, in agricultural implements, in woollens, in wooden doors and sashes, in sewing machines, in sugar and molasses, in leather and boots and shoes. So is there in hemlock bark extract, in tobacco, soap, starch, stone and marble.

ANALYSIS OF FOOD AND DRINK.

Whoever has health and competence, a writer of the last century observed, possesses two thirds of all the pleasures of reason, and of all the joys of sense. Of these two, health is, beyond doubt, the chief. The other, indeed, is becoming, year by year, more difficult both to define and to realize, as artificial wants grow in number, and inventions multiply for their gratification. What we eat and drink has more to do with our health than perhaps any other single item of our daily life; and it is important that the staples of our food should be, at any rate, what they profess to be. Upon this principle, we long since expressed our approval of the appointment of public analysts, and now we have the fourth annual report of these officers in Supplement III. to the Report of the Department of Inland Revenue for 1879.

The number of samples analysed at Toronto, Quebec, Montreal and Halifax was 896, of which 235 were found to be adulterated, 42 doubtful, and 619 genuine. By the subjoined table, found in the Commissioner's preface, it is manifest that an improvement has taken place. In 1876 the percentage of adulteration was 51.66; in 1879 it is but 26.22 per cent.

Year.	Genuine.	Adul'trat'd	Total Number Analysed	Per. c'tage of Adul'trat'n
1876.....	87	93	180	51.66
1877.....	241	247	488	50.61
1878.....	523	271	813	33.33
1879.....	619	235	896	26.22

The "staff of life" was found to be nearly free from foreign substances; out of twenty samples of bread, only one was found adulterated, and with alum. This was in Montreal. Self-raising flour, which is in common use in many localities, was found, with one exception, pure. Baking powders were examined in all the cities except Quebec, and out of 24 samples, there were one each in Montreal and Halifax, and three in Toronto, found impure. This important article of daily use contained, in these last

cases, says Dr. Ellis, "notable quantities of alum, and one of them considerable carbonate of lime." This may have arisen as is suggested, from the carbonate of soda used in the preparation of the powder being itself adulterated with lime. Mr. Fraser found, in Halifax, one sample which was a mixture of flour or farina, bicarb. soda, and dry sulphate of alumina, and bluntly condemns, as well he may, the use of alum in making bread.

Spices have been long noted for the degree of adulteration they are subjected to. An improvement is observable, however, in this year's return; for the percentage of spices and condiments found impure is this year 54.7 against 80 last year, and 88 in 1876. The Montreal analyst, Dr. Baker Edwards, it is true, takes the view that while the publication of results has not checked the use of worthless material in this item, it has encouraged the importation of superior English spices. We doubt whether this is largely the case; for it is still true, as a prominent American paper stated a year or two ago, that people have got used to certain adulterations, and like them; plenty preferring chicory to the real coffee, and numbers quite complacently using oleomargarine as a palatable substitute for real butter. It may be of interest to see how our ingenious Canadian makers of spices manipulate their ground goods. In Toronto, it appears, the article called ground cloves consists in part (10 to 25 per cent.) of flour and beans; Halifax is more *recherché* in its tastes and materials for mixture, which are: toasted wheat and allspice. Ground cinnamon consists, in Ontario, commonly of cassia and flour; in Halifax they have a more excellent way, and mingle 30 per cent. of cornmeal with the powdered fragrant wood. To make ground allspice, our makers only know enough to mix from a tenth to two thirds in bulk of flour and beans with Jamaica pimento; but in Nova Scotia they manage to get in 70 per cent. of toasted pea-meal, in one case, and "55 per cent woody fibre, with 5 per cent. of sand" in another, and still call the compound allspice. Red pepper is found among our Blue-nose friends containing pea-meal; black pepper is mixed, in three cases out of seven, with cornmeal and husks of peas, to which ingredients Ontario adds flour, perhaps because flour is cheaper here. It is reassuring to housekeepers to learn that mace and nutmegs were everywhere found genuine; but ground ginger was largely mixed with flour and turmeric.

The opinion expressed upon our sugars by both the Montreal and Toronto examiners corresponds very nearly, after respectively examining 25 and 23 specimens. The fol-