

and excellent diet, when the occupation is not sedentary. The outer husks of Oats, unlike Wheat, are poor in flesh-formers, so that oatmeal is better than the whole oat as food. In making oatmeal, one quarter of oats (328 lbs.) yields 188 lbs. of meal and 74 lbs. of husks; the rest being water. Oatmeal is remarkable for its large amount of fat. 100 parts contain:—

Water.....	13.6		
Flesh-formers.....	17.0		
Starch.....	39.7		
Sugar.....	5.4		
Gum.....	3.0		
Fat.....	5.7		
Fibre.....	12.6		
Mineral Matter.....	3.0		

Water.....	13.6	
Flesh-formers.....	17.0	
Heat-givers.....	66.4	Carbon
Mineral Matter.....	3.0	43.0

1. Shows 1 lb. of Oats with the usual husk.
2. 1 lb. of oatmeal of which about 57 per cent is obtained from oats.
3. Water in 1 lb. of oatmeal—2½ oz.
4. Flesh-formers in 1 lb. of oatmeal—2½ oz.
5. Starch in 1 lb. of oatmeal—6½ oz.
6. Sugar in 1 lb. of oatmeal—¼ oz.
7. Gum in 1 lb. of oatmeal—½ oz.
8. Fat or oil in 1 lb. of oatmeal—⅞ oz.
9. Fibre in 1 lb. of oatmeal—2 oz.
10. Ashes in 1 lb. of oatmeal—½ oz.
11. Carbon in 1 lb. of oatmeal—6½ oz.

MAIZE OR INDIAN CORN, (*Zea Mays*.)

This cereal is a native of the New World, where it is extensively cultivated both in the United States and South America.

What Wheat is in Europe, Rice in Asia, Maize is in America. It belongs to the natural order of Grasses (*Graminaceæ*), and is remarkable in this group for the large size of its grains, and the heads into which they are collected. The stem of the Maize grows from five to seven feet in length. The stamens are placed in terminal flowers at the top of the stalk, whilst the fruit-bearing flowers are placed on the side of the stalk.

The Maize is a native of the New World, and grows wild in the neighbourhood of Mexico and the Rocky Mountains. It was not known in other parts of the world till after the discovery of America. It has now been introduced into every quarter of the globe. It is cultivated extensively in the south of Europe, on the African coasts of the Mediterranean, in Turkey, Egypt, Hindostan, China, the Islands of the Eastern Archipelago, and in the West Indies.

Several varieties are cultivated, which differ in the form, and colors of their grains.

Although Maize will grow in the British Islands, it cannot be relied on as a field-crop.

Maize was not much consumed in Great Britain till the year of the potato famine, 1846, when considerable quantities of the grain, and meal of the Maize, called "hominy," were imported. There is now a regular demand, and about 2,000,000 of quarters are imported. Of this the larger quantity comes from the ports of the Black Sea and the Mediterranean.

Maize is an excellent food for man and beast. The meal will not form bread alone, but it may be made into porridge, puddings, cakes, and other forms of diet. Maize contains less flesh forming matter than wheat, but it contains more fat. It is largely used in this country on account of its starch, which is separated and used as an article of diet in place of arrow-root and amylaceous foods.

Maize yields a large return of food on a given extent of land. It contains less flesh-forming matter than other cereals, but is rich in heat-givers, and consequently has remarkable fattening qualities. 100 parts contain:—

Water.....	14.0		
Gluten.....	12.0		
Starch.....	60.0		
Sugar.....			
Gum.....	0.3	or	
Fat.....	7.7		
Fibre.....	5.0		
Mineral Matter.....	1.0		

Water.....	14.0
Flesh-formers.....	12.0
Heat-givers.....	73.0
Mineral Matter.....	1.0

36.4

The case shows the ingredients in 1 lb. of Maize, or Indian Corn.

1. Shows 1 lb. of Maize, or Indian corn.
2. 1 lb. of Indian meal.
3. Water in 1 lb. of Indian meal—2 oz. 105 gr.
4. Gluten in 1 lb. of Indian meal—1 oz. 402 gr.
5. Starch in 1 lb. of Indian meal—9 oz. 263 gr.
6. Sugar and Gum in 1 lb. of Indian meal—21 gr.
7. Fat or oil in 1 lb. of Indian meal—1 oz. 101 gr.
8. Woody fibre in 1 lb. of Indian meal 350 gr.
9. Ashes in 1 lb. of Indian meal—70 gr.
10. Carbon in 1 lb. of Indian meal—5½ oz.

—Guide to the Food Collection, S. Kensington Museum.

The Board of Arts & Manufactures

FOR UPPER CANADA.

PROCEEDINGS OF THE BOARD.

Board Room, Mechanics' Institute,
Toronto, July 2nd, 1861.

The Board met at half-past one o'clock, p.m., present:—The President (Dr. Beatty), the Vice-President (Mr. J. E. Pell), and Messrs. W. Hay, T. Sheldrick, Professor Buckland, Rice Lewis and W. Edwards.

The Secretary read the following Report:

The Sub-Committee beg to submit the following report:—

The draft of Bill to amend the Act constituting the Boards of Arts and Manufactures, and the various Agricultural Associations, as adopted by the Board at the last Annual Meeting, and by the Board of Arts and Manufactures for Lower Canada; and also, with two trifling exceptions, by the Board of Agriculture for Upper Canada, was submitted to the Government during the late session of Parliament.

Your Committee have adopted, as their report thereon, the following portion of the Report of the Lower Canada Board, of the 28th of May:—

"After several interviews with members of the government, by Professor Hind on behalf of the Upper Canada Board, and your Vice-President and Secretary on behalf of this Board, the draft of Bill to amend the Act constituting the Boards of Arts and Manufactures was confided to the Hon. Mr. Ferrier, and by him introduced in the Legislative Council. At the beginning of the session the Board of Agriculture, through Major Campbell, introduced the bill of last session to amend the act constituting that Board, but without the portions relating to the Boards of Arts and Manufactures. In committee, however, the bill relating to this Board was incorporated with it, and further proceedings upon Mr. Ferrier's bill