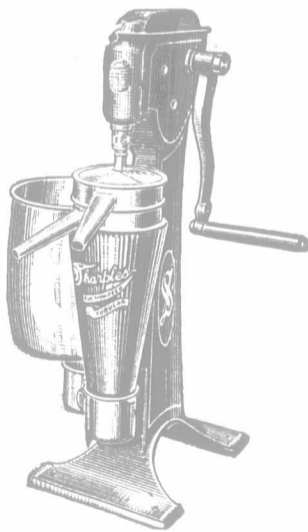


## Which Separator did John Brown Buy?

Suppose you were Farmer John Brown and you wanted to buy a separator. You asked several separator manufacturers to send you a *ten-word* telegram, stating in the most convincing way, why their separator was the one you should buy. Sharples would only need *five* words: "Skims clean at any speed," and you would not have to ask for anything further.

## SHARPLES SUCTION-FEED CREAM SEPARATOR

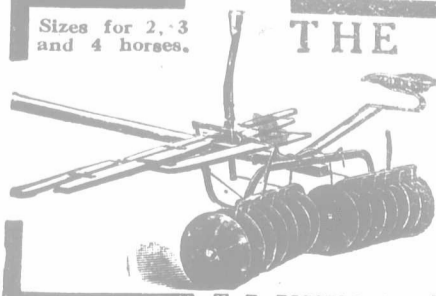
No other separator manufacturer could put into five words or *fifty* words, as convincing an argument as "Skims clean at any speed." They would tell you about the durability of their separator, that it was well-known, that it cost less and everything else *but* the *one* big reason why you need a separator—to get *all* the butterfat out of your milk. Sharples *also* has the exclusive advantage of no discs in the bowl; knee-low tank; once a month oiling system; durable construction and, besides, it is the pioneer North American Separator. Write for catalog to nearest office, addressing Dept. 78



"There are no substitutes for dairy foods"  
THE SHARPLES SEPARATOR CO.  
TORONTO, ONT. REGINA, SASK.

Over 2,425,000 Sharples Separators in Daily Use DC-85

Sizes for 2, 3  
and 4 horses.



## THE BISSELL DISK

has made a great record throughout all Canada. There are good reasons why this is so. Balanced Right—Does not hump up. Improved Plate—Cuts and turns soil over. Hitches well Back—Easy draught. This Disk has several imitators, but no equal. None genuine without the name "BISSELL." Test trials given on hard land with anything that cultivates. Write Dept. W for free Catalogue. 92

T. E. BISSELL CO., LIMITED, ELORA, ONT.

We have doubled our factory capacity and are determined to supply our customers far and near. See ad. also on page 740.

## Our School Department.

### Relationship of the School Garden to the Classroom.

BY L. A. DE WOLFF, M. SC.

The school garden helps the class-room in, at least, two ways. First: it gives that healthful exercise so necessary to school children, at a time when they most need it. In this, too, it furnishes variety, and breaks the monotony of school life. But the second and most important consideration, is that it vitalizes school work. The principles of mechanical drawing are mastered while drawing a plan of the garden to scale. Business methods are learned when buying the seeds; and, later in the year, when banking the profits. Many a boy gets his first lesson in good manners and community welfare when he is taught not to walk in his pupil-neighbor's garden plot.

The lessons on soil physics, in connection with conservation of moisture, make a tangible introduction to general physics in the class-room. Identification of weed seedlings and garden seedlings is the first step toward field botany. The control of these leads at once to economic botany.

What better arithmetic problems can be given than the boy's own problems to find how much seed or how much fertilizer his garden requires, when the tabulated amounts given are per acre?

The insect pests furnish good lessons in entomology. The insecticides and fungicides form a natural basis for lessons in chemistry. The covering of plants to protect them from late spring frosts introduces a phase of physical geography not often well taught.

The written descriptions of garden operations furnish unlimited exercise in English composition. No drawing lessons could be more attractive than those based on the garden and its products; and no reading should be more suitable than some of the best garden compositions written by the students.

Commercial geography will, perhaps, be helped more than any one subject.

In the hands of the skilful teacher, the school garden is the connecting link between the school and the real world.

### Testing Germinating Qualities of Seed.

J. G. ADAMS, UNIVERSITY OF TORONTO SCHOOLS.

In planning for the school garden the importance of getting good seed cannot be over-estimated. How often is the success of the garden spoiled by sowing seed which fails to germinate, or which produces only weak, sickly plants? The quality of the seed determines the vigor and value of the crop just as much as the quality of the soil or the methods of cultivation. And unless good seed be obtained these other factors are valueless. The seeds should be fresh, plump, bright in color, and of good weight for the kind of seed. But the quality cannot be accurately told from the appearance. A sample of the seed should be tested before planting to learn the percentage of germination. And this may furnish also some indication of the vigor of the plants likely to be produced.

In testing for germination moisten a piece of cotton flannel or a piece of blotting paper and lay in a dinner plate. Then count out exactly one hundred seeds and place them in the centre. Cover with another moist cloth or blotter and invert another plate over them. For small seeds the blotters may be marked off into four sections with a lead pencil, and four kinds can be tested at once. The plates should be kept in a warm place. On about the third day the seeds that have germinated should be taken out and a record kept of them. Some seeds will germinate in a few days, while others may require as much as two weeks.

Beet and chard seeds normally test out more than one hundred per cent., because each of these seeds is really a fruit, which usually contains more than one embryo.

The vigor of the seedlings should be noted and a record made of them. When removed from the dish they may be grown for a few days on a separate piece of moist blotting paper or cotton flannel kept in a warm place. Note the percentage number of seeds giving healthy plants of at least average growth.

None of the samples of seed should run below a seventy-five per cent. germination test, and should be nearer ninety and ninety-five per cent. to give satisfactory results.

### A Pound of Butter.

BY H. H. DEAN.

The oil of butter is especially well adapted for oiling the brain. Brain-workers should use plenty of good butter and never any of the substitutes for cow's butter, such as "oleo," "peanut-butter," etc.

Butter is "concentrated sunshine," hence good butter tends to make people more "sunshiny" in disposition. It is also a "heat producer," and may be used more largely in winter when the weather is cold. It furnishes energy to do physical and mental work.

Butter consists of the tiny milk-fat globules (so small that it requires about ten thousand of them lying side by side to make a line an inch long) which are massed, or packed together, by means of a churn. After massing the fat globules, the butter-milk is removed, the butter is washed with clean, cold water, salt is added to taste, then the butter is worked to mix the salt through the butter, expel the surplus moisture and to make it compact for printing or packing.

The finest flavored butter is made from sweet cream, and the butter is salted very lightly. Such butter has the true "creamy," natural flavor of fine butter. Ordinarily, however, after the cream is separated from the milk by setting it for twenty-four to thirty-six hours in shallow pans, or deep cans, or by running the milk through a cream separator, the cream is soured or ripened, making what is known as ripened or sour cream butter.

Butter for local markets and home use is best made into prints weighing one pound. All farm dairy butter, put up in prints or boxes must be branded with the word "Dairy," and such butter may not have the word "Creamery" on the wrapper or package.

Butter made during the summer may be packed solidly in an air-tight package (crock, tub, or box), and if kept in a cool place this will be quite palatable in winter, when butter is scarce and dear. The months of June and September are usually the best months for packing butter.

Good butter is a wholesome food, and should be used largely on the tables of Canadians. Butter substitutes should find no place in Canada.

### A Community's School Gardening.

BY S. B. MCCREADY.

With the foundation securely laid in the general unselfish, active interest of the people of the community, plans for the summer care of the garden can give little anxiety. It is only a matter of good organizing. Everybody will be helping. The trustees will do their share. The mothers' committee will do their share. The ex-pupils will be strong supporters and protectors. The School Progress Club will oversee the pupils' work. The school will be alive and a thing of beauty all summer, even if the teacher cannot be on hand to join in the many good times her people have had at their school. When she comes back, she will find that her community still holds together round the school garden. A simple little school fair in September will be the fitting climax to the community-building and agricultural-education enterprise.