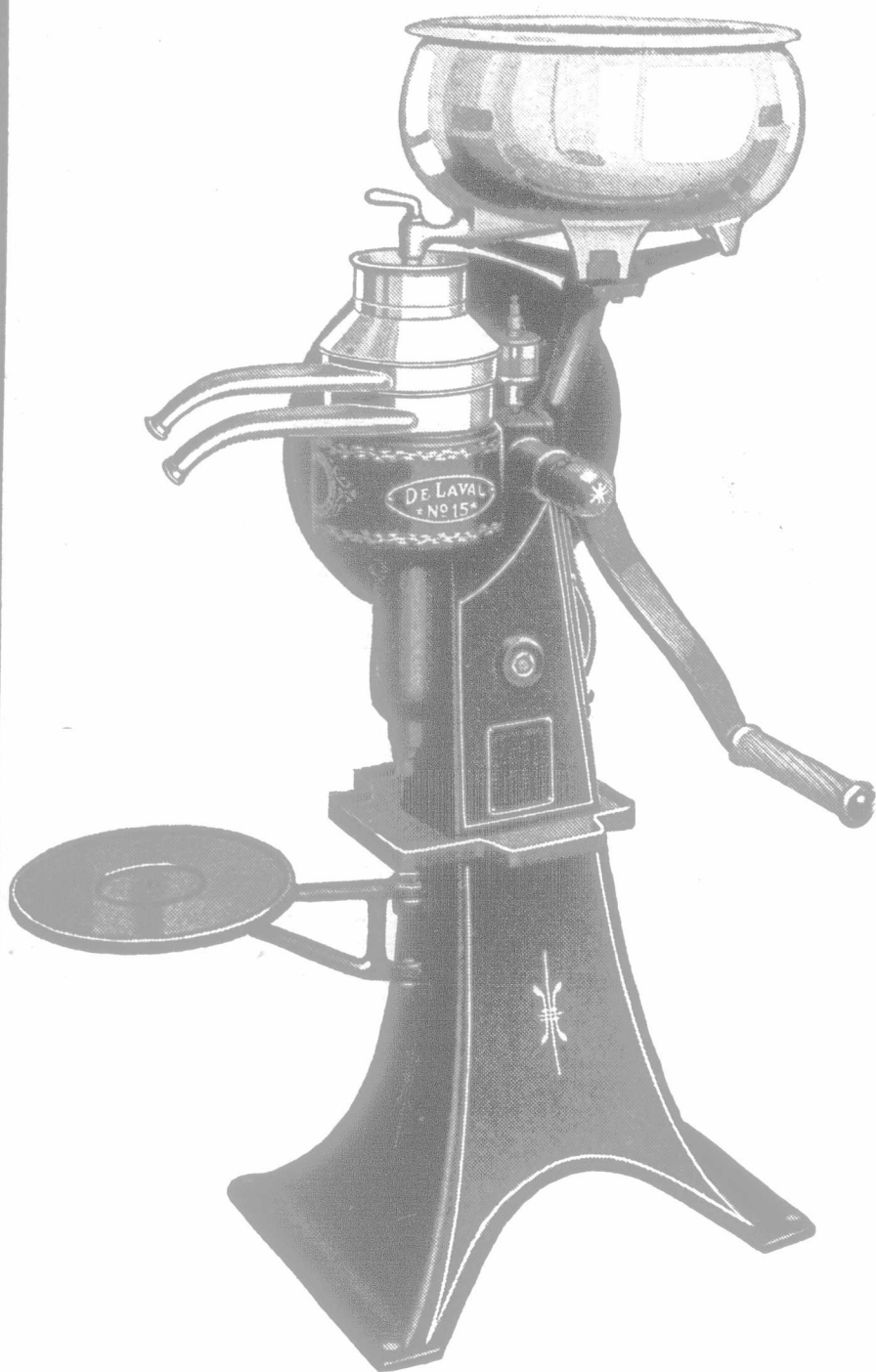


Now is the best time to buy a **DE LAVAL** CREAM SEPARATOR



THESE are the days when the farmer is getting the most milk, and with butter-fat at its present high price he should be sure to get all the cream.

Many "claims" are made for various cream separators, but the most convincing proof that the De Laval is the cleanest skimming machine is the fact that 98% of the large creameries the world over use the De Laval.

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Sole manufacturers in Canada of the famous De Laval Cream Separators
and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns.
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MONTREAL PETERBORO WINNIPEG VANCOUVER

Our School Department.

The Brownsville Community School.

In the issue of May 1 there appeared an article on the "Rural School, Past and Future," by Sinclair Laird, and accompanying this article was an illustration of the Brownsville School. Being interested in community work in rural districts, H. G. Martin of the Stratford Normal School wrote to Miss Mable Boyce, Principal of the Brownsville school for information and we have been permitted to publish the reply which appears in the following paragraphs:

"You ask how the people were induced to build such a school. About six years ago it was necessary to build a new school and being an enterprising and progressive people, the cost and up-keep of an up-to-date school were not considered in its building. Hence we have a school where each pupil can get a public school education, also the first two years of high school work, fitting him to take his place in any branch of society on leaving school altogether, or enabling him to enter high school as a third-form student.

"Needless to say, the school building and equipment are graded No. 1 on inspection. Worthy of mention are the slate boards, single seats, oiled floors, steam heating, separate play-rooms in the basement for girls and boys, inside toilets, spacious halls, separate teachers' room, library, and three cloak rooms connected with each class-room, for teachers, girls and boys. A piano in the reception hall fills the requirements of a Literary Society, Physical Drill, etc. A sectional book-case in each class-room containing reference books and supple-

disorganizing our Knitting Club and hope to resume the community interests as before.

"In addition to an up-to-date school, Brownsville can also boast of a number of exceptionally clever pupils. Several trophies have been won in school fair work. A silver cup donated by a Woodstock firm, as an inter-school live-stock judging trophy was won three years in succession by this school and hence became its property. A six-flask Babcock milk tester was won before the silver cup. This reminds me that you referred to the problem of community leadership, in your letter. In the stock judging contests, a number of young men, farmers in the community, volunteered their services to take classes from farm to farm and instruct them in live-stock judging. This is only an example of the interest and co-operation shown by the people of Brownsville."

Cultivation Increases the Water Capacity of a Soil.

BY J. G. ADAMS.

We have seen that one purpose of cultivation is to keep a loose layer of soil on the surface to prevent evaporation and loss of soil moisture. This, of course, is beneficial to growing crops, particularly in seasons of drought.

This idea would lead us to think that shallow surface cultivation might be sufficient. It may serve the desired purpose very early in the season and later when the moisture from rains is to be kept in the soil. But more commonly the soil is cultivated to a depth of four to six or more inches. Why is this done? What reason has the farmer for doing this? If asked he would say it was to make a fine seed-bed. But why does he want this? One reason is that the soil may hold more water.

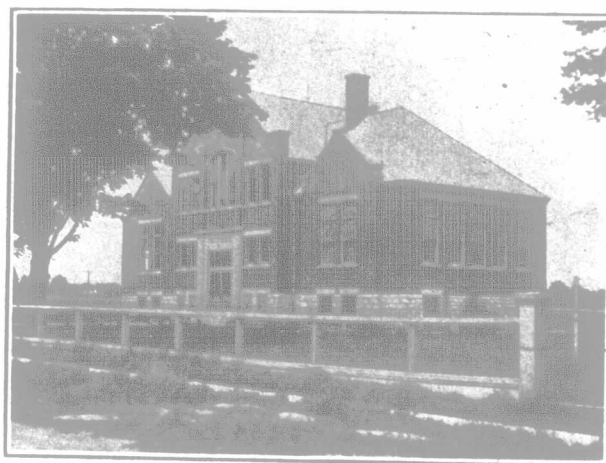
If a sample of any kind of soil be closely examined, it is seen to be made up of particles which vary in size from the extremely small ones of clay to the larger granular ones of sand. When a soil is undisturbed these small particles may become more or less firmly packed together to form larger lumps. Cultivation, breaks these

down into small, fine particles again. How does this affect the water holding capacity of the soil?

To illustrate how most of the moisture is retained in the soil, dip a marble in a basin of water. When it is removed a thin film of moisture adheres to its surface which cannot be shaken off. Similarly the soil particles carry a film of water over their surface. And it is in this form that most of the residual soil moisture is carried in the soil, as water adhering to the surfaces of and between the soil particles.

Obviously then the more free surface we can create in the soil the greater will be its water content. How does the surface of a particle vary with its size? This may be difficult to determine accurately since each is irregular. But for illustration, suppose each is a cube two inches on a side, its volume is eight cubic inches, and its surface is sixteen square inches. If this be divided to make a cube one inch on a side, its volume becomes one cubic inch and its surface becomes four square inches in area. Or when the volume is decreased to one-eighth of its former volume its area is only decreased to one-quarter of its former value. In other words, when we decrease the volume of the body by breaking it up we increase the proportion of surface. As a class exercise this principle might be verified for a sphere thus co-ordinating mensuration with agriculture.

Hence, by breaking up the soil particles by cultivation into finer parts, the total free surface in the soil is increased and the amount of water which may be held in the soil in this way is increased.



The Brownsville School.

mentary reading is an added convenience, while the library itself contains interesting reading for the pupils outside of school hours.

"I think you can now judge for yourself what community needs this school is serving. Pupils are admitted from adjoining sections on paying tuition fees. All requirements for literary work, either in the school or outside the school, are supplied.

"The lawns and floral decorations are well kept and ample playground is provided at the rear of the school.

"Perhaps the community interest of the young people asserts itself most prominently in the purchase of the park adjoining the school grounds. It is Hydro lighted and the noted Brownsville Garden Party given every summer by the young people is held here. The receipts average about a thousand dollars and the proceeds are used for supporting a library or for patriotic purposes in the last four years. The library contains over 1,500 volumes of various classes of reading and new books are being added as they are published. The library is open to the public two evenings and one morning each week. It has proved a decided success, and has been satisfactorily managed so that another community need has been met.

"In connection with the park is the tennis court and basket ball, where the young people find amusement in the summer months. The Literary Society during the winter season has been most interesting and instructive. Of course the war has taken its toll from Brownsville, but with the return of peace we are

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