

\$750,000 Wheat.

Last autumn we promised to give information about this wheat this spring. Last harvest we walked over the test plot of seeds at the Model Farm, accompanied by Mr. Brown, the farm manager, and one of the pupils. When examining the different varieties of spring wheat we came to a miserable-looking mixed lot of wheat that appeared to be worthless with rust, crumbling, mildew, etc. We asked Mr. Brown what that was. He said it was imported wheat, but was no good and was to be thrown away. We stood a little while to notice the different forms of the heads, and saw one head that appeared to have better straw and to look different from any of the others. We took the liberty of gathering it, and on rubbing it out, found it to contain a short, plump kernel of wheat of good quality. We showed it to Mr. Brown and the student, who were quite surprised. We then looked carefully and found a few more, procuring 12 heads; Mr. Brown said these comprised about half the wheat and that we were welcome to them, as the whole lot had been condemned to be destroyed.

Mr. Brown gave it the name of the "Advocate Wheat." We called it the "\$750,000 wheat," because there are about that number of grains to the bushel and we presume it has cost the farmers fully that sum.

It appeared to us that it may be of more value to the country than anything we had yet seen at the Farm. The wheat may be an old variety, but we do not know what kind it is. There was no other like it on the Farm that we could find, and the fact of this variety yielding well when the other kinds were useless is a matter of importance. Time alone can tell. The few grains we have will be carefully looked after; they will not be sold for cash, but if any one is anxious to secure a sample, we will send five grains (as long as they last) to any one that sends us the name of one new paid subscriber. We gave an ear of the wheat to one of our artists, from which the accompanying cut was taken as an exact representation of the wheat. A new spring wheat is much wanted at the present time.

Sowing Fertilizers.

We have had several enquiries from parties asking for a machine to sow fertilizers. We are pleased to answer in the advertising department that we now have such an implement manufactured in Ontario. From its construction and from reports we hear of it, it is our impression that this is a distributor that farmers who sow much artificial manure should have. The machine, by means of a revolving disk, takes up a certain quantity and deposits it into the tubes. We consider this the best implement of the kind within the reach of our farmers. The sowing of fertilizers properly is much more difficult and disagreeable than sowing grain. We saw one of these drills that had been used to sow salt, and our informant said it worked satisfactorily. When used for sowing salt the drills should not have any salt left in them, as the salt will dissolve in wet or damp weather, and will rust the iron. In the hands of good farmers this will be a valuable aid. You can send to the manufacturers for full particulars.

**Dairy.****Centrifugal Cream Separator.**

BY L. B. ARNOLD.

Written for the Farmer's Advocate.

Though the idea of an almost instantaneous separation of cream from new milk, fresh and warm from the cow, strikes a dairyman as simply ridiculous, a little careful investigation soon reduces the apparent absurdity to a plain matter of fact affair. Everybody knows that the difference in specific gravity between cream and skim-milk is the cause of the separation which brings the cream to the surface. If we could make that difference 100 times greater than it is when the milk is standing still, the cream would rise so much the sooner for it. If we could make the difference in gravity between equal bulks of milk and cream equal to the difference of gravity between equal bulks of cork and water, cream would separate from milk as quickly as cork does from water. The centrifugal machine does this and more too. It makes the difference more than 1,000 times greater, and consequently the cream is made to separate from the milk as fast as bits of cork would from quicksilver. A simple illustration will give the reader an idea how this is done. A vessel of which figure 1 may be considered a vertical section, is rotated, say 2,000 times a minute. We may suppose this to be filled by a stream of new milk falling from a reservoir above and dropping steadily into the vessel through its open neck. To keep the vessel as it rotates from running round the milk and leaving it comparatively still in the middle, strong partitions extend from the side of the vessel toward its centre to compel the milk to rotate with the vessel. By revolving the vessel 2,000 times a minute, the tendency of the heavier milk to gravitate toward the side of the vessel is so much greater than that of the lighter cream, that it pushes the cream back toward the centre to make room for itself. In a vessel two feet in diameter the skim-milk is estimated to push against the side of the vessel at the rate of 300 pounds to each square inch of surface, making it necessary to build the vessel with thick plates of rolled steel to enable it to stand the strain.

If there is anything heavier than the milk mixed with it, like specks of dirt or bits of curdled milk, as is often the case, these heavier things will be thrown to the very side of the vessel, and everything will be arranged *instantly* according to its gravity, the heaviest next to the wall, and the lightest in the centre.

The reader is probably by this time wondering how the milk and cream can be got out of the vessel separately. This is the easiest part of the operation. The stream of milk is kept running till the vessel becomes filled up to the flaring part above the neck. As soon as the liquid rises into the flaring part there is nothing to hold it, and it is whirled off in spreading circles up the inclined surface and against a disc placed above to arrest it. From the disc it drops into a vessel of which the disc covers a part, and is conducted away through a spout into a vessel set to hold it (see figure 2). The skim-milk is taken from near the side of the vessel and is run off into another dish, the apparatus for which is not illustrated.

The cream obtained by this machine is remarkable for its pure, full and delicious flavor. The thorough airing it gets in being vigorously whirled up and over the funnel-shaped top of the vessel, cleanses it of all foreign odors and gives it a better ripening in one or two seconds than it ever gets before it will sour when standing still for cream to rise. It churns to butter remarkably easy, and is

said to yield 5 or 6 per cent. more butter than can be got in setting by the most approved methods.

The skim-milk is as much improved as the cream, because every impurity it may chance to contain is thrown against the very side of the vessel, where it remains and accumulates, when the milk is kept very clean, at the rate of one quart in nine hundred.

A machine two feet in diameter—about as large as they can be run—will cream from 600 to 1,000 pounds of milk in an hour and require about a 3-horse power to run it, and would cost \$300 or more. When it becomes reduced to its very simplest form and is made in a larger way, its cost can be very much reduced.

From the working of a model at the late Convention of the American Dairymen's Association, and the fine results stated to the Convention by E. Burnett, of Southboro, Mass., who has been using one for several months for creaming 7,000 pounds of milk daily, this new machine bids fair to revolutionize our whole system of butter-making at no very distant day.

[The figures referred to in this article will appear in next issue.]

The Ameliasburgh Central Fair.

The subjoined report of the annual meeting of Ameliasburgh Agricultural Society, which we have received from the Secretary, we publish with pleasure. The good work of forming Agricultural Societies—Farmers' Clubs on a larger scale and bearing another name—is progressing steadily, and will no doubt supply the want of mutual aid and improvement long felt. The Ameliasburgh Society has made steady and unintermittent progress by efficient and careful management, and by the persistent application of its energies to the one object proposed, the improvement of agriculture and promoting the agricultural interests of the country. It now proposes to extend its field of operation, as will be seen from the report. It stands an example to others to act as they have done, assured by their experience of equally prosperous results. The farmers of Ontario need no fostering. Their own unaided enterprise will assure better and more lasting results than the fostering care of politicians. The officers have proved themselves to be the right men in the right places.

The annual meeting of the Ameliasburgh Agricultural Society was held on the 8th of January, 1880, at which the annual report was presented, showing receipts \$561.05, expenses \$597.06, leaving a balance due the Treasurer of \$36.01. On motion of Wm. Delong, seconded by N. A. Peterson, the report was received and adopted.

The officers were then elected for the ensuing year: John G. Peck, President; Elijah Sprague, Vice-president; Edward Roblin, Sec. and Treas., and a Board of Directors.

On motion it was declared that the Society do forward the FARMER'S ADVOCATE the ensuing year to all its members in the county. It was also decided to open the Society—in addition to its own county—to the counties of East and West Hastings and East Northumberland. On motion it was declared that in the future the Exhibition of the Society be known by the name of Ameliasburgh Central Fair, and that the Exhibition be held as usual on the second Saturday in October; also that the Directors do take in consideration the advisability of holding the Exhibition on two days. The Society has enlarged the Exhibition grounds, now having nearly seven acres enclosed with a good substantial board fence, seven feet high, with a large opening to Roblin's Lake, giving the exhibitors and visitors all the privileges of an abundance of water; and have at a large expense fitted a driving track of one-third mile, which will compare favorably with many of the driving parks in the country; also, cattle sheds have been erected and are in contemplation that will eclipse the accommodations at many of our county fairs. The officers are determined, if possible, to excel their last exhibition (which was a grand success for the old Ameliasburgh Cattle Show), having now come out in the new dress of the Ameliasburgh Central Fair. The officers are looking to a great future, and will be glad to furnish any information necessary.