best bull he had seen, and he believed the best ever bred, and would long remain such. After Belvedere his sons were used, and again an outcross was taken by sending some cows to Mr Whitaker's "handsome Norfolk," of the Sally by North Star tribe. After this no further foreign blood was infused until the dispersion of the herd in 1850, except that of the Cleveland Lads of the Matchem cow tribe, now known as Oxfords. The introduction of this blood into the herd caused much comment and a good deal of controversy. Many of Mr. Bates' most ardent friends and followers highly condemned its use, and probably the opposition had the better of the argument on paper. That the Oxfords possessed qualities at the time of their use that the Duchesses required, is without doubt, but whether Mr. Bates would have continued using them to the same extent that his followers have done, is an open question. It seems probable that when the Matchem cow was first purchased, it was with no thought of breeding a bull from her to cross his favorite Duchess, but upon seeing how well she responded to that experiment in the Oxford premium cow and the Cleveland Lads, the bold idea of blending the two was conceived, and the result being satisfactory, more use was made of the blood. To reinvigorate a tribe that had been so persistently inbred, stamina and constitution was what was wanted as well as fecundity; these were obtained through that cross. That Mr. Bates had the boldness to take this step shows he was possessed of great moral courage, after reading his brother breeders' so many homilies on purity of breeding, worth of pedigree and old blood; and it also indicates that he found what he was seeking after, or he would not have persisted in its use. May we not say he here showed the genius of the workman, in seizing at the proper time the means that offered to his hand to obtain the end.

That the results of the outcross were as valuable to the herd as were those of Belvedere is very doubtful; certainly they were not so apparent, but probably superior to those of 2d Hubback, who is said to have introduced bad crops and thin skins.

Without the Duchess tribe Mr. Bates' success as a breeder would have been about on a par with his neighbors. But he recognized its worth and devoted his energies towards developing it. Refusing to sell females, sending to the butcher all culls, it early asserted its right to first honors, as a bull-breeding sort, which it has maintained from the time of the Earl to the present time. What tribe of cattle has produced the same number of good bulls? What ten tribes combined has?

(To be continued.)

Rambling.

THE ONTARIO AGRICULTURAL COLLEGE

Wrested free from the thralls of political influence, and raised out of the quagmire of political subservience, the Ontario Agricultural College, under her present management and by the strenuous exertions of her sturdy adherents, has become a powerful educator of the agricultural mind, and has changed the once strongly flowing current of derision and scorn into one more powerful of praise and approbation. She was once the subject of the jibes of one party and the fawning of the other, but has now happily broken from these fetters and has wrought for herself the thorough appreciation and full approval of the interest she so assiduously labors to advance—that of the Canadian agriculturist. The rapidity with which her influence is widening among our farming communities leads us to cheerily look into the future, and we feel that if the germs of prosperity already planted in goodly soil are watered with the dews of encouragement and warmed by the sun of approbation her power for good will be augmented with each season's recurrence.

The past year with the college proper has been one of marked prosperity, not gauging this solely by the number of students that have been in attendance, but more by the fact that they were many of the best that Canadian farms could supply. This is a straw that shows the trend of the wind, clearly indicating that the farmers of the Dominion are awakening to the value of her teachings and sending the best of their sons there in preference to colleges of medicine, law or theology. The attendance of over one hundred and thirty energetic and ambitious students, as shown by the roll, makes known the fact that the so-called learned professions are not now exacting as much homage from the farmers as formerly; and what is more pleasing to note, that which by the old classification must be grouped with the unlearned has in their estimation become one of the most profound of all.

Having had the pleasure of a few days' visit to the college, we purpose giving a brief description, mainly as to what is being done in the way of experimenting on the farm. At the time of our visit the crops were on the whole of average promise. The building of the new barn, which is planned much after the preceding one, is being rapidly pushed ahead, and is expected to be ready for the harvest.

There is evidently a great deal of attention being given to experimental work at the farm this season, especially in the line of spring cereals. The plots, fully 400 in number, are neatly laid out and neatly kept, and are all so labelled as to be self-interpreting. There are no less than 102 plots of spring wheat, 92 of oats and 56 of barley, and most of these contain distinct varieties. The winter wheats are all more or less smitten with rust, some of them very badly. In none of them can a fair test be secured this year as they will be so shrunken.

The major portion of the spring wheats are in a similar condition, giving one the impression that this locality is not at all favorable to wheat production. It may possess this advantage, however, that a variety which will stand the test here may be considered rust-proof.

Of all the varieties grown, none will at all compare with the Wild Goose in strength of straw and general vigor, nor is it at all affected with rust. The Kerson, a bearded variety from France, looks well. It has a club head and fair stamina. The same may be said of the red-bearded March, also from France, only that the head is longer and more open. The Poland Russia is a very vigorous, long-headed wheat, also bearded, but is not closely packed in the grain.

The showing of oats is most excellent. Not one of the ninety-two varieties can be called a complete failure, and many of them are most promising.

Amongst the German varieties we may note the American welcome as being most vigorous, and also the Oderbrucker, although it is a shade later. The Daneberg has strong straw and a very heavy head, and the Victoria is an early variety with clean, bright straw.

The characteristic of the Russian varieties is strength of straw and heaviness of head, though most of them are a shade late. The Podolischer is one of the strongest. Of the seven or eight Scotch varieties, the Victoria White is early and vigorous, but most of the Scotch oats are also a little late.

England is represented by some ten varieties, of which the Flying Scotchman and Early Blossom are quite early, but most of the English varieties are lacking in strength of straw.

France is represented by sixteen sorts, of which the Yellow Gigantic only possesses strong straw. Most of the French varieties are fine in the straw and small in the grain and inclined to grow thickly. The Red Spot, one of the finest, should make an excellent ration for stock when grown for fodder. The Black Hungary, a main oat, also from France, is undoubtedly a good one.

The White Australian takes very kindly to our soil. It has strong straw, huge heads, and is one of the earliest. Carter's Prize Cluster promises well, as does the Early Race Horse, but the latter is weak in the straw. The Egyptian is one of the best, and the same may safely be said of Rennie's Prize White. The Welcome and Early Cluster, or Triumph, both look well.

Many of the barleys also indicate a hopeful future, though none of them look better in the meantime than our six rowed Ontario barley. Several of the German varieties produce a large amount of straw, though a trifle soft. The Oderbrucker six rowed looks well. The three rowed, also from Germany, looks well, and is beardless. It is short in the straw and very early. The Italian Rice, also from Germany, grows prettily. It may be said to be two rowed, with a head flat and a little cone shaped on the thin edges, from which radiate numerous fine braids in the shape of a fan.

The Guyinalaya, from Sweden, six rowed, has heavy, drooping heads, and the Mandshuria, from Russia, is the tallest and one of the most vigorous in the lot.

We look forward very hopefully to most important results from the experimental work of this year. The collection is, undoubtedly, one of the most comprehensive and varied on the continent of America at the present time. It is quite impossible that a collection containing so many varieties will comprise none, the presence of which will prove a boon to the farmers of this country. The appearance of the next report of the college, which will contain the full results, will be looked for with unusual interest.

In the matter of weed extermination, Prof. Shaw is pushing the work with vigor, being determined to cleanse the farm of all troublesome plants. Anyone knowing the constant vigilance and untiring perseverance necessary to keep such a farm clean, where new grains are being continually introduced from other places for the purposes of experiment, will be aware of the magnitude of the task. From the signs of work already done, we have no doubt but that he will succeed in what he pronounces to be his aim—the abolishing of all weed life on the place, and making it as clean as a seed farm.

In the garden we were shown a series of plots that might with propriety be termed a "rogues' gallery." It is a scheme adopted by Prof. Panton for the practical teaching of botany, and it certainly commends itself for this purpose. In the first plot there is a systematic arrangement of plants, embracing forty orders, two hundred and twenty-five genera, and three hundred and twenty-five species. The viewer is often surprised to find such plants as mustard and cabbage close relations, or the common purslane and spring beauty near relatives. Yet here we see them plainly classed as such. Many other points in the family history of plants are also made clear. The second plot is to test the student's knowledge, and to this end the two hundred and twenty-five species of plants in it are not grouped in their respective orders. The third plot beautifully illustrates the various methods of bedding—carpet, ribbon, mass and miscellaneous. The idea is a capital one, and materially aids in making the teaching of botanical science as practical as possible.