

Correspondence.

THE CANADIAN HERD BOOK TO BE ACCEPTED AT THE CENTENNIAL AS AUTHORITY.—I notice in the last number of your paper a statement saying that cattle entered in the Canadian Herd Book would not be allowed to exhibit at the Centennial Exhibition at Philadelphia this year. I am glad to be able to inform you that Mr. Fraser, Secretary of the Advisory Board, says that it has been arranged that cattle entered in the Canadian Herd Book will be allowed to exhibit at said Exhibition. I am glad that the Canadian Commission have arranged the matter satisfactorily.

THE CROPS GIVE FAIR PROMISE.—I think the fall wheat in this Township looks promising so far. If the spring should be favorable from this time, we may expect pretty fair crops.

TREFOLIUM ENDURES THE WINTER.—The Trefoil seed I got from you I sowed last summer. It grew nicely and has a beautiful appearance while in blossom. I was examining it to-day and it is looking nice and green yet, I think it will stand the winter all right.

THE RED FERN WHEAT.—The Red Fern Wheat you sent me I sowed last spring. It is rather open headed, and I should not think would be a very heavy yield, but the straw was bright and free from rust, but I do not think it will be much improvement on the Fife, but I intend trying it again, and will then be better able to judge of its merits.

THE AUSTRALIAN OATS.—The Australian oats I also sowed in the same field with the Norway oats. They did not ripen quite so early as the others, but I cut them at the same time, consequently they were cut rather green, and the oats were some of them lighter than they would have been; but I think they are a good kind of oat, and will be well worth a further trial.

ORCHARD GRASS GIVES GOOD PROMISE.—I have a piece of orchard grass of two years' standing. It seems to stand the winter well and starts early in the spring. It would be good for early grass for feeding purposes. Yours truly, L. E. SHIPLEY.
Lobo, March 13, 1876.

MARL AT PENETANGUISHENE.—Mr. Weld, you would oblige me very much by letting me know through your paper what this sample I enclose to you is. I think it is Marl, but I can find no one to tell me for sure. I would like to know if it possesses any manurial properties and how it would act upon potatoe crops. I generally plant a good bit of them (four or five acres) yearly. By doing this you will greatly oblige yours, CLEOPHAS S. DIT BLONDIN, Penetanguishene, Ont.

N. B.—If that stuff is valuable, there are thousands of tons of it here; it is found in a swamp which used to be (there is no doubt of it) the original shore of the Georgian Bay. C. S. DIT B.

[Sample enclosed had all the appearance of Marl. However, that our answer might be more definite, we had it subjected to a chemical test, and it has proved to be Marl. Marl does possess fertilizing properties of no mean order. The beneficial results of its application are such as might be predicted from a knowledge of what it really is—a clayey substance, containing a large proportion of carbonate of lime, generally as much as from 50 to 60 per cent. We have known it to be used, as taken from the pit, as a top-dressing for meadows and pasture land, and to increase the yield of grass greatly, and improve the soil. Land, to receive the full benefit of an application of lime of any kind, should be dry, either naturally or by drainage. When there is no water stagnant in the soil, a top-dressing of Marl is a means of producing a greater yield of herbage, and that of a better quality than before. Many of the worthless plants will disappear and their places be occupied by better grasses. Nor is it only for grass that Marl is a valuable fertilizer; especially when composted with other fertilizers, the compost will be found generally useful for other crops. It would be well for Mr. B. to prove the fertilizing value of the Marl by trying an experiment with it on a plot of a couple of acres. A good compost for the purpose would be such as follows: Marl, 250 to 300 pounds; agricultural salt, 80 to 100 pounds; superphosphate, 200 to 250 pounds; add a small load (a half a ton) of decomposed vegetable matter, such as is often the surface in low places, as those where the Marl is found. Mix all thoroughly, and, with

them, put 4 or 5 bushels of wood ashes. After standing a few weeks, this compost might be tried on root crops, and, we think, with profit. The quantity given would be enough for two acres. It would be well also to throw up from the Marl bed a few tons in its unprepared state, that it might be exposed to atmospheric influence, and to apply some to a plot of grass land.—Ed.]

THE HULLESS OATS.—According to promise, I write to you to let you know what I think of the Hulless Oats. I sowed a bushel of them last spring on a good piece of land, and I sowed the Brazilian White Oats alongside of them, which you seen growing last summer. When I harvested them, I measured the ground that the Hulless Oats grew on, and I likewise measured the same quantity of land where the Brazilian White Oats grew, and mowed both lots away carefully, and when I threshed them I had eight bags Hulless Oats, and twenty-four bags Brazilian White Oats, which is 16 bushels Hulless Oats and 48 bushels Brazilian White Oats; and, coming to a matter of weight, 16 bushels of Hulless Oats, at 48 pounds per bushel, is 768 pounds, and 48 bushels Brazilian White Oats at 34 pounds per bushel is 1,632 pounds, and deducting 768 pounds from 1,632 leaves a balance in favor of the Brazilian White Oats of 864 pounds, or 25 bushels and 14 pounds. So, Mr. Editor, you will see at a moment's glance that the Brazilian White Oats are much better Oats for the farmer to grow. And, as regard to oatmeal, I know for a fact that the Hulless Oats will not make good oatmeal.
JAMES MCNAIR,

Guelph, April 11. Field Manager, Model Farm.
[Thanks to Mr. McNair for his communication. We were in hopes in having it earlier, that the results of the experiments at the Farm might have been known before seeding time. Having had a trial of the meal made from the Hulless, we thought it good, though we had our doubts of the value of the grain as a general crop. The difference may be from a difference in the grinding. The Brazilian Oats referred to by Mr. McNair we consider to be the same as the Australian.—Ed.]

Our correspondent from Warburton, writing to us in advocacy of free trade, says, in concluding his letter:—This much is true: I think that we have to pay too much for every new patented invention, and think we should memorialize the Government to protect us by fixing a just price on all inventions when they grant patent for the same. As this is my first attempt, I hope you will excuse any imperfections, and if you think the idea worth anything, you can dress it up for your readers.
Yours truly, B. MCNAMEE.

Warburton, April 10, 1876.
[In reply, we remark that we are not of those who would deny to the inventor a fair reward for his labor. They who toil with body and mind, and spend money to produce something new and destined to be of great use to others, are justly entitled to a liberal remuneration. Many so-called inventions, it is true, do not deserve the name, but that should not take away from the merit of others. We look to see repositories for patent inventions in different parts of the country, where the articles could be secured by persons wanting them, instead of having to wait till they be brought to their doors by travelling agents or peddlars. The establishment of such repositories would be of great use to inventors and purchasers. In them we would see the patented inventions and improvements in operation, and form some opinion of their practicability and utility.—Ed.]

SEEDING NEWLY CLEARED LAND.—I have four acres of new land which I intend for a sugar bush. I have taken all trees out except maples, which leaves it very open. I want to seed it down to grass. Will you please inform me, in the next issue of the FARMER'S ADVOCATE, what grass to seed with, how much to the acre, and the best time to sow; also if I can get any other crop at the same time of seeding down? The land is very good and free from brush.
EDWIN CRANE.

Burnstown, April 14, 1876.
[We have not any wood land so well cleared that we would think it suitable for a grain crop, with grasses. We would say—Sow the grasses without grain. As native grasses have a root in the ground, less seed will be necessary—a few pounds to the acre. A little red-top, orchard grass, red clover and Alsike clover. A mixture of grasses makes always a better pasture. If there even be a difference in the expense of the seeding, the amount will be amply repaid.—Ed.]

SCIENCE APPLIED, OR A FEW THOUGHTS FOR LOVERS OF PROGRESS.—Some years ago I read in a Texas paper an account of an interesting experiment in the raising of grapes under cover. The light and heat of the sun were admitted by a glass roof, in which every alternate pane was of blue glass. It was said that the effect of the change of shade was to greatly increase the growth and vitality of the vine, while the yield of fruit was fully double the weight and quantity obtained in any other way. Experiments had also been made on animal life, by which it was proved that increased energy and vitality was infused, and animals that were sickly and not thriving quickly regained their wonted strength and vigor, and increased rapidly in flesh and growth when confined to a place where they were subjected to the influence of the blue light. The experiment is one that could be very easily tried, and if proved successful, would possess an unfeigned interest for every lover of science and progress.

The effect of the sun's rays passing through blue glass is explained in "Wells' Natural Philosophy" as follows:—"A ray of light is composed of three principles, viz.: light, heat and a chemical principle called the actinic. We know that these three principles exist, because we are able to separate them in a great degree from each other. Thus the luminous principle passes readily through a thin plate of alum, but nearly all the heat is absorbed. Certain dark-colored bodies, on the contrary, allow nearly all the heat to pass, but obstruct the light. A blue glass obstructs nearly all the light and heat of the solar ray, but allows the chemical principle to pass freely, while a yellow glass allows light and heat to pass, but obstructs the passage of the chemical influence. There are many reasons for supposing that each of the three principles, light, heat and actinism, included in the solar ray, exercise a distinct and peculiar influence upon vegetation. Thus the luminous principle controls the growth and coloration of plants; the colorific principle, their ripening and fructification. Another chemical principle is the germination of seeds, seeds which ordinarily require ten or twelve days for germination, will germinate under blue glass in two or three days. On the contrary, it is nearly impossible to make seeds germinate under a yellow glass, because it excludes nearly all the chemical influence of the solar ray.
W. D. MITCHELL.
Elma, March 30.

LAMBS LOSING THEIR WOOL.—Your paper is improving, if possible. I wouldn't be without it at any price. Can you tell me if my lambs have scab? About a month ago they began to lose their wool slightly, and looked very ragged, so I examined them and found a yellowish substance on the skin, which I could scratch off with my finger nails. I applied mercurial ointment, with five times its weight of lard, and rubbed it well in, in one or two creases. I do not now see any wool coming off. Their feed is marsh hay, oats and turnips, every day. They are obliged to eat snow this winter, as I have no facilities for obtaining water till next year. A. J. WRIGHT, Postmaster, Maple Grange P.O., Peterboro', Ont.

Your lambs are not affected with scab, but greased, caused by high feeding, principally the oats. The scab differs very much from that described in your letter.

THOROUGH CULTURE IN THE CHANNEL ISLANDS.—How different the weather and seasons of Jersey are from those of Canada, will be seen from the annexed extract:—"Peach and apricot trees in full bloom on the 13th of March." One can recollect our weather at that date. But there is no more delightful climate than that of those delightful islands in the Channel. You see they are not content with half measures in agriculture. Their ploughing and sub-soiling for the parsnip is a lesson for us Canadians. The hollow-crowned Jersey parsnip mentioned is nearly as well known as the Jersey cows. If Col. Wells has been a contributor, it must have been some time since, as we have no remembrance of it. We would request him to renew his contributions.

Mr. P. F. Nicolle, Jersey, Europe, writing to a friend in this city, under date of March 15, 1876, says:—"We have been very busy preparing the land and planting potatoes, and some are well up, almost fit for hilling. Apricots and peach trees are in full bloom outside. To-day we received a visit from Col. Wells, an American, who is buying Jersey cattle. He gives top prices, and buys only fancy stock. He told me he was a correspondent

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