

OUR ENGRAVINGS.

English Shire-Horse, Honest Tom.—This magnificent beast, bred by and the property of Mr Miller, Singleton Park, Poulton, Fylde, Lancashire, is eighteen years old, stands 17½ hands high, and weighs 2,200 lbs. He has won six first prizes at the R. A. Society's Shows; his winnings being in value \$2,600. The hair about his legs is not a blemish, but a most useful protection on the heavy clay soils on which he and his progeny chiefly work.

Trotting Stallion Phallus; record 2.15½. This animal's pedigree combines in direct lines the blood of three famous families of trotters—the Hambletonians, Mambrino Chiefs, and American Stars.

Filipail Second.—A perfect milk-cow. She is now 3 years and 4½ months old, and produced 16 lbs. 14½ oz. of butter in a week at 3 years old. I prefer her udder to the Devons exaggerated one in our engraving.

Devon Cow, Wisconsin Belle, and her calf.—Bred by and the property of Geo. Baker and Son, Hustisford, Wis. U. S. A. Through the month of June, she averaged 48 lbs of milk a day on grass alone, and from 50 lbs of her milk 2 lbs 2 oz. of butter was made. I have often remarked in the Journal that the Devons are as useful a breed of cattle for the middling soils of this province as can be found. Their milk is rich, they give a fair quantity of it, and when they come to the butcher their meat is of first-rate quality.

A. R. J. F.

La Major is a small, even very small, Canadian cow, perfect in shape, and black in colour. She weighs about 650 lbs or 700 lbs, and gives, in spite of her age of thirteen years, fifty five pounds of milk a day at three milking—5 gallons and a half, imperial measure! M. Gérin, the curé of St. Justin, her owner, has refused seventy dollars for the cow.

D. C. EMILE ROY.

Applying Pyrethrum.

Please give instructions in your paper as to the amount of Pyrethrum necessary for an acre of cabbages, and mode of applying it. R. H. [Mix a tablespoonful of the powder with a common pail of water, and apply it by finely spraying. If a watering pot is used, it should have a very fine rose. If the powder is fresh and unadulterated, this will be strong enough for the young larvæ, but as they become older greater strength may be necessary. This may be easily seen by observing whether it kills them. Experience is necessary to ascertain the best strength. The quantity for an acre of cabbage will depend much on the size of the plants, the abundance and age of the worms, and the management of the operator, but a very few pounds would do in any case if the powder is fresh and pure.]

THE WIRE-WORM.—A good deal of damage has been done this season to the barley crop in the neighbourhood of Sorrel by the wire-worm. The plant has recovered to a certain extent, but the yield will be shorter than usual—it is always short enough—We will give a cut of the creature in its various stages next month.

The *clater lineatus*, or wire-worm, attacks all sorts of crops, potatoes as well as wheat, and any means of getting rid of the pest would be very welcome to the farmer. I know of only two cures, and one of those is only of temporary effect—heavy rolling, and rape-cake. The rolling—with a Cambridge or a Crosskill clod-crusher, as a smooth roller is of little use—by compressing the surface of the ground, prevents the wire-worm from travelling about; the rape-cake—broken into pieces as small as a nut—is so favourite a food, that the worm gorges itself, and dies of repletion. Cotton-seed cake

should have the same effect, and it is well worth trying, on newly broken up pastures, especially; as where the land has lain long in grass, the wire-worm, as well as all other noxious insects, has had an unlimited chance of multiplying unchecked.

Mr Charnook, now of Milby, Lennoxville, was the first to bring the rape-cake-cure prominently before the public. As to the roller-cure, I myself, some 35 years ago, having a six acre piece of oats suffering from the ravages of the wire-worm, sent to Mr Crosskill, of Beverley, Eng., for one of his largest-sized clod crushers; and upon rolling the oats with it twice, I had the satisfaction of seeing a complete stop put to the assaults of the insect.

PERENNIAL RYEGRASS.—Our best pastures in England contain a large proportion of this grass. In a celebrated fattening pasture in Leicestershire, Sir John Lawes detected from 75 to 80 0/10 of *lobium perenne*, or common ryegrass, the field of 14 acres carrying at the time sixteen large oxen, and twenty-one sheep. Now, a *large ox*, in England, means a beast that when slaughtered will yield a carcase weighing more than 1200 pounds. I think we are given to neglect this grass in Canada. I do not recommend its use where the grass is only meant to lie two or three years, but for land intended for longer duration in meadow or pasture, it should find its place. The production of a pasture is the result of a great variety of forces, some of which, as soil and climate, are beyond our control; while others, such as the selection of manure, and the treatment of the crop—whether by mowing or feeding—we can regulate as we please. In the production of permanent grass from an ordinary arable soil, potash and nitrogen are the two substances most likely to be deficient, and their application, either in the form of food for cattle or in manures, may be considered to be essential.

THE WEATHER IN JULY.—Here, at Sorrel, the weather in July was very changeable. We had fifteen days on which rain, more or less, fell, but on the whole, with a little care and foresight, the hay suffered hardly any damage. Hungarian grass, sown on the 5th June, was nearly ready to cut at the end of July, having made such rapid progress on the Lincoln College Farm, that it attracted great attention, and many acres of it will be sown next year.

Mr Barnard, Director of Agriculture for the Province of Quebec, did me the honour of paying me a visit on August 1st. I do not think he was disappointed with the progress made on the farm under my care.

AMMONIA.—The real value of sulphate of ammonia in Montreal to-day is \$50 a ton of 2000 lbs. The selling price is another thing. Two years ago sulphate of ammonia was fetching in England £21. 10 a ton of 2240 lbs; the same is now selling there for £15! As the product of our gas-works goes to England, the calculation is easy to make. At \$50 a ton, the expenditure of 150 pounds on an acre of grain does not seem very awful: \$3 75 ought not to frighten any one; and as a general thing, I am sure it would add twelve bushels to the yield of each acre of oats, to say nothing of an immense increase in the amount of straw.

BROADSHARE.—Having an awful field, that has been in *couch-grass* for four years, to attack, I have tried to make a contrivance to undercut the mat of grass without going to any great expense about it. Taking a common plough, I fastened to the share a wing of steel, extending 14 inches from the land-side of the plough. Behind the blade, I fixed the small wheel that regulates the depth of the horse-hoe. At three inches in depth the roots of the grass are all undercut, the land pared bare, and when the Randall harrow has screwed its queer path over and through the sod, I anticipate but little trouble in killing the enemy. It is a serious job, and I wish it was over—so do the horses, too, I suspect.