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No. 12.

Committee of The Provincial Exhibition.

Official notice.—By virtue of the powers conferred upon me by Act 41 Vict., chap. 5, sect. 4, I hereby appoint, by these presents, L. H. Massue, Esquire, of Varennes, P. B. Benoit, Esquire, of St. Hubert, J. W. Browning, Esquire, of Montreal, Andrew Sommerville, Esquire, of Lachine, The Hon. Louis Beaubien, of Montreal, members of the Council of Agriculture, and J. B. Rolland, Esquire, of Montreal, Irénée Boivin, Esquire, of St. Romuald, Thomas White, Esquire, of Montreal, Henry Bulmer, Esquire, of Montreal, and A. A. Stevenson, Esquire, of Montreal, members of the Council of Arts and Manufactures,—to be members of the permanent Committee of the Agricultural and Industrial Exhibitions of the Province.

(Countersigned) Ernest Gagnon, (Signed) J. A. Chapleau,
Secretary. Commissioner.

Department of Agriculture and Public Works.
Quebec, January 20th., 1880.

Notice to Members of Agricultural Societies.

In future, the list of subscribers to the Agricultural Societies, who have a right to receive the Journal of Agriculture gratuitously will only be changed twice a year: on the first of May, and the first of January. We will distribute, in advance, to the Secretaries of the different Societies blank lists on which the names of those members who have paid their subscription for the current year will be inscribed; to these alone will the Journal be sent gratuitously. Those who wish to receive the Journal of Agriculture must therefore, pay their subscriptions for the year 1880 before the first of May.

Our Engravings.—The Smithfield Club show of 1879 will always be remembered, by farmers and breeders, as the "Priory Princess" year. This marvellous animal, bred by Mr. Stratton, the breeder of Rosalba, whose portrait appeared in our last number, is one of the most perfect specimens of the Shorthorn tribe that has ever been exhibited.

The Holstein cow, though plain in appearance, particularly at the setting on of the tail, won the first prize for milch cows at the Islington exhibition of dairy cattle, 1879.

Her milk, which was subsequently tested by Professor Voelcker, was poor in butter, and the quantity not wonderful 25 quarts, imperial measure, but the length of time which had elapsed since she calved, and the excitement of the journey &c., may be considered as diminishing the yield by at least one third.

The Laval Separator.

This machine has, at last, had a thorough, practical trial, in the hands of a practical man. Mr. Tisdall, of Holland Park Dairy Farm, Kensington, who is an active member of the Council of the Dairymen's Association, and one of the largest suppliers of dairy produce to the London market, has

the "cream separator" constantly at work, and the following are some of the results obtained.

Thirty two gallons of milk, fresh from the cow, poured through the separator in one hour, constantly coming in at the top of the revolving can, which was making about 6000 revolutions a minute, at the same time, two separate streams were pouring out over the edge; one a large stream, the skim-milk, the other a small yellow, rich-looking stream, the cream.

The faster the supply falls, the larger the flow of cream, but the poorer it is. Any thickness, or quality, of cream can be made by adding to or diminishing the feed; but in all cases the skim, or remainder, milk is found to be perfectly exhausted of its weightier matters, nothing being left but the "thrice skimmed sky-blue."

Forty quarts of milk, fresh from the cow, were put into the separator, and the cream, immediately it flowed out, placed in a churn, from which, 20 minutes afterward, 4 lbs. of good butter were taken. The milk which had contained 12 per cent of solids, of which 3.3 were fat, yielded a cream containing 54.9 per cent of solids, of which 18.7 were fat.

At another trial, at the same place, the milk yielded cream of which 52 per cent were solids, and 44.1 of them were fat; and the skim-milk in this case contained 9.5 of solids of which only 0.4 were fat. A similar sample of milk set and skimmed in the usual way had yielded a cream containing 52 per cent of solids of which 44.0 were fat while the remaining skim-milk contained 10.5 of solids, of which as much as 1.3 were fat.

The experiments of Professor Nathorst, of the Swedish Royal Agricultural College, show that, in eight analyses of the skim-milk, only from 0.19 to 0.30 per cent of fat remained.

As we all know, skim-milk has never been a very pleasant article of food; but now, fresh as it comes from the separator, it must be fit for human food, whether in its own form, in cookery, or in the shape of cheese. The use of it in the calves' pen too will be extended, for it will no longer pay to give calves butter at 25c. a pound when the necessary per centage of fat can be easily supplied in the form of linseed meal, and here is another incitement to grow flax.

A. R. J. F.

Experiments in Phosphates.

Mr. Brown, of Watten Mains, Caithness, Scotland, has completed a series of experiments on various phosphated manures against the usual mixture of equal parts of Peruvian guano, bone-meal, and dissolved bones. We draw from these trials, which seem to have been most painfully conducted, the following conclusions.

Land, good loam; 30 acre field; 4 drills, 400 yards in length, to obviate any fault owing to inequality of soil, 12 tons of good farm yard dung ploughed in. Quantity of phosphates applied was regulated by the amount of phosphoric acid contained in 5 cwt of bones and ground mineral phosphate, or coprolites as they are called in England, from