

blood is sent in large quantities to the lungs and surface of the body, especially the muscular system, while, during digestion, the bloodvessels of the stomach are distended, and the circulation is active in all the organs engaged in that important function.

It will therefore be seen, that the organ is not in a functional condition to digest food while the determination of blood to other organs is in a state of activity. Consequently, for some time, say an hour after feeding, the stomach is active in the secretion of the solvent fluids which act on the food, but as secretion and digestion are not the only action of the stomach, its other property, its peristaltic action, (its peculiar contractions by which its contents are passed on to the intestines,) is increased by exercise, consequently continued inactivity is prejudicial to digestion. A certain amount of exercise therefore is necessary. Idle horses should always be stinted in their feed; thus, horses accustomed to constant work and full allowance of hard feed, when any circumstance arises necessitating their being kept in the stable, should have no grain till they are fit for work again, and, when practicable, they should always have at least two hours exercise every day.

Injury is often done to horses by continuing the same quantity of food when idle, as when at work.

#### THE DOMINION EXHIBITION.

Minister of Agriculture Prize for an essay on contagious diseases of Cattle.

We notice by the Prize list of the forthcoming Exhibition at Ottawa, that a Prize of \$50.00 is offered by the minister of Agriculture, The Hon. J. H. Pope for the best Essay on Pleuro-pneumonia and other contagious diseases of Cattle.

We think the idea is an excellent one. At a time when the whole world is interested in this important question, it is a well timed inducement for our young Veterinarians to read up these important subjects, and familiarize them-selves with the experience and observations of those who have studied them. Though we have no contagious diseases in Canada, and we hope it will be long before they will have any practical experience of them, still "knowledge is power," and a correct knowledge of the fearful destruction wrought by these diseases amongst European herds, their insidiousness, extraordinary contagiousness, and difficulty of suppression, are all facts with which our Veterinarians should be familiar, and they will become the informants of our agricultural communities, and, thus, they will strengthen the hands of the Minister, and those acting under him, in their important duty of protecting the country from invasion by any of these dreadful scourges.

We hope to see a large number of competitors from the Province of Quebec. As the Prize is to be awarded during the Exhibition they should be sent in not later than the 20th of September.

#### IMPORTATION OF BREEDING STOCK.

While the export trade is assuming proportions not dreamed of, it is gratifying to notice that importation of fresh blood to improve our stock is also actively carried on.

Last week the steamships Deminion and Gorino bought 33 cattle of the Hereford breed, and 105 sheep of the Cotswold and Shropshire breeds; while this week 44 Cotswold sheep, and one Berkshire boar have arrived by the S. S. "Mississippi." When we consider that most of these animals are the prize winners at the Royal, and other shows in England, and that they are the best stock which can be bought in England, it will readily be seen that, with the attention which stock raising is likely to receive in this country now, the quality of our animals will soon be greatly improved.

Our farmers on this Province should take advantage of these importations and secure breeding rams, as sheep farming can be profitably carried on in many parts of the province.

## GLEANINGS FROM AGRICULTURAL PRESS

### DE LAVAL'S CREAM SEPARATOR.

The Agricultural Gazette of August 25th says: the patent milk and cream separator of Mr. Gustav De Laval, of Stockholm, is the most important novelty that was exhibited at the late Kilburn show, and what greatly enhances the practical value of the invention is its timely appearance, just when competent judges are placing England in the background of dairy husbandry. Our dairy farmers may well look out for anything to help them, and in Mr. de Laval's separator they may see what is practically the introduction of a new system of dairy manipulation, the working out the details of which may best be left in their hands.

Fig 34 represents the outside appearance of Mr. de Laval's milk and cream separator at work, and fig. 33, a section showing the working parts of the interior. In addition to the silver medal awarded at Kilburn, it has gained a silver medal at the agricultural exhibition at Flensburg, Germany.

The intermediate motion is driven by adjustable friction gear, and consists of a large pulley, with tension pulleys for changing the direction of the driving band, and by it a speed of about 8000 revolutions per minute is obtained; in the case of hand power or horse gear machines, a flywheel may be provided on the intermediate motion, but in steam engines on the crank shaft.

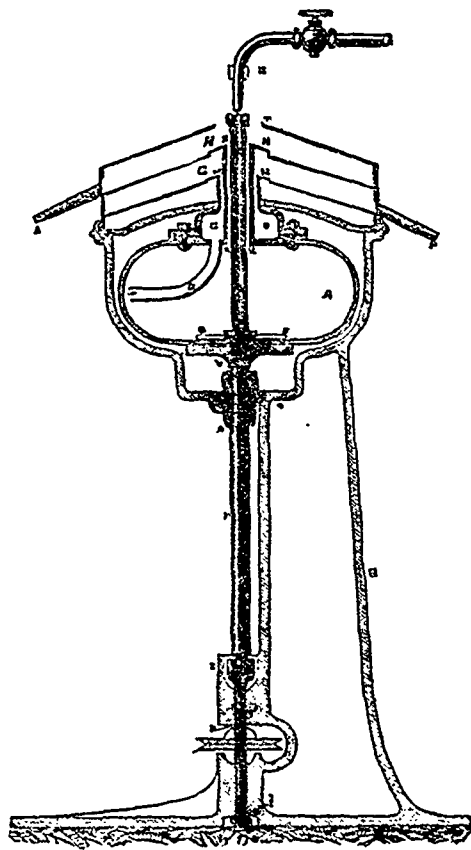


Fig. 33.

It will be understood from the engraving (fig. 34) that the outside case, n, standard, and base plate are in one casting, so that the bed plate may be bolted to the floor, or framing, of the intermediate motion. But details in fixing the separator will depend upon the motive power, the position of the separator itself in the dairy, and other circumstances which dairy farmers will have no difficulty in determining, as the whole is simple and capable of any application, so that each dairy may have its own plan in fixing the intermediate motion and separator if necessary.

In the engraving (fig. 33) A is the rotating chamber in which the separation of the milk and cream takes place. It is made of best Swedish steel forged into the form of an oblate spheroid, and then turned truthfully inside and outside.

The chamber, A, is fixed on the top of the vertical shaft, k,