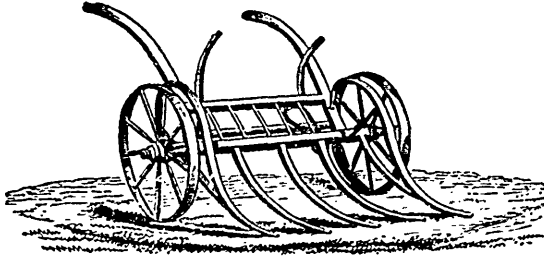


BROWN'S PATENT GRAIN RAKE.



This new implement for raking and binding grain has been invented and patented by Mr. W. Brown of Toronto, and is manufactured by him here and sold for six dollars. It is a very simple and ingenious implement, and will be found well adapted for the purpose for which it is provided. It is almost entirely made of wood so that any mechanic can easily put it in repair, but from the simplicity of its construction it may be worked for many years without any danger of its going wrong. It will be observed by the cut that it has five teeth, these are so bent as to throw up the grain, and when a sufficient quantity has been raked up to form a sheaf, there is a step which is worked by the foot for the purpose of holding it until it is bound. By this means it is an improvement on the American Grain Rake, as it not only gathers the grain, but throws it up for binding, and where grain is ripe it does not get thrashed out by being gathered with this rake as it does with the common hand rake. With this implement one man will follow two cradlers with more ease, and do the work more cleanly, than one man with a common rake will follow one cradler. In one harvest it will far more than pay itself.

DAIRY HUSBANDRY.—BUTTER MAKING.

In no department, probably, is there greater room for improvement in Canadian farming, than the proper selection and management of dairy stock, and the making of butter and cheese; articles constantly increasing in demand, and consequently improving in price. If the present low price of wheat should continue, our farmers will be obliged to discover other sources of profit, among which the dairy holds out, we think, the best prospects; although we have as little expectation as desire ever to see wheat culture occupying a subordinate position, in a country so eminently calculated, by soil and climate, for its successful prosecution. What we require is the development of the various branches of Agriculture in their full and harmonious proportions.

In the current number of the "Journal of the English Agricultural Society," there is a prize Report on the production of butter, by Mr. Thomas Rowlandson, in which the theory and practice of the art are discussed at considerable length, and with much ability, the various investigations which have hitherto taken place, and the essays which appeared on the subject, being freely laid under contribution for the purpose. In the treatment of dairy cows the injurious effects of want of repose are prominently dwelt upon, as diminishing the quantity of milk. Protection from cold is equally essential to the production of milk in large quantity as the most nutritious food;

and cases are cited in the Report to show the loss sustained in the twenty-four hours, as indicated by experiment, from inattention to these particulars. By exercise, an increased quantity of oxygen is inhaled into the system; and this oxygen unites with part of the butter and consumes it. When a cow is harassed, and runs to escape from the annoyance, her milk becomes very much heated, diminishes in volume and richness, and speedily becomes sour. When undergoing exercise heat is evolved by the combination of the oxygen with the butter, which in turn elevates the temperature of the milk, and acetous fermentation being induced, the milk becomes sensibly sour. The quality of the food has also much to do with that of the milk. The quantity of casein in the milk, for example, is intimately connected with the nature of the food, being more abundant when supplied with bean and oatmeal, than when partially fed on potatoes—a circumstance which shows us that within certain limits the quality of the milk may be made to vary in its composition by regulating the food.

On being drawn from the cow the milk should forthwith be placed in shallow vessels, for which purpose the glass pans are preferable to any other. The depth of the milk in these pans should not exceed four inches, and it is stated that two inches is the best depth. In a dairy maintained at a proper temperature, the cream should be gathered every twenty-four hours, and in very hot weather the milk should not stand more than eighteen hours. The butter may be obtained from the milk by either of the following methods:—

1. Sweet cream churned alone.
2. Sweet milk and its cream churned together.
3. Sour cream churned alone.
4. Sour milk and its cream churned together.