Interesting Experiments Made at Ottawa.

The chemist at the Central experimental farm, Ottawa, Mr. F. T. Shutt, M. A., F.C. S., has had a busy year. Latterly it was found necessary to provide him with a competent assistant, and Mr. A. Lehmann, B.S.A., has been selected for the post. A wide scope has, in consequence, been given to the work, both in its direct application to the experimental farm system and the needs of the farming community. Take for example the analysis of water. During the year many farmers in Ontario and Manitoba have taken advantage of the offer to analyze their well water and have sent samples to Mr. Shutt. This work has cost the individual farmer nothing beyond freight charges, Mr. Shutt. This work has cost the individual farmer nothing beyond freight charges, and in return he has been given the advantage of knowing whether his well water is potable or not. In many instances the chemist has been able to say that the water was unfit for use, particularly in the case of samples taken from wells located in barnyards or at points exposed to serious contamination. It is a decided advantage to a farmer to know that the water which his animals drink, and which also his family may drink, is pure or impure. He will know animals drink, and which also his family may drink, is pure or impure. He will know what to do in either case. The quality of the water has an important bearing on the products of farm animals. The best dairy authorities are unanimous in the opinion that wholesome milk can only be had from cows to which a supply of pure water is available. Lacking this important food element, bad milk, bad butter and diseased animals are among the unhappy results. A cow in bad health will also make a poor return to her owner, which results. A cow in bad health will also make a poor return to her owner, which brings in the dollar and cents view of the matter. In this relation let it be said that samples of water collected for analysis, should be sent promptly to Ottawa, and as there are certain important precautions to be observed, it would be well to communicate in advance with Mr. Shutt.

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observed, it would be well to communicate in advance with Mr. Shutt.

With respect to milk, the data for important conclusions are being gathered in the laboratory. At the Central experimental farm there are five milking breeds of cows, and it is important to the dairyman, as well as the private farmer, to know the relative yield of milk and its quality. To arrive at an intelligent conclusion, a long series of weighings and analyses have to be under the would not do to give an opinion hastily. In the laboratory the work of analyzing there samples of milk has been carried on with scrupulous and conscientious care, and it is to be expected that Mr. Shutt's report on this matter will be of great importance. These are also side questions to be answered, such as the effect of different rations, the age of the animal in relation to quantity and quality of milk, and the individuality of members of each herd. All these are receiving studious attention. It may be added that the breeds of milking cows being tested are the shorthorns, Holsteins, Jerseys, Ayrshires and grades.

To ascertain the composition and value of our native grasses is another important work carried on during the year. For several years Mr. James Fletcher, the farm botanist, has grown a large number of varieties, and it was desirable that the relative value of each, for the purposes of fodder, hould be ascertained. There was also the

varieties, and it was desirable that the relative value of each, for the purposes of fodder, hould be ascertained. There was also the question as to when was the best time to cut them for hay, and for the solution of that problem cutting was done at different periods. The analyses subsequently made were for the purpose of determining the exact composition of the product, which, of course, has a direct relation to the food value.

course, has a direct relation to the food value.

When The Empire representative was in the laboratory the other day it was found that Mr. Shutt was engaged in making a series of analyses of sugar beets. Work along the same lines was done last year. It will be seen by reference to last year's report that some 35 samples were analyzed of sugar beets grown from imported seed in various parts of Ontario and at the experimental farm, Ottawa. The average percentage of sugar was 14.25, a very good showing for the first season. Samples are now daily coming in from farmers throughout Ontario to whom imported seed was sent. The work of collecting the roots, as well as of ascertaining data regarding the yield per acre, cost of production, nature of soil and culture is being prosecuted by Mr. Robert H. Lowder, of Toronto. The seed was supplied by Mr. Wilfred Skaife, of Montreal. The forthcoming report of the chemist will contain the results of these analyses, as well as of the amount of sugar in fifteen varieties of beets grown at the Central experimental farm here. The reanalyses, as well as of the amount of sugar in fifteen varieties of beets grown at the Central experimental farm here. The results will be given in tabular form, so that differences in varieties and the effect of various methods of cultivation may be seen. The sugar beet is particularly susceptible to various methods of cultivation may be seen. The sugar beet is particularly susceptible to its environments and responds quickly in increased percentages of sugar to careful cultivation. This is a matter to which the Minister of Agriculture has given considerable attention, and these experiments, it is understood, have been made at his instance.

Accident With a Pistol.

London, Nov. 13.—A lad named Bayley, living in East London, went on a shooting expedition the other day with three companions. When near Dorchester station he tried to fire off a revolver without success, and companions. menced to examine it. The weapon was un-expectedly discharged, the bullet going through his leg above the knee. Mr. Abel saw the occurrence from the opposite side of the river, and with H. Shaw's assistance kindly carried the boy to the station, and sent him home. Two of his companions had left

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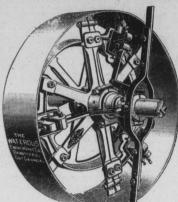
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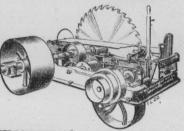


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