

lecturers. In the course of three years there might be an "Illustration Station" in each county.

For the encouragement of those who sought to excel in carrying on the work, the Government might arrange to award a gold medal to the superintendent in each group of stations who conducted the work in every respect in the best way. Silver and bronze medals might be given to the others in the order of merit.

Then a special Provincial Medal might be provided for the most successful superintendent in each province, and also one Grand Dominion Medal and Diploma, which would confer great honor on the one fortunate enough to win it. These would cost very little in proportion to the good they would do.

#### PIGS AND POULTRY TO BE INCLUDED.

After a few years, the plan might very well include methods for increasing the fertility of the soils by the growth of such crops as clovers, peas, beans, etc.

It would not be desirable to take up any illustration work with live stock in connection with these stations, except, perhaps, with pigs and poultry. With modifications to suit the nature of the work, the plan could be applied to the establishment and maintenance of "Illustration Stations" for these two branches of live stock; and very great benefits would result from illustrating the best methods of selecting breeds, and of rearing, housing and feeding them.

#### EDITORIAL COMMENT.

The scheme above outlined has certainly the merit of being in the line of progress, and is an extension of the principle adopted by the Dominion Government in the practical assistance given to winter butter dairying through dairy stations in the Northwest and Eastern Canada, and by the Ontario Government to experimental fruit stations, both of which have been useful in their way as object lessons or for investigations brought near to the home of the farmers, of which they can take cognizance in so far as they have proved successful and adapted to the conditions of the district. This is especially true of the manufacture of butter in connection with the co-operative creameries, and also applies, though with less force, to cheese-making, the advance in which dates back to earlier days, some twenty or more years ago, when commendable pioneer work was done by worthy men who placed this branch of dairying in Canada on a firm foundation, from which, in the hands of intelligent and enterprising dairymen, it has grown into a feature in the commercial world of which all Canadians are justly proud.

The probable cost of the contemplated scheme as estimated by Professor Robertson is not extravagant, and considering the paramount importance of the industry in a country so pre-eminently agricultural as is this Dominion, we do not apprehend that serious objection to the scheme will be offered on that score if reasonable assurance can be given that the cost will not largely exceed the estimate. To our mind \$100 would be inadequate compensation for the management of twenty acres in experimental plots as contemplated, as it would require almost the whole time of one man for six months at least to give to the various crops the different methods of cultivation at the proper time, together with the keeping of accurate account of the time spent upon each crop and the value of the labor, also the separate harvesting and threshing of each class of grain. Taking this view of the matter, we should expect the cost to largely overrun the modest estimate of Prof. Robertson. At the rate of one per county or electoral district probably 140 or 150 illustration fields would be required for the whole Dominion, and he puts the outside total cost at \$200 each per annum.

We have little faith in the feasibility of carrying on such work under the auspices of local organizations, such as a Farmers' Institute or an Agricultural Society, since, as a rule, it is agreed that what is everybody's business is nobody's business. If the results are to be of value the investigations must be conducted with scrupulous regard to accuracy, otherwise they might prove dangerously misleading. To secure the assistance of a competent man and efficient work the district inspector or some other authority would have to make the selection and appointment of the man who is to carry out the work, and the inspector should be held responsible for the proper carrying out of instructions. The difficulty in getting the right man in the right place to undertake the work would probably be one of the greatest that would present itself, but it should not be considered an insurmountable one until the plan has been tried and found wanting. The educational value of such illustration Stations, if well manned and conducted, is, of course, the strong feature of the scheme, and that is a factor which cannot be computed, but would probably be far-reaching and exceedingly useful; while on the other hand, if the appointments of the inspectors and the local managers

were made on any other principle than that of competency and fitness, the results might be such as to bring the whole scheme into contempt.

Professor Robertson's glowing estimate of the possible results are pleasant to contemplate, and we would gladly share his enthusiasm and wish that his highest hopes may be realized, but, judging by what we have seen, we cannot well get away from the reflection that the many millions are more readily figured on paper than realized in practice, and that the process of evolution in methods of farming, judging from the past, is not so rapid as to justify the prediction of such roseate results in so short a space of time as ten years, but we can afford to give him another ten and still have a good investment if his figures are not fixed at too high an elevation for even that period. The case of France has been quoted, where it is said they have no less than 4,000 of what are called "Example Plots" spread over the whole country, and which are said to have very largely increased the average wheat yield of that country during the past 25 years. It would be useful evidence to show how the direct value of the increases compares with the outlay for the French system.

In regard to his suggestion for the granting of medals in recognition of the highest standard of work performed, we would say that Prof. Robertson has overlooked the men to whom, in our opinion, this incentive should be held out, and they are the men who do the actual work of carrying out the experiments or demonstrations.

The above outline does not indicate what relation, if any, the new scheme will have to the Central and Branch Experimental Farms in the different Provinces, but we presume one plan might be for the latter to determine say four of the best for a large number of varieties of a given grain, which would then be grown at the illustration Stations according to the most approved methods. These proposals will no doubt engage the most careful attention of the Agricultural Committee of the House, after which, in due course, recommendations will be made to Parliament for adoption at the present session. The opportunity would also seem favorable for considering the work of the Experimental Farms in relation to live-stock husbandry, the need of increasing which was indicated in a series of articles and letters published in this journal during the past season.

#### "The Water Witch."

To the Editor FARMER'S ADVOCATE:

I would like to give your readers who are interested, my experience in locating water with the "divining rod." A near neighbor of mine, a thoroughly straight and honest man, discovered that the rod "worked" with him, but could not understand why it should do so. I had several times tried for water, in one case going to a depth of 40 feet, but with no success. This neighbor came along one Saturday evening and located a water with a divining rod. I had no faith in the thing and suggested that I be allowed to blindfold him and lead him around several times, and then if the rod worked in the same place as he had at first I indicated I would sink \$1,000 in the hole before I would quit. I blindfolded him and led him several times around the place, and as soon as he came over the spot previously indicated the rod turned downward. He told me that he did not think I had \$1,000. I said, "Not in cash, but I would risk as every hoof I had around the place in that hole. As the stock was no use to me without water." As a further test of the rod, and thinking perhaps that electricity had something to do with it, I took one end of the willow in one hand and put my other hand in that of my friend, thus completing the circuit, and sure enough the willow bent down and I could not stop it. I then sunk a well on the spot, without any appearance of water until a depth of 65 feet was reached, when I struck a flow of water that for the last twelve years has stood within three feet of the surface. This same man has located a number of wells in this neighborhood, all with good results, some of them flowing wells. Whether I believe in the divining rod or not, I would not think of digging a well where the willow did not turn down in this man's hand.

W. M. CHAMPION.

#### Municipality of Woodlands, Man.

[EDITOR.—There is nothing in the above letter to show that had the well been sunk to a depth of 65 feet anywhere else on the farm that water would not have been struck. Dr. G. M. Dawson, Director not have been struck. Dr. G. M. Dawson, Director Geographical Survey of Canada, says in a recent letter to this office: "The 'water witch,' or 'diviner,' has absolutely no scientific foundation, al-though as in all cases of the kind, by a process of natural selection, a great deal of apparently spurious evidence is often built up in favor of a belief in it." And Mr. F. H. Newell, Chief Hydrographer United States Geographical Survey, in the Year Book, 1896, in speaking on the subject of locating wells, says: "It seems hardly worth stating in the connection that money expended in the employment of the so-called 'water witches,' or men who use the divining rod, is worse than futile, as it merely encourages fraud."

#### Observe the Arbor Day.

Let all observe the annual Arbor Day:  
Without excuse for want of time or age;  
Blend manly toil with cheerful, happy play,  
And in a noble work of trust engage.

The boy when grown to manhood's graver years,  
In contemplation sits beneath their shade,  
In vision's magic glass again appears  
Many a scene in seeming life arrayed.

Will see again his father plant the tree,  
When he with boyish hands heaped up the ground;  
Will hear his sister's loud and girlish glee,  
In memory still with joyous songs resound.

Ah, he's a benefactor of our race,  
Who lives not for himself alone, or pay,  
But with a kindly heart of trust and grace,  
Will plant some useful trees on Arbor Day.

—C. L. Lockman, in *Mechanics Monthly* for April.

#### Our Governments Should Encourage and Foster the Growth of Timber.

To the Editor FARMER'S ADVOCATE:

SIR,—The desirable acreage of woodland on a hundred-acre farm depends upon the situation and value of the arable lands. For instance, a farm bounded as mine is by steep hillsides, incapable of profitable tillage, should have these conserved for forestry purposes. A hundred-acre farm, all good, arable land, could do with less—the minimum acreage—say ten acres. I would make a difference of one-third in value between a farm with that proportion of woodland and one without it, dependent, of course, upon the quality and condition of the wood lot.

The apathy and indifference to the protection of our forests is so widespread that, in my opinion, it requires to be legislated upon. Woodland should be exempt from taxation. Something might be done if Government would assume the manufacture of woven wire fencing or some other adequate form of fence, furnish such fence at cost, and make it part of its duty to encourage and foster the growth of timber in our frontier townships.

Undoubtedly windbreaks, with due reference to situation, would be a benefit planted in such directions as not to obscure the sunlight and thus hinder vegetation. I would favor nut-bearing trees, such as hickory, interspersed with conifers. Especially should trees be planted in the milking yards and around the milk-stands. I think a well or spring (like an oasis in the desert) should have around it a clump of evergreens to indicate its presence.

In my opinion better results would be obtained were trees obtained from nurseries, of varieties not native to the country, but which have proved suitable. It should be the province of the experimental farms to furnish this information, and to issue a bulletin each Arbor Day having a bearing on this subject, and such Arbor Day should be earlier in the season, before the land becomes too dry. Our teachers and others could aid in the good work by raising from seed and otherwise such varieties in the school grounds and elsewhere.

Hastings Co., Ont.

JOHN S. BOUTELLIER.

#### A General System of Windbreaks Favored.

To the Editor FARMER'S ADVOCATE:

SIR,—I heartily agree with you in your notes of alarm in regard to the wholesale destruction of our natural forest shelter. It is a well-known fact in the history of all countries that when forests disappear, fertility, for obvious reasons, is impaired, and our own Province has shown no exception to that general rule. I would consider that ten acres of forest on every 100 acres of land could by proper management be made the most useful and profitable portion on the farm, not only for the production of fuel and timber for time to come, but for a shelter for at least a portion of the cleared land adjoining. I have often heard farmers say: "What is the use of leaving a portion of the farm under bush. If this land were all cleared for crops we could raise more on the land occupied by the timber than would buy all the fuel and timber required on the farm." But in reasoning in this way they are forgetting the important fact, that by cutting away all our remaining timber we are allowing the drying winds a free course over our lands, that in most cases tend to decrease the fertility to an alarming extent, and reducing the value of, perhaps, the whole farm to an extent that few farmers seem to realize. In my opinion a farm entirely cleared of timber and surrounded by cleared land is much less valuable for all practical purposes than a farm with forest protection or proper windbreaks.

Our present groves cannot be protected if we allow stock to run amongst the growing timber. In most cases now we will have to plant at first what trees we require to make our groves self-protecting, as they have become so grown up with grass that young trees would not start readily from seed; but after we get the surface of the land well shaded and a good bed of leaves, young trees will then grow up from seed, and by cutting out the large timber as required we will always have a succession that will maintain our groves for an indefinite period.

I am in favor of a general system of windbreaks, not only for farm buildings and orchards, but for the whole farm. On a 100-acre farm I would consider that a good row of Norway spruce or Scotch pine along each side of the farm, and a parallel row through the center, and cross rows if required to break the prevailing winds, and more particularly along the roadsides, would pay well in increased crops, as a result of the prevention of drought