

be an experimenter, it is manifest, therefore, with reference to his experiment, that he should reach conclusions with the utmost caution.

In the erection of buildings we oftentimes find the farmer his own architect, and in a sense it is well that it is so. But he will tell you with evident pride that his outbuilding is his own plan, and the outcome of his own ideas. That is all right, if his is the best plan. But if it is not, it is all wrong. It may be that a dozen plans are on record superior to his, and that he has not known of their existence. Had he been thus informed, he would probably have improved on some of them, and would, therefore, in the end have been a very great gainer.

In this age of incessant advance, when the very air is astir with discovery, it is all-important that the farmer shall keep himself abreast of the times. If he does not, he must fall behind. He must find a place rearward rather than in the van. How shall he do this? By keeping his eyes wide open, and reaching out and grasping the helps within his reach. These helps are various. They may relate, first, to the agricultural press. The agricultural press in itself is a compendium of the progress that is being made. Anyone, therefore, who is a careful reader of agricultural literature furnished from the source named will be fairly well posted as to the progress that is being made on every hand. But, in the second place, farmers' organizations, bulletins, and books may all be made to swell the volume of his gleanings. When close attention is given to gathering information from all these sources, the farmer is not likely to engage in experiments that have already been demonstrated elsewhere.

A Newfoundland Scene.

The popular idea about Newfoundland is that it is a country of rocks and ice, with a climate largely tempered with fogs. To the better informed, however, it is a country with a great future before it, being possessed of great mineral wealth, and containing, moreover, a considerable quantity of land suitable for agriculture. It is true that agriculture is not yet in an advanced state on the island, but there are good farms there and progressive farmers, one of these being Mr. A. Makinson, Cochrane Dale, Brigus, the owner of a fine farm of 700 acres, a view of part of which is given in the illustration on the opposite page, which also shows The Var mountain in the background. Mr. Makinson is the proud owner of a silo, which he finds indispensable for feeding his cattle in the winter, and he is energetic in

showing the benefits of improved methods of agriculture to his less enlightened neighbors.

Frequent Stirring of the Soil.

Without any doubt, a great field lies open for experiment with reference to stirring the soil, while producing our grain crops, after these have been sown. And the drier the section of country, the greater the necessity which exists for thus stirring the soil. This problem has not yet been more than touched upon by our experimenters, but undoubtedly its day is coming.

Men are eloquent, when writing in the press and when speaking from public platforms, over the great advantages to corn and root crops from frequent cultivation, but we do not hear a word about applying such a mode of cultivation to grain crops, although the results should be equally beneficial to the grain as to the crops named. No doubt one important obstacle to be overcome is the difficulty connected with the cultivation of grain. Our machinery is not adapted to it. In fact, we have no machinery that is suitable to the work.

One can readily see wherein cultivation would greatly increase the yield of grain. When it is sown in rows in the garden and hand-hoed, great returns relatively are obtained. Now, if some such system could be applied to growing grain in the field, which would not be too expensive, the results could not but be eminently satisfactory.

The reasons are obvious. Soon after ground is stirred it has a tendency to become encrusted more or less, according to the kind of soil and condition of weather. When such encrustation takes place the ground cracks, and from these openings the ground moisture escapes. If, therefore, the ground could be sometimes stirred in the early stages of the growth of the grain, until it was somewhat shaded by the grain, the results would be eminently satisfactory. The number of times for stirring it would depend on the season, but if it could be stirred two or three times the gain would be very great.

And the effect in destroying weeds would be greatly beneficial. Every time that the ground was stirred they would die in immense numbers. The soil would not only be freed from them, but they would not hinder the growth of the grain, as they too frequently do.

But we have no suitable implements for doing such work. We have not even harrows exactly adapted to it, nor are we likely to have until something is invented for this specific purpose. When grain is put in with the grain drill it would, generally speaking, help it greatly to harrow it