

The Astronomer Royal for Scotland, C. Piarré Smyth, in his Report to the Board of Visitors of the Royal Observatory, Edinburgh, in July, 1871, gives us a record of temperature taken at that Observatory since 1836, and the curves of temperature in that report show a cold period at every sun-spot maximum and minimum, and a point of high temperature between every min. and max., showing some kind of connection, or rather coincidence, between sun-spot periods and the weather.

Mr. Stone, Astronomer Royal at the Cape of Good Hope, has noticed a similar coincidence in the record there; and though I have not seen his curves, there seems to be no doubt but that, both in the Northern and Southern hemispheres, weather changes exist which coincide with changes observed on the surface of the sun; but at no point of the earth's surface has this connection been made out more clearly than in our own country, and at Toronto.

Referring to the results reached at Toronto, Prof. Smith says:—"These results touch closely on the hopes of physicists to render meteorology more of an exact science by getting at its cosmical relations; but they also touch equally close on another point where the highest science is at present completely dumb, although, too, it is the very point where the utmost amount of benefit might be conferred on the largest number of people, viz., some approximate indications of the character of the seasons a year or two beforehand."

With this letter my series closes, and if your agricultural readers follow their teaching, I feel sure they will have no cause to regret their course.

If any of your readers wish to pursue this subject further, they will find it more fully discussed in the past and present numbers of the *Canadian Magazine*.

OMICRON.

Leasing Small Farms.

To the Editor.

SIR,—Allow me to draw attention to a subject of interest to a certain class of your readers. I refer to the purchase and management of farms by mechanics, tradesmen, and the like. Each one is apt to imagine that he is engaged in the poorest occupation, and men will too often be found ready to embark in something they know nothing about. I find it getting quite common for such parties as I have named, as soon as they have a few hundred dollars saved from their earnings, to lay it out in buying land in the vicinity, probably from 10 to 50 acres. This is right as far as it goes, and for reasons which I shall enumerate, the investment is safer than any bank or savings society; it is placed in such a position that the possessor is unable to run to his savings and withdraw a few dollars whenever he sees anything to suit his fancy; and he will not dispose of the land without due consideration; the principal will continue to increase, from the fact that land in the vicinity of a thrifty village or town will never decrease in value; and last, but not least, should he chance to live on it, as a great many do, the walk to and fro will tend to promote his health and happiness.

What I wish to speak more particularly upon is the management of those farms by such persons. I do not think that I could do better than give a general description of several which I have under my observation. The purchasers of these small lots see thrift and activity among the larger farmers in the neighbourhood, who devote their time and attention to their occupation. Having heard of a small farm for sale, within their means, they at once seize the opportunity to make a purchase, and then conclude they are on the right track to prosperity. Wholly unacquainted with their business, they think that they have done nearly everything that is necessary; all that they have yet to do is to engage some one to work. Unable to stock it properly and purchase implements, they employ some man who has a team and apparently not much to do, and pay him in trade; or, it may be, he works it on shares; or they get some neighbouring farmer who chances to be fore-handed, to work it on shares. Very few care to let it for a term of years for a certain rent, because they would receive a stipulated sum, and no more, while in the other case they encourage bright hopes of larger gains. They are invariably disappointed. Now and then a few dollars will be required for expenses, and they are dealt out with a doleful face, while everything is expected to keep itself in proper order. The person working it is supposed to be as much interested in the management and care of the place as the proprietor, who meanwhile looks placidly on, devotes his time to his occupation during the week, takes a stroll on Sunday over his farm, and in anticipation realizes large returns from his landed estate.

Is it to be wondered at that, when pursued in this fashion, farming should be counted a losing business? Had these owners of small lots acted as a little reason and common sense would have dictated, it might have been different. They should have leased the place for a term of years (the longer the better) to some industrious man who understood farming, with the conditions that he should keep things in repair, and put a sufficient quantity of stock upon the place to eat up the coarse material, haul the manure on the field as fast as made, and have a rotation of crops. It would be an incentive to the lessee to take an interest in the place, and till it for his own benefit, and at the end of the time specified the owner would not only have realized more profit from his land, but it would have increased in value from 20 to 25 per cent., and his mind would have been free from a good deal of anxiety.

Should this happen to fall under the notice of some of those I have attempted to describe, cause them to consider the matter carefully, and take a more enlightened view of the subject, I shall consider my object accomplished, and be tempted to write again.

AGRICOLA.

FLAX.—There are flax mills at St. Mary's and at Stratford. Our correspondent "Agricola" will find much information on the subject of his enquiry in a small pamphlet published by Mr. J. A. Donaldson, Emigration Agent, Toronto, on the cultivation of flax in Canada.

A Word of Counsel and Encouragement.

To the Editor.

SIR,—Allow me, through the medium of your columns, to say a word of encouragement at the outset of a new year to my brother farmers.

Where failure and disappointment have been the result of our efforts during the past year, fresh energy and activity may still place us where we wish to be. Where success has attended our exertions, further energy may be requisite to enable us to continue to hold the ground we have gained. To the former unfortunate class, let me say it is of no use for the sufferer to look back upon the past except as a warning for the future. Above all things, do not brood over troubles. Such depression never mended matters, and only furnished food for despondency. The common utterance of dejection, "It is of no use to try any longer, I am dead beat," is the very worst that can be indulged in. The thought always present under such circumstance, "I owe so much money, and it must be paid," is certainly bad enough; but bad as it is for you, it is worse for those to whom you owe. You have suffered all you can; their's is yet to come; both you and they must bear it. True, they may be better able to bear it, but the suffering is the same; and if they can bear it, surely you can. You are ready to ask "How can I hope to pay my debts now, when I have nothing to pay them with, and no better prospect in the future than in the past?" This question must be fairly faced and answered "simply you must." Depend upon it, provided despondency is banished, better times will come. Constantly thinking over such miseries banishes rest and sleep, and without both the nervous system will never rise superior to calamities. Besides, very few are "dead beat"—none are whilst they are truthful, sober, and have health and strength; but health and strength will depart if any such miserable despondency is indulged in. The sooner all so situated rise up and shake off all such feelings the better. Put on as bold front, tell the truth, state facts, and show where and how the failure occurred; and all who are then made sufferers by your acts, seeing clearly that you have not wilfully deceived them, will give all the time they themselves would require under similar circumstances. It is better for them to do so, and indeed for all parties concerned.

But happily the number of those who require the foregoing counsel and advice, it is to be hoped is not large. Still there are some to whom such "crumbs of comfort" will prove good food, and be appreciated. Many a time in former years I have been strongly impressed with just such few homely words and advice, and have, when suffering under such depression, read and re-read the comforting words, and have felt better and