

Starving the Land.

It is not often one comes upon so good and timely an article on practical farming in an ordinary newspaper, as the following editorial, which we cull from the *Collingwood Bulletin*. Such articles would benefit the country far more than the political squabbling, village gossip, and silly tales too often found cumbering the columns of our local newspapers. Since our contemporary can do so well in the agricultural line, we hope he will try his hand again, and often.

Last week we gave a number of statistics showing the rapid development of the butter, cheese and egg trade in Canada, and briefly drew attention to the fact that this increase had not caused a reduction in the prices of these articles. Butter is higher and scarcer to-day than it has been for many years, while the price of cheese and eggs is, as a rule, better also. All kinds of dairy produce have advanced in price, and beef, pork and mutton have followed suit. With these facts before them we would respectfully call the attention of farmers to a subject which is of the utmost importance both to them and the country at large. Everybody will admit that our agricultural resources are the most important resources we have. Our lumber and minerals and fisheries would be of small consequence indeed if we had to depend upon them independently of the products of the soil. The market for lumber is uncertain and the supply limited; only a limited number of men can find successful employment in fisheries; and mining is in most cases a species of lottery in which blanks are much more numerous than prizes. Upon the agricultural rests the hopes of our national prosperity. But agriculture itself must be conducted upon sound principles, or it may fail. Some people seem to imagine that the soil needs but to be ploughed and the seed sown in order to secure an abundant harvest. If wheat is found to be profitable the land is sown with wheat, and year after year, without interruption, its resources are drawn upon to yield the "golden grain." The farmers of this township take a sort of pride in believing that theirs is the finest wheat-growing township in Canada. But unless a different system be adopted this pre-eminence must soon be known only as a remembrance. There are fields in Nottawasaga which have yielded crops of wheat for fifteen years or more successively, and now the crops begin to show symptoms of that sickness which is the inevitable consequence of starving the soil. If this state of things is permitted to go on many years longer we fear the result will be most disastrous. It is a fact well known to scientific farmers that the elements which go to make up any particular kind of vegetable growth are contained in the soil only in limited quantities. When these become thoroughly exhausted the land is barren and good for nothing, and years of constant fertilization will be necessary before it can be brought back to its normal condition. Those farmers who neglect to remember that land should be supplied continuously with a certain amount of artificial nourishment while it is producing heavy crops, must look forward with gloomy anticipations to those coming years of barrenness when the soil will be tilled in vain, and the seed sown will give no return. That these years will come is absolutely certain, unless some effective means be adopted to save the land. They may be long delayed where soil is strong, but their coming is none the less sure. The remedies are themselves simple and abundantly plentiful. Every year the land which has been producing heavy crops should be manured. Or if manure cannot be obtained in sufficient quantities, the evil may be mitigated if not entirely avoided by a judicious change in the kind of crops. Wheat fields should be relieved by something which does not require the elements necessary for the production of wheat, and their energies will thus accumulate. But there is another remedy to which we wish to call special attention, and that is the raising of more stock. When butter is selling for 25 and 35 cents a pound butter-making must be a profitable business, and there is not much danger of the butter market being overstocked. The English market has for many years absorbed a large quantity of Canadian butter, and will continue to do so. Then there is cheese, which can be manufactured with equal profit. If farmers would let some of their over-cropped fields run into pasture and fill the pastures with a good stock of cattle, they would not only materially enrich the soil, but would at the same time enrich themselves with the profits of a well-conducted dairy. We commend this subject to the serious attention of our agricultural readers, and feel persuaded that if intelligently put to the test, the plan will be found to result in immense good.

Cheap Fencing.

The cost of fences is becoming a serious matter in all parts of this continent, even those where timber has heretofore been most abundant. In the Western States there has always been a scarcity of fence material, and the result has been a sharpening of wits to devise ways and means of doing the thing with as little cost as possible. An Illinois correspondent of the *Southern Planter and Farmer* details a method employed by him which may prove suggestive to some of our readers. A Virginia farmer commenting on this plan, advises the substitution of cut wire staples (grape staples) for the holes in the posts, and also notching the rails, where they rest on the wire loops, to prevent slipping.

Having come into possession of a farm in Albemarle county on which there is a small supply of timber suitable for fence-rails, and the fencing on the place being in very bad condition, I have been much exercised on the subject of cheap fencing. The ordinary stake fence, or worm fence, if adopted would consume all of my available fencing timber, and leave my place still but badly fenced. The ordinary post and rail fence, though requiring much less timber, would cost more than I could well afford, besides the time required to construct it.

After much thought, I have hit upon a fence that suits me admirably; and as I suppose there are many farms in the condition of mine, viz: badly fenced and scarce of timber, I am disposed to give their owners the benefit of my invention. To make the fence, get out posts as you would for a post and rail fence; instead of mortising the posts, bore through them just about where you want the rail to come, a small hole—half or three-quarter inch will be large enough—and through this hole pass about 18 inches of baling wire, tying the ends so as to form a loop large enough to contain the ends of two ordinary fence rails; then set the posts in the ground as you would to make a post and rail fence, except that the flat side of the post shall be parallel with, instead of perpendicular to the direction of the fence, then insert the ends of your rails in the wire loops (ordinary fence rails will do), so that all of the ends of one panel shall be on one side of the post and the ends of the next panel on the other side of the post, thus balancing the weight on the post and tightening the wire-loop so that it holds the rails firmly in place. The posts may be smaller than in the ordinary post and rail fence, as they are not weakened by mortises. If a mere temporary fence is desired, an ordinary fence stake may be substituted for the post, by the use of a crow-bar in making the holes, then driving the stakes in with an axe. The fence may be rapidly put up, and as rapidly taken down for removal.

This fence, with the posts inserted the usual distance in the ground, will stand firmer than the usual post and rail fence, because the wide side of the post will be parallel to the fence and present a wider surface of resistance to any force pressing against the fence. The great saving in avoiding the expensive mortises and troublesome fitting of the rails in those mortises necessary in the ordinary post and rail fence will be obvious at once. The wire-loop which takes their place will, at present prices (12 cents per pound), cost from one cent to one and a half per panel according to the number of rails desired in the fence. The wire will outlast the post or rail, and if properly tied will be amply strong to sustain any weight that the rails will bear.

I am so much pleased with this fence that I expect to substitute it altogether on my farm in the place of my worm and stake fences as they give out.

Summer Fallowing.

George Geddes is in favor of summer fallowing as the most effectual method of eradicating couch grass and other inveterate weeds, but thinks it will not pay unless foul plants have taken such possession of the soil as to render desperate measures necessary for their extirpation. He summer fallowed ten acres of good land badly infested with couch grass; got rid of the pest, and obtained thirty-eight bushels of wheat to the acre; but this excellent yield of course represented two years use of the land, and was therefore only equivalent to nineteen bushels per acre as one season's product.

Mixing Lime, Gypsum, Ashes &c., with Manure.

A correspondent of *The Western Rural* inquires:—"Would you advise mixing quicklime, ashes or plaster in the compost heap, or in the liquid manure vat? Would it not be a good way to get these elements into the soil; or would it be better to sow them separately, or mixed, directly on the land? Is muck a good absorbent of the liquid and gaseous portions of manure? Will it pay to haul it a mile or more for that purpose?"

The editorial reply is as follows:—"We should not advise mixing either quicklime, ashes or plaster (gypsum) with green manure, for compost; certainly not in the liquid manure vat. If the liquid manure is offensive to the smell, a solution of copperas would be more proper, since, in its action in deodorizing, it forms two valuable compounds. The action of quicklime is to set the ammonia contained in the manure free. If this be not absorbed by peat, muck or other absorbents, it passes into the air and is lost.

If we mingle an equal bulk of gypsum and carbonate of ammonia, both in fine powder, it smells strongly, for ammonia is set free and volatilized. If it be drenched with water to the point of super-saturation, the ammonia is then fixed until the water is dried out, when action again commences. Thus you will readily see why these compounds of lime should not be used in composts.

If to the liquid manure, copperas, in the proportion of half a pound dissolved in each gallon of water used, be thrown into the liquid manure, the quantity to be determined by the cessation of odor, both the ammonia and the sulphurated compounds are seized and held until, being incorporated with the soil, they are again given up to plants.

We therefore advise, in making compost with green or fermenting manures, to use dry muck, peat, earth or loam, as an absorbent, in regular layers, using just enough water to keep up an active fermentation. That there may be no escape, the top and sides must also be covered. After the fermentation has ceased, the heap may be turned once or more, to thoroughly mix and disintegrate the mass, when it will be in the best state for application to the land.

Dry muck, peat, earth, clay, etc., are the best absorbents available on the farm. We should prefer to sow the lime, gypsum or ashes separate, rather than to mix them with the manure. There are so many contingencies and chemical changes connected with the making of manure, that the subject is a study in itself. A careful perusal of the works specially devoted to this subject, will be found to pay.

A Run-down Farm

The *Country Gentleman*, in replying to a correspondent who inquires how to make an exhausted farm fertile, after premising that there are special circumstances to be taken into account in every such case, lays down the following general principles in view of a soil which, from continuous hard cropping, has been deprived of the vegetable matter it once contained, and settled down into a compact, hard mass:—

1. Underdraining, if the soil settles down in a mass after long rains.
2. Mellow cultivation when dry enough, pulverizing the soil well as a preventive of drouth.
3. The introduction of clover, to be preceded if necessary by a moderate dressing of manure, or by some other green crop.
4. Working most of the farm into grass, for the maintenance of domestic animals, and for the manufacture of manure.
5. As the improvement progresses, planting or sowing such crops as appear on trial to do best, such as corn, beans, barley, &c., preferring a variety or rotation.

MANURE FOR WHEAT.—*The Delaware State Journal* says.—Wherever organic matter abounds in the soil a free use of bones and potash will speedily restore it to its original fertility. In sandy soils organic matter in the form of peat, muck, or leaf mould should be combined with the bones and potash. The finer the bones are ground the more speedy their action. If the bones are ground in a raw state, that is, without steaming or burning, and ground very fine and mixed with three times their weight of fine muck or peat, or leaf mould, and kept moist for three weeks before being used, they will generate all the ammonia necessary to the rapid growth of wheat or other growing crops, without the addition of other substances.