

given back to the soil, in order to keep up its fertility. To the practical farmer it is, therefore, of the greatest importance to recollect this principle—that the fibre or valuable part of the flax is not formed by the exhaustion of the soil; but that the materials which the plant takes out of the soil are all found in the steep-water and the chaff; and that, if these be returned to the soil they will restore its fertility, and that thus the flax crop may be rendered one of the least injurious to the ground, and most remunerative to the farmer. I am aware that there are many persons here ready to speak as to the practical use of flax steep-water as a manure. I should, therefore, rest satisfied with having stated the principle on which it rests. The flax crop can be rendered little or not at all exhausting, by a proper use of its residues as manure; but it must be recollected that, unless these residues be thus economized, the flax crop is one of the most severe the land can have, and that the loss of substances to the soil is actually greater than with a corn or potato crop.

Since the meeting, Mr. Blacker has received the following letter from Dr. Kane, in reply to some queries of his, relating to the exhaustion of the soil by the ripening of the seed of the flax:—

"I am glad that you have noticed the subject of the ripening and collecting of the seed of flax, as it is important that farmers should not fall into the error of extending my views beyond their proper limit. As long as the flax is grown for its fibre, the ligneous tissue being formed from air and water, the exhaustion of the soil may be counteracted by restoring to the soil, by means of the flax-water, what had been taken away. But when flax is grown for food, or for seed—when this seed is separated by ripening, then it becomes like wheat, or any other food crop. The formation of the seed takes from the soil nitrogen and phosphates which are consumed in use, and cannot be returned to the soil. Hence the economy of the residual flax products as manure refers to the crop as grown for fibre, and does not extend to the growth for food or seed; these like wheat or potatoes, should pay independently for the good they take out of the land. The flax-chaff is certainly in itself very attractive, but not so much so as it looks. When stepped, all that is of any use is dissolved out; and the dry chaff, when worked up along with fermented stable-dung, will pass into a good mould. The chaff is, however, of little importance compared with the flax-water, which certainly holds dissolved nine-tenths of all that the plant derived from the ground.

"To W. BLAKER, Esq. ROBERT KANE."

WANT OF POST OFFICES—WIRE-WORM—WHEAT, BEEF, PORK, &c.

NORVAL, Nov. 27th, 1847.

DEAR SIRS.—Since I wrote you last, I have spent some time in the townships of Trafalgar and Chingoucoucy. You will of course be able to judge of my success, by the list of names that I enclose; but here in these townships, as well as in others, I met with frequent objections to subscribing, because the post-office is so remote. It is no doubt, difficult for the department to keep pace with the wants of a population like ours, that is so rapidly increasing; and perhaps impossible with any regard to prudence or economy, to place a post-office in every neighbourhood, where the inhabitants might desire it. But where we find a leading thoroughfare, running through a thickly settled country, we must agree with individuals in thinking it hard, that no mail-bag has ever been opened within less than from 8 to 12 miles of their residence; as is the case on the third line west, in the township of Chingoucoucy.

And although, they are not quite so badly off in any section of Trafalgar that I have been in; yet even there on the 7th line, from Oakville to Hornby, there is no post-office; a distance of 12 miles, although it is the great leading thoroughfare to the back townships. And here, a great improvement could be made without any additional expense; with the exception of the purchase of a mail-bag, by establishing a depot, when the road crosses Dundas Street, at Post's, or Applebie's corner. I was informed that frequent application had been made for this, but some influence was at work that prevented them from obtaining it.

In my communication published in the 20th number of the *Farmer*, I mentioned something in reference to the ravages of the wire-worm upon the wheat, in the township of Trafalgar. I have since learned some facts in reference to this subject, that are worth knowing. Mr. McCurdy, one of the oldest settlers in the New Survey, informed me that he was in the habit of leaving a great part of his land in clover lie, for 5 or 6 years without breaking it up; and he says, that the result was, that the wire-worm was bred in such quantities, that it almost destroyed the following crop; and he has on digging up the old clover, seen as many as a hundred worms in a single root; and he observed, that his neighbours who were in the habit of ploughing up their clover, the second or third year, had comparatively escaped injury from the worm. He also mentioned that he had in a former season, sown a field of oats very early in the spring, which had a most promising appearance until the blade was about as long as his finger, and then, the whole crop disappeared, being cut off by this "creeping thing." He

then waited until the season was far advanced, and sowed with oats again; and the result was the same. After this, he sowed his field in buckwheat, and followed the rest; and sowed fall wheat on the whole; and the result was, that what was sown on the buckwheat ground was uninjured, and what was sown on the fallow was destroyed. It would be well for those farmers who have suffered from this pest, to look back, and see how far their experience accords with the facts mentioned by Mr. McCurdy.

Since writing the above, I have been told by an old farmer of Chingoucoucy, to whom I mentioned the subject, that it had been discovered at the Forty (which I believe is in the Niagara District) that buckwheat preceding fall-wheat, secured the latter crop from the worm. It is generally too late to sow fall-wheat after the buckwheat crop has come off, but it might answer the same purpose to sow buckwheat on the fallows, and plough it down for manure, for which it answers a very good purpose.

I need make no apology for occupying so much space in reference to this subject, for us, agriculture is the most important of all earthly pursuits, so, what is the most important product of agriculture. And there is nothing that a Canada farmer will listen to, with more interest and attention, than something about wheat; for between sowing and growing, ripening and harvesting, and threshing and marketing, together with the rising and falling of prices; it occupies his hands or his thoughts, great part of the year. To say nothing of the milling and mixing, the yeasting and rising, and caking and baking, and cutting and eating—the family share of this indispensable production. And he always delights to associate in his mind, a bushel of wheat and a dollar, and an acre of wheat and at least 20 bushels. And whenever the wire-worm, or weevil, or falling prices, &c., &c., separate these pleasing associations, he feels very much in the dumps, especially if there is a large balance under his name, on the debtor side of the storekeeper's ledger.

After I left Dundas a few weeks ago, I overtook a drover behind 140 head of cattle, which he had purchased in the neighbourhood of London. This, with a similar drove that had been sent down some weeks before, are to be fattened this winter, at a Kingston distillery. On my return from the Hamilton exhibition, I saw a drove of about 200 that were on the road to the lower part of the State of New York: so that the tables are turned, when we are sending beef and flour to the American market.

From all I can learn from various sources, I have but little doubt that those who will have stall-fed beef for sale, during the latter part of the winter, will be well paid for their trouble in fattening it.

In some parts of the country, this year's pork is affected by last year's beechnuts. It appears to be the fact, that unless the fat of last winter's hogs has been starved off the pork still continues soft and oily.

And now to close this dissertation upon post-offices, wheat, beef, and pork, I remain,

Your obed't serv't,
W. A. STEPHENS.

WARMING ROOMS WITH "HOT AIR" AND STOVES.

I conceive to be "one of the inventions of the devil for destroying human life." "What! stoves? the old curmudgeon! not allow us any stoves? we should freeze to death!" I hear a thousand tongues exclaim. All of which I don't believe a word of; for when I was once a little boy there were none of these abominable inventions in that part of Yankeeedom where I was warmed into existence by one of these old-fashioned christian fire-places, with the "old settle" in one corner and oven in the other. And who ever heard of folks freezing in those days.

"But the stoves save so much fuel," Granted; but it is at the expense of human life! Rooms are made almost air tight, and then the atmosphere, or what little remains shut up, is roasted with a red hot stove, then breathed, then roasted again, and so on, without the least chance of renewal, until the occupants of such rooms become so enfeebled that they are in danger of freezing to death whenever they encounter such a blast as our ancestors would have considered a healthy breeze. As for cooking stoves in a well ventilated kitchen, I don't object to so much; although the steam and smoke from them, under the most favourable circumstances, is anything but comfortable or healthy.

In a room warmed by a fire-place, there is a constant current of pure fresh air kept up by the draft of the chimney. Besides, who can forget those healthy, happy hearths of *auld lang syne*, where we spent the long cheerful winter evenings of our youth, building "castles in the coals" of the great wood fire.

But I have done. I am aware that I am in a heathen land, where stoves are worshipped, and to avoid "burning my own fingers" I must bow my knees to the national idol. I remain your frozen friend,
SOLON ROBINSON.

Our friend is pretty hard upon the "air tight." We have used one for 3 winters, and do not see that there is any need of suffering the evils pointed out. On the contrary, we are more in favor of tight stoves, and never intend to use any other as long as we can get them.

Still there is a liability to the evils of which Mr. R. speaks. And if the stove, placed in a small tight room, is to be kept fully charged, and the doors kept shut, however hot it becomes, the results are easy to be told. If any one is silly enough to manage in that way, we would commend him to the open fire places; and advise him that "caution is the parent of safety."

It is for their immense power and steadiness, that we prefer tight stoves. The room can be heated at once, and the door throws open fresh air; and thus the air of the room can be changed as often as desired. Then the stove can be closed, and a steady warmth maintained all day, and nearly all night. It is not necessary to keep the room any hotter with this stove than any other. Every room where one is used, should be supplied with a thermometer—an implement costing from 75 cents to \$2, and which should be kept in every house—and when the mercury rises above about 75 degrees, open the door.

It cannot be denied, nevertheless, that ventilation must be more studied in the construction of houses. At present there is comparatively no attention paid to it. While the old fire-places were in use, there was no need of it—indeed, there was too much already. But a different mode of warming has been brought into use, while no mode has been studied of correcting its liabilities to evil.

It ought to be known that we cannot secure the greatest economy of heat, without sacrificing ventilation; nor can we ventilate perfectly without some expense of heat. What we need is to secure the benefits of both with the least loss.—*Prairie Farmer*.

TEMPERATURE OF CELLARS.

The question is often asked, how cold a cellar may be without injury to its contents. This, it is very true, will depend upon what the cellar has in it, but the temperature which the most important articles usually stored in such places will bear, is easily ascertained, and the knowledge of it will be often useful.

Water, as is known, freezes at 32 degrees Fahrenheit; and as a guide from this point, it may be said that those fruits, roots or vegetables, which contain most of it, will freeze much sooner than those which contain less.

For the sake of experiment, we have kept thermometer in a cellar this winter. We found that pumpkins would freeze at precisely 30°; beets and carrots bore 28°, and even 26°, well enough for a few days; but gradually became frozen under it. They would probably endure 30 degrees for a long time. Potatoes in barrels did not mind a temperature ranging from 25 to 30° for a fortnight together; but after that a few of the top ones showed that they had been chilled. Apples paid no attention to the above named degree of cold, and undoubtedly keep better with the mercury standing from 26 to 28, than under any other temperature.

Beef brine or pickle of hams were not affected at all; but we did consider it safe to test them.

How THE PERUVIANS USE GUANO.—Much has recently been written on the employment and utility of guano; but

the manner in which it is applied as manure in Peru, seems to be but little known. The Peruvians use it chiefly in the cultivation of maize and potatoes. A few weeks after the seeds begin to shoot, a little hollow is dug round each root, and is filled up with guano, which is afterwards covered with a layer of earth! after the lapse of 12 or 15 hours, the whole field is laid under water, and is left in that state for some hours. Of the *Guano Blanco* a less quantity suffices, and the field must be more speedily and better watered, otherwise the roots will be destroyed. The effect of this manure is incredibly rapid. In a few days the growth of the plant is doubled. If the manure is repeated a second time, but in smaller quantity, a rich harvest is certain. At least, the produce will be threefold that which would have been obtained from the unmanured soil. The haciend of the valley of Chancay have, during the last fifty years, consumed annually from 33,000 to 36,000 bushels of guano brought from the islands of Chuncha, and Pisco. The price of a bushel of coloured guano is one dollar and a quarter, and the price of the white from two to three dollars. The price has recently undergone many fluctuations, in consequence of the great exports to Europe. The employment of this kind of manure is very ancient in Peru; and there is authentic evidence of its having been used in the times of the Incas. The white guano was then chiefly found on the Islands opposite to Chuncha; so that for upwards of 600 years the deposit has been progressively removed from those Islands without any apparent decrease of the accumulation. The uniformity of climate on a coast where there is not much rain must contribute to render the Peruvian guano a more arid manure than the African, as fewer of the saline particles of the former being in solution, they are consequently less subject to evaporation.

TOMATOES FOR COWS.—It is not generally known that this vegetable is a superior article of food for milch cows. We have tried it two summers and find it decidedly superior to any other food we have yet tried. They add as greatly to the quantity, as to the richness of the milk, and a rich golden colour to the cream, and butter, which is at least pleasant to the eye, even if the flavour was not improved. We do not know, however, that they impart any richer flavour to the butter.

We have known cows to refuse them when first offered, but soon became very fond of them; others, we believe, a large majority, eat them greedily from the first.

Thus far we have fed them only in a raw state, but if boiled with corn meal, say half and half, or two thirds tomatoes, it will doubtless be far better.

To one who has a dairy farm, the cultivation of an acre or two of tomatoes, would be repaid by a greater profit than any vegetable we know. From an acre not less than eight bushels might be gathered every day, from July until frost.

There is some trouble in picking them, but then nearly every farmer has children; his little boys—ay, and big boys too, who will not be the worse for a little work. We should be glad to see the experiment tried on a larger scale than ours, and to learn the result.

MST, OR MOWBURN, in hay mows, may it is said, be prevented by placing a number of smooth poles, with the larger ends outward, at the bottom or mow on the stack before commencing it, and permitting the hay to settle a few days before hawling them out. The removal of the poles will leave air channels through which the air will circulate to the therrefaction of the mass and the expulsion of the gasses arising from fermentation. The more of these there are, the better will it be for the hay. Mow burnt fodder of any kind, is by no means palatable to cattle, and when badly injured, as is frequently the case when housed in a damp state, had better at once be thrown into the yard, or upon the dung heap.