

consuming it as he proceeds, leaving a clean-cut cavity often large enough to contain a pea. The edges of these incisions will heal over similar to the edge of the scab. The other class of vermin first mentioned, as they only penetrate the surface, a slightly elevated, rough, black spot is left when it heals, though not showing much more than skin deep on the potato. This causes but slight injury to the potato for cooking purposes if it is first pared. But of course it greatly depreciates its value in the market.

To confirm my theory that the scab is chargeable to the earth worm and other ground vermin, I would first call attention to the fact noted by most potato planters, that where their potatoes are most affected with the scab, the ground in which the tubers grew was most infested with these worms. I would not convey the idea that there is always scab where there are worms, for there may be other plant growth there also, more agreeable for them to feed upon. I do assert that where this trouble shows itself, there also are the worms.

On the side of the planted field next to the barnyard or hog-pen, or through a rich hollow where the angle worm is most plenty, there also I have found most scabby potatoes. Again, when digging potatoes early in their growth, farmers have found these worms actually doing the mischief, and have seen the fresh ruptures caused by them, and also their leavings, which in time heal over to make the scab.

I have seen the same mischief, and during the past season, to prove that such a rupture would cause the scabby appearance on the potato, I carefully opened some hills so as to lay bare a few tubers, which I proceeded to scarify in small spots with the point of a pin, aiming to make a rupture in appearance as near as possible to the fresh working of the earth worm, as I had observed it on previous occasions. Then, after replacing in the earth thus removed, and making the hills again, I left them for a week or ten days, when, on examination, I found in place of these incisions a well-developed scab on each potato thus scarified.

Another circumstance which potato growers have often noticed, is that by using some of the commercial fertilizers in the hill, especially superphosphates, their potatoes thus treated would be more free from the scab than those fertilized by barnyard manure. I can account for this mainly by reason of the fact that the superphosphate, being so disagreeable to the vermin above described, repels them from the hills, and consequently potatoes thus fertilized are uninjured. This is on the same principle as the use of tar or copperas water, or like substances, on our seed corn to prevent destruction by worms after planting. I have abundant practical evidence to substantiate my theory above as to what causes scab on potatoes.

**PUTTY FOR REPAIRING BROKEN WALLS.**—The best putty for walls is composed of equal parts of whiting and plaster of Paris, as it quickly hardens. The walls may be immediately colored upon it. Some painters use whiting with size; but this is not good, as it rises above the surface of the walls and shows the patches when the work is finished. Lime must not be used as putty to repair walls, as it destroys almost every color it comes in contact with.

It is easier to keep a horse in good condition than to straighten him up after he has lost his health.

#### Tightening Wire Fences.

The efficiency of wire fences depends much upon the tightness of the wires of which they are composed. A very convenient contrivance for re-tightening wires may be made when building the fence. Do not drive the staples holding the wires into their place quite home, so that the wires may slip through; and instead of attaching the wires directly to the corner post, fasten them firmly to a piece of scantling bolted with two long bolts to the corner post. The bolts should be long enough to allow a space of about a foot between the post and the scantling. The thread on the bolts should be about 10 inches long, and the hole in the post should be somewhat larger than the bolt, to allow it to pass through easily. When the wires are to be tightened, draw the scantling, by means of the bolts, nearer to the post. Instead of the scantling, an eye-bolt may be used for each wire. This has the advantage that each wire may be tightened separately. Do not have the wires too tight during winter, as the frost is then liable to break them. In building wire fences it is well to raise the ground under the fence by plowing six furrows into a ridge, and then shoveling the outer two furrows into the centre.

#### Winter Manure in Box Stalls for Stock Comfort and Economy.

I know that some farmers think that leaving manure in stables under the stock is a rather shiftless way; but I have practised it, more or less, for years, and the more I do of it the better I like it. I consider that there is economy in the handling; that the manure is better saved, and that when properly managed the system gives more comfort to the stock. My experience is with horses and young cattle. For dairy cows giving milk, I do not think I should like it. We lately finished drawing out the manure from pens where four horses wintered in this way. There was no fussing with cleaning stables daily during winter. Straw was stored overhead and enough thrown down to keep the top always dry and clean. They tramped it so there was no heating. There certainly was no leaching. It was all there. In many horse stables half the value goes through the cracks. Then half of what is thrown in a pile outside goes up into the air from overheating. That is what I call "shiftless." With plenty of straw on the surface the horse has a soft, comfortable place to stand on, which is much easier for his feet than a plank floor. Then he can move around a little instead of being shut up in a narrow stall. It may not be shiftless, but it is positively cruel to keep a horse tied up for days in a narrow stall on a hard floor. I saw a hundred of them suffering in this way last winter. Farmers as a rule have but little for their teams to do in the winter months. Humanity demands that they be made comfortable as possible. So well convinced am I that this is the best way to keep horses, that in planning a new barn to be built this season I have left out the narrow stalls entirely, giving each horse a box stall. The mangers will be built with the bottoms up from the floor a foot or so, so as not to be too low when there is an accumulation of a foot of manure and straw.

We shall, however, build the manger clear across one end of the stall and have a swinging partition that can be let down, so as to make two common stalls of each pen on a pinch, such as at threshing time, or when a farmers' picnic comes

our way. The straw will be over the stable, and the hay in front of it. In regard to the economy of labor, instead of doing a little every day all winter, I backed the manure-spreader up to the stable door this spring, and my man threw the manure in while I tramped it down. While I was gone to the field he loosened up another load so it could be thrown on the spreader in a hurry. The twice handling makes it spread much nicer. In this way we got about four loads per hour, on a field near by; we could clean out after a horse, for all winter, in five hours. And we knew we were drawing out something of value, not fire-fanged straw. It would come up in solid flakes; but by handling them twice and taking care in loading, the spreader put it on a field of rye (to be plowed under for a crop of potatoes soon) so evenly that you could hardly see any of it three days afterward. I have kept a good many head of calves and yearlings in this way, letting ten or twenty of them run in a large pen together, and raising the mangers or headholes as the manure accumulated. The result was always satisfactory to me as well as to the animals. Do not call it a shiftless way, brother farmers, until you give it a fair trial. Then I know what the verdict of the stock will be, and what the verdict of the better fed (in many cases) land will be, and I do not see how you can go against these, even if you have been brought up to think stables should be cleaned every day. Of course this accumulation of manure is only proper during cold weather, and where due regard is paid to good ventilation. —[T. B. Terry, in Tribune.

#### Frauds upon our Farmers.

In a recent issue we published a form of bond entered into between the Ontario Grain and Seed Company of this city and farmers whom the company could induce to sign their contracts, being to the effect that the farmer was to receive a certain quantity of a certain variety of wheat at \$15 per bushel, for which he was to pay by note, the company agreeing to take back a part of the wheat under certain conditions. We pointed out the bond had a very suspicious wording, and recent revelations have confirmed our suspicions. Some farmers have advertised cautioning the public from purchasing their notes, as they were given without consideration, and the treasurer and manager of the company is advertised as having sold out the grain, bags, office furniture, etc., also the farmers' notes, and as having absconded to the States. The "balance of the company" cautions "all parties to beware of anyone professing to be agents of this company."

We also notice that the Bohemian oats swindle has revived in Pennsylvania, and it is estimated that 2,000 farmers have been swindled in three counties alone to the extent of \$500,000. The Lancaster Examiner gives the following synopsis of the scheme:

The method of the swindler is simple, but ingenious. He approaches in the fall of the year Farmer A., who has been carefully selected for his prosperity and reputation for integrity. The swindler tells Farmer A. that he has for sale a new kind of seed oats of marvelous quality. He offers to sell A. ten bushels of this cereal at \$10 a bushel. A. is aghast at such a price. He never heard of more than thirty or forty cents a bushel before. But the swindler replies: "Oh, you can make lots of money out of it. You give me your note for \$100 for the ten bushels. Sow the oats, and next fall I will sell for you twenty bushels of your crop at \$10. That will be \$200. You will get your \$100 back and \$100 profit, out