

"Book of the Farm", a publication every educated farmer ought to have on his table. So highly is it esteemed by those who know it, that the Commissioner of Agriculture told me, last spring, that he had his copy interleaved, and had filled the leaves with annotations.

Wherefore we say: do not earth up your potatoes more than sufficiently to prevent their tubers from being greened:

**KEEP SHEEP**—Last year, we heard that a Mr. Bennett, of Massachusetts, had bought six or seven abandoned farms in the State of Vermont, and proposed to stock them with Hampshire-down sheep. The farms, we understood, were all in one block, and the system to be pursued was to treat the sheep just as they are treated on the best English sheep-farms on the chalk-hills of the southern counties. If Mr Bennett carries out his plan prudently; that is, if he secures a trustworthy shepherd, lambs down his ewes early, and clears off his wether and surplus owe-lambs by the end of October, there is nothing to prevent him from succeeding. The land will soon change its character, under such treatment. Horse-dung is good, so is the dung of well-fed beasts and swine, but give us sheep's dung combined with the consolidating pressure of the sheep's foot. We append a statement of the manurial contents of the dung, solid and liquid, of sheep and cattle respectively, which must be taken for what it is worth, as there is no specification given of the food each class of animal received:

**SHEEP-MANURE—10 TONS.**

Nitrogen .....	250 lbs.
Phosphoric acid.....	31 "
Potash .....	241 "

**CATTLE-MANURE—10 TONS.**

Nitrogen .....	87 lbs.
Phosphoric acid.....	17 "
Potash .....	51 "

We trust Mr. Bennett will keep his flock in the hurdles (fold, and not let them ram about, dropping their valuable manure under the trees and along the fence-sides. If he is to make a success of his enterprise, crops must be grown on purpose for the sheep, and we should expect to see, were we to visit him, at least 100 acres in rape next summer

**THE EXHIBITION**—A correspondent, one of the judges, too, sends us the following communication. We hope that next year, if the exhibition is held once more, there will be no room for such complaints:

"There is the same things to be said of the management of the Exhibition, as an ancient writer, (1) headed his chapter on snakes in Iceland. "There are no snakes in Iceland." There is no management about the Montreal Exhibition Co. at any rate, as far as the judging and classifying of live stock is concerned. Whenever I applied for information, I was promptly met by the individual applied to by a most energetic disclaimer of any sort of knowledge of the matter in question, and referred to another individual whom I was never able to find.

All the judging of live stock should be done on the first day, and the

(1) Bishop, P. Clapp, Jan. Ed.

awards given, so that the public can criticise the animals and the judging. It ought to be a very easy matter to have a large slate, in the office, with any information about the hour and place of judging of different classes of animals, so that any one in the office, by referring to this, could give the desired information to an enquirer.

Yours truly,  
O. F. B.

**SELLING HAY**.—As a rule, calculations as to the value of the fertilising materials sold off a farm in the shape of crops and cattle are rather vague; but we met with a calculation the other day that seems to us worthy of attention.

Of all things sold off a farm, we know that butter robs the land least, but it will be news to many people that, of all the spoilers, *timothy-hay* is the greediest, though its depredations depend greatly upon the state in which it is cut; when mown in the earlier stage of its growth, timothy-hay deprives the land of far less of its fertility than when, as is too often seen in this neighbourhood and in the Townships, the grass has been allowed to nature a great part of its seed before cutting; in which case, we hesitate not to say, a crop of the hay injures the land—if sold off—for more than will at first sight be believed.

**VALUE OF THE FERTILITY SOLD IN \$160 WORTH.**

Eggs.....	\$3.56
Wheat.....	42.28
Milk.....	14.08
Cheese.....	11.04
Live cattle.....	18.88
Timothy hay .....	95.84

About 1,000 dozen of eggs would be worth \$160.00, and it would take, say, 13 tons of the best timothy-hay to fetch the same sum.

**CONTRIBUTIONS**.—Dr. Hoskins, of the Vermont Watchman, is somewhat in the same position in which we find ourselves. He complains of a lack of contributors! As for as we can see, by a weekly and attentive perusal of the paper of which he is agricultural editor, Dr Hoskins has about as many contributors as this periodical enjoys, rather fewer, perhaps, but we confess we cannot take the deprivation so pleasantly as he does in the subjoined paragraph:

Our older readers will admit that we have "talked shop" very little in this department of the paper during the twenty years we have been "rattling about" in this editorial chair; and so we hope we may be excused if lately we have referred, perhaps too freely, to personal doings. But we are often assured by our superiors that this is "just what the people like." If this is a mistake, please tell us, and we will promptly "dry up." And, by the way, the very best way to choke off a garrulous editor is to send him lots of your own written experiences. An editor is just as lazy as the next man, and welcomes the wide-awake, and even the critical contributor, with open arms.

**SOLIDS IN MILK**.—It is curious to see how little the "solid matters, not fat", vary in milk. The difference between samples of milk, from cows of all breeds in all stages of milking, practically resolves itself into varia-

tions in the proportion of fat contained; everything else varying within very narrow limits.

For instance; take the milking trials of the British Dairy-farmers' Association, and look at the milk-analysis of two cows, a Shorthorn and a Jersey, at opposite extremes:

**SHORTHORN'S MILK.**

Fat.....	2.1
Other solids.....	9.5
Total .....	11.6

**JERSEY'S MILK.**

Fat.....	9.49
Other solids.. ..	9.79
Total.....	19.28

That is, while the fat varied from 2.1 up to 9.49, the "other solids" only varied from 9.5 up to 9.79; or, in other words, the fat varied about 25 times more than the "other solids."

Again, take the milk of the cows tested at the Chicago show. The two months average was.

**SHORTHORNS' MILK.**

Fat.....	3.68
Other solids .....	8.95
Total.....	12.63

**JERSEYS' MILK.**

Fat.....	4.79
Other solids.....	9.25
Total.....	13.99

The difference in the fat is 1.11, and in "other solids" 0.25—i. e., the fat varied four and a-half times as much as the "other solids", and, as a natural result, the *casein*, which constitutes rather less, as a rule, than half the "other solids," must have been almost constant.

Whence, it appears fair to draw the conclusion that the amount of cheese yielded by a given quantity of milk, varies according to the fat contained in the milk—always presuming the maker understands his business enough to keep the fat out of the whey-tub.

**SKIM-MILK AND LINSEED FOR CALVES.**

The Experiment-Station in the United States have at last found out a fact that the readers of this periodical were aware of as long ago as September, 1879; namely, that linseed, uncrushed, given to any animal, is more than half wasted. Mr. Stewart, we are surprised to see, still advises giving calves "linseed, boiled 20 minutes, mixed with skim-milk," but the Iowa Experiment Station managers are wiser:

Following is a summary of results in calf feeding at Iowa Agricultural Experiment Station:—1. A ration of skim milk and ground flaxseed compares favorably with a new milk ration for young calves. 2. The larger gain came from the whole milk, but a part of it was due to the individuality of the calves, and good results and a thrifty growth were made on skim milk and ground flaxseed. 3. The skim milk calves were interrupted less in their growth by weaning than the whole milk calves. 4. A saving in value of butter fat alone of \$111 a month on each calf was effected by substituting the ground flaxseed. 5. The cost of producing a pound of gain (estimating new milk at

87½c. per 100 lbs., grain 1c. per lb., hay \$5 a ton, and flaxseed meal 3½c. per lb.) was 7.6 c. for the fresh milk ration and 5c. for the skim milk ration."

We fattened calves for the London market, some 45 years ago, on this ration, and sold them well, too.

**FERTILISERS**—In using commercial fertilisers, which we hope and trust we are beginning to do on a more extensive scale than heretofore, it must not be forgotten that, in such a climate as ours, the soil is more dependent upon the mechanical condition of its particles for retention of moisture than in those climates in which the rainfall is more equally distributed throughout the season of plant-growth. Use commercial fertiliser abundantly, by all means, but do not forget that the value of the chemical ingredients of farmyard manure is vastly enhanced by the mechanical effect of such a bulky addition of organic matter on the soil. It is to the heavy dressing of dung that the forwardness of the crops of vegetables in our market gardens is due; for the land is made by them freer; more easily traversed by the plant-roots, and the colour of the soil being considerably darkened, it becomes more capable of retaining the ray-heat of the sun. So, use as freely as you please every kind of artificial manure you can buy at a fair price, but do not neglect your farmyard dung.

**PRACTICE**.—Really, practical acquaintance with all matters connected with agriculture is being recognised as possessing some value at last! Not four years ago, the pseudo-scientist was howling at us practical men for trying to promote the cultivation of the swede, mangel and other roots: What earthly good can there be in growing things that contain 99 1/10 of water, they cried! It was in vain that we called attention to the fact that 9/10 of the grand bullocks that came from Aberdeenshire to the London market were fattened on turnips, swedes, and straw; the analysis of the turnip or swede showed such or such to be the contents in nitrogen, &c., and "who are you that you should kick against such pricks as these?"

Now, this is all altered, common sense and practical knowledge are once more assuming their proper position, and even one of the leading authorities of the States has the courage and honesty to say:

These conclusions correspond with the experience of every careful and observing farmer and furnish a scientific reason for the many perplexing exceptions which seem to disprove every rule. They also furnish a hint to feeders and a possible solution of some of the observed anomalies which rise up every now and then to dishearten the careful student of the relations and effects and value of feeding stuffs. A food, turnips for instance, or silage, may have a feeding value, in its effects upon other foods, or upon the digestive organs of the animal, not measured by the amount of nutrients contained, just as the beneficial effect of a manure or other fertiliser is not limited by the quantity of plant food contained in it.

HOARD.

**TURNIPS**—Talking of turnips, our brother-editor, Ex Governor Hoard, speaks very highly of these roots as a food for milch cows, but he falls into