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**The Month.**



JUNE is indeed a charming month in this climate. It is a delightful compound of spring and summer. The uncomfortable wintry chilliness is gone, and the scorching July heat has not yet come. Bright sunshine glorifies all nature; innumerable flowers display their loveliness; the fields are decked in their freshest green; the forests are bursting into leaf; while the air is vocal with the chirp of insects, the song of birds, and the gentle music of the zephyr and the breeze. Activity and beauty are to be seen on every hand.

The mean temperature for June, at leading points in our Dominion, are as follows:—

Stratford.....	61° 32
Hamilton.....	63° 50
Barrie.....	62° 27
Toronto.....	60° 20
Bellefille.....	63° 17
Montreal.....	63° 66
Quebec.....	62° 20
St. John. N. B.....	54° 53
Halifax.....	56° 00

As observed in our last article on "The Month," Quebec has now gained upon Ontario in the matter of heat, a somewhat singular fact in Canadian climatology. We believe also that our sister province is never in terror of a June frost. Spring is tardy and late, but when once it sets in, there are no unpleasant reminders of winter.

The present season retains its character as a model one. After a most propitious time for seeding, a remarkably copious rainfall came, not in deluging torrents, but in steady, abundant showers, thoroughly filling the soil with moisture, and yet not making it too wet for tillage. Along with the plentiful rain we have had fine growing weather, so that grass and

grain have come on with great rapidity, and present a most promising appearance. An unusually large breadth of land has been sown, owing to the favourable character of the season, and should no unpropitious circumstances intervene, the prospect is fair for most abundant crops. There is, so far, a fine promise of fruit. The orchards are ablaze with blossom. The plum and cherry trees have outdone themselves this year, in abundance of bloom, so much so that everybody has felt that they were worth the ground they occupy for the transient show made in flowering, even though they yielded no fruit. Strawberries, currants, and gooseberries are also full of blossom. There is the same profusion of bloom in the woods, furnishing a considerable honey yield, of which "the little busy bee" is taking all possible advantage. Apianians as well as agriculturists have hope of a remarkably good season. The indications are for early and strong swarms.

Nothing can exceed the splendour of the woods and the lovely "garniture of the fields," at the present time. There are more tints of green in nature's great show-room than the most skilful painter could compound to order, were he put upon his mettle for the credit of his art. Go where you will, "there is beauty all around," except where man has constructed some unsightly structure of which all surrounding objects appear to be ashamed. How strange it is that people do not catch the contagion of loveliness from nature. It is possible to throw an air of taste and refinement over the simplest and cheapest buildings, and surely we should aim to do this, for what right have we to disfigure a world which the Creator has made so beautiful?

It has been observed with much truth that "in no month of the year are the prose and poetry of farm life more mingled than in June." The nice poetry of pleasant views amid the fields and forests, does not relieve us of the stern prose of planting potatoes and hoeing weeds. As a natural result of the features of the season above-noted, there is a prodigious array of weeds bristling up with a sort of instinctive ubiquity. It will be a tough battle to keep them down, judging from present appearances. Many a vegetable bed, potato patch, and corn-field will succumb before them. There is no way to succeed in the strife with weeds but to take time by the forelock. Like evil habits, they are easily subdued before they have obtained strength, but when once they have secured a foothold, it is not easy to uproot them. The cultivator, horse-hoe, hand-hoe, and garden-rake, must be kept in motion early in the season, if these pests are to be overcome.

June is the month for putting in corn, turnips, and buckwheat. All these crops ought to be grown more extensively. For some reason or other many Canadian farmers have a prejudice against Indian corn, which is a most useful grain, and gives a good yield if a suitable variety is planted. It is useless to

attempt the large Western corn in this country, but the eight-rowed yellow and similar kinds will ripen and produce well. It is not the least advantage of a corn crop that, requiring as it does clean culture, it leaves the land in such excellent condition for future use. For green forage there is nothing equal to a piece of corn sown broadcast. It will give a greater weight of forage than any other vegetable, and from its juicy nature it forms a most excellent article of diet for milch cows. Every dairyman should have a patch as a reserve for the times when pasture is scant. We would reiterate the advice given a month ago about turnip-growing. The farmer who fails to have a field of turnips doesn't know what is good for himself, for his stock, or for his land. Buckwheat should be grown for the flour, and also as a green manure crop, than which there is no better.

All through the summer-time, there should be the most rigid economy and care exercised in regard to all manurial substances. The compost heap ought to be growing and ripening along with the grain crops. Keep scraping up and mixing together cattle droppings, poultry dung, kitchen refuse, fence corner sods, garden weeds, swamp muck, and ordinary soil. No fertilizing material should be suffered to waste.

Barns, hay mows, and sheds, must now be put in order to receive hay and grain. Mowing and reaping tools should be provided and put in working trim, that there may be no time lost when the grass and grain are ready to cut.

Dairy operations are now in full blast. Be it remembered that cleanliness is the first law respecting these operations. Aim to make butter and cheese of the first quality, and so secure the highest market price. Sheep-washing and shearing now claim attention. They should be done in settled warm weather, and the newly shorn animals ought to be housed at night and during storms until they become used to the loss of wool. By the end of June the first crop of clover will be ready to cut for seed. All and sundry who have Alsike clover are hereby counselled to save the seed. It yields liberally, threshes easily, and the hay is but little the worse for thoroughly ripening. The valuable qualities of this clover are beginning to be appreciated, so that the seed is likely to be in demand at a remunerative price.

Orchards will repay extra trouble and attention in the way of stirring the soil, harrowing in a liberal supply of well-rotted manure, and exterminating insects. This is a busy month in the garden, and more than our whole page would be required to give even a brief calendar of seasonable operations. June is also an important month with bees. There are many improved methods in connection with swarming, securing surplus honey, Italianizing an apiary, and keeping stocks in good order, to understand which, bee-keepers should provide themselves with such a manual as Thomas's "Bee-Keeper's Guide."

## The Field.

### Weeds

With what wonderful prolificacy the soil brings forth weeds? How provoking it is to see your newly harrowed field, or your just completed garden, bristling up with an army of young weeds. The expletives of hard-working farmers and gardeners against these cumberers of the ground are uttered with an energy which leaves no doubt of their sincerity and earnestness. When you come to facts on this subject, the prolificacy of weeds is something terrible to contemplate. Dr. Lindley estimates, as a low average, the following number of seeds from each of the four plants named.

1 plant of Groundsel produces	2080 seeds.
1 " Dandelion "	2740 "
1 " Sow Thistle "	11040 "
1 " Spurge "	510 "

Here then is a good chance for the growth of 16,400 plants, or enough to cover three acres and a half at three feet apart! To hoe this land, Dr. Lindley says, will cost 6s sterling per acre, and hence a man throws away 6s 3d a time, as often as he neglects to bend his back and pull up a young weed before it gets into flower. He recommends every gardener whose vertebral column will not bend to pull weeds, to count the number of dandelions, thistles, &c., on the first square rod he can measure off. It would be well for a similar estimate to be made as to the pig-weed, mullein, fox-tail, chick-weed, burdock, purslane, and last, but far from least, Canada thistle, which so abound in this country.

Not only the prolificacy, but the ready growth of weeds, forms a most formidable obstacle to good husbandry. They seem to spring up and flourish as if there were some special provision in the soil to favour their quick development. They always outgrow the useful forms of vegetation, unless you can favour them in some way, and give them a start in advance. No sooner is one generation of them destroyed, than another starts into life, and it often seems as if the ground literally swarmed with the seeds of these noxious things. Many of them also are very tenacious of life. A war of extermination, root and branch, is the only thing that will do for them. Leave the least sprig or fibre of them in the soil, and they quickly re-establish themselves.

Yet, after all, these discouraging facts about weeds have another side to them. The same provision for quick growth which fosters weed life, is necessary for the useful forms of vegetation. Our hope of smiling and abundant harvests rests on the same laws of nature under which weeds fructify so fast, and multiply so fearfully. Moreover, weeds, by their presence and growth, rouse up energy on the part of the tiller of the soil, and compel that constant shaking and loosening up of the ground which is necessary to high and successful culture.

There is only one way of dealing with these pests. They must be got rid of. It is of no use to tamper with them, or to be satisfied with half-way measures. To mow them down and let them speedily grow up again,—to leave them by the fence side and in the fence corners to mature and scatter their seed,—to let them get into flower and then cut them down when they have vitality enough to perfect their seeds, leaving them to wither and die on the ground,—these are some of the slipshod make-believe methods of destroying weeds. An energetic thistle or mullein laughs at such half-way work, and will infallibly increase and multiply in defiance of it. We must wake up to the necessity of thoroughly eradicating weeds. People ridicule the idea of legislating on this subject, but the evil is becoming so serious that something effectual must be done; and if public sentiment cannot be created, such as shall secure weed extermination, law must try its hand. In Michigan they have statutes on this subject, that even forbid throwing weeds

into the highway; and if we had a law requiring utter eradication of weeds, though its enforcement would be troublesome and expensive at first, it would be in the end a most beneficial piece of legislation, under which the material interests of the country would prosper greatly.

The Germantown (Penn.) *Telegraph*, commenting on this subject, says:

"The cleanest and best farm we ever saw was that of the 'Highlands,' belonging to the late Mr. George Sheaff, in Montgomery County. In a tract of land of over three hundred acres there was scarcely a weed to be seen, so thoroughly were they destroyed as they appeared. The fence-corners, usually the hotbeds for the propagation of bastard vegetation, Mr. S. had systematically cultivated; and he informed us that he raised enough hay from these worse than neglected spots to pay all the expenses of the weed-destroying process.

"Farmers should make common cause against all noxious products; for it is folly for one farmer to begin the war, if his neighbor befriends the enemy. That which, with every good farmer, is a law unto itself should be found in black and white in the statute of every state in the Republic—an enactment requiring the destruction of all noxious weeds before the maturity of their seeds. If such a law could be enforced, it would be a blessing to the country of incalculable worth. There is scarcely a neighborhood which does not have to endure one or more careless, slovenly farmers. These easy fellows will keep the whole community in a wakeful and laborious watch, in destroying vile weeds, the seeds of which were allowed to mature on their farms, and which birds and winds carry and scatter everywhere. Such men will never learn from the precepts and examples of others to destroy these pests; and the only means of redress for the sufferers is to have a stringent weed-law passed, and then enforce it. The penalty should be a fine, and go into the school-fund. To some this may appear a matter of little consequence; but let such live by the side of a weed-growing farmer for a few years, with only a rail-fence to separate their clean fields from the burry, docky, thisty, sorrelly, red-rooty, pig-weedy, briery fields of such a pretender, and they will be satisfied there are certainly consequences which rail-fences or even stone-walls do not check; and there is little doubt that then they will be ready to put proper estimate upon the matter, and to go in heart and hand for a weed-law the present session of the legislature."

### Wild Oats.

A correspondent from Elma, named Edward Hammond, in our number of the 15th ult., makes enquiries about "Wild Oats," and the best method of extirpating them. We were in hopes that this pest had not reached Canada to any serious extent; but on enquiring we find that they have made their appearance in the County of Perth, and have for some years justly excited considerable apprehension.

We shall first describe the weed. There are two kinds of wild oat—(no doubt there may be others, but these are the best known)—the *avena fatua*, or common wild oat, and the *avena sterilis*, or great wild oat. Both these kinds have annual roots. They are taller plants than the cultivated oat, and of much stronger and grosser growth. They stand the winter and produce their crop of grain earlier than any grain with which they happen to be mixed; and hence their chief danger. You can never be sure of cutting them in time. They have several peculiarities, but the worst one is that the grain is covered with bearded or hooked fibres, which hang on to everything they touch, whether straw, or implement, cattle, or anything they may come in contact with, so that they seem to have an unlimited power of spreading, and almost of locomotion; indeed one of the species is so furnished with these "hooks," and so much affected by damp weather, and so hygrometric, that it is termed the "animated oat," and when placed on paper under a glass, will of itself move on the surface of the paper by its own power of expansion and contraction. They bear any amount of cutting before the grain finally forms in the head, and if kept mown or eaten down from time to time without going to seed, they become biennial, and will live into the second season. When cut three or four

times, they often throw up short seed stalks, which bear a full head of seed when only a few inches high, or when lying down amongst other crops or grass. The seed seems to be almost imperishable, and unless it can be got to germinate will lie in the ground for many years. When once it germinates, however, it must grow or die. It will thus be seen that this species has all the properties of a most dangerous and pestiferous weed. The only place in Canada in which they are known is the County of Perth, but they have spread so rapidly, that they menace the whole country.

They came into Perth in this way: one of the settlers near Sebringville, not being pleased with the Canadian barley, sent home to his native land for some seed of the kind of barley he had been used to. He got it out, and in it was found a few plants of the present wild oat. He was not acquainted with its nature, or he would of course have destroyed it; but it made so fine an appearance that he saved the seed. The next year he ascertained the fact that it would survive the winter if grown in the fall, like fall wheat, and the settlers thought they had found a great prize! The grain passed from hand to hand as a curiosity at first, and was finally sold as a valuable acquisition. It was fed to cattle, and thus commenced to spread. The newly-cleared land of that (then) new settlement, formed the best nursery the weed could have, since nothing can be done to plough stumpy and rooty land clean, and the plant thus spread and flourished. The crops were infested with the weed, what did not fall on the ground was carried into the barns, and spread into the farm yard; the travelling threshing machines carried it from place to place, and it is now become an established agricultural plague of the district. Now every one is looking to the cure, and that is a hard thing to manage. Wherever stumps and roots exist, there this weed has it all its own way, unless every plant is pulled out of the ground; it is only in the absolutely cleared land there is any hope of its extirpation.

Many persons flatter themselves that they can get rid of the wild oat by laying the land down to grass. They do get rid of it for the time, but every grain of seed which lies at too great a depth to germinate, remains in a sound state, ready to come forth into a plant on the first favorable opportunity; this is now a proved fact in Perth.

Fallowing in a such a manner as to cause the seed to germinate, and then ploughing under, is a sure cure, so far as it goes; but you can never get to the end of the seed in the ground; they seem to sink into the earth, and to hibernate until a favorable season occurs.

Harrowing or scuffing the stubbles, is an excellent plan; by so doing all the oats that are on the surface and ripened before the crop, grow, and are then killed by the plough. But a combination of all these methods is all that can be depended on.

The growth of the wild oat is so luxuriant that it altogether heads the wheat in the spring, and can thus be distinguished, and pulled by hand without difficulty. The surest plan, however, is to prevent their establishment. Attack them tooth and nail, from the first minute of their growth till they finally go into the barn, and your labors soon make themselves felt; but it is to be doubted if they can ever be entirely destroyed on any farm on which they have once got seriously ahead.

On the farm in England on which the writer first got any agricultural experience, there were many of these wild oats. Every means were used, and they were finally so thinned out as to be of small consequence; but just about that period, the (then) new ideas about deep tillage became known and practised, and on the farm in question one field of about fifteen acres was ploughed deeper than it had before been by the depth of two inches; the field was sown to peas; but, to our astonishment, it seemed to come up in grain. Wild oats were not thought of, but they were the intruders. As soon as their well-known rank growth and dark glossy leaves were recognized, the danger was appreciated, and the entire crop of oats and peas (and a most luxuriant crop it was) was fed off by sheep, and cut and carried in a green state for cattle and horses. Not one grain ripened, and we thought we had got rid of them; but

the next year they came again, and kept all hands busy for weeks pulling them out from amongst the next crop, and it was several years before the plague was stayed.

The stalks and leaves are not well relished by cattle and sheep: they are bitter, and when other provender can be had, they are refused. They are not hurtful, however, and animals when confined to them, will do well on them and eat them up clean.

Any one may thus see what a dangerous pest this is, and if ever a law was required it is against "wild oats." These are nothing to them. A thorough summer following, with so frequent ploughing as to prevent their ever "showing green"—from five to six times during the season—will absolutely free a field from thistles, but wild oats only "hide their time." So long as the seed is in the ground, so long you may be sure that in time, and under favorable circumstances, they will again appear in a greater or less degree.

If the wild oat could be hybridized (a most hazardous undertaking, however,) and made to produce berries as heavy and nutritious as Angus, or black oats, they would become a valuable crop, on account of their earliness and hardiness; but we fear the time is far distant when this will be done. Meantime, utter destruction is the only course which can be safely pursued.

### Potato Growing.

To the Editor of THE CANADA FARMER:

SIR,—In your issue of March the 16th, I noticed the remarks of E. R. S., of Napanee, on growing potatoes, a subject which, if properly discussed, I consider of very great importance. It appears to me that he has not done justice to it, although I agree with him in the sentiments expressed in the commencement of the article. They are very good as far as they go, but I think he has laid too much stress on the ignorance of his neighbours. I have frequently visited that part of the country, and I think that E. R. S. has very different neighbours from the class which he has represented. He should surely admit that the reason of the light crops last year was in consequence of the dry season. In the neighbourhood where I reside, I saw whole fields where the ground was well cultivated, that did not yield

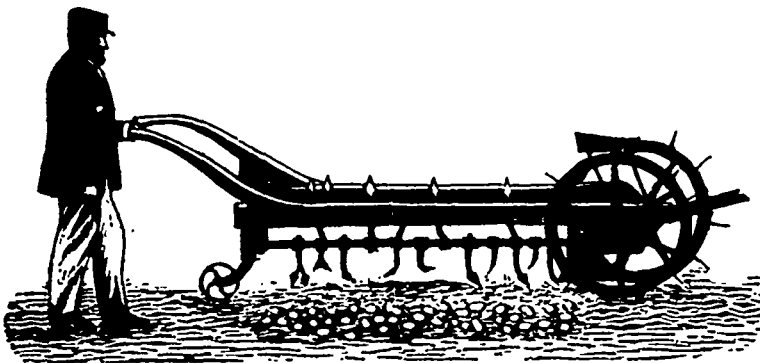
more than one quarter of a crop. In consequence of the extreme drought, many farmers did not plant any potatoes. The wet in spring continued so late, that they thought it useless to make any attempt after the season was so far advanced. This, I think, accounts for the light crops last year. He gives us his experience with regard to preparing the seed and planting. I agree with him in cutting the large ones, but those that are too small to cut once should be fed up, as I think the practice of planting small potatoes should not be indulged in. In the township where I live, farmers prepare their ground by manuring, and summer fallowing if necessary, and also their seed by cutting in such a manner that there are from three to five eyes on each piece. They cut a light furrow, drop the cuts about one foot apart in the drills, and put the rows about twice that distance, cover with a plough, and when they are about coming out of the ground, put on a harrow with teeth two or three inches long; harrow once in a place; the potatoes being in the furrow, will not be disturbed. This levels the ground, destroys the weeds, if any, and gives the potatoes a good start. They are then left until ready to hoe, which is done by ploughing through them with a shovel plough. If this is properly done, there is very little occasion for the hoe. In this way I have raised and seen others raise very remunerative crops. I think it would pay E. R. S. to cut his potatoes very small, if he only wants four stalks in one hill, for the smallest potatoes have from ten to fifteen eyes; and to put in the whole potatoes would certainly produce more vines than four.

A SUBSCRIBER.

Ernestown, April 29th, 1868.

### Hay Tedders.

A CORRESPONDENT of the *Co. Gent.* expresses the opinion that the Hay Tedder is not sufficiently appreciated. In this I fully agree with him. Having a large crop of hay to secure the past season, and believing in the use of improved and labor-saving implements, I determined to test the value of the tedder. After getting what information I could, and examining different patterns in the market, I purchased "Garfield's," manufactured by the Ames Plow Co., which they have exhibited at the fairs this fall; on which, they informed me, they had expended \$20,000 in perfecting. After cutting with the machine, we started the tedder, which turned up the grass, and left it lying up light so that the sun and air could act upon the whole. This made the labor of raking very easy. In a good day, by repeating the process two or three times, the hay would be made sufficiently dry to go into the barn. It turned hay, spread from the cock or windrow with great rapidity, and much better than by hand. One advantage of this tedder is that the hay is not raised more than eighteen inches from the ground; and should the wind blow, it is not scattered where it is not wanted. I have never used an implement with better satisfaction. It is of easy draught for one horse. It performs its work better and much quicker than by hand. In catching weather, as in the past season, there is less risk from damage. In curing second crop, its services are invaluable. Every one knows the difficulty of getting it sufficiently cured. Hay dealers inform me, that since the advent of mowing machines, the quality of the hay is not so good as formerly. The grass lying flat, the top is made too much, while the bottom remains green. This is remedied by the tedder, as it is mixed indiscriminately, giving all parts an equal opportunity to make. *Co. Gentleman.*



### Prize Potato Digger.

Among the implements exhibited at the Provincial Exhibition last fall was a very effective looking Potato Digger, which we briefly noticed at the time. The first prize was awarded for this implement. We have since seen testimonials in its favour by persons who have actually used it, and who speak in high terms of its efficiency. The accompanying illustration will give some idea of its general appearance and mode of working. It is drawn by two horses; one on each side the furrow. The large wheels in front are connected by their axle and cog-wheels with a rod running underneath for the whole length of the implement. This rod is furnished with shovels or teeth, projecting sufficiently to enter the ground, as the rod revolves, and passing below the tubers without cutting them. To throw them out to some little distance on one side. The two hinder teeth are forked, to take up the smaller tubers left by the others. The rod revolves pretty rapidly, and the dirt and the tubers are separated as they fall to the ground, the latter being thrown further aside, so as to be partially cleaned in the operation. The inventor is Mr. Alfred J. Lemon, of Lynden, Ontario, to whose advertisement in the present issue we refer the reader for further information. We believe the price of the implement is somewhere between \$30 and \$40. It will be to the interest of manufacturers to make them as cheaply as possible, otherwise farmers will continue to dig their potatoes with the plough.

### Varieties of Wheat.

To the Editor of THE CANADA FARMER:

SIR,—Believing that it would be a general benefit if the numerous readers of your excellent paper were to contribute their experience in testing different varieties of farm produce, I will give you mine with the following varieties of wheat, viz.: White California, Italian White Mediterranean, Virginia Blue Stem, Norfolk Red, Bald Mediterranean, Boughton White, and Diehl. The first four were winter-killed, and the remaining three varieties have wintered first-rate and promise well.

Of the Diehl wheat I had an average of forty-four bushels per acre from nine acres sown last year, and for hardiness, productiveness and quality, I consider it superior to the other varieties named.

I am, Sir,  
Yours, &c.,  
LEWIS SPRINGER.

Hamilton, May 13th, 1868.

### Cabbages, Kohl-Rabi, and Rape

We learn from *The Farmer* (Scottish) that in 1866 "nearly six per cent. of the land, under green crop cultivation, in England; three and a half per cent. in Ireland; and seventy-five per cent. in Scotland, was occupied with cabbages, kohl rabi, and rape. In the different English counties, the extent of ground under these crops varied greatly; thus, in Cambridgeshire, they occupied twenty per cent. of the area under green crop; in Lincolnshire, ten per cent.; and in Northumberland, two per cent. They are found in all parts of Ireland, though they are most extensively grown in the midland and southern counties. In Scotland, they were cultivated most extensively in the counties of Lanark, Dumfries, and Edinburgh; however, no county contained more than 500 acres, and in no instance did they grow three per cent. of the green crop. In Orkney and Shetland, 355 acres were grown; 2.19 per cent. of the area under green crops."

It is doubtless one of the faults of Canadian farming that such crops are not more extensively grown, supplying as they do a juicy food of which stock are very fond, and helping to form a desirable rotation which leaves the soil in a very mellow state. We scarcely remember any instance of a field of cabbages being raised in this country for feeding to cattle. The same remark may be made in reference to Kohl-rabi. Has any one given this plant a trial in Canada, and if so, with what result? Rape we have occasionally seen, but its culture is a very rare thing. Those who are going into the breeding of improved cattle and sheep, will find it to their advantage to grow such crops. Dairymen also should turn their attention this way. At seasons when the pastures fail, they come in very opportunely, and in the winter time, nothing is more relished by stock than such succulent food as a change from dry and often dusty fodder. Crops of this description are easily raised, and with proper implements and good methods of culture, the labour connected with them is nothing like so great as many people erroneously suppose it to be.

THE VALUE OF TOWN SEWAGE.—In his account of the consumption of 35,000 tons of London sewage in 1867 at the Lodge Farm, Barking, Mr. Morton has the following remarks:—"I believe we have proved that every hundred tons of sewage used during the past year have actually produced, under circumstances of average favorableness, one ton of grass over and above the quantity needed to pay an ordinary rent and an ordinary farm labor bill."

## Canadian Natural History.

### The Skunk.

(*Mephitis Americana*.)

Among the Carnivora there is a well-defined family that are distinguished by their quick and active movements and by the special adaptation of their long and flexible bodies for insinuating themselves into narrow and tortuous passages in search of their prey. This is the weasel family, of which the principal specimens in this country are the mink, the skunk, the weasel, and marten. The first of these has already been described in the CANADA FARMER; the second is the subject of the present notice, and the accompanying illustration, the latter copied from a specimen in the University Museum. Almost every one in Canada who lives in the country has either seen the animal, or knows something about it by means of another sense than that of vision, and if he has ever smelt the creature, we venture to say, will never forget it. Nearly every member of the weasel family is distinguished by a strong odour, but the skunk is in this respect pre-eminent. The offensive, pungent, and sickening effluvia of this animal is not, however, at all times emitted, though we doubt very much if the creature is ever sweet. The source of this peculiar odour is an oily fluid secreted by small glands near the root of the tail, and capable of being ejected by the animal at pleasure in a small stream and to a considerable distance. A few of its near relations possess, though not in an equal degree, the same peculiar means of defence; and a similar instance is furnished by a marine animal very unlike the skunk in every other respect, namely, the cuttle-fish, which when attacked or in danger, baffles its pursuers by emitting in very considerable quantity an inky fluid, serving not only to deter pursuit by its offensive nature, but to envelope the animal in darkness, and thus afford the means of concealment.

In general form and appearance the skunk possesses the usual characteristic conformation of its tribe. It is about eighteen inches long, tail included. Its head is small, the snout short, the ears small and rounded. The fur is coarse, and of little or no commercial value. The tail is long and bushy. The color is subject to considerable variation; but the general shade is black or dark brown, relieved by one or more distinctly marked stripes of white. The fore feet are strong, furnished with five stout claws, well adapted for burrowing. The legs, like those of all its family, are very short.

Its habits are nocturnal, and it feeds principally on mice and other "small deer," being specially fond of the poultry yard, where its depredations among the eggs and young chickens are much dreaded. During summer the windows of cellars are sometimes left open for the sake of coolness, and if not protected by wire gauze or some similar covering, the creature is apt to make a prying and predatory visit into the house. Woe betide the inmates if they attack it while under their roof. The house would retain the horrid stench for weeks afterwards. The safest plan is to let the animal alone, and it will quietly take its departure. Dogs, unless they are the veriest puppies or trained veterans, will seldom attack it, and if they do, are almost certain to receive such a discharge of the fluid artillery over their

bodies as to render them for a long time afterwards intolerable to all about them. Some dogs, however, acquire the art of killing it instantly, by a sudden spring and grip before it has had time to emit its offensive liquid. It is said also that if the tail be held down, or the animal be suspended by that member, it is deprived of the power of ejecting the pungent secretion.

It is usually of a peaceful and quiet disposition, and only when attacked or irritated does it bring into requisition its peculiar means of defence. It is, moreover, notwithstanding its ill odour, of some use to the agriculturist, destroying a great number of noxious insects, grubs and small animals, whose depredations would otherwise seriously affect the farmer's crops. It is rather a graceful-looking animal, and, confident in its power of self-protection, will allow and almost invite a near approach; so that strangers to its habits are not unfrequently allured by its apparent docility into an attempt to capture it. The consequences baffle description. A friend received a visit from a travelling pedler in Illinois, who had just met with such an adventure on the prairie, having encountered and tried to catch, he said, "such a pretty little black and white creature, with a bushy tail." He wanted accommodation, and our friend's hospitality was sorely put to the test. The pungent secretion which the animal employs for its defence is said to possess



valuable medicinal virtues as an anti-spasmodic. Its sickening and offensive odour must, however, prevent its use to any extent. Mr. Wood, in his Natural History, relates the case of a minister who was in the habit of using it, not internally, but through the medium of his olfactories, as a remedy for spasmodic asthma, to which he was subject. For this purpose he carried about with him a small quantity in a smelling-bottle. On one occasion, feeling his breathing oppressed whilst preaching, he had recourse to his usual remedy. Whether he obtained the desired relief is not stated, but the effluvia which pervaded the church as soon as he removed the stopper of his smelling-bottle speedily dispersed the congregation, and saved him the trouble of finishing his sermon. Strange as it may seem, it is nevertheless a fact, that the flesh of this animal is used as food, and is said by those who have not been deterred by the natural prejudice entertained against a beast so odoriferous, to be sweet and palatable, resembling somewhat the flavor of roast pig. On the whole, however, while we would give the creature all credit for any service he may render, we think he can be well dispensed with either from the larder or the pharmacopœia.

### How to Skin a Bird.

To the Editor of THE CANADA FARMER:

SIR,—Seeing in your journal occasional enquiries concerning the best methods of removing and preserving the skins of various animals, I venture, hav-

ing some experience in the art, to send the following directions for skinning any bird of moderate size, such as a wild pigeon.

When you have shot such a bird, which you intend for stuffing, first examine the wound, not by pulling off the feathers, but by gently putting aside the feathers right and left with your fingers, and by blowing into them. Then stuff the wound, throat and nostrils, with tow, cotton, or rags, and wind a small quantity round the bill. Have a moist sponge with you to remove any spots of blood that may be on the feathers. Take the bird by the legs to the place where you intend skinning. Lay it on a table, on its back, with the feet from you, and the head towards your left elbow. Separate the feathers on the breast bone to the right and left; pull off the down; then cut through the outer skin and no further, with a sharp knife. Cut from the beginning of the breast-bone to the vent. Have a little powdered chalk by you, so that when you have skinned a part of it you can dust the skin with chalk, and it will not adhere to the flesh when you leave off. By using a blunt stick or the handle of your knife you can skin to the back. The thighs should now be pressed inwards, and the skin turned back so far as to enable you to separate the legs from the body at the knee joint. The skin is then pulled downwards as low as the rump, which is cut close by the insertion of the tail,

but in such a manner as not to injure the feathers. The skin is now drawn upwards the length of the wings, the bones of which must also be cut at the shoulder joints. It is then pulled up until all the back part of the skull is laid bare, when the vertebrae of the neck should be separated from the head, and the rest of the body from the skin. You next must grind an iron teaspoon sharp, and remove the brains from the skull bone; and by breaking a few tender bones inside of the eyes, you can take them out by pressing them inward with your fingers. The whole

of the flesh is now to be removed from the under mandible, also from the head, wings, legs, rump, and the cavity of the skull filled with cotton or tow. The whole inside of the skin, head, &c., must now be well rubbed with arsenical soap, spirits of turpentine, or the solution of corrosive sublimate, then the skin inverted and hung up to dry. Pack in white paper, with a little powdered camphor, to prevent the insects from destroying the skin.

A. B. B.

CORONAS FREAKS OF BIRDS.—At Cornwall station, and within a few feet of the platform at which the trains arrive, a robin has built a nest on a tree on which the leaves are only budding. It is now sitting on its eggs, undisturbed by the traffic, the whistle of the engine, or the noise of the cars. But this conduct is not singular in the case of the Cornwall birds. A few years ago one built its nest on one of the ties of the railway bridge over which trains pass constantly, and there it reared its family respectably, until they were of an age to get on the fly.

MAMMOTH PIGEON ROOST.—The Commercial says. A gentleman who has just returned from Pennsylvania, informs us that there is a pigeon roost near Port Alleghany, in that State, some ninety miles from Buffalo, covering an area of fifteen miles in length, by five to six miles in width. Over six hundred Indians and a thousand white men, we are told, were on the ground recently, and cut down much valuable timber to get the "squabs"—doing much damage. Over two hundred barrels of squabs were sent to New York in one day.



**Stock Department.**

**The Circulation of the Blood.**

The general character and properties of the blood having been described in a former article, the manner in which it circulates throughout the body comes next under consideration. To understand this it will be well to take a general view of the course of the vital fluid throughout the system, and afterwards consider the subject a little more in detail. In the higher type of animals there is one general plan of the circulation, and a description of that in the human subject will apply to the other warm-blooded animals. The grand motive power in the process is a sort of muscular force-pump called the heart, a hollow cavity with thick fleshy walls, divided into four compartments. From this hollow muscle the blood is forced into tubes, which may be compared to the hose attached to the force-pump; and by these tubes, which divide into innumerable small branches, it traverses the whole body, and is returned by similar tubes, after completing its circuit, to the heart. In this course it has served many most important vital functions, and has consequently undergone considerable change; so much so, indeed, as to be unfit without some purifying process to traverse the body again. Before, then, it is sent once more through the general system, it is propelled into the lungs, where it is exposed to the influence of the air, which in a wonderful manner restores it again to a fit state for performing its functions. It is then returned to the heart, after this lesser circulation, as it may be called, and is ready to perform again the general circuit of the body.

How this double circulation is effected will be readily seen by reference to the accompanying diagram (fig. 1). The heart is here represented, divided into four compartments or chambers, two on each side; and it will be observed that while the two on the same side have a free communication with each other, those of one side are completely separated from those of the other. The upper chambers are the smaller, and receive the blood from the tubes already spoken of, or blood vessels. These smaller cavities are called *auricles*, or little ears, because they are furnished with an over-lapping appendage which gives them a resemblance to an animal's ear. The lower, larger, and more muscular chambers are called *ventricles*. These receive the blood from the auricles, and force it out into the main trunks of the blood vessels. These vessels, or tubes, that convey the blood from the heart, are called *arteries*, from Greek words signifying to contain air; because being always found empty after death, their function was supposed to be that of containing air. Their true office and character were discovered in comparatively recent times, by an eminent physician, William Harvey. Those vessels which convey the blood back into the heart are somewhat differently constructed, and are called *veins*. Intermediate between these is a set of extremely minute tubes which have received the name of *capillaries*. Now, to make the matter plain, let us, even at the risk of a tedious repetition, follow the blood once more in its double circulation through the system and through the lungs. The diagram, in which the course of the fluid is indicated by the arrows, will assist the explanation. Let us commence on the right side. Here the returning blood, having been collected into one large venous trunk, is thence poured into the right auricle, and partly into the larger cavity on the same side, the right ventricle. The smaller cavity is, however, soonest filled, and when it is filled, under the influence of some wonderful nervous energy, it suddenly contracts, and forces its contents into the ventricle. A little may flow back into the veins, not much, however, can return in this direction; for the base of the large vein is surrounded with muscular fibres that, contracting simultaneously with the auricle, very

much diminish the diameter of the tube, and a little way back the vein is furnished with valves which effectually stop its regurgitation. Hence, nearly all the contents of the auricle are discharged into the ventricle. This is in turn filled by the additional influx of fluid, and by a forcible contraction of its muscular fibres expels the blood into the large arterial trunk called the pulmonary artery. The return of the blood into the auricle is prevented by a beautiful fringed valve, which is situated in the opening between the two chambers. The delicate membranous flaps of this valve hang flaccid in the lower chamber while the blood is flowing into it, but as

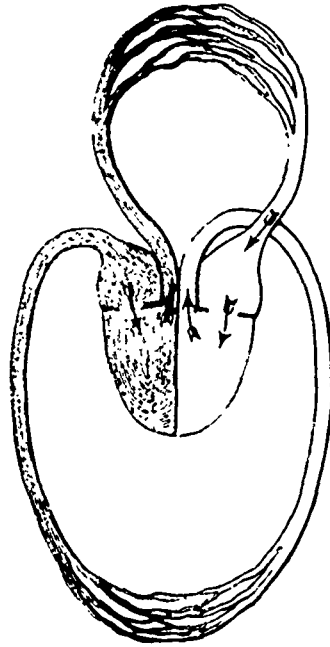


FIG. 1.

soon as the ventricle contracts, they are drawn together across the opening, and effectually close it. The base of the arteries is also furnished with a valve which allows the blood to flow onward out of the heart, but prevents its return into that organ. From the right ventricle the blood is forced into the pulmonary artery, and by means of its ramifications is distributed in the minute capillaries of the lungs, where only the thinnest possible membrane interposes between the vital fluid and the air inhaled by the air passages. The air permeates these membranous walls with perfect ease. The oxygen of the air is absorbed by the blood, while the noxious portions of that fluid, derived from the various tissues in the course it has just completed through the body, are given off into the air, in the form principally of carbonic acid. These changes alter the colour and other qualities of the blood, and render it fit to circulate through the body again. The blood in the veins

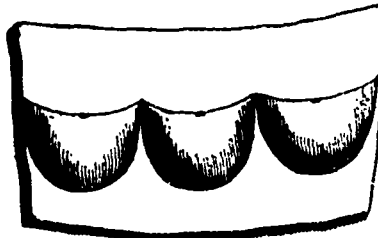


FIG. 2.

and right side of the heart is dark-coloured and impure. After its exposure to the air in the lungs, it is purified, acquires fresh oxygen, and again assumes a bright scarlet hue. It is now collected together by the pulmonary veins, and at length reaches the heart again, and is poured by a single trunk into the left auricle, thence into the left ventricle, and by its powerful contraction is ejected into the main artery of the body, to pursue once more its appointed course through every part into the smallest and most remote capillaries, thence to be collected and again

brought back by the branches of the veins into the main trunk on right side of the heart.

The valvular apparatus which prevents the return of the blood from the main arteries into the ventricles, will perhaps be understood by the aid of the accompanying cut (fig. 2). This shows a small portion of the base of the artery, cut open and flattened out, disclosing three small pouches, of a half-moon shape, attached to the walls of the tube by their greatest convexity, and free at one margin. These little sacs lie close against the sides of the artery as the blood is forced outward from the heart. The walls of the arteries are highly elastic, and are distended somewhat by the force of the onward current; but as soon as the action of the ventricle ceases they contract again by virtue of their elasticity, and this will send the blood behind the free margins of the little sacs, and fill them out. Thus distended, they are pressed closely against each other, and completely close the tube. By the combination of these valves the blood is compelled to flow in one direction only. The mechanism is extremely beautiful, and can be readily seen by any one who has sufficient curiosity to examine a sheep's or bullock's heart. The four cavities and the valves between the auricles and ventricles can also in the same manner be submitted to ocular demonstration.

These preliminary explanations have already occupied sufficient space, and extended the article to as great a length as is perhaps desirable. We must therefore defer to another issue some account of the peculiarities of the arteries, capillaries, and veins, the cause of the pulse, and its frequency in different animals, with other interesting particulars.

**Discussion on Washing Sheep.**

THERE has recently been considerable discussion amongst our neighbours in the United States on the question of washing sheep, showing, though many still strongly advocate the importance of thorough and careful washing, a growing feeling, nevertheless, in favour of discontinuing the practice altogether. The following report from the *Rural American* of a discussion on the subject at the last Sheep Fair, held at Canandagua, New York, gives the pith of the arguments on each side:—

Hon. Geo. Geddes, of Onondaga, remarked that he had made it a practice to wash the wool on the sheep's back, that he still practised it, and believed there were advantages to be secured by so doing. He also cited the case of a gentleman in Ohio, who had made some experiments going to show that it is better to wash sheep, and sell the wool without deduction or tare, than to shear without washing, and sell at one-fourth deduction. It was the opinion of Mr. G. that we shear too early. He thought that the oil should be allowed to start before shearing. In his case he always put his sheep in a dry, clean pasture after washing, and allowed them to remain there until the wool got dry, and the oil started. He also thought, if sheep were properly handled, there was no danger of losing them by taking cold by washing.

Mr. Holmes, of Washington Co., stated that he formerly held opinions similar to those of Mr. Geddes; but that for the last five years he had been trying experiments, and found that his sheep sheared early did better in May, and the first half of June, than they did when they were allowed to run till that time with their fleeces on. In his opinion, if the fleeces are taken off the sheep in May, the wool grows right on, and thus by shearing early the annual crop of wool is increased; consequently we cannot shear early, if we wash the wool on the sheep's backs, thereby losing the increased growth of wool. He also stated that there was a growing feeling in favour of purchasing unwashed wool among the manufacturers; the fibre, in their opinion, being stronger than when the wool is washed, there being less "fly waste," although in some cases there is more shrinking in cleansing.

Mr. R—, of New York, remarked that he had long been an advocate of anti-washing. He believed that it was not only a loss of labour, but that there was a loss in the growth of the wool, and that at the same time the health of the sheep was injured thereby. He thought that wool could be bought and sold just as well without washing, and that a 3<sup>d</sup> per cent could judge of its value as well unwashed as washed. In his opinion, if the wool was unwashed, it would be

more likely to be bought and sold according to its merits—that the time and labor spent in washing the sheep was wasted, at the same time being an injury to them, and of no advantage to any one.

Mr. Hodgekins, of Prattsburg, N. Y., thought that the variation in unwashed wool would be so great, that it would be almost impossible for buyers to discriminate justly, and that there would be no criterion by which we could arrive at a stated price for it. In shipping unwashed wool to market, he found that there was at least thirty-three and one-third per cent. in the expense of getting it there, and that rats will eat the bags in which unwashed wool is stored. He also stated that manufacturers would buy foreign wools, rather than purchase unwashed wools.

Mr. Sweet, of Vermont, was in favour of washing sheep, if those who wash would only do it, when they pretend to do so. He was not in favour of half-way work in this matter, and if the people did not pay more attention to it than they had done, then he would advocate abandoning the practice altogether. He also thought that sheep might be sheared in April, and stand the cold just as well as the lamb by the side of the ewe.

Mr. Noyes, of Geneva, N. Y., thought, that as the wool trade is at present conducted, we could not sell our wool without washing, and that if sheep were washed well it was an injury to them. He thought that the best and most correct way was to take the wool off unwashed, for buyers will insist on deducting shrinkage; and if we wash well, we cannot compete with those who only half wash their wool.

**GOOD WEIGHTS AND FLEECE.**—Mr. John Snell, of Edmonton, has sent us an account of the weights of some of his young Cotswold and Leicester stock, which, especially taking into account the unusual scarcity of feed in that section of the country, are extremely creditable to his management. He says:—“Last week I weighed six yearling rams, Cotswold and Leicester, which averaged 276 lbs., the lightest being 251 lbs., the heaviest 285 lbs., making an aggregate of 1,656 lbs. Six two-year-old rams weighed an average of 341 lbs.; the lightest 314 lbs.; the heaviest 368 lbs.; aggregate, 2,040 lbs. I sheared from a Leicester yearling ram 20 lbs. wool; from a two-year-old Cotswold ram 21 lbs.; and from a yearling Cotswold ram 22 lbs. I flatter myself that these weights are hard to beat.”

## The Dairy.

### American Dairying.

THIS mammoth interest, which has grown to such prodigious size in an incredibly short space of time, narrates its own history in the Report of the American Dairymen's Association—a publication which ought to be in the hands of all who have anything to do with dairy business. The Report for 1867 is now before us. It is a well-filled octavo of 119 pages, and contains a vast amount of useful information upon the subject to which it relates. Besides the proceedings of the Association, which are pregnant with suggestions, facts, and the fruits of personal experience, there are papers of a permanent character, elaborately prepared, that are exceedingly valuable. One of these discusses cattle breeding in its relations to dairy farming; another, which we need scarcely say is from the pen of X. A. Willard, gives the statistics of the dairy business for 1867; a third treats of the buying and shipping departments of the business, while a fourth reviews the whole subject of associated dairying. Factory reports are also a noteworthy feature in the volume before us, and furnishing, as they do, a detail of operations and results, must be of great utility to factorymen and others.

The chief characteristics of the dairy interest during the past year seem to have been greatly enhanced production of cheese, and shortcoming as to quality, together with extraordinary fluctuation and depression in the market. While the article was never before manufactured so largely, it seems evident that the average quality of American factory cheese last year was not equal to previous years.

The same thing is true of English cheese-makers. Production has been large, but along with it there has been a falling off in quality. These circumstances had of course their natural effect on the market, rendering it very changeful, dull, and low. At the beginning of the year the impression was pretty general among dealers that there would be over-production, and that the market would be flooded. Under the influence of this idea, manufacturers were in hot haste to sell as early in the season as possible, and a large amount of immature cheese, unfit for handling and unripe for shipment, was exported, much of which deteriorated and even spoiled on the hands of the consignees. Goods being thus forced forward and exposed to injury, only one result could follow, and hence great loss was entailed. It is estimated that the dairymen of New York alone lost at least a million of dollars in this way. They had the company of their Canadian peers in this misery, if that were any satisfaction, since like causes operated here and produced a similar result, though there was nothing like the panic here which prevailed among United States dairymen, and on the whole we believe our factories averaged better prices than did those of our neighbours across the lines. Notwithstanding this depreciation of prices in the wholesale market, retail prices held their own, so that the manufacturers were mulcted in loss to the aggrandizement of middlemen, shippers and retailers. Against this there is no safeguard but in having a weekly return of production, and table of markets, accurately compiled, which being in the hands of producers, will enable them to judge whether to sell or to hold out for better rates. It was demonstrated last year that if American backbone had only been stiff enough to hold the cheese, remunerative prices would have been had. After this bitter and costly experience, it is not surprising that American dairymen took up, at the last annual meeting, with more spirit than ever, the project of establishing such a circular, and that the Canadian association voted to co-operate with them in the enterprise. A very small percentage on the production would pay the expense of such a circular, and the good it would do would be in the proportion of its cost a thousand if not ten thousand to one. But for a stupid “penny-wise and pound foolish” policy, such a circular would have been in existence long ago.

It is a noteworthy fact that, during all periods of uncertainty and depression in the cheese market, the A. No. 1 article invariably commands a high figure. This fact speaks volumes as to the wisdom of aiming high in regard to the quality manufactured. Excellence of flavor in cheese is not matter of accident. Care and skill always result in securing high quality. And while the inferior article is of doubtful sale or certain to bring only an unremunerative price, the choice article is sure to be in demand and to be sold at a good profit. How strange it is that this fact, which has stood out prominently in the history of cheese factories from the very beginning of the movement, should have had so little practical effect upon manufacturers. To save a little on first cost, or to avoid trouble, inferiority is not risked merely, but deliberately chosen; for surely nobody is fool enough to expect extra quality without extra painstaking. Patrons are often very censurable in connection with this matter, because of their unwillingness to allow a fair price to manufacturers. Factories managed on the principle of association are often hurt by the niggardliness of members, who stand out for cheap manufacture, and thus render it impossible to procure skilled help. It is very shortsighted policy to save one or two hundred dollars in this way on a season's work, and for the sake of doing this, lose thousands on a season's product. It is becoming every year more apparent that those who are not prepared to take such measures as are needful to secure prime quality in their cheese, might as well make up their minds to quit the business. Many New York factories were carried on last season at a

loss, and very few did anything like a good year's business; in fact, none but those at which a first-rate article was made were able to show a decent margin of profit. The practical lesson from all this is obvious enough. Our dairymen must produce a choice brand of cheese, or get very small returns, perhaps none at all, for their labour and capital.

Our American friends acknowledge in their report that the prospects of the dairy business are not so bright as they appeared at one time to be. The opinion has been prevalent that there is no branch of farming so profitable as dairying. It has been regarded by many as a direct and royal road to wealth. But a more sober view of the matter has been inculcated in the school of experience. It is now felt that there has been an inconsiderate rush into this business by parties not favourably situated for carrying it on, and that many have unwisely and rashly changed their system of farm operations in order to go into cheese-making. There seems also ground to fear over-production, a contingency hardly thought of at the outset. But so prodigious has been the growth of this business, that although the demand is very great for the article produced, there is a possibility and a danger of outdoing the demand. The indications are not such as to occasion fright, but they certainly counsel moderation and caution. Farmers who are in a well-to-do condition on a system of mixed husbandry had better be contented, lest they should have to pen their autobiography in similar terms to that of the unfortunate victim of medicine, who was well, wanted to be better, took physic, and died. Mankind will probably eat cheese while the world stands, but the earth is not made of green cheese, any more than the moon. We must have beef and potatoes, bacon and greens, ducks and green peas, as well as bread and cheese, and industrious, thrifty people, stand about an equal chance of making their fortune out of any of these commodities. It must be borne in mind, however, that good management and hard work are the conditions of success, whatever may be the line of activity chosen. “In all labour there is profit,” but profit without labour is the dream of the speculator and the rogue, not the role of the honest and the diligent.

### Cheese-Making—A Plea for Reduction in Price.

To the Editor of THE CANADA FARMER :

SIR,—Again I take my pen in hand to address you on the subject of cheese-making. As I intimated before, many farmers in this county will not sell any more milk, because it does not pay. With your permission, I will lay before your readers a few of the arguments adduced to show why milk-selling does not pay. In the first place, it is argued (and with reason) that two cents per pound is too much to pay to the manufacturer for making up their milk, and that the manufacturer has the largest share of the profit. Allow me to illustrate it. A man sells milk from a certain number of cows all summer, and in the fall the cheese sells probably for eight cents per pound. He has to pay two cents out of that sum to the maker, thus giving the maker one quarter of their milk. Add to that the drawing, which costs from a dollar to a dollar and a half per cow, and the waste consequent on drawing, and you will see that it costs the farmer about three cents for every gallon of milk that he sends to the factory, thus leaving the seller about five cents per gallon for his milk, a sum which all will allow is too low. Another argument brought forward is, that it costs more to keep the cows than their milk realizes. We will suppose a case:—A man in the spring buys, say ten cows, for which he pays thirty dollars apiece; he keeps these cows all summer, and in the fall he gets (as I have shown before) about five cents per gallon for the milk. Each cow, on an average, will give two gallons per day, which would be ten cents per diem. For the ten cows, this would be one dollar a day, or twenty-six dollars per month, which for the six months would be \$156. If he sells them in the fall, he will probably get twenty dollars apiece, which would bring him \$200; add to that the \$156 for the milk, and we have the sum total of \$356; the cows cost him three hundred dollars, leaving him fifty-six dollars for their pasture, his trouble in milking,

paying for the care, etc. The ten cows would take from fifteen to twenty acres to keep them all summer, thus giving him \$56 as the sole product of twenty acres of land. Now you will naturally enquire, is there no remedy for this? I answer, there is. Let the manufacturer make it up for one cent and a quarter per pound, or even one and a half cents, and at that rate he will still make a handsome income. I do not mean to say that he can make money at that rate unless he has the milk of at least 300 cows. He should at the least have one cent per pound clear, after paying all his expenses; and I think if they were to manufacture at that rate they would satisfy their patrons and make a handsome income for themselves. Allow me to carry the argument further. Supposing the farmer keeps the ten cows over winter, he will have to feed them, at the least, two tons of hay apiece. Now, allowing twenty dollars for the hay (the price last winter), you will see that the summer's milk does not pay for their winter food. I have heard numbers say that if they were to give away their cows in the fall and sell their hay, they would have been better off in the spring than they were. Now, some will ask what are farmers to do? Give up selling milk and go back to farming? I answer, farm and sell milk. Let a man keep as many cows as will eat up his rough feed, and let him manage so as to raise enough grain to produce straw enough to feed them in the winter, for it is a well known fact that good barley and oat straw is as good feed as a great deal of the hay used for the purpose. Then let him feed say half a ton of hay apiece, with straw and some roots, and I maintain that his cows will come out in the spring in better order than if they had been fed on poor hay all winter, and then milk-selling will pay him about as well as farming, with far less work. I hope we may see a few, at least, of the changes which I have mentioned brought about before long.

Norwich, May 13th, 1868.

CURTENIUS.

NOTE BY ED. C. F.—Having allowed the advocates of the higher rate of remuneration to the manufacturer the opportunity of expressing their views in these columns, we cheerfully accord the same privilege to our correspondent and others who think with him. It is a matter in which there is naturally some difference of opinion. In order to allow the manufacturer to make at a lower price, it is necessary he should have the milk of a large number of cows, a condition which will be rendered impossible by erecting factories too near together. A judicious system of feeding, both in summer and winter, especially a more liberal use of green crops raised for dairy purposes, instead of trusting altogether to pasture, will both increase the quantity of milk and improve the condition of the land.

### Early Cut Hay for Milch Cows in Winter.

At a meeting of the Craftsbury (Vt.) Farmers' Club, Feb. 11th, Mrs. A. Scott presented a churning of butter—*eleven pounds, from the cream of one cow in six days*, nice and yellow as that made in June. Mr. A. Scott read a paper on the time of cutting grass, as follows:

The best mode I have found yet to cut hay, is to commence about the 10th of June and finish about the 25th of June if I can; sometimes the weather prevents, so I cannot finish until the first days of July. The quality of hay cut the last days in June is not worth but about one-half as much as hay cut previous to the 25th of June. When the herdsgrass puts out its heads in the last days of June, three or four inches of the butts have become hard and woody, and the nutriment of the grass is rapidly leaving the stalk. Hay cut the last days of June and the first days of July, I do not feed my cattle until I am obliged to.

The grass cut from the 10th to the 25th, produced the butter presented you this evening by Mrs. Scott, from an ordinary cow, and quite under-sized. This cow consumes 20 pounds of hay per day, and at \$20 per ton costs twenty cents per day, and yields in return one and one-half pounds of butter per day, as that will be about the average for the winter. Then deduct the one-half pound to pay for milking, churning, &c., and you have one pound of butter worth fifty cents, and safe any time at forty cents, for twenty cents' worth of hay. (Vermont prices, American currency.)

Now will you consider the above figures, and make up your minds to lay aside old customs and adopt a better one, that will be sure to give you two to one, instead of feeding twenty cents' worth of hay per day, and getting nothing in return but your stock in the spring, without any gain?—*Rural American.*

## Poultry Yard.

### Pigeons.

READ BEFORE THE ONTARIO POULTRY ASSOCIATION BY  
LT.-COL. HASSARD.

FOR the last two or three thousand years certain pigeons have been kept by man as domestic creatures. Time will not permit me to give illustrations of this fact, though the task would otherwise be easy; but in mentioning it I wish to save the pigeon fanciers from the contempt, if I may use the expression, which is often manifested towards them. Many of us are pigeon fanciers, and we have outlived the time when a pigeon fancier was associated with costermongers, pugilists, rat-catchers and dog-stealers; and if you scoff at the fancy, how do you treat the fanciers of tulips, piccotees, dahlias, &c.? for roots of which twenty guineas are often given.

There are many places in which pigeons may be kept by artisans and others, when they have no means, in place or purse, of keeping fowls. After a hard day's toil in a rolling mill, or other similar occupation, would you not rather see a man go into his loft than into a bar? One may bring him profit, the other will not, although you may perhaps suggest against this position, that Rob in "Dombey and Son" was made to exclaim that "it was all them birds, and no good ever came of them;" and his expression "What! flowed?" in reply to an announcement that his friend had gone, could only be appreciated and understood by a fancier of pigeons. Pigeons are also of use to the farmer, both as furnishing variety in diet, and in destroying a vast number of noxious insects.

It is not my intention to go into a description of the different varieties or their derivation; this is amply explained by my esteemed friend, Mr. Tegetmeier, in his last new work; but I propose making a few practical observations on the best way of keeping pigeons in Canada. I do not think the farmer would desire to have a large dovecote on his farm, as in bye-gone days; but in France Pigeons are encouraged still as keeping down weeds, the seeds of which they greedily devour; and as they do not scratch, anything properly sown is safe from their attacks.

I find that in both Ontario and Quebec the climate seems to suit the birds. In the severest winters many may be seen about the stores at Quebec; and provided they get shelter at night under a roof, the cold does not seem to annoy them. This applies to the common sorts.

I can also state, from practical experience, that I have not found the high fancy birds suffer from cold if kept as they must be in a loft or shed, over a stable, or any building where they can perch, secure from draughts of wind and wet. My carriers are the very best English strains. I often had sick birds in England from their being so highly bred. I may say that I never had a sick bird in Canada; and the eye disease, which so often attacks carriers, has but very slightly appeared, and that only once, lasting a couple of days, in a very heavy-eyed specimen.

Pigeons require to be kept very clean; to have in summer a large shallow pan (out of the loft) to bathe in; a supply of salt or a mixture of loam earth, mortar and salt, with seeds of cummin, in order to make it perhaps more attractive, although the salt is what they like—a taste inherited from the old stock, the Rock Dove—and a hopper of food always at hand. In this particular they are more easily kept than fowls. They do not nauseate over their food, and will always go and help themselves when hungry. To keep these birds successfully, the lofts must not be over-stocked. This is of immense importance, and each pair should be provided with its own house, of two bed-rooms and a sitting-room; with

the means of keeping them in at pleasure. Pigeons, when once habituated to a box, will always keep to it; hence you always know where to find them. I do not mean to say that they will not appropriate an empty pen, but this must be kept closed until wanted. After trying many plans, I have found the best to be a box three feet long, or frontage; two feet deep by two feet six inches high. These dimensions are for the larger sort of pigeons, such as pouters, but all pigeons require, if we would produce successful results, more room than is usually allotted to them.

The three feet frontage has ten inches to one foot taken off for nesting places, leaving a space about two feet square for a day room. The nesting portion should be divided between top and bottom by a shelf. The partition across should not extend to the back, but leave space for the birds to get in behind. Each pair has thus two nesting places. The large apartment must be provided with a wire door, capable of being opened at pleasure, and the nesting places with a solid door. The box, complete, has the appearance of the old-fashioned rabbit butch familiar to most of us. This construction has the advantage, that when a pair have young about fourteen days old, they can be removed to the lower compartment, leaving the upper free for another nest; so that the young can not get up and spoil their eggs. A pair of birds can be easily shut up, and having plenty of room, will do well there for some time.

Nest pans, made of earthenware, about eight to ten inches diameter across the top, and three inches high, sloped inside like a bowl, should be provided; two to each pair. They are the best appliances for nests, being easily kept clean. A little sawdust should be put in each, and with what straw the birds pick up, a good nest is made. These pans also have the advantage that, to inspect eggs or young, you merely take hold of the pan and remove it from the box without handling the birds. This construction also enables you to compel the pigeons to remain in the nest-place when you wish it. For example, supposing a stray egg is laid on the floor, you watch the hen that sits over it, catch her and her mate, and put them into the box. She will lay her second egg on the third day after the first, in the box, and will sit on it, and by returning the first egg the same evening, both are saved.

Pigeons sit seventeen days after the second egg is laid. The first egg is laid about 4½ to 6 o'clock, say on the first of the month; the second egg at 1:30 to 2:30 on the third of the month. On the twentieth both youngsters should be hatched or chipping the shell. Time will not allow me to enter into an explanation of the assistance that may be safely rendered when a youngster remains stationary in the egg. Messrs. Tegetmeier's, Eaton's and other works will assist you in this, but as a rule let the birds alone.

The cock and hen having sat by turns, will also feed by turns. You supply the food, they will do the nursing, and save you much anxiety and trouble. In a paper like the present, it is impossible to give the result of my experience in pigeon-keeping over a period of forty years. Each gentleman must select his own fancy; but if fond of a good pie, he will find Runts, weighing two pounds and over each, fill a pie quicker than any other sort. It is scarcely necessary to say much in regard to the food of pigeons. Almost any kind of grain is suitable for them, and great advantage will be derived from variety in their diet.

RECENT IMPORTATIONS.—Several enterprising members of the Poultry Association have recently imported very valuable birds from England. Mr. Howard, the president of the society, has added to his stock some splendid specimens of various breeds; among the rest, a variety known as Andalusians, which he finds excellent layers, and apparently hardy. These birds were expected prior to the last Exhibition, but did not arrive in time. Mr. Howard has also some magnificent game birds among his latest arrivals from England.





## The Agricultural Bill.

To the Editor of THE CANADA FARMER:

SIR,—We all acknowledge the difficulties of framing a measure that shall not be open to some doubt or question; with even the best intentions, and the use of the plainest language, it is impossible to legislate for all cases. Your correspondent, "A Secretary," in your last, and you, in your explanatory note, came very near touching upon a point unprovided for in the New Agricultural Act, but which, as it affects one of the most flourishing Township Societies in Ontario, I have been requested by several brother members to propound to you for solution or discussion.

You and the majority of your readers are aware that the Blenheim Agricultural Society has existed for many years, and won for itself a reputation second to none around. The show has invariably been held at the capital of the Township, Drumbo, which, as reason would direct, is the proper place, being situated exactly in the centre. The fixing of the show here, however, be it observed, is by the rules always determined at the annual meeting by the majority of the votes of the members. Two years ago, a number of members, living in the remote north and north-west corner of the Township, feeling aggrieved that the show was not held at Plattsville, resolved to establish a society and a show of their own. Whatever may be said of the propriety of this step, no one can deny that these gentlemen were at perfect liberty to form a society to please themselves. But here comes the query. Had these parties any legal authority to call their society by the name of an adjoining township—to withdraw the principal number of the members from the Blenheim Society, and, under an assumed name, to hold their show in Blenheim, and (most important of all) to draw the Government allowance as an independent company or society? I cannot believe that it was the intention of the framers of the new Bill that the public money should be frittered away in such a manner, or to encourage the formation of petty societies out of every dissatisfied minority. Better far that our Township societies should be abolished altogether, or amalgamated into the County Show, as has been done in some instances. The operation of such procedure as I have briefly detailed above, must be such as to make two poor shows out of one good one, and so contagious is the example of insubordination and discontent, that actually the formation of another or third show in the Township was contemplated this year. A meeting was held in the South, and committee, chairman, &c., appointed. I am glad to say, however, that the Southerners have had the sense to see that they were venturing on dangerous ground, and attempting something that might lead them into a very foolish position, and therefore that society is meanwhile in abeyance. What we want to know is, whether the Northerners are not proceeding upon equally illegal grounds, to say nothing of the sad blow they are inflicting upon the best interests of agriculture in the east of Oxford.

BLENHEIMENSIS.

Blenheim, May 21st.

NOTE BY ED. C. F.—We do not feel at liberty to pronounce a definite opinion on the case submitted in the foregoing communication, but would suggest that the circumstances seem to call for a full explanation of the matter, and an appeal to the Department of Agriculture itself. Without knowing more than we do, we are not justified in condemning the action of the seceding parties, but must confess that they appear to be violating the spirit at least of the Agricultural Bill. Parties living in the north of the Township of Blenheim, would certainly be at liberty to subscribe to the society of an adjoining township in preference to their own, if it suited their convenience. But if a large proportion of the members, especially [those who originated the] society, are

inhabitants of Blenheim, it is a mere evasion to assume the name of another Township, and if the society were *bona fide* composed of inhabitants of the adjoining Township, it appears to us that they are transgressing at once the rules of courtesy and the spirit, if not the provisions, of the Act by holding their show in Blenheim.

Besides the above communication, we have received two others containing queries in regard to the new Bill. The first, from R. G. F., Oldboro, is to the following effect in reference to

AUDITORS.—"Will you have the kindness to inform me if it is the intention of the law that auditors are to be appointed to audit the Treasurer's books for the annual meeting of next year or not? If so, how will the auditors be appointed; through a special meeting of the members, or has the Board of Directors the power to appoint them?"

Sections 37 and 43 of the new bill provide for the appointment of auditors for the year 1869 and after. For the current year, 1868, the accounts of which should, of course, be made up and presented at the next annual meeting, auditors should have been appointed at the general meeting in the beginning of the present year. If they had not been so appointed, we presume it is in the power of any general meeting to make an appointment, and for this purpose the time of the fall show would be a convenient opportunity. It is not customary for a Board of Directors to appoint auditors.

The other communication is an enquiry respecting THE RESPONSIBILITY OF TREASURERS. A correspondent from Bothwell asks, "Can you inform me if the surety of a Treasurer of an Agricultural Society is held responsible for a longer term than one year, or is he responsible until he notifies to the contrary?"

The Bill makes no provision for Treasurers' sureties or bonds. The office is usually held gratuitously, and a bond does not seem called for under the circumstances. Were the Treasurer a paid officer, it would be very proper to exact the usual legal security.

## Farming in Quebec.

To the Editor of THE CANADA FARMER:

SIR,—Your visit, editorial, and illustrations have awakened very considerable interest among your subscribers in this Province. And though Compton, Hilhurst Farm, and M. H. Cochrane, Esq., have deservedly gained your first attention, we can assure you there are many other places, persons and operations which will richly repay editorial inspection.

Farming here differs from farming in Ontario about as much as the provinces differ. Not to speak of the French and their generally inferior modes of culture, we have in the Eastern Townships a population as mixed as in Ontario, with, however, a larger proportion of the American element.

Let me indicate a few particulars in which, I think, Ontario might profit by their example:

1st. They are not such slaves of the soil. They work, but take time to read the papers and circulating libraries. You meet a sharp intelligence everywhere.

2nd. They do not grow so much grain, nor make money so fast as in Ontario; but they take better care of their stock, and see that their farms are not exhausted. They laugh at the idea of cattle living on straw stacks in open yards, and cold sheds. Even their young steers must have plenty of hay and a warm stable. The drover or the butcher will be along, and stock must be saleable. I find the best farmers are very particular to have no seed in their hay. They cut the grass before the seed forms. Any one who will examine a carrot or a stalk of wheat after the seed is formed may learn how exhausting is the process; and thereafter have dried grass instead of exhausted hay, to give his sows sleek coats and full udders.

3rd. This is quite a country for potatoes. The soil suits them. They sell at about an average of 50c, and pay as well as anything. We never see them plant in a deep furrow, but on the surface, or in a furrow not more than two or three inches deep. The results prove their wisdom. This year many of the new American varieties are being planted—Sebec, Early Gooderich, Garnet Chili, Harrison, &c., &c. There is one new kind that I think surpasses all the rest, "the Greys," as they call them here, a roughish, grey skin, white and mealy, and as sound and heavy now as if dug yesterday. Ontario planters would do well to obtain seed from this more northerly latitude.

4th. They do not cut away all the trees. By way-side, on hill sides, and almost everywhere possible, trees and shrubberies are growing. We have beauty and shade—shelter from sun and from storm. Better still, we are not parched with drouth. Often as I pass through Ontario, with a quarter or half of every farm lying in naked fallow, weeds and shrubbery mercilessly burned with fire, and the land parched with drouth, do I wish in my heart those Western men could take a July ramble through the green oases of the

EASTERN TOWNSHIPS.

Compton, May 11th, 1868.

## Farm Notes.

A CORRESPONDENT, "W. B." of Home Cottage, Chinguacousy, sends us the following communication giving the results of his own experience:

In raising grain it is of the utmost importance to adopt the best method of collecting the largest amount of manure possible on the farm itself, which is altogether cheaper and better than buying and hauling from a distance. This I have been able to accomplish to some extent by keeping and wintering as many cattle as I can feed, by raising turnips, and feeding all the hay grown on the farm to my stock. Occasionally the expense may seem to exceed the profit, but in the end the plan is sure to pay. I find it advantageous to let my clover be cut only one season, and have the after grass eaten on the ground, after which the field is ploughed up and sowed with peas, to be followed with barley or spring wheat. In this way you can seed a ten acre field every year with a bushel of clover seed, costing say from five to six dollars a bushel. You get double the quantity of hay or clover from the same quantity of land; whereas by cutting meadows several years in succession you get in the second year but a poor crop, and still worse the third year. My advice is, keep ploughing and seeding down; never mind the expense; it will pay at last. My motto is to raise all I can within the farm itself, without having recourse to artificial or foreign manures.

The following report of my crops for last year may perhaps be of some interest to your readers. From twenty acres of fall wheat, 600 bushels; one acre of spring wheat, on fallow, 20 bushels; 10 acres, on stubble, 100 bushels of spring wheat. This crop was somewhat injured by the worm, and much deteriorated by an admixture of poor seed. Five acres of barley yielded 100 bushels. From fourteen acres of peas, on clover sod, I obtained 350 bushels; thirteen acres oats, top-dressed with plaster, about 30 bushels to the acre. Of turnips, in consequence of the very dry season, the crop was very light. Ten acres of a first crop of clover yielded two tons to the acre—the land being in good order and plastered. Another ten acre field, not in as good condition, produced one and a-half tons to the acre. I use plaster plentifully, applying it on a dewy morning. I generally fallow twenty acres a year. This is a 150 acre farm, of which 130 acres are cleared. In another communication I will give a report of my expenses and profits on this scale, and also some account of my early experience, and how I commenced farming in Canada.

## Order and Cheerfulness.

To the Editor of THE CANADA FARMER:

SIR,—We find a class of farmers who are always grumbling and scolding, continually out of humour with everything and everybody about them. If a day is rainy or stormy they are restless and discontented, thinking it so much time lost, as though they had no mind to cultivate. Everything is hurry! hurry! hurry! from New Year's to Christmas. The work is so managed that it encroaches upon the Sabbath in different ways. The hired help comes in for a large share of his unkind words, looks and actions, while his wife and children are not neglected in his onslaught. Everything goes wrong with him; surely he must have been born on the wrong day of the week, and the wrong month of the year. The cattle are always breaking over his fences; his crops are late, and consequently light; his stock are unfortunate, or his family are subject to all the ills which flesh is heir to. Irritability seems to be a sort of second nature to him; he thinks that he could not get along without grumbling and scolding; indeed it is hard for a farmer to be cheerful and pleasant when everything is going wrong about the place. It is true there are some who have become so habitually used to confusion that it is taken quite calmly. Order would seem as much out of place with these few as a snow storm in summer.

But to a person who wants to be a successful farmer this irritation is very unpleasant; it troubles him day and night, until at last he becomes what is commonly known as "broken-down." The want of any order in their work causes a great deal of this dissatisfaction and grumbling. When a farmer starts business he should make order his motto; do everything in its proper time, and much of this hurry would be avoided. Use the head more than the hands, plan the work, study the diseases of the stock, etc., and much less displeasure will follow. For if you have the satisfaction of having done your part well, i.e., everything in the right time and proper manner, then you will have less cause for discontentment. Never grumble about things which you cannot help, but resign yourself cheerfully into the hands of Providence.

It may be said that some people are naturally irritable. This is not so much the case as it is a habit which they do not try to break through. Now, if farmers would use their heads more and hands less, it would be better; if the work cannot be accomplished, employ more hired help; manage the work properly; superintend the labour, marketing, care of the stock, etc., then much of this confusion would be avoided. Fallows would not be neglected until it is too late to destroy weeds; haying would not interfere with harvesting; the roots would not be left until they are frozen fast in the ground.

How many young men have started on a good farm, well stocked, and have worked hard, but for lack of a little management in their business, they have no more than made a bare subsistence. Keep cool—even in summer—don't let every small inconvenience annoy you, study the cause of the annoyance, then set about remedying it, and be careful to prevent its recurrence.

Ontario.

CULTIVATEUR.

## Balance Sheet Addenda.

To the Editor of THE CANADA FARMER:

SIR,—In the Farm Balance Sheet I sent you, published in your issue of April 1st, you have the item "Feed" repeated. The second "Feed" should have been "Seed." In referring to the copy, I find the word rather blotted, and difficult to be deciphered, hence the mistake. The repairing and blacksmith's work were certainly very heavy, and I trust, nay, am sure, will be much diminished this year. Labor, &c., in preparing the land, included hired man's wages and board. I paid him as wages \$150 a year; but being a married man with a family, in lieu of boarding him, I gave him \$50 a year—in all \$200, a cottage, half an acre of land, and some other privi-

leges. I discharged him at the end of the year, so I shall save all, or nearly all that amount. I had all the feed to buy for the stock from the day I entered upon the farm until I gathered the harvest, except grass. I kept about 40 bushels of wheat for home use, and fed to the stock the difference of peas, oats, and barley, between what I had reaped and what I had sold. Also, the house was well supplied with vegetables from the kitchen garden, but of this I kept no account.

I had under cultivation—

Wheat	30 acres,	produced	330 bushels.
Barley	6 "	"	150 "
Peas	6 "	"	100 "
Oats	5 "	"	80 "
Peas & Oats	2 "	"	2 tons.
Roots	2 "	"	100 bushels.
Pasture	10 "		
Garden & Orchard	4 "		

65 acres.

This is the extent of my cultivated land. I have since cleared seven acres. I have five acres of this in fall wheat, and shall have two acres in oats.

I have now corrected the errors, and supplied the omissions referred to by you, and hope to have the pleasure of sending you a very satisfactory balance sheet next year. ULMUS.

NOTICE TO SECRETARIES OF COUNTY SOCIETIES.—The Secretaries of County and Electoral Division Societies are requested to send without delay to Mr. Edwards, of the Bureau of Agriculture, a correct list of their officers, (President, Treasurer, and Secretary), also the names of the officers of the Township Societies associated with them, unless they have already sent in the names either to the Bureau or Board of Agriculture. An immediate attention to this matter is particularly desired, in order that the official list of Agricultural Societies may be completed as soon as possible.

## The Canada Farmer.

TORONTO, CANADA, JUNE 1, 1868.

### Monthly Fairs.

It is gratifying to find that these institutions are being established in various parts of the country, and that there is a prospect of their coming into vogue at all our leading market centres. They have many advantages. By fixing a time when cattle and other farm products will be exposed for sale, they attract buyers, and render disposal well-nigh certain. Prices are pretty sure to find their just level. Business is thus at once facilitated and regulated.

The fair also presents an opportunity for the sale of a variety of articles not strictly agricultural products. Farmers require furniture and a multitude of things which can be exhibited to view on market day, and sold. The regular merchants always expect to do a "big business" on fair days, and itinerant merchants, pedlars, and auctioneers, not to say medicine vendors, reap a fine harvest at that time.

Implement-makers have an opportunity of exhibiting the articles they manufacture to the numerous farmers brought together by the fair; and we believe a large amount of business of this kind is done where these institutions exist. They come to be township and county shows on a smaller scale, and there is often a goodly array of tools and implements on the fair ground. They also afford facilities for the exchange of seed, and for a variety of transactions best attended to when a large number of people from various localities are met in one place. Many appointments are made, and a diversity of matters disposed of on "fair day."

The above and similar advantages are not without their accompanying drawbacks. People are very apt to be imposed upon by unknown and irresponsible persons, who bring to market wares that, like the noted razors, are made to sell. These travelling merchants and auctioneers are voluble in praise of the articles they vend, and too many receive as perfectly true the statements poured forth so glibly. The utmost caution should be exercised in purchasing of such people. This is a free country, and there is no way of restraining from business the sharp practitioners now referred to. It only remains to put the public on their guard against imposition. Generally speaking, it is better to buy of an established merchant, who has a reputation to maintain, and a business to build up, and whose interest as well as duty it is to deal honourably with his customers. Unless one is a judge of goods, and feels quite sure as to their quality and value, it is a great risk to buy under the circumstances in question. Many a supposed bargain proves to be a "sell," and many an imagined cheap purchase turns out to be dear-bought experience. In this connection the public need to be warned against the unprincipled quacks who are apt to infest fairs. These beings go into affecting descriptions of the "ills that flesh is heir to," picture the pains and aches felt by the parties they address, and urge on them some nostrum which is a sure cure,—"all for the small sum of twenty-five cents." If these much-extolled specifics were harmless, the loss of money by their purchase would be an item worth considering; but in many cases they are positively injurious, and instead of curing, sow the seeds of disease. The administration of medicine requires a skilled and experienced hand. A vast amount of mischief to health is unwittingly perpetrated by dosing in the dark. People should find out what really ails them, and be sure they have got hold of the right remedy, before they venture on taking physic. It is the height of folly to swallow medicine at random, or to put health at the mercy of quacks, whose only object is to make money by the sale of their wondrous cure-alls.

Fair-days are often marked by more or less free indulgence in stimulating drinks. Old friends meet, new acquaintances are made, and alike the old and the new friendship must be cemented by "a cup o' kindness," in which, alas, an enemy lurks that "bites like a serpent, and stings like an adder." Bargains are usually so hard as to need softening by means of alcoholic moisture. It is a sort of holiday time, and why not be jovial? In short, the excuses for indulgence are very plentiful on fair-day, and many who come to market sober, go home drunk. Intemperance is one of the worst evils under which the country groans, and we fear much is done to promote it at these monthly fairs. Why are men such fools as to put that into their mouths which steals away their brains, and not their brains merely, but their characters, their all?

It appears to us that these fairs might be made promotive of much agricultural improvement if the rights means were taken. Why could not some time be spared for a farmers' club to meet on that day? Enough time is wasted, if not worse than wasted, in the tavern and elsewhere, to suffice for this sort of thing. What useful discussions might be had about the weather, season, crops and markets, if farmers were only so disposed. Merchants, grain-dealers, and millers have their meetings from time to time; commercial men have their Boards of Trade, Exchanges, and Chambers of Commerce. Why have we not arrangements of this kind to protect and promote the farming interest? Almost every class but the agricultural understands and applies the principle of combination for the promotion of a common interest. Some departments of business owe much of their prosperity to the adoption of such measures; and we are convinced that farmers would do well to copy the example set them by men of intelligence and enterprise who move in other fields of activity.

## Immigration and Colonization.

MR. JACKSON, Chairman of the Committee on Immigration and Colonization, recently submitted a voluminous report, which, after giving an historical and statistical resume of the subject, closes as follows:—

"The system which has been in existence for furthering and aiding immigration to Canada has not been productive of satisfactory results, neither is it, in the opinion of your Committee, adapted to be so under the law which has placed the public lands under the control of the Provincial Legislatures.

"In order to avoid a conflict of authority and to secure the efficiency of any general immigration scheme, it is necessary that there should be an understanding, and consequently co-operative action, between the General and the Provincial Legislatures. In the meantime, and before any such concurrent action can be agreed upon, your Committee recommend that such care and assistance be extended to immigrants arriving seaward, as may be necessary.

"Your Committee recommend a discontinuance of the agency at Wolverhampton, in England, and such a reduction of the staff at Quebec, Toronto, and other agencies, as can be made consistently with the recommendation in the preceding paragraph, with a view to the early re-organization of these agencies.

"As the success of the immigrant depends greatly upon his willingness and ability to adapt himself to the conditions in which success is alone to be expected, your committee suggest that great caution and circumspection should guide any public effort to induce persons to immigrate. While Canada offers health, prosperity and freedom to the industrious laborer and mechanic, she cannot safely assume any responsibility on behalf of persons whose occupations or habits have been unfavourable to self-reliance, or to the practical exercise of intelligent effort.

"Your committee have received a number of letters containing suggestions on the subject of Immigration, and offers, on the part of the writers, to place their services at the disposal of the Government, as writers or lecturers on the resources of Canada, in Europe. It is not incumbent upon your committee to express any opinion in reference to the suggestions themselves, or to the gentlemen by whom they are made; for, if the views to which your committee have given expression, in this report, are in accordance with those entertained by your honorable House, it will be the obvious duty of the Government—in conjunction with the Provincial Governments—to adapt the agencies in Canada and elsewhere to existing circumstances.

"The prospective acquisition by Canada of the fertile lands in the valley of the Saskatchewan and its tributaries, is, no doubt, interesting to thousands who propose to migrate from the mother country to one of its dependencies. In the present state of the relations between the North-west Territory and Canada, no precise plan for its settlement can be recommended, or even considered, by your Committee, but they submit that, without any unnecessary delay, so much of these lands as are fitted for agricultural purposes should be made accessible through British territory, and offered on such terms as will be attractive to a class of settlers who desire to enjoy the fruits of their industry under the security of British laws and institutions.

"Coincident with the construction of the Intercolonial Railway, a large quantity of land, hitherto inaccessible, will be available for settlement. During its progress, the laborer will earn the means of sustaining himself in the early stages of his settlement. The chief drawback to settlement hitherto has been the difficulty of obtaining employment at a convenient distance, and then of carrying produce to market over a long line of almost impassable roads. On the line, and within the influence of the Intercolonial Railroad, these difficulties will not exist; therefore, your Committee urge upon the Government of the Dominion the necessity of co-operating with the Provincial Governments, through whose road the territory will pass, in the adoption of a well-considered and liberal policy, with regard to settlement. The Legislatures of Ontario, Quebec and New Brunswick, respectively, have passed homestead exemption laws. The former has also devoted large tracts of land for the behoof of actual settlers, in free grants of one hundred acres each, with permission to purchase an additional one hundred acres, at fifty cents an acre. Though these terms are not precisely similar to the homestead exemption and free grant system of the United States, they are presumed to be equally favorable. Your Committee doubt not that the terms will be altered or modified, should it be found in the interest of settlement to do so. The new policy, so far, appears to be liberal and progressive, and may be held as

justifying a claim for an adjustment by persons in arrears to the Government on account of purchased lands in the comparatively recent settlements, but which lands, for various reasons, are of little real value.

"The mode in which the mineral lands in the Dominion are to be disposed of, and the obligations imposed by the Governments with regard to the manner of working these lands, will very seriously affect the number of mining immigrants, as well as the flow of capital necessary for the development of our mineral resources. The mode of disposing of such lands should be at once inviting and encouraging; therefore your Committee desire to express the hope that the public policy in regard to them will be quite as liberal as that which appears to have succeeded in the United States. By the investment of capital in extracting the treasures of the mine, a consuming population necessarily follows, so that, besides giving value to that which has no value, while hidden in the earth, a home market is opened for the produce and manufactures of the country."

From the above it will be seen that the important matters of immigration and colonization are still attracting the attention of the Dominion Legislature, and that there is evidently felt to be need of modification and improvement in existing arrangements. This is well. We are persuaded that nothing is of more pressing importance just now than doing all we can to attract a hardy, industrious, thrifty population to our unoccupied lands, and for this purpose a most liberal policy ought to be adopted. Better far to err, if err we must, on the side of generosity than of parsimony.

We quite agree with the Committee that public effort to induce persons to immigrate should be put forth very judiciously. Perhaps little should be done besides giving publicity to facts relative to the country, leaving these to their natural influence. But most certainly information should be as widely diffused as possible. We are in favor of spreading information not only by suitable publications, but by the living voice, if a suitable person or persons can be found to undertake a tour of lectures in the old world. But it requires a rare combination of qualities to fit a man for this work. He must know the country, understand roughing it in the bush, have some enthusiasm in regard to Canada, and be a vivacious public speaker. Such a man might do immense service in promoting immigration and colonization.

But whatever is done in the way of advertising Canada, it is of prime importance that alluring inducements to settle be offered by the Government. Our Homestead and Free Land Grant Acts are hampered with too many restrictions. Apart from the expediency of a liberal policy in itself considered, we have powerful competition to contend with. Our American neighbors have shown themselves wise in their generation in the unincumbered freeness of their land system. They have peopled their new territories in a marvellously short space of time, and augmented commerce and revenue to a degree that has paid them well indeed for the bestowal of the land on settlers. Let us imitate their example, and if possible outdo them in generosity toward the emigrant. We shall find our account in it, without fail.

## Agricultural Intelligence.

### The Crops.

FAVORABLE reports of the condition and promise of the crops reach us from all sections of the country. The season, though it opened unusually early, has been kept back by cool, if not cold weather. This has, however, proved no detriment, and will eventually be advantageous to field crops and fruit. Latterly an abundance of rain, with moderately warm weather, has set everything growing most luxuriantly. Pastures and meadows especially are pushing vigorously forward, under the influence of the timely

showers, and there is every probability of another abundant hay crop. As specimens of the reports contained in our local exchanges, we give the following. The *Belleville Intelligencer* says:

The warm sun and genial rains are bringing on vegetation with remarkable rapidity. Nearly all the spring grain has been got in under very favorable circumstances, and the fall wheat presents a much better appearance than it did a week or two ago. A farmer of great experience told us this morning he never knew a season which promised such a bountiful harvest, and unless something untoward occurs, the husbandman will be enabled to rejoice and give thanks for barns and granaries overflowing with plenty.

And from the fruit garden of our Province we have the following report in the *St. Catharines Daily Briton*:

We are happy to announce that all kinds of crops never presented a more promising appearance than they do at present, in this neighborhood. Fall and spring grains are growing luxuriantly under the influence of the very favorable weather we have enjoyed for several weeks past. There is also every appearance of an enormous fruit crop. Apple, pear, plum, and cherry trees, are just now bursting into bloom, and will certainly yield a golden harvest, if no late frosts or other unforeseen disasters occur. Contrary to expectation, it seems probable that some of the peach trees may likewise produce some fruit, as all the buds are not winter killed. Grapes, strawberries, and other small fruits, promise heavy returns. From all parts of the Province we are constantly receiving favorable reports of the grain crops; and the same is true of the Western States.

## Dominion Ploughing Match.

THE Dominion Ploughing Match took place at Brooklin on the 21st of May. There were seventy-two entries, and the number of spectators present was estimated at from 5,000 to 6,000; but the latter part of the day was wet and uncomfortable, which no doubt considerably diminished the attendance of visitors. The ploughing commenced about ten o'clock in the forenoon; the field selected for the trial belonged to Mr. John Camplin, and was situated about a mile and a half from Brooklin. It contained twenty-four acres, and about one-third of an acre was allotted to each competitor. The time allowed was 4 hours 8 minutes to first-class men, and 3 hours 10 minutes to other classes. The time seemed rather short, and some did not get through their task. There was some excellent work displayed by others besides the successful competitors. The land, however, was not in first-class condition, the soil being too tender. On the ground there was an ox team in harness, which attracted much attention; so much so, indeed, that the numbers gathering around caused the animals to be somewhat frightened.

Among the visitors present were both the members for South Ontario, T. N. Gibbs Esq., and Dr. McGill. The occasion of so large a concourse of people gave an excellent opportunity for the display of agricultural implements and other matters of interest to farmers. Reapers and mowers were exhibited by Messrs. Massey, of Newcastle, Hall of Oshawa, and Brown, of Whitby. The new style of Reaper, known as the Marsh Harvester, and recently described in the *CANADA FARMER*, was also shown by Messrs. Paxton, Tate and Co., of Port Perry. There were besides a number of smaller articles, such as cheese vats, horse rakes, Thomas' bee hives, &c.

The ploughs used were generally the iron plough, and proved themselves in good hands to be thoroughly efficient implements. The following was the award of prizes:

First-class Men—Simpson Rennie, Scarborough, 1st prize, \$100—given by the Hon. the Speaker, and members of the House of Commons.

Adam Hood, Scarborough, 2nd prize, \$50—given by the members of the Commons and Local Legislature for North and South Ontario.

William Hood, Markham, 3rd prize—A twenty-dollar plough, the gift of Messrs. Brown & Patterson, together with \$20 added.

James Forest, West Whitby, 4th prize, \$15.  
Andrew Hood, Scarborough, 5th prize, \$10.

Second-class Men—William Patton, Scarborough, 1st prize, a seed drill, valued at \$80, the gift of Mr. Glen of Oshawa.

John Morgan, Markham, 2nd Prize, a pair of harrows, valued at \$15, the gift of Messrs. Walters & Brady, Audley, together with \$20 added by the Municipal Council of East and West Whitby.

John Barnes, West Whitby, 3rd Prize, \$25 worth of agricultural implements, the gift of Messrs. Whiting & Cowan, Oshawa, being one of every article manufactured by that firm.

Andrew Davidson, Pickering, 4th prize, a spring bar saddle, valued at \$12, the gift of Mr. John Dale, of Brooklin.

John Hickingbottom, Pickering, 5th prize, \$8.

First class Boys, 18 and under—John Gowie, Pickering, 1st prize, \$10, the gift of the Hon. John Simpson.

William Leask, Foley, 2nd prize, a pair of harrows, valued at \$16, the gift of Messrs. Hepburn & Roberts, Brooklin.

John Lamb, Reach, 3rd prize, \$8.

Thomas C. Pilkey, Pickering, 4th prize, a first-prize horse rake, valued at \$5, the gift of A. Ketchen, Brooklin.

R. G. Ratcliff, Columbus, 5th prize, \$3.

Second-class Boys, 15 and under.—George Robb, Whitby, 1st prize, a bridle and martingale, valued at \$6, the gift of Mr. William Thompson, of Whitby, to which was subsequently added (after the advertisement of the premiums had been printed) a sewing machine valued at \$16, the gift of Mr. G. M. Green, of Uxbridge.

J. Cowie, Pickering, 2nd prize, \$5, the gift of W. S. Billings, Esq., of Whitby.

Jason Stone, Brock, 3rd prize, a bridle and martingale valued at \$4, the gift of Mr. Maybee, Brooklin.

James Lynde, Whitby, 4th prize, a bridle and martingale valued at \$3, the gift of Mr. Philip, Whitby.

From the above it will be seen that Scarborough and Markham carried off the highest and best of all the valuable prizes. All the ploughing was pronounced excellent, and the judges had no easy task in arriving at a decision. Their award, however, was generally acquiesced in as satisfactory.

The judges were Messrs. Walter Dalzel, Vaughan; James Weir, Scarborough; John Lee, Whitby; John Hepburn, East Whitby; William Sinclair, Whitby; and John Whiteridge, Bowmanville.

The officers of the Whitby and East Whitby Society had no small difficulties to encounter when they undertook the enterprise of the Dominion Ploughing Match, and awarding prizes amounting in the aggregate to some \$500. They may well congratulate themselves upon the abundant success which has crowned their efforts, and the general expression of satisfaction on every side called forth by their management.

Since the above report was put in type, we have received a communication on the subject from Mr. James King, who writes in high terms of the excellence of the work, the competence and fairness of the judges, and the general success of the match. He adds that Scarborough offers to subscribe the necessary funds for the next Dominion Ploughing Match, and thinks no Township better suited for the trial or able to acquit itself more honorably in the competition. It is also proposed, he says, to institute "a Dominion Ploughing Society, with officers and directors in different counties."

## Wool Exposition.

We have received the following circular in reference to a proposed Exhibition of Wool and Woollen fabrics, to be held in Chicago in the month of August next. The matter will doubtless be of interest to our wool-growers and manufacturers, though we do not understand that the competition is open to Canadians.

At a meeting of the Woollen Manufacturers' Association of the Northwest, held at Chicago, Feb. 15, 1868, it was decided to hold an Exposition of Wools and Woollen Goods at Chicago, on Tuesday, Wednesday and Thursday, Aug. 4, 5, and 6, 1868. It is the design of the Exposition to make such an exhibition of all the classes of wools produced in the West, and of all the manufactured products of these wools, as shall fitly show the present magnitude of the wool and woollen interests of the West, and shall best advance their future prosperity, and by bringing together representatives of the wool-growers and wool-workers to enable them to harmonize conflicting views and to agree on such course as shall best advance the in-

terest of both parties. It will also prove of great advantage to parties exhibiting, in affording opportunities for effecting sales.

There is every indication of a very large and fine exhibition of wool products. Manufacturers have also been requested to exhibit specimens of the wools of their several localities as prepared for market, and also when scoured. But for the main display of wools we must look to the wool growers. The Exposition Committee, in accordance with a resolution adopted by the Association, extend a cordial invitation to the wool-growers of the United States, especially of the Northwest, to exhibit specimens of all classes of wools. Where it is practicable, it is requested that entire fleeces be sent, but where this is impracticable, samples will be gladly received.

Every facility will be granted exhibitors of wools to enable them to display their goods to the best advantage. It is requested that the delegates appointed by the Northwestern Wool Growers' Association, to attend the Exposition, and delegates from or officers of the National and State Wool Growers' Associations, will assist in the selection of a Committee to properly classify and arrange the wools exhibited.

An effort will be made to have goods intended for exhibition shipped over the various railroads free of charge. If addressed to the Secretary of the Association, Jesse McAllister, 2, 4 and 6, Rush Street, Chicago, they will be taken to the place of exhibition and properly placed by the Committee, free of charge.

The diploma of the Association will be awarded to the exhibitors of the best and largest displays of each of the following classes of wool: Broadcloth, delaine and combing; of the best collection of samples of each of these classes; of the three unwashed fleeces (in each class) best "put up" for market; of the three best "put up" washed fleeces (of each class); of ram's fleece (in each class) of greatest market value; of ewes' fleece (in each class) of greatest market value; and of any other exhibition of peculiar merit.

The breeders of the various breeds of sheep are requested to exhibit engravings or photographs of their stock.

Parties desiring to exhibit wool are requested to send statements of the number and kind of fleeces or samples they propose exhibiting, to G. E. Morrow, Office of *The Western Rural*, Chicago, Ill., to whom all correspondence concerning the wool department of the Exposition may be addressed.

## Sheep and Shearing Exhibition.

The principal feature in the celebration of the Queen's Birthday, at Hamilton, on the 25th ult., was the Sheep and Shearing Exhibition, conducted by the City and County Agricultural Society. This, the fourth occasion of the kind, has been a splendid success, drawing competitors from neighbouring counties, to a considerable distance. The following is the Prize List.

### CLASS I.—11 ENTRIES.

Best Leicester Ram, aged, Wm. Douglas, Onondaga township, county of Brant.  
2nd do., N. & B. Barker, Paris.  
3rd do., Wm. Cleland, Glanford.  
Best yearling do. do., Wm. Douglas, Onondaga.  
2nd do. do., Peter Grant, Barton.  
3rd do. do., Wm. Cleland, Glanford.

The show of Leicester rams was particularly creditable to Mr. Douglas, who was the ewe breeder of Messrs. Barker's ram that took the second prize; also of Mr. Cleland's, that took the third prize, as well as of his own, that took the first prize.

### CLASS II.—7 ENTRIES.

Best Cotswold Ram, aged, F. W. Stone, Guelph.  
2nd do., Joshua Freeman, Wellington Square.  
3rd do., J. L. Harming, Flanders West.  
Best yearling Cotswold ram, F. W. Stone, Guelph.  
2nd do., Thomas Blanchard, Nelson.

### CLASS III.—10 ENTRIES.

Best Lincoln Ram, J. T. Nottle, Binbrook.  
2nd do. do. do. do.  
3rd do. do. do. do.  
Best yearling Lincoln ram, John Walker, East Flamboro.  
2nd do. Peter Grant, Barton.  
3rd do. J. T. Nottle, Binbrook.

### CLASS IV.—5 ENTRIES.

Best Southdown ram, John Renton, Glanford.  
2nd do. James Smith, Ancaster.  
Best yearling Southdown ram, F. W. Stone, Guelph.  
3rd do. Robert Shaw, Glanford.

### CLASS V.—5 ENTRIES.

Best Merino ram, W. Howing, East Flamboro.  
2nd do. A. Binkley, Glanford.  
3rd do. Thos. Shaw, Glanford.

### CLASS VI.—11 ENTRIES.

Open to all other classes—sweepstakes.  
Best ram, any age or breed, F. W. Stone, Guelph.  
2nd best do. do., J. T. Nottle, Binbrook.  
3rd do. do., Joshua Freeman, Wellington Square.  
4th do. do., Wm. Douglas, Onondaga.

### CLASS VII.

Best fleece, according to value, Peter Grant, Barton.  
2nd do. do., J. T. Nottle, Binbrook.  
3rd do. do., Wm. Douglas, Onondaga.  
4th do. do. John Walker, East Flamboro.

Sheep and fleece unwashed, and shown on the ground.

### SHEEP-SHEARING.

Best shearer on sheep of any age, John Gill, of Exeter village, county of Huron.

### AGED SHEEP.

1st, W. Hawkins, township of Metcalfe.  
2nd, John Wass, Paris village.  
3rd, Nicholas C. Ford, Glanford.  
4th, — Scott, Binbrook.

### YEARLING SHEEP.

1st, Joseph Alton, of Nelson township.  
2nd, James Ford, Glanford.  
3rd, Edward Lavis, Hamilton.  
4th, Wm. Milne.

## Officers of Agricultural Societies.

**SOUTH RIDING OF BRUCE.**—President, Richard Rivers, Brant; 1st Vice-President, Nathan Lines, Brant; 2nd Vice-President, Alexander Gibson, Culross; Secretary, William Fraser, Walkerton. Directors: Thomas Inglis, Carrick; P. M. Shannon, Carrick; W. Clark, Greenock; P. B. Brown, Culross; P. Reid, Kinloss; W. Withers, Kincardine; J. D. Parrills, Carrick; Treasurer, James Waterson, Walkerton.

During the month of April nearly 5,000 cattle were exported from Canada to Buffalo, the duties on them footing up \$19,000.

**MAINE AGRICULTURAL STATE FAIR.**—The Trustees of the Me. State Agr. Society have decided to hold the State Fair in Portland, beginning on Tuesday, Sept. 29, and to continue four days. The Cumberland Co. Agr. Society and the Portland Horticultural Society will unite, and thus combined the Fair must be magnificent.

**SHORT-HORN BULL "PRINCE OF SOLWAY."**—We learn that this promising Durham bull has been sold by Mr. John Snell to Mr. Lawrence Naismith, of Rausay. It is confidently expected that he will prove a valuable addition to our Canadian Short-Horns. He is seven months old, and was sired by imported "Baron Solway," (45) dam "Blanche," by imported "Prince of the West," (588).

**EXCHANGE OF SEEDS WITH RUSSIA.**—The Scientific Committee of the Ministry of Domain, at St. Petersburg, have requested Mr. A. Kirkwood, of the Crown Lands Department, to send them a few pounds of the seed of the Canadian water-rice, for the purpose of making the experiment of growing it in the north of Russia. An exchange of seeds between Canada and Russia, such as Mr. Kirkwood has been endeavouring to effect, would produce important results in the agriculture of both countries, as their climatic range is very large, and somewhat similar.

**AGRICULTURAL OPERATIONS.**—The Montreal *Telegraph* says a friend, who has been travelling through part of the State of New York, says that field operations are considerably behind those in the neighbourhood of Montreal. A great demand, however, exists for milch cows, American buyers being anxious to purchase in Canada to supply the demand in New York State. A few days ago seventy head of prime milkers from the Upper Ottawa were taken over, and two car loads were sent from Smith's Falls. The prices obtained were above the average of late rates; from thirty to forty per cent.



## Entomology.

### Entomological Report.

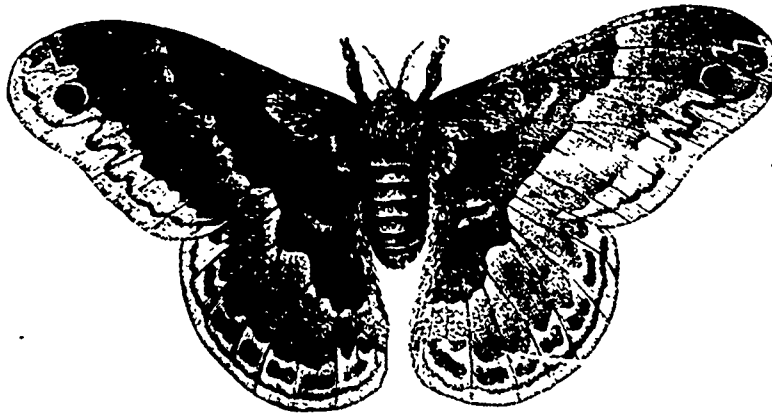
FIRST ANNUAL REPORT ON THE NOXIOUS INSECTS OF THE STATE OF ILLINOIS, by Benj. D. Walsh, M. A., Acting State Entomologist. Chicago. 1868.

We were quite agreeably surprised at the receipt of the above Report, as we understood that the appointment of a State Entomologist in Illinois had fallen to the ground through some strange blundering and misunderstanding. Such, indeed, was the case; but through the kindly intervention of the State Horticultural Society, Mr. Walsh was induced to go on with his valuable labors, as if the appointment had actually taken place, trusting that, when the Legislature next meets, they will approve of the course he has taken, and vote him the proposed salary. From all that we can learn we have little doubt that Mr. Walsh's expectations will be verified, and that he will receive a certain though tardy recompense for his labors.

The Report before us opens with an introductory chapter, in which Mr. Walsh relates all the circumstances connected with his quasi-appointment, and the manner in which he was induced to go on with his work, defending himself from any possible charge of taking too much upon himself, and discharging duties that he had no right to undertake. He closes the chapter with an account of the mode in which he intends to pursue his Reports, viz. "in such language as will be intelligible to any one who has had a good common school education," except that, after giving the English names of insects, he will add the scientific names in a parenthesis. Thus they will be adapted to the farmers and gardeners for whom they are intended, and not be suited only to scientific men or those of more than average acquirements, as is too often the case in works on Natural History and kindred subjects. Owing to the peculiar circumstances under which this first report was drawn up, no account is given of insects injurious to field crops, reference being only made to such as particularly come in the way

of gardeners and fruit-growers; a discussion of these, however, is generally useful, for farmers, if they are not, ought certainly to be fruit-growers and gardeners also. The first insect taken up is the Grape Curculio, a small snout-beetle that has proved eminently destructive in Kentucky, Ohio, and Illinois. Though long known in its perfect state, Mr. Walsh gives here the first account of its earlier existence and full natural history; it has never, so far as we are aware, been taken in Canada. Another vine-insect is next discussed the grape leaf Gall-louse; this insect particularly affects the Clinton, Delaware, and a few allied varieties of grapes, causing much injury to the leaves by producing on their under side "immense numbers of green fleshy excrescences about the size of a small pea." A remedy for the "Rose-bug" (which we mentioned last year as being very troublesome near Oakville, Ont.) is the subject of Chapter iii; the remedy is to grow a Clinton vine in the neighborhood of choice varieties of grape, as the insect has the bad taste to prefer the Clinton, and will desert all others for it, then, when collected thus on one vine, jar them off and kill them in any convenient way, with hot water, for instance. The next chapter gives an account of a Borer similar to the peach tree borer

that attacks the roots of the vine, and is the produce of a small clear-winged moth (*Egeria*). The six following chapters are taken up with various insects that prey upon the fruit, leaves, and bark of apple-trees; among these we may particularly draw attention to the valuable account of the only too familiar "Oyster-shell Bark-louse." Three more chapters are occupied with as many destroyers of plums, viz., the terrible Curculio, the Plum-gouger—a somewhat similar insect to the foregoing, that makes round holes in the fruit, instead of crescents, and which was discovered by Mr. Walsh last year,—and the Plum-moth, another discovery of our author's, whose habits in the larval state are apparently similar to the others referred to. The Report closes with a long account of the ravages in various quarters of what is justly named "The hateful Grasshopper," (or rather, we should say, Locust). This insect is



confined to the region west of the Mississippi river, where it fulfils all the accounts given us of its cousins in eastern lands: it chiefly differs from our common grasshopper in its superior length of wing, and consequent powers of flight. The Report is illustrated, we should mention, by a plate containing figures of the more newly discovered insects.

In concluding this rather lengthened notice, we would express the hope that this is but the first of a long series of useful Reports by Mr. Walsh, who is so well qualified to produce them, and that his State Legislature will ere long recognize that in his case decidedly "the laborer is worthy of his hire."

### Caterpillars on the White Cedar.

HEDGES of White Cedar form a charming feature in many gardens in and about Toronto, and notably in the grounds of Mr. Leslie's Nursery establishment on the Kingston Road, but meet beauty, alas! affords no protection against the spoiler, and even here we find growth and verdure marred by the unsparing insect. Some twigs from Mr. Leslie's hedges have recently been sent us, which sadly exhibit the destructiveness of these tiny ravagers. A minute dirty green caterpillar, with a black head and six-

teen legs, has been busily at work mining into the leaves, and eating away all the green pulpy matter. A countless number of these insects soon give a blighted appearance to a once lovely hedge, and make it look as if a fire had passed through it. The mining habit of these caterpillars renders ineffectual any outward application of soap suds, lime, or other ordinary remedy; there only remains then the cutting off and burning of all infected parts. The caterpillar will turn by and by into a tiny moth of the family *Tineidae*, of what exact species we are not yet aware.

### Singular Cocoons.

A LADY sends us from Mimico two cocoons attached to a twig of lilac, accompanied by the following explanatory note:

"Enclosed you will find two specimens of Cocoons, yearly found at the bottom of a lawn, and always fastened on a white lilac bush, dangling in every storm and breeze during the whole winter. Please tell us all about them." The singular cocoons sent us by our fair correspondent, and which we were glad to receive, are specimens of the produce of one of our native silk-producing moths—the "Promethea Emperor Moth" (*Callosamia promethea*, Drury). From the eggs of this insect are hatched out in early summer a brood of bluish-green caterpillars, which come to their full size of about three inches in length, and half an inch in diameter, during the month of September. They are then very handsome, the body being adorned with a number of rows of small warts, some of which are of a bright coral-red colour, others deep blue, while one long wart is bright yellow. They feed upon the leaves of cherry, ash, sassafras, and probably some other trees. When they have attained to maturity as caterpillars, they wander off to find a suitable tree on which to form their cocoons, and pass the winter. Their mode of doing this is very curious; they select a leaf of suitable size, and fasten it securely to the twig from which it is growing by twisting silken threads around the stem and twig; then

they draw together the opposite edges of the leaf, and in the hollow space thus formed construct their tough silken cocoons. This leaf, of course, withers in due time, but is prevented from falling like the rest by its silken fastenings, and remains all through the winter dangling in mid-air as described by our correspondent. Its resemblance to an old dry leaf is no doubt a great source of protection to the snugly-enclosed chrysalis within, and accounts for the strange mode of construction. In the following June the moth comes out, and is a large and handsome object. The illustrations annexed (taken from Harris) afford an excellent representation of the size and appearance of the insect; the two sexes differ so much from each other that they might easily be mistaken for different species; the male is the smaller specimen, with deep black wings, while the female is larger, and of a reddish brown colour.

PRIVET MOTH.—We have received from Alva Rose, of Matilda, a fine specimen of the chrysalis of the Privet or Lilac Sphinx, (*sphinx cinerea*). It is one of our largest insects, feeding on the privet, lilac, or ash. Our readers will find a brief notice of the moth in the CANADA FARMER for Oct. 15th, 1866, Vol. 3, page 309.





**Fruit Growers' Association.**

PURSUANT to notice and in accordance with the provisions of the new Agricultural Bill, a meeting was held in Hamilton on the 15th of May to re-organize the Fruit Growers' Association. There was a large attendance of gentlemen from various parts of the Province. The chair was occupied by W. H. Mills, Esq., and in the unavoidable absence of Mr. Beadle, Mr. W. Craigie was appointed Secretary for the occasion.

The President explained the object for which the meeting was called, viz: to consider and adopt a constitution and by-laws for the government of the society. The President then read a draft of constitution, clause by clause, which was adopted, as follows:—

**CONSTITUTION.**

Art. 1st. This Association shall be called the "Fruit Growers' Association of Ontario."

Art. 2nd. Its objects shall be the advancement of the science and art of fruit culture, by holding meetings for the exhibition of fruits, and for the discussion of all questions relative to fruit culture, by collecting, arranging and disseminating useful information, and by such other means as may from time to time seem advisable.

Art. 3rd. The annual general meeting of the Association shall be held at the place, and during the same time, as the exhibition of the Agricultural and Arts Association is being held, in each and every year. Two other general meetings shall be held in each year, at such time and place as shall be designated by the Association.

Art. 4th. The officers of the Association shall be composed of a President, Vice-president, a Secretary, Treasurer, and nine Directors.

Art. 5th. Any person may become a member by an annual payment of one dollar, and a payment of ten dollars shall constitute a member for life.

Art. 6th. The constitution may be amended by a vote of a majority of the members present at any regular meeting, notice of the proposed amendments having been given at the previous meeting.

Art. 7th. The said officers and directors shall prepare and present to the annual meeting of the association a report of their proceedings during the year, in which shall be stated the names of all the members of the Association, the places of meeting during the year, and such information as the Association shall have been able to obtain on the subject of fruit culture in the Province, during the year. There shall also be presented at the said annual meeting a detailed statement of the receipts and disbursements of the Association during the year, which report and statement shall be entered in the journal, and signed by the President as being a correct copy, and a true copy thereof, certified by the secretary for the time being, shall be sent to the Commissioner of Agriculture, within fourteen days after the holding of such annual meeting.

Art. 8th. The Association shall have power to make, alter, or amend by-laws for prescribing the mode of admission of new members, the election of officers, and otherwise regulating the administration of its affairs and property.

**BY-LAWS.**

1st. The President, Vice-President, and Secretary-Treasurer shall be ex-officio members of all committees.

2nd. The Directors may offer Premiums to any person originating or introducing any new fruit adapted to the climate of the Province, which shall possess such distinctive excellence as shall in their opinion render the same of special value; also, for essays upon such subjects connected with fruit growing as they may designate under such rules and regulations as they may prescribe.

3rd. The Secretary shall prepare an annual report, containing the minutes of the proceedings of meetings during the year, a detailed statement of receipts and expenditures, the reports upon fruits received from different localities, and all essays to which prizes

have been awarded, and such other information in regard to fruit culture as may have been received during the year, and submit the same to the directors or any committee of directors appointed for this purpose and with their sanction, after presenting the same at the annual meeting, cause the same to be printed by and through the Publication Committee, and send a copy thereof to each member of the Association, and to the Commissioner of Agriculture.

4th. Five Directors shall constitute a quorum: and if at any meeting of Directors there shall not be a quorum, the members present may adjourn the meeting from time to time, until a quorum shall be obtained.

5th. The annual subscription shall be due in advance at the annual general meeting.

6th. The President (in or case of his disability the Vice-President) may convene special meetings at such times and places as he may deem advisable, and he shall convene such special meetings as shall be requested in writing by five members.

7th. The President may deliver an address on some subject relating to the objects of the Association.

8th. The Treasurer shall receive all moneys belonging to the Association, keep a correct account thereof, and submit the same to the Directors at any legal meeting of such Directors, five days' notice having been previously given for that purpose.

9th. The Directors shall audit and report all accounts, which, when approved of by the President's signature, shall be submitted to and paid by the Treasurer.

10th. It shall be the duty of the Secretary to keep a correct record of the proceedings of the Association, conduct the correspondence, give not less than ten days' notice of all meetings to the members, and specify the business of special meetings.

11th. The Directors, touching the conduct of the Association, shall at all times have absolute power and control of the funds and property of the Association, subject, however, to the meaning and construction of the constitution.

12th. At special meetings no business shall be transacted except that stated in the Secretary's circular.

13th. The order of the business shall be—1st, Reading of Minutes; 2nd, do Directors' Reports; 3rd, do Treasurer's do; 4th, do Prize Essays; 5th, President's Address; 6th, Election of Officers; 7th, Miscellaneous Business.

14th. These by-laws may be amended at any general meeting by a vote of two-thirds of the members present.

15th. Each member of the Fruit Committee shall be charged with the duty of accumulating information touching the state of the fruit crop, the introduction of new varieties, the market value of fruits in his particular section of country, together with such other general and useful information touching fruit interests as may seem desirable, and report in writing to the Secretary of the Association, on or before the fifteenth day of September in each year.

16th. Whereas the President, or Vice-President, and Secretary, as ex-officio members of the Board of Directors, and of all Committees, should be present at all meetings, wherever they may be holden, their reasonable travelling expenses shall be provided from the funds of the Association.

17th. The annual meeting of the Association shall be held on some evening during the exhibition week, to be fixed by the Directors after consultation with the Board of Agriculture and Arts, at which meeting the President may deliver his annual address, and essays on fruit culture be read.

**OFFICERS OF THE ASSOCIATION.**

The following gentlemen were appointed office-bearers:—President, William H. Mills, Hamilton; Vice do J. C. Rykert, St. Catharines; Secretary-Treasurer, D. W. Beadle, St. Catharines.

DIRECTORS.—Judge Logie, Hamilton; George Leslie, Toronto; John R. Martin, Cayuga; Lewis Springer, Barton; Charles Arnold, Paris; William Saunders, London; Rev. R. Burnet, Hamilton; Levi Lewis, Ontario; A. M. Smith, Grimsby.

FRUIT COMMITTEE.—John A. Bruce, Hamilton; Chas. Arnold, Paris; A. M. Smith, Grimsby; George Leslie, Toronto; A. Leslie, London; David Coldwell, Galt; William Sanderson, Brantford; John Freed, Hamilton; W. Eccles, St. Catharines.

PUBLICATION COMMITTEE.—Judge Logie, Hamilton; Oliver T. Springer, Wellington Square; A. Macallum, M. A., Hamilton; William Craigie, M. A., Hamilton.

Before adjourning, it was resolved, on motion of Mr. Smith, seconded by Mr. Eccles, that the thanks of the Association be given to J. C. Rykert, Esq., M. P. P., for his zealous exertions in promoting the passing of the Agricultural Bill.

**Hamilton Horticultural Society.**

We have received a pamphlet containing the Constitution, By-Laws, and Eighteenth Annual Report of this efficient and flourishing Society, also the prize list for 1868. The condition of its affairs will be best exhibited by the Annual Report, which is a model of brevity, and the Treasurer's account, both of which we subjoin. This Society holds three exhibitions in the year: the first, May 25th, the second, July 1st, and the third on the Tuesday prior to the Provincial Exhibition.

**EIGHTEENTH ANNUAL REPORT.**

The Board of Directors, on retiring from office, would congratulate the members on the continued prosperity of the Society.

During the past most unfavorable season the three exhibitions were, on the whole, very successful, and the attendance on the part of the public was unprecedentedly large.

A reference to the Treasurer's report, which is herewith submitted, will show that a respectable balance of cash remains on hand after paying all the expenses of the year.

The Society's diploma to the professional gardener and to the amateur who should gain the greatest number of prizes during the season, in their respective classes, were awarded to Mr. William Hill and Mr. James Webster; the latter is also entitled to hold the Craigie Medal for the ensuing year.

The Office-Bearers and Directors will be glad to furnish any information asked for, by members, concerning the affairs of the Society.

Hamilton, 1st Feb., 1868.

J. A. BRUCE,

President.

JAMES ROBB,

Secretary.

The Treasurer in Account with the Hamilton Horticultural Society. Dr.

RECEIPTS.		\$	cts.
To Receipts at door, May Exhibition	.....	314	50
" " " " July	.....	119	50
" " " " Sept.	.....	175	60
" 310 Members' subscriptions	.....	620	00
" Amount received on Special Prizes	.....	81	00
" Balance from last year	.....	16	76
" Amount Prizes awarded G. H. Mills	.....	1	75
		<b>\$1329</b>	<b>11</b>

DISBURSEMENTS.		\$	cts.
By Amount paid in Prizes	.....	644	50
" Paid for labor and decorating	.....	60	00
" " Judges' expenses	.....	93	30
" " Carpenter's account	.....	66	72
" " Music, 3 shows	.....	120	00
" " for use of Drill Shed	.....	75	00
" " Collector	.....	21	98
" " T. & R. White's account	.....	55	73
" " C. E. Stewart & Co's account	.....	69	12
" " W. Farmer's account	.....	12	00
" " J. Eastwood's "	.....	5	87
" " Sundries	.....	36	67
		<b>\$1260</b>	<b>89</b>
" Balance	.....	68	22
		<b>\$1329</b>	<b>11</b>

Hamilton, 1st Feb., 1868.  
W. A. GEDDES, } Auditors.  
J. W. SINCLAIR, } CHAS. MESTON, Treasurer.

**Save Your Plums.**

To the Editor of THE CANADA FARMER:

SIR,—To those of your readers who are anxious to secure a good crop of plums against that incorrigible pest, the Curculio, permit me to state a successful method I have pursued for the last five years, although by no means new as a remedy. It is well known by some and pursued by others, yet there is not that strict attention paid by the majority of people who own a plum tree to secure success. I have observed some of my neighbours take the precautionary measure of jarring their trees, yet still allow the fallen plums to remain upon the ground. Now, this is a fatal mistake. Nearly all of these plums contain worms, which, during the season, are changed to Curculio, remain dormant till the following season, then make their appearance in great numbers, to the amazement and disgust of the person who fancied he had done them "brown" the year before. The way I pro-

ceed is this: I saw off a nearly horizontal limb, if such can be found, leaving a stump of three or four inches upon which to operate; then secure a pretty heavy wooden mallet, having its head covered with an elastic cushion, then two cotton sheets of six by twelve feet each, to two sides of which I tack strips of lath so that it enables me to lay them under each tree at full length adjoining each other, thus covering a space of twelve square feet, the whole being easily gathered up and removed to any tree. So armed, I may be seen during the growing season, from the time the young fruit attains the size of a small pea, "just at peep o' day," spreading these sheets beneath my plum trees, and then with a quick sharp strike against the stump of the sawed limb, with the afore-said battering ram, I bring the enemy to bay. No quarter is ever asked or given. Under the power of such a storm, after the first few mornings the enemies' numbers grow small and by degrees beautifully less, until at length the war cry of the last "Mohegan" sounds a solemn dirge in the dewy morn. The secret is, by surprising the enemy so early in the morning, you have him at a disadvantage; for then his wings and joints are stiff, his powder damp, he falls easily into your bags; when there he looks (do not mistake him) like a dead plum bud. Now, good reader, if a little lassitude prevents your getting up with the lark, you will never secure a glorious sight of purple and golden plums after the above fashion, unless, indeed, you are fond of hogs, for they, if allowed to roam among your trees, will eat the wormy fallen fruit as soon as dropped, and thus the year following there will not be quite so many Curculio, and perchance, from paucity of their numbers, not quite able to puncture all your plums, you may have the felicity of pointing to a few stray fruits; you will at the same time have the gratification of seeing your soil cultivated without a ploughshare. This, to a man of taste, would scarcely be considered scientific. A few words more; the wind blows your plum trees at times severely, without dislodging the little "Turk;" so that no mere shaking with the hands will accomplish the object sought; it must be a quick, decisive jar. Destroy all plums as soon as fallen, and enjoy the fruits of your labour as I have done. Try it; you will come to learn that it is not half the labour your fancy painted it.

FRUIT GROWER.

Hamilton, 9th May, 1868.

## Questions on Pear Culture.

To the Editor of THE CANADA FARMER:

SIR,—Will you be kind enough to answer the following questions on pear culture:

1. What kind of soil, cultivation and manure, are best adapted for the pear?
2. Which varieties are least liable to disease?
3. Which variety of the quince is best adapted for dwarfing the pear?
4. Which would you recommend as the best six kinds of standard pears; two summer, two fall, and two winter varieties?
5. Are there any varieties of the pear adapted for cultivation on the thorn stock?

W. HAWTHORN.

St. Marys.

ANS. 1.—A deep rich loam, or clay and loam, is the best soil for the pear. Mellow cultivation and well-rotted barnyard manure are the best appliances for it.

2. This question is difficult to answer. All varieties are more or less liable to the blight, a mysterious affection for which, so far as we know, there is no remedy. Blight and winter-kill are the two banes of pear culture in this country.

3. The Angers quince.

4. Tastes differ, and there is no infallible standard of excellence; the following, however, would make a good collection: Dearborn's Seedling, Bartlett, Flemish Beauty, Beurre d'Anjou, Beurre Diel, and Vicar of Winkfield.

5. Almost any variety of pear will unite with the thorn stock, but we do not know of any special advantage there is in using it in preference to the natural root. It will not dwarf the pear; the quince is the only stock used for this purpose.

## Poetry.

### The Waning Moon.

BY WILLIAM CULLEN BRYANT.

See where, upon the horizon's brim,  
Lies the still cloud in gloomy bars,  
The waning moon, all pale and dim,  
Goes up amid the eternal stars.

Late, in a flood of tender light,  
She floated through the ethereal blue,  
A softer sun, that shone all night  
Upon the glittering beads of dew.

And still thou wanest, pallid moon!  
The encroaching shadow grows apace;  
Heaven's everlasting watchers soon  
Shall see thee blotted from thy place.

Oh, night's dethroned and crownless Queen,  
Well may thy sad expiring ray  
Be shed on those whose eyes have seen  
Hope's glorious visions fade away.

In thy decaying beam there lies  
Full many a grave on hill and plain,  
Of those who closed their dying eyes  
In grief that they had lived in vain.

Another night, and thou among  
The spheres of heaven shall cease to shine,  
All rayless in the glittering throng,  
Whose lustre late was quenched in thine.

Yet soon a new and tender light  
From out thy darkened orb shall beam,  
And broaden till it shines all night  
On glistening dew and glimmering stream.

## The Household.

### Home Influence of Country Life.

AMONG the chief peculiarities belonging to a country life may be placed that home feeling which has the power, through the whole course of after years, to bring back the wandering affections, and centre them in one point of space—one point of importance to a very limited portion of the community indeed, but a portion consisting of our nearest and dearest connections. In towns there can be comparatively little of this feeling. A man steps out of his door immediately upon common ground. The house he lives in is precisely like his neighbor's, one of a number, which he returns to without attachment, and leaves without regret. But in the country, not only the grass we tread on, the fruit on the trees, the birds that sing above our heads, and the flowers that bloom beneath our feet, but the very atmosphere around us seems to be our own. There is a feeling of possession in our fields, our gardens, and our home, which nothing but a cruel separation can destroy; and when absent far away in foreign lands, and exiled from that home perhaps forever, we pine to trace again the familiar walks, and wonder whether the woods and the green lawns are looking the same as when they received our last farewell. In the haunts of busy life the music of our native stream comes murmuring again upon our ear; we pause beneath the cage of the prisoned bird, because its voice is the same as that which delighted us in childhood; and we love the flowers of a distant country when they resemble those which bloomed in our own.

And all this has a higher moral significance and influence which have often restrained the tempted, or restored the lost to virtue and peace. There are other wanderers besides those who stray through foreign realms—wanderers from the ways of God. Perhaps such may have spurned the restrictions of parental authority, and cast away the early visitations of a holier love; but the home feeling, which neither change of place nor of character can banish from the heart, renews the memory of social ties, and draws back the exiled soul to the deserted hearth. Along with that memory, associated with the soothing affection which the self-banished has lived to want, and the wisdom of sage counsel which experience has proved true, the tide of conviction rushes in upon the burdened heart, and the prodigal,

rousing himself from the stupor of despair, exclaims, "I will arise and go to my father!" Parents, we counsel you to make the most of this influence; believe that it is more important to make your children's home lovely and pleasant than to render your farms ever so productive; and young people, who have the privilege of such a haven of affection and security, cherish the love of home as your most precious talisman and treasure.

Those who boast of plain speaking generally like it only in themselves.

A desire to say things which no one ever said makes some people say things which nobody ought to say.

THE OPEN FIRE.—"I am a firm believer," says Dr. Cuyler "in the moral and spiritual influence of an open fire. To make home attractive, there must be somewhere in the house a common family rendezvous; and that ought to present a more radiant attraction than a black hole in the floor, through which hot air pours forth from a subterranean furnace. Men will fight for their altars and their firesides; but what orator ever invoked a burst of patriotism in behalf of stove-pipes and registers? I never cease to be thankful that I was brought up beside the hickory fire of a rural farm house."

KEEPING FURS.—The ladies are often anxious about keeping furs free from moths during the summer months. Some one advertises to send the requisite information for \$1. Darkness is all that is necessary. The "Miller" that deposits the eggs from which moths are hatched, only moves in light; the moths themselves work in darkness. Hang the furs in a very dark closet, and keep the door shut; keep it always dark, and you can have no trouble. But, as closet doors are sometimes left open, the better way is to enclose the articles loosely in a paper box, put this in a pillow-case, or wrap around with cloth, and hang up in dark closet. Camphor, spices or perfumes, are of no use. Continual darkness is sufficient. And do not take out the furs in June and July to give them an "airing," for even then cometh the enemy, and it may be that in fifteen minutes after exposure, has deposited an hundred eggs. If you consider an airing indispensable, give the furs a good switching and put them quickly back.—Country Gentleman.

RICH WITHOUT MONEY.—Many a man is rich without money. Thousands of men with nothing in their pockets, and thousands without even a pocket, are rich. A man born with a good, sound constitution, a good stomach, a good heart and good limbs, and a pretty good head-piece, is rich. Good bones are better than gold, tough muscles than silver, and nerves that flash fire and carry energy to every function, are better than houses and lands. It is better than a landed estate to have had the right kind of father and mother. Good breeds and bad breeds exist among men as really as among herds and horses. Education may do much good to check evil tendencies or to develop good ones, but it is a great thing to inherit the right proportion of faculties to begin with. That man is rich who has a good disposition—who is naturally kind, patient, cheerful, hopeful, and who has a flavour of wit and fun in his composition. The hardest thing to get along with in this life is a man's own self. A cross, selfish fellow, a desponding and complaining fellow, a timid, care-burdened man—these are all born deformed on the inside. Their feet may not limp, but their thoughts do. A man of fortune, on the brink of the grave, would gladly part with every dollar to obtain a longer lease of life.

PREPARATION OF WHITEWASH.—Whitewash is one of the most valuable articles in the world when properly applied. It prevents not only the decay of wood, but conduces greatly to the healthiness of all buildings, whether of wood or stone. Out-buildings and fences, when not painted, should be supplied once or twice every year with a good coat of whitewash, which should be prepared in the following way: Take a clean, water tight barrel, or other suitable cask, and put into it half a bushel of lime. Slake it by pouring water over it, boiling hot, and in sufficient quantity to cover it five inches deep, and stir it briskly till thoroughly slaked. When the slaking has been effected, dissolve it in water, and

add two pounds of sulphate of zinc, and one of common salt. These will cause the wash to harden, and prevent its cracking, which gives an unseemly appearance to the work. If desirable, a beautiful cream colour may be communicated to the above wash, by adding three pounds of yellow ochre; or a good pearl or lead colour, by the addition of lamp, vine or ivory black. For lawn colour, add four pounds umber—Turkish or American, the latter is the cheapest—one pound Indian red, and one pound common lampblack. For common stone color, add four pounds raw umber and two pounds lampblack. This wash may be applied with a common white-wash brush, and will be found much superior, both for appearance and durability, to common white-wash.—*Country Gentleman.*

**The Apiary.**

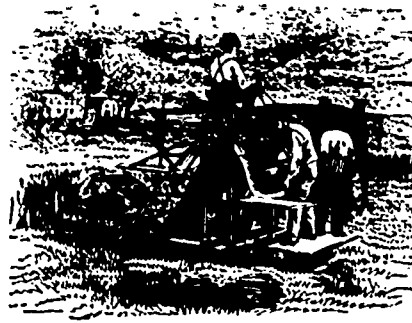
**Surplus Honey.**

As most bee-keepers keep bees for the sake of the honey they gather, it is well to understand how to obtain all the honey a stock will gather, more than is required for its own use, and to do so with the least annoyance to the bees. Various methods have been practised; but the most successful, up to the present time, has been by the use of surplus boxes. Time was, when the bees were destroyed to obtain their honey; but now, such instances are rare—that method being practised by those only who are ignorant of the science of bee-culture. Surplus boxes are as various in their construction as are the hives to which they are applied. Many are almost or quite worthless, the bees seldom depositing honey in them, on account of their construction or mode of application to the hive. If we consider for a moment the nature and habits of the bee, the proper method of securing a large amount of honey, and in the most convenient manner, will readily suggest itself to our minds. It should be remembered that it is the nature of bees to work in a mass, or closely connected together. It is also their nature to store the honey as near the brood as possible, and to make use of all empty combs available, in the height of the honey season. It will then be readily seen that honey boxes should be so constructed, and applied to the hive, as to allow bees an easy access, and so that the bees when in the box are still connected with the bees in the hive; and as they are always in the habit of storing the honey close to the brood, a deep or tall honey-box is objectionable. Many will have observed that when they removed a deep honey-box, and placed upon the hive shallow ones, the bees have readily gone to work. Suppose we were to place a surplus box, three feet deep, on a hive, would the bees be likely to commence work therein? Not at all; for it is their nature to commence at the top of the box, which would separate them in such a box some three feet from the main body of the bees.

It will be found, then, that the more shallow the boxes for surplus honey, the more likely the bees are to work in them. Surplus boxes should be made of thin stuff, especially the bottom board, and a free and easy entrance given. With frame hives, boxes are sometimes used without any bottoms, and placed upon the frames. Though the bees will readily enter such boxes, if shallow, still they are not tidy, nor convenient for marketing. Boxes should therefore be made of thin stuff, and the board on top of the hive, on which the boxes are placed, should be thin also, and a free entrance should be provided. The bees will then enter readily to deposit honey, and when the boxes are removed, the honey will be in fine shape for marketing. When the bees have nearly filled one tier of boxes, it is well to have other boxes made of the same size, with a like entrance through the top and bottom, and raise up the first tier, which is nearly filled, and put the empty boxes under them. The bees will then continue work down from the top tier, and fill the second tier. Boxes should also have a piece of comb put into them, when possible, as it will induce the bees to go to work.

**Advertisements.**

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MADE TO ORDER.**

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We warrant the Marsh Harvester to be well made, of good material, and when properly used, not liable to get out of repair, to be a good grain cutting machine upon which two experienced binders can bind in average grain, on suitable ground, from eight to twelve acres in twelve hours, and that it will work on as rough ground as any other Reaper.

PAXTON, TATE & CO.

Port Perry, March 28, 1868.

v5-7-1f

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All work warranted to give satisfaction.

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A COMPENSIVE AND PRACTICAL GUIDE TO THE  
**CULTURE OF FLOWERS**

AND MANAGEMENT OF

**FLOWER GARDENS,  
ADAPTED TO THE PROVINCE OF ONTARIO.**

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Will be sent free by post to any part of the Province, on receipt of the price in postage stamps.

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v5-7-3f c.o.t.

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BY IMPORTED "SOVEREIGN," DAM "LEVITY," BY IMP. "TRUSTEE."

THIS Thorough bred STALLION and RACE HORSE will stand at his stables, on the Hamilton Riding and Driving Park, two miles East of the City of Hamilton

In 1864, RUBIC was purchased by Col. T. G. Saunders, from R. Atchison Alexander, Esq., the celebrated stock breeder of Kentucky, and brought to Canada in the summer of 1865, and is now owned by R. R. Waddell.

To encourage the breeding of good horses, the Terms will be as low as \$10 for the season, payable at first service.

HUGH McLAUCHLIN, Groom.

v5-10-1f

Drawer 87, Hamilton.

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**TO THE DAIRYMEN OF CANADA.**

THE UNDERSIGNED keeps constantly on hand the following articles—Cheese Vats and Heaters of all sizes and styles. Red Cherry Press, Hoops and Followers, (guilted). Screws of all sizes and patterns—Carrying Cans and Dairy Pails, of the best material. Bleached cotton Bandage Cloth, imported expressly for the trade; and everything required in the manufacture of Cheese

**AT LOWEST REMUNERATIVE PRICES.**

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PATENTED April 13th, 1867.

THE cheapest and simplest constructed Fork in use in the Dominion of Canada. County or Township Rights for the manufacture of the above Fork may be obtained from the undersigned.

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Price Reduced to 58 Dollars.

IT sets up its own work, knits all sizes, narrows and widens, knits the heel into the stocking, and narrows off the toe complete—producing all varieties of knit goods. It is simple, durable, easily operated, and guaranteed to succeed in the hands of every purchaser. Send Stamp for Circular and sample stocking.

JAMES D. ORNE, Gen. Agent.

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THE undersigned will have, the present season, a supply of FLAX-PULLING MACHINES, which we can guarantee to do good work, having been fully tested last season. New improvements added this year—Send for cut of Machine and Price List.

OSWOLD & PATRISON,

Woodstock Iron Works.

1st May, 1868.

v5-9-6f

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DESTROYS the TICKS; cleanses the skin; strengthens and promotes the growth of the wool, and improves the condition of the animal

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The Great Seed Wheat Grower,

CHAMBERS-BURG, Pa. sends free a Descriptive List of the best Seed Wheats in the world.

FIRST PRIZE POTATO DIGGER.

THIS new and improved Potato Digger obtained the first prize at the last Provincial Exhibition. Gives entire satisfaction, and will harvest roots effectually, as fast as a team can walk Township and county rights for sale by the inventor and patentee, ALFRED J. LEMON, Lynden, Ontario.

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THREE yearling Durham Bulls—two red and one roan. Apply to GEO. MILLER, Markham.

FARM NEAR WOODSTOCK!

TO BE SOLD OR LET—50 acres, 40 cleared, a large orchard, perpetual stream of water, frame barn, log house, &c. Land first class. Apply to R. B. Bullard, Toronto, or for leasing to the present tenant, Newman Pratt, Lot 18, 8th Concession, East Zorra, 6 miles from Woodstock, Oxford, Ontario.

J. H. THOMAS' FIRST PRIZE BEE HIVES!

Persons desirous of purchasing territorial rights for my Hives, would do well to apply at once, as I will sell for the next two months, Townships at from \$20 to \$30, and Counties from \$50 to \$150.

J. H. THOMAS, Brooklin, Ontario. N.B.—Parties residing in the Counties of Carleton, Russell, Ottawa, Pontiac, Renfrew, Lanark, Leeds, Dundas, Stormont, Glen garry and Prescott, and desiring to purchase my hives, must in all cases address their order to JOHN HENDERSON, New Edinburgh, Ont.

FARMERS, BY TOP-DRESSING YOUR CROPS WITH LAMB'S SUPER-PHOSPHATE OF LIME,

You will increase the yield 100 per cent., and ripen the crop ten to fifteen days earlier.

PRICE \$40 PER TON, Delivered free at Railway Station here. No charge for packages.

A FEW TONS OF BONE DUST On hand, at \$27 50 per ton. 1/2 inch bone dust, \$22 per ton.

Orders, with cash, will have our prompt attention.

PETER R. LAMB & CO. 15 H-11

Markets.

Toronto Markets.

"CANADA FARMER" Office, May 23rd, 1868.

The market has been very dull during the whole of last week, and prices of all articles have steadily declined.

Flour—The market has been very dull and irregular, and closes 75c lower than our last quotations. During the past few days a considerable decline in Montreal has taken place, and in consequence dealers here reduced their bids. It is doubtful if over \$6.25 could have been got for No. 1 super to day. There were sellers at \$6 50 with no buyers.

Wheat.—The market has been very dull and unsettled. The demand was almost nominal. Prices have declined considerably, but in the present unsettled state of the market it is difficult to say what prices really are. The last sales of spring wheat in car lots were at \$1.47. These prices were paid yesterday. It is doubtful if these sales could be repeated, buyers having reduced their bids considerably. Fall wheat sold yesterday at \$1.60 and \$1.65 in car lots, which were the last sales quoted. On the street market prices are as follows:—Spring, \$1.40 to \$1.45; Fall, choice, \$1.52.

Oats.—The market continues firm. Holders are asking 56c for round lots. 55c to 56c are the prices paid on the street, the latter price being generally paid in silver.

Barley.—The market is dull and drooping. Car lots are offering at from 95c to \$1. A car sold at the latter price, but buyers will not generally give as much.

Peas.—The market is dull and nominal; nominally worth 57c, with no sales within the past few days. Street prices 50c to 52c.

Wheat.—Worth on the market \$1.10. Potatoes.—There is a fair supply. The current rates are 65c to 70c per bushel by the load, and 90c to \$1 per bushel by the bag.

Apples.—The market is firm; choice samples bring as high as \$3 Dried, dull; worth \$1.25 to \$1.50.

Hay.—As high as \$21 was paid for a few loads to-day, prices ranged from \$17 to \$21.

Straw.—Prices range from \$11 to \$14. Provisions.—The market is quiet, and there is nothing of interest to note.

Pork—Mess is held at \$23, with buyers at about \$22. Selling in a retail way at \$23 for choice. Prime extra quality held at \$17. Bacon—Stocks very light, Cumberland selling at from 10c to 11c. Hams—Uncovered held at 12 1/2c, and covered at 13 1/2c, in retail lots. Butter—Market declining; dairy tub not worth more than 17c to 18c. Cheese—The stock is light, and good is scarce at 12c.

Montreal. Flour—Superior extra, \$7 90 to \$8; Extra \$7 70 to \$7 50; Fancy, \$7 40 to \$7 50. Welland Canal superfine \$6 75 to \$6 90; Superfine No. 1 Canada Wheat, \$6 75 to \$6 90; Superfine No. 1 Western Wheat, \$6 75 to 6 90, Superfine No. 2 Western Wheat, \$6 50 to \$6 60; Bag Flour, per 100 lbs. \$3 35 to \$3 45. Wheat—Canada Fall, none; Spring, \$1 60 to \$1 62 1/2; Western, \$1 65 to \$1 70. Oats—Per 32 lbs. 47c to 48c. Barley—Per 48 lbs. \$1 10 to \$1 15. Butter—Dairy, 15 to 18c; store packed, 15c to 18c. Pork—Mess, \$22 50 to \$23 00; Prime Mess, \$16 to \$16 50; Prime, \$15 00 to \$15 60. Dressed Hogs—None. Peas—90c.

Galt, May 23.—Spring Wheat Flour \$3 75 to \$4. Fall Wheat Flour, \$4 25 to \$4 50. Fall Wheat, \$1 60 to \$1 65. Amber Wheat, \$1 30 to \$1 55. Spring Wheat, \$1 50 to \$1 55. Barley, 75c to 80c. Oats, 45c to 50c. Peas, 70c to 80c. Butter, 9c to 10c. Eggs, 9c to 10c. Potatoes, 55c to 60c.

Guelph, May 20.—Fall Wheat, per bush., \$1 70 to \$1 75. Spring Wheat, \$1 48 to \$1 53. Oats, 55c to 56c. Peas, 80c to 85c. Barley, \$1 20 to \$1 25. Straw, \$3 to \$4 per load. Hay, \$10 to \$13 per ton. Eggs, 10c per doz. Butter, 14c to 15c per lb.

Hamilton, May 26.—Fall Wheat, per bush., \$1 55 to \$1 65. Spring Wheat, per bush., \$1 55 to \$1 62. Barley do, \$1 10 to \$1 20. Oats do, 60c to 65c. Peas do, 85c to 92c. Corn do, 60c to 70c. Potatoes, per bag, \$1 25 to \$1 50.

London.—Grain—Fall Wheat, per bush., \$1 60 to \$1 60. Spring Wheat, \$1 40 to \$1 44. Barley, 75c. Peas, 75c to 84c. Oats, 55c to 61c. Corn, 80c to 82c. Provisions—Pork—English prime mess, \$13 50; prime mess, \$14 60; light mess, \$16 50; mess, \$19, smoked ham, sugar-cured, 12c.

N. Y. Produce Market.—Flour, dull, receipts, 6,569 barrels, sales, 3,400 bbls., at \$5 00 to \$5 60 for Superfine State and Western; \$9 00 to \$9 55 for common to choice extra State; \$9 60 to \$10 33 for common to choice extra Western; \$9 60 to \$13 20 for common to choice extra round hoop Ohio. Wheat, dull, receipts, 37,403 bush., sales of 49,000 bush., at \$2 16 to \$2 18 for No. 2 spring, \$2 27 for No. 1 do., \$2 22 to \$2 23 for Nos. 1 and 2 do., mixed; \$2 65 for amber Canada; \$2 67 for White Michigan; \$2 36 for winter red Canada, in bond. Rye, dull, sales, 4,000 bush State, at \$2 03, retail lots, Western, at \$2 07 to \$2 08. Corn, heavy; receipts, 134,276 bush.; sales, 133,000 bush., at \$1 00 to \$1 10 for new mixed Western afloat; closing at \$1 08 to \$1 08 1/2. \$1 10 for old do in store. Barley, nominal. Oats, dull, sales of 20,000 bush., at 86c to 86c Western in store. Pork, lower, at \$29 40 to \$29 60 for new mess; \$27 65 to \$27 75 for old do. Lard, quiet and dull, at 18 7/8c to 19c.

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