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### RURAL NOTES.

THE culture of Indian corn is increasing in Australia. It is said that fifteen cents per bushel covers the cost of cultivation and harvesting.

THE *Brandon Sun* says: "The process of 'jumping' has almost become a mania. The land office is daily besieged by land hunters, and its walls covered with notices to the party who made the original entry."

THE *Minneapolis Tribune* says that goats are the best land cleaners known. It mentions that a herd of 1,600 entirely cleared a piece of brush land, consisting of 500 acres, in three years. So complete was the work that not a vestige of undergrowth was left.

A NEW white potato, called Duke of Albany, is becoming very popular in England. It is a sprout of the Beauty of Hebron. Most of the American potatoes do well if taken to England, but the rule does not work both ways, as American farmers who have planted imported seed have found to their cost.

THE *Mark Lane Express* says of the fancy Shorthorns in England: "The fanciers are 'unloading' as fast as they can, and if herd sales go on as they are going the Shorthorn breed will soon be entirely out of their hands. The selling brand on Shorthorns has been, until very lately, fashionable pedigree; in the future we think it will be actual merit combined with Herd Book qualifications."

A WRITER in the *Popular Science Monthly* says that everybody has always thought that the concentric rings of trees are a record of its age, each ring representing the growth of a year, but that everybody has always been mistaken. A series of experiments effectually explodes the delusion. So it goes in these degenerate days; one after another the "arrested conceptions of the myth-makers" are dispelled.

PROFESSOR HENRY says: "I would urge that our farmers feed more oats to young stock, colts as well as calves. There is no food easily obtainable that will so well correct acidity of the stomach and keep the whole system in good order. To those who wish to raise calves on very little milk, I would say, use oats and oil meal freely, and by studying the wants of your calves you

will be able to raise fine animals on a small allowance of milk.

THE *Dublin Farmer* claims that a full feed of hay to horses, following the feeding of concentrated food, is wasteful, for the reason that it crowds the first out of the stomach before proper digestion has been accomplished. And so, in order to secure best results, hay should be fed at first and the concentrated food afterward, which leaves it to become fully digested, with no danger of being crowded away or out of the performance of its desired purpose.

A FARMER, who has used a waggon with broad tires on wheels long enough to ascertain their relative value as compared with narrow tires, writes: "A four-inch tire will carry two tons over soft ground with greater ease to the team than a two and a half inch tire will carry one ton. The wheels are not so much strained by stones and rough tracks on the road, and the road is not cut up, but, on the contrary, is packed down and keeps smooth. The prevalent idea that the draught is increased by widening the tire is altogether baseless; on the contrary, a wide tire reduces the draught. The extra cost of the tire is repaid many times over every year in the extra work that can be done by a team."

ONTARIO is exceptionally favoured, says the *Montreal Gazette*, as a grain producing province. Taking the various kinds of grain, no American State has this year equalled that Province in the average yield per acre of the cereals, notwithstanding the fact that, with the single exception of maize, which is not brought into comparison, the crops in the United States have been exceptionally good in the past season. The value of such a Bureau as that which the Ontario Government has established is adequately shown in the above comparison. As a means of promoting emigration to Canada its usefulness fully justifies the expense entailed, because no more practical or more reliable testimony to the advantages of the Province as a home for agriculturalists could well be obtained.

By attention to the following rules for the dressing of poultry, farmers will secure better prices and readier sales: "Poultry should not be fed for twenty-four hours previous to killing. Bleed well and pluck clean, leaving on the head, also the wings and tail feathers in. Entrails should not be drawn, neither should

poultry be scalded. It is easily detected, and means from one to three cents per pound reduction in value. Pack firmly in nice, clean cases holding from one to two hundred pounds. Mark each case with correct weights—gross, tare and net. Also, number and kind of birds contained, and advise the firm to whom you ship of the particulars of your consignment, that its proper delivery may be looked after; and, when this is done, satisfactory results may be confidently looked for."

HORSES that have worked constantly on the farm, or even in the family carriage, become worn and fatigued, and though well fed, begin each day's work with reluctance. They need change, they require rest and change of draught on their muscles. Let them go for a month into a good pasture; their whole system will have a grateful rest. Their muscles will relax, they will lay on flesh, and manifest such improvement as will compensate for the loss of their labour. Pull off their shoes, and let their feet come in contact with the soil. The animals need change as tired men of business need the mountain air, or the cooling sea breeze. Our domestic animals, except the horse, all have a few weeks' rest, but so dependent are we on the constant services of this animal that we cannot spare him even for a week.

THE *Mark Lane Express*, in its review of the British grain trade for the week ending Nov. 18th, says: "The weather during the week has allowed some wheat sowing, but the arrears in this work are not materially reduced. There has been a large but irregular supply of native wheat. Prices for good samples are occasionally higher. Foreign is unchanged in price. The demand is scarcely so good, and business is restricted by the firmness of sellers. Business in cargoes off coast is virtually at a standstill. There have been four arrivals and two sales. The market for cargoes on passage and for shipment closed firm and quiet. Flour was supplied freely, but the demand was inactive and prices unchanged. Foreign is dull, with laboured sale. Barley unchanged. Foreign is steady, with a hardening tendency. Oats are dearer. There was a fair trade in foreign at unchanged rates. Maize is in small supply, with retail at fancy prices. Sales of English wheat the past week, 391,388 bushels at \$1.27, against 335,288 bushels at \$1.41 the corresponding period last year."

## FARM AND FIELD.

### THE LIVING OF FARMERS.

Many men and more women object to living on farms because the food offered in farm-houses is not as desirable as that found on tables in villages and cities. There is no good reason why as excellent food cannot be afforded on farms as in large towns. Most farmers might live well and be at no more expense than they are at present. Most of the articles that pertain to good living are or can be produced on farms with very little trouble or expense. The water afforded by springs and deep wells is superior to that supplied by the service-pipes in cities. Fresh butter, pure milk, and newly-laid eggs can at all times be obtained, and these deservedly rank among luxuries. They are articles generally hard to obtain in large towns, even by persons of wealth. At most times in the year there are fowls fit to be killed as occasion may require. During the spring there is veal, and during the summer and fall lamb, for fresh meat. If a farmer has an ice-house it is comparatively easy to have a supply of fresh meat of home production a large proportion of the time. Fresh fish are, of course, difficult to obtain unless a farmer has a fish-pond or lives near a lake or river. He can, however, have salt and-smoked fish as often as they may be desired to form a change in the ordinary bill of fare. As to flour and meal, and all kinds of prepared grain, they are as easily and cheaply obtained in the country as in the city. The like is true in relation to tea, coffee, sugar, and all other kinds of groceries. The articles above enumerated constitute nearly all the substantial things that pertain to good living.

Fine fruit, fresh from the tree, bush or vine, is one of the most essential elements of good living. This can be had in abundance by all farmers who live in most of the States of the Union. It can be produced as cheaply as any kind of food, and is very more wholesome and nutritious, as well as more palatable, than most of the articles found on farmers' tables. A small plot of land will produce all the strawberries, gooseberries, red, white, and black currants that any family can consume during the season of their ripening, and enough to supply them with canned fruit during the balance of the year. As to grapes, they are as easily and cheaply raised as potatoes, and are adapted to a large number of purposes. During at least three months they will supply the table with a most delicious and wholesome article of food which is relished by persons of all ages. As a breakfast dish grapes are unsurpassed. As table ornaments they are the equals of flowers. They are excellent when canned or when made into pies and jelly. Wine can be made of those that are not quite fair enough to supply the table or market, and vinegar can be made of those that are quite inferior. By taking pains with their preservation, they may be kept in a fresh state till the winter holidays. In this latitude no fruit is more easily produced than the Early Richmond cherry. The trees come into bearing quite early, and are very productive. The trees are ornamental as well as useful. In nearly every State in the Union some variety of peach, plaw, and pear does exceedingly well. As to apples, they will grow anywhere that corn will mature, and in many sections beside. In all the northern States and territories cranberries and blueberries can be raised with very little trouble or expense. With all these fruits at his command, no farmer can afford to set a poor table.

Next to fine fruits, fine vegetables add as much as anything to the essential part of good living. It is singular, however, that, while they are

always found on tables in towns and cities, they are seldom seen on the tables of well-to-do farmers in the west. Nearly all farmers raise common potatoes, cabbages, beets and onions, but the list of vegetables extends little farther than these. They have no asparagus, lettuce, radishes, egg-plant celery, cress, or pie-plant. They have a "mess" or two of green peas, and a few string-beans, but no attempt is made to have a succession of them during several months. They have no Lima beans, and few or no good bush-beans. Ordinarily they have no sweet corn, no sweet potatoes, and very poor tomatoes and cucumbers. Many farmers raise no pumpkins, and are at no pains to raise squashes for use during the winter and spring. If they raise turnips, they are of the varieties that are only fit for stock food. No watercress is found in any of the springs or streams on the farm, and no grapevines flourish on the high places that are valuable for the production of little else. Comparatively few farmers raise melons, though they will grow with very little trouble. In short, farmers deny themselves most of the cheap luxuries of life that they might enjoy to an extent that no other class of persons can for so little labour or expense. They seem to think that great skill is required to produce fine fruit and vegetables, while in point of fact they are raised as cheaply as most field crops. They insist on eating large quantities of pork on the score of economy, while it is actually one of the most expensive articles of food at present prices. It will pay any farmer, who has a considerable family, to employ one man to raise fruit and vegetables for the supply of his own table.—*Chicago Times.*

### FARM ROLLERS.

Of all farm implements there is none the value of which is so little understood and appreciated as the roller. We can point to whole townships, and we venture to say counties, in which there are not one to be found. When farmers are anxious to secure the most approved styles of ploughs, harrows, mowers, reapers, etc., it would seem that their attention would also be called to the roller, and its practical value become at once apparent, but such is not the case. The roller may be constructed of wood, stone, or iron. The latter is probably preferable; it can be made in sections, so that a greater or less length may be used at will, and so that in turning one end of the roller will revolve more than the other, to prevent a portion being dragged over the ground with danger of making depressions or displacing seeds, as well as rendering the labour less laborious for the team. The relative pressure by loading can also be better graduated than on solid rollers, it not being necessary that the cylinders themselves should be heavy.

There are few meadows in latitudes where the winter's cold allows the frost to penetrate the soil to any depth, where the grass in the spring is not found with roots more or less loosened, and sometimes entirely exposed. To run a roller over such a meadow is but little labour, and will repay by the increased crop many times its cost. The same may be said of fields of wheat, rye, or fall sown grass seed. Those who have had no experience can scarcely comprehend the benefit such fields derive from the pressure of the roller; the levelling of the ground in meadows over which the mowing machine will pass in a few weeks is also an advantage not to be lost sight of.

The advantage of firming the soil about newly planted or sown seeds is now so universally acknowledged that it is useless to argue it here. But there is no better way in which this firming can be done than by using the roller; in fact, there is with many crops no other practical way. Where planting is done by hand, it can be accomplished in a measure by the hand or foot, but even then it is not so well done as when a roller is passed over it.

There have been differences of opinion as to the best diameter for a roller, some advocating large ones, and others small. One writer says: "In constructing heavy rollers, the workmen should be careful that they have not too great a diameter, whatever the material may be of which they are formed, as the pressure is diminished where the implement is of very large size, by its resting on too much surface at once, except an addition of weight in proportion be made. By having the roller made small when loaded to the same weight, a much greater effect will be produced, and a considerable saving of expense be made in the construction of the implement." On the other hand, the greater the diameter of the roller, the easier will be the labour of drawing it. Probably one with a diameter of twenty to twenty-four inches would be, for all the purposes of a farm, about right.

In rolling grass lands care should be taken to have it done when the ground is in proper condition, as it cannot be done to so good advantage if it be too wet or too dry. If too wet, the pressure of the soil on and about the roots will be too severe, and if the soil is too dry, it will not be sufficiently compacted to produce the best results. The same may be said as to fields of growing grain. In other cases, when the ground is in condition to be sown or planted, it is fit for rolling.

As rolling occupies but little time, the implement would on most farms be comparatively out of use; consequently there is nothing that is better adapted for co-operative ownership or use than a roller. One is ample to do all the work required for half-a-dozen ordinary sized farms, and to have one for each farm would be a needless expense. A number of persons might combine to contribute funds for the purchase of such a roller as would meet the wants of all; or, better, one might make the purchase, be the owner, and hire it out to the others at a fixed sum for each hour's use. Joint ownership sometimes makes unpleasantness, when two want to use the same thing at the same time, or raise questions relative to care and repairs not always amicably settled. But in whatever way it may be thought best to hold it, of one thing we are certain—there should be at least one good roller in every neighbourhood.

### FARMERS' HEALTH.

As a class, farmers are hard workers. So far as I know, they never have demanded the "eighth-hour system," though they work much harder than those who are almost uproarious in their demands. In the busy season, in many instances, they are not even confined to "from sun to sun," but continue as long as the light will permit, attending to the chores after dark.

In haying and harvesting—the former more especially—the watchword is "drive," with

but little reference to the consequences. This was more especially true (and in certain localities may now be so) when even thoughtful and intelligent and good people believed that it was impossible to get the hay in without intoxicating drinks, absurdly believing that they really aided digestion, imparted strength, "warming one in the winter and cooling one in the summer." It is true, however, that they uniformly reduce the heat of the body by transferring it to the surface from the internal organs, allowing it to escape, producing a deceptive sensation of skin warmth. The intelligent farmer now looks back upon that as a natural outgrowth of a dark age, fully aware of the fact that no more or better work was then done, but that more machinery was then destroyed by the recklessness of inebriety, and that sunstroke was more usual then, in consequence of the almost insane "drive." To "make haste slowly" is the true principle, adopting *method* in everything, so that every blow will tell. Aside from sudden and unexpected changes in the weather, there is no possible necessity for unusual haste in haying. Nothing is gained by "hot haste."

About so much work can be done in a season, or a lifetime, and the extra toils of this year, unduly exhausting the life-forces, must be deducted from the available strength of the future, and that of a certainty. Very few of this class enjoy good health, as shown by our vital statistics—not as many, by far, as among those in occupations regarded as far less favourable to health. Many, many at the age of forty, when one should be in the very prime of life, in modern times—when the term of human life is really increasing—are broken down, look as if ten years older, more or less bowed with the infirmities of age. They have enlarged and deformed joints, with chronic rheumatism, caused in part, at least, by overwork under very unfavourable circumstances. Much of this is produced by labouring in the storm, with wet clothes and feet, and when drenched in perspiration sitting on cold stones, or on the wet ground, until an actual chill is the result.

When, by accident, the clothes become wet, rapidly conducting off the heat of the body, some of the unfavourable effects may be avoided by a change of clothing, with a thorough friction of the skin, as by the use of a crash towel, or a flesh brush, until a glow of heat is secured. As soon as any perceptible pain is noticed in the joints, muscles or bones, a very safe, cheap and effectual remedy is found in applying a wet cloth to the parts, on which a little mustard or cayenne pepper has been sprinkled, to be covered by dry flannels, so as to be comfortable. If worn all night, it is best to have as many as four thicknesses of wet cloths. I well know that this may be considered too simple to be efficient, but after a medical practice of more than thirty years, I have failed to find any liniment, salve or ointment that will effect a cure as readily in such cases. It will be safe so long as it is comfortably warm.

Of course avoiding the cause is far better; and yet these pains and aches and stiffness may be wonderfully mitigated by simple applications, better than by the use of violent poisons, especially in "horrid doses." On the proper use of water, I will quote from a dis-

tinguished author, who largely recommended medicines, who says:—

"Water is one of the most valuable articles in the *Materia Medica*. Internally it is diluent, sweating, cooling, and may be given warm to vomit. It keeps the blood and other fluids in a proper state to circulate. It has sometimes appeared to me that I could fulfil almost every indication by the use of water—vomit, purge, sweat, strengthen, and thus cure all fevers, etc. But we must not simplify too much, lest we destroy our own business too soon."

Every one should know that these overdrafts on the vital powers are as destructive to the future health as borrowing money is at an exorbitant rate of interest, still borrowing at a more ruinous rate to pay the first, and so on, ruin must come at some time. All should know that no pain or ache ever occurs without some definite cause or causes, and that no law of the body can be broken with safety, the penalty being sure to follow, though years may intervene.—*Dr. J. H. Hannaford, in Farm and Fireside.*

#### WOMEN AT FARM WORK.

President A. S. Welsh, of the Iowa Agricultural College, in one of his recent instructive letters from abroad, referred to that strange thing which strikes an American on arrival in Europe—the sight of stout, ruddy, hardy women, in coarse dresses, performing the heaviest and rudest of labour, as well on the city streets as in the fields. We feel shocked at seeing any of the sex serving as beasts of burden or of draught, but at the same time could heartily wish that our tenderly housed better half of the population might have a share of the jocund health and strength that is enjoyed by those French and German mothers. Perhaps some happy means shall yet be discovered combining physical well-being with delicacy. Even in our more trying climate we find women who manage, or materially assist in managing, farms with notable success, even doing much of the outdoor work themselves. Witness the following instance communicated by a happy bachelor to the *Ohio Farmer*:—

"I have a sister who is a model farm girl. I am thirty and she is a little older. We have been partners for twelve years, and now own 150 acres of land worth \$60 an acre. This we earned ourselves, and 100 acres of it cost us \$5,000. She—my sister—is not afraid to milk. She often helps to pick up a load of corn, lead the horses, to pitch hay, feeds the hogs when we get home late, etc. She knows where all the stock are in pasture, and if any is for sale knows the price, and when sold can tell how much we have cleared on it. She is never 'snubbed' for her independence, although we live adjoining a small town, where all the fools are generally found. Now, girls, if any of you want to succeed, don't be afraid of doing all the work you can. It is the only way."

SAYS the Mount Forest *Advocate*: This part of the country has produced a few curiosities lately. In Arthur township a pig was born with two heads and eight legs, and in the district a chicken was brought forth having four legs, both of which curiosities were destroyed.

#### CURRENT NEWS ITEMS.

THE horses in Pittsburg, Ont., are afflicted with the mouth disease. It is the result of epizootic.

THE Campbellford *Herald* says that Mrs. Moore, of Asphodel, realized \$300 since last spring by the sale of eggs.

THE township of Turnberry has between \$6,000 and \$7,000 to loan on farm property. This looks well for Turnberry.

MR. WM. J. THOMPSON, of Beverly, has sold to Mr. Jas. Moffat, for \$200, a very fine Royal George filly about two years old.

IT is stated that by the assessment roll there are only 27 dogs in the village of Blyth, while by actual count there are over 80. How does this discrepancy occur, can anybody tell?

A VERY large number of cattle changed hands at the Durham fair at good prices. Steers sold at from \$20 to \$25 per head. Cows from \$20 to \$35. Oxen from \$90 to \$125 per yoke.

MR. BENNETT, of Halton, intends starting a large hog breeding establishment near Winnipeg. He complains bitterly of the autocratic conduct of the Collector of Customs at Winnipeg in dealing with his importations of swine.

A FEW weeks ago a farmer named Henry Goheen of Hamilton township was robbed of \$1,000 in cash. He offered a reward of \$200, and shortly afterwards found the money—minus the \$200—tied to his gate post. That thief could be honest for \$200, it seems.

NOT long since some parties tried to rob a beehive on the farm of Mr. Jas. Steep, Bayfield concession, Goderich township, and succeeded in getting two trays out of the hive, but the bees had been sleeping with one eye open, and gave the would-be thieves such a reception that they quickly left without succeeding in their object.

SO many farmers' homes are bare of all that has a tendency to make life pleasant that it is a wonder how the boys and girls stay in them as long as they do. What good does the farmer expect to gain from hoarded wealth? He need not expend very much in making his home cheerful. A few dollars will buy pictures which will make the walls bright, and give sunshine when the sky is overcast. A few dollars will buy papers and books from which food for the mind can be obtained, and every man ought to be as glad to see the minds of his children growing and expanding as he is to see the development of their physical system.

THE other morning, in getting up steam to thresh for Mr. Thomas Jackson, near Trowbridge, the fireman observed that there was something wrong with the boiler. This every moment became more certain, and he blew off the steam, just in time to save the whole apparatus from being blown up. It was found on examination that it was no longer safe to run it. The engine has only been used a very short time, and evidently the boiler was not constructed of the proper material. Mr. Stockford intends to have it examined by the engineer of the locomotive works, Stratford, and if it can be proved that it was never safe to be run, the manufacturers will doubtless be the losers, and not Mr. Stockford.

## GARDEN AND ORCHARD.

INSECTS INJURIOUS TO SMALL FRUITS  
(Continued).

A Raspberry Cane Borer (*Obera Tripuncta*) is described as a "cylindrical beetle about five-eighths of an inch in length, of a dark colour, and with a pale yellowish thorax, with three spots on the thorax, and with long horns."

Its operations are thus noticed:—

"When attacking the raspberry it selects the tip of the growing cane, and biting with its jaws, makes a series of punctures around the young growth, giving it the appearance of having a ring around it. Then beginning above, it makes a second ring about an inch from the first, and between these two rings it deposits an egg in the substance of the cane. The result is that the tip of the cane withers in a few days. The object in thus biting the cane is supposed to be to lessen the flow of sap towards the parts, as the sap might possibly injure the egg embedded in the substance of the cane. The egg hatches, and the larva as soon as hatched proceeds to eat down into the centre of the cane, and spends its larval period in consuming the interior, completing its transformation within the cane—changing to a chrysalis—and finally the next spring eating its way out of the cane, a perfect beetle."

The pest may be prevented from increasing, by promptly breaking off the cane down to the second ring made by the insect.

The Tree Cricket is another enemy of the raspberry, as well as of the grape vine, in connection with which it is noticed.

A green Saw-fly, too, is troublesome (*Selandria rubi*). Of this insect Mr. Saunders says:—

"There is a green saw-fly, *Selandria rubi*, which attacks the raspberry, and is a very troublesome insect. When full grown it is about three-quarters of an inch long, and is covered with small hair-like spines, arising from small green tubercles. It is the progeny of a small, black, transparent-winged fly, somewhat similar to the gooseberry saw-fly, but smaller. It has a strange saw-like apparatus at the posterior end of its body, by means of which it saws little slits into the substance of the leaf of the raspberry, and places its egg under the surface. There it swells, and finally produces a small larva, which makes its exit to the outer surface of the leaf, and feeds on the substance avoiding the veins or ribs of the leaf and thus skeletonizes it. It is so near the colour of the raspberry leaf that it is very difficult of detection, and it requires a practised eye to find it, but you can see the effect of its work very speedily, and it is easily killed by the application of hellebore."

Another insect, a small geometer (*Aplodes rubivora*), represented in its perfect state by a pretty green moth, also attacks the raspberry, but not very severely. (See Fig. 65.)

The Strawberry's enemies are few in number, and are briefly described by Mr. Saunders as follows:—

"There are few insects that affect the strawberry. One of these is the Crown Borer (*Anarsia lineatella*). It is the larva of a small moth which deposits its egg on the crown of the strawberry. This, when hatched, produces a larva which eats its way in various directions through the crown of the plant, and in a short time so injures it that it is almost useless. In past seasons, Mr. Luke Bishop, near St. Thomas, and Mr. Chas. Arnold, of Paris, have both suffered from it very seriously. It is an insect worth noting, because it may become very widely disseminated, and if it established itself in any of the large strawberry centres, it would become a very serious evil. Lime strewed among the strawberry vines has been suggested as a remedy, but I very much doubt whether we can find any remedy which will be effectual other than digging up the affected vines and burning them.

"The larva of our common May beetle is very destructive. (See Fig. 66.) It feeds on the roots of plants and grasses, and seems to be very partial to the strawberry roots. A few of these insects will work great destruction in a few days; the plants wither, and you see no reason for it until you dig in the ground and find this grub at work. It frequently attacks other plants as well as the strawberry, and sometimes eats the tubers of the potato. It will eat almost anything in the way of a root or tuber, whether small or large, and one specimen is capable of devouring a great deal of food in a year. In its perfect state it is a leaf-eating beetle, and congregates on the leaves of the cherry and other trees, but during the day-time it is torpid, and if the trees are then well shaken the beetles fall to the ground, when they can be collected and destroyed. We have never had them so excessively abundant as to be obliged to resort to any means of this sort. There are two or three small lepidopterous insects, leaf

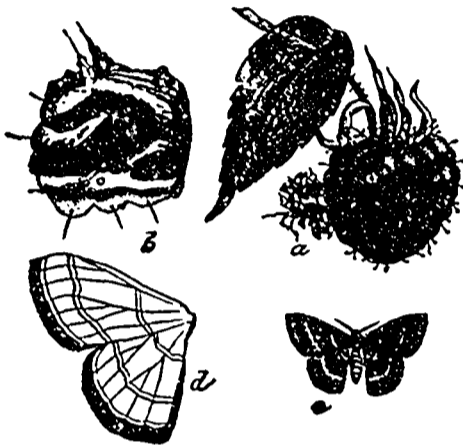
GREEN (RASPBERRY MOTH).—*Aplodes rubivora*.

Fig. 65.

In Fig. 65 we have the curious larva of this insect shown feeding on the fruit; *b* represents the side of one of the rings or segments of the caterpillar's body much magnified; *c* the moth of a natural size, and *d* one pair of the wings magnified.

COMMON MAY BEETLE.

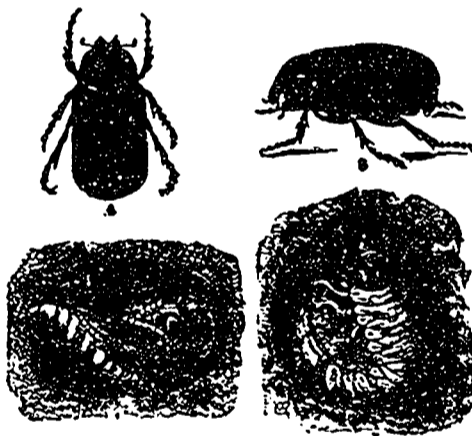


Fig. 66.

In Fig. 66, *a* represents the larva, *b* the chrysalis, and *c* and *d* the mature insect.

rollers, which attack the strawberry. One is very common—the *Anchylopera fragaria*. It is a beautiful little insect, but sometimes quite destructive. It gathers together the leaves and, folding them, feeds on their substance. It can easily be kept in check with the use of a little hellebore and water.

"There is a saw-fly also, called the strawberry false worm—*Emphytus maculatus*—which destroys the leaves during the month of June. The larva approaches maturity about that time and eats holes in the leaves. This insect can also be controlled by the use of hellebore. There is a strawberry bug—*Corimelaena*—a small black insect that looks very much like a beetle, with a shining surface. I have had no personal experience with it, and I merely mention it as one of the insects which occasionally injure the strawberry. On the whole, I consider the strawberry less troubled with insect enemies than any other fruit we cultivate."—Report of the Ontario Agricultural Commission.

To be preserved in health is as great a mercy as to be raised up from sickness; yet men are seldom thankful for it.

## CHOICE VARIETIES OF APPLES.

A well-informed correspondent gives our esteemed contemporary, *Farm and Field*, a few useful hints as to the choice of apple trees. Many of his statements appear to be so much to the point that we reproduce a portion of his letter for the benefit of our readers:

"The first really good dessert apple is the Early Harvest, being in its prime about two weeks after the Astrachan begins to be fit for cooking. The Astrachan, of course, cannot be dispensed with, although too sour for table fruit. It makes a large sized and beautiful tree, and in practice is an annual bearer, as about two trees in every five will bear the odd year. Before the Astrachan is gone the Chenango Strawberry begins to ripen, and as a dessert apple, when gathered at the proper time, is without a peer. The tree is a handsome grower, of medium size, and presents a beautiful winter appearance from the bright, golden colour of its twigs. The fruit is conical in shape, of good size, and in colour is a beautiful rose, striped with yellow. Its only fault is an inclination to sometimes rot upon the tree. Following the Chenango Strawberry are three apples which overlap each other in time of ripening, but are different in appearance and flavour. These are the Porter, a conical yellow apple with a pretty red cheek, and, when well grown, of full medium size; the Dyer, or Pomme Royal, an apple somewhat similar to the Early Harvest in appearance, but larger and more productive; and the Ohio Nonpareil, a deep red, slightly striped apple of large size and excellent flavour. These three are all sub-acid and of very fine quality. The Dyer proved very productive this season; this, with the Astrachan, withstanding whatever destroyed the fruit of nearly all summer, and fall apples. The Ohio Nonpareil is a very strong grower, especially adapted to gravelly soils. For a cooking apple, after the Astrachan is gone, and lasting for two months, or until the Twenty Ounce and King are fit for use, I know of nothing so good as the Star. This is a very large green apple, somewhat similar to a very large Rhode Island Greening in appearance and flavour, and abundant annual bearer. For sweet apples first and best (for early), always, is the Sweet Bough. After this I would plant the Jersey Sweeting, a conical, striped, dark red apple, of more than medium size, and the finest sweet dessert apple that I know of. After this, which only lasts until October 1st, comes the Bailey Sweet, a yellowish red, somewhat rusty, good-sized apple, which is rather too dry for a good dessert apple, but is the best of the season—October and November. Soon after this is gone the Paradise Winter Sweet begins to be fit to use, and continues into February. This is a beautiful apple of pretty fair quality, and a rapid grower. For a late keeper the Tallman Sweet is the best.

"The following would be my list for strictly first-class dessert apples: Early Harvest, Chenango Strawberry, Porter, Dyer, Ohio Nonpareil, Belmont, and Canada Red. For sweet: Sweet Bough, Jersey Sweeting, Bailey's Sweet, Paradise Winter, and Tallman. For cooking: Astrachan, Star, Twenty Ounce, King, and Rhode Island Greening. These lists brings the time to March 1st, when the Roxbury and American Golden Russets come into season and continue until strawberries ripen."

The writer, who dates his letter from Summit county, Ohio, very properly adds (and readers of the RURAL CANADIAN should note the advice in the last sentence):

"These lists are the result of my own experience and observation, and might not fit a locality one hundred and fifty miles distant. The very best guide for any one in planting a new orchard is to plant those varieties that are doing well and are popular in the vicinity. Varieties that are unknown or untried should be touched lightly at first."

**THE DAIRY.****MILKING QUALITIES.**

A copious flow of milk, sustained through many months, is a quality which has been produced by art in domestication. Wild cattle rarely provide more than enough milk to rear their own offspring, and the flow of it is of comparatively short duration. Small in volume, the milk is rich in quality, but the lacteal organs soon dry off again. This, of course, is in harmony with the requirements of the young animals in a wild state, and is a correlation of the roving life and the hap-hazard feeding of the dams. More milk than the calf requires under such conditions would be waste of material energy which nature does not encourage. It would, moreover, be an incumbrance to the mother. Wild cattle are neither good milkers nor good fatteners, and in parts of England where calves are allowed to run with their domesticated dams generation after generation the breed of such animals is not famous for milk-giving. Like that of the mare and ewe, the milk is smaller in quantity, rich in quality, and of short duration. The desultory and irregular sucking of a calf, or foal, or lamb is not conducive to the development of a large flow of milk, and it distinctly tends to shorten the flow. Hand-milking of a similar character has the same effect. Young people are allowed to learn to milk on cows which are going dry for calving, not on those which are still in full flow. New beginners soon dry up a cow's milk, and bad milkers do the same. Heavy milking properties, then, are artificial, in the sense that they have been developed under domestication and by careful breeding for a given end; yet, like many other qualities, which are little more than mere germs in nature, they become hereditary by long usage. Few sorts of animals, if any, are more susceptible than cattle of being moulded into what we want; no physical quality is so easily trained and developed as that of giving milk. It is a function, which, constantly varying of itself, can be dwarfed or extended at will. By means of intelligent training, kind treatment, and intelligent breeding, it can be developed and made hereditary; an opposite system keeps it in a state of nature. The habits of a cow and the food she receives have a great deal to do with her milking powers; quick and silent hand-milking does the rest. The practice of hand-milking cows has all along tended greatly to the development of the lacteal glands, and this development has become hereditary in our best milking breeds. The ewes of the Larzac breed of sheep, from whose milk the famous Roquefort cheese is made in France, have been hand-milked for generations so that their milking properties are now considerable and inherited. By repeatedly exciting the teats it is even possible to cause an animal that has never borne offspring to yield a small quantity of milk, and a cow sometimes remains barren several years after having had a calf, giving a profitable quantity of milk all the while.—*London Live Stock Journal.*

**REGULAR CARE OF COWS.**

In summer the farmer has not very much trouble about feeding his cows, except in rare instances, when it becomes necessary to soil,

and then the farmer can easily see the necessity of feeding at the same hour each day, giving a like quantity at each feeding—not feeding in the morning of one day and the afternoon of the next, not feeding one day and missing the next, or giving a half ration one time and a surfeit the next. Several farmers of my acquaintance have remarked that when cows are soiled, they look for the extra feed and do not graze as well as before. This is very much aggravated by the manner of feeding. If the cows are fed at evening each day and have access to water during the day, they will do the best they can on pasture, and the feed they get at night is so much extra.

There are many pastures not supplied with water, and the only means that stock have of quenching thirst is by drinking in the yard night and morning. A great many farmers make the mistake of thinking that if stock have free access to water night and morning, their duty to their cattle has been done in this respect. I have found that cows do much better when having access to water in the pasture. In order that cows should do their best at the pail they must be kept quiet and contented. No cow will do well when she is suffering from thirst for at least half of the time. With free access to water during the day cows will drink only a small quantity at a time, feed a while and again drink. They do this many times during the day, and do better in consequence. Stock that have been deprived of water during the day drink large quantities when they come to the yard at night. The cows come to the pasture gate three or four hours too soon in the afternoon, simply because there is no water in the pasture.

In one other particular it pays to be regular with the dairy. Some farmers vary sometimes as much as two hours from a regular hour of milking, and on Sundays even more. This is unwise, and an injury to the dairy. Cows should be milked at the same hour every day, and as nearly as possible at times equi-distant apart in the day. A dairy of good cows should have plenty of sweet, nutritious food, free access to water in the pasture at all hours, a few shade trees in the pasture, and regularity in milking. The farmer who does all this well, certainly has intelligence enough to attend properly to other details and make his dairy pay him a good profit.—*F. K. Moreland, in Country Gentleman.*

**RETENTION OF AFTER-BIRTH.**

The retention of the after-birth is quite common when a cow calves prematurely. It is not at all rare that a cow should calve two weeks before or after her time. The range varies from 240 to 300, and the average period being about 283 days. But when the period is abnormal there is frequently some trouble of the kind above mentioned, but generally without serious results. If the after-birth or foetal membranes are not expelled, they may be removed by careful detachment from the adhering cotyledone with the fingers inserted, but sometimes it is not easily possible to enter the organ, and its tight closing may even hold the membranes so that they cannot escape, although loose within. In this case it is well to tie a weight of two or three pounds to the protruding parts, and this may, in time, effect a

release. The treatment recommended in case of retention is to give an infusion of camomile or savin leaves in quart doses, with one and a half ounces of carbonate of potash dissolved in each. Generally when these resources are ineffective the membranes decay and pass off without serious trouble.—*Orange County Farmer.*

**CHEAP FEED FOR THE COWS.**

A member of the Oxford (Ohio) Farmers' Club claims that it is no trick to raise five hundred bushels and even one thousand bushels per acre of mangold wurtzels, in a good season on good land, with the same labour needed to raise an acre of potatoes. The roots should be pitted just as winter closes up the ground, and kept in the pit until March. Then they are ripe, the saccharine matter is abundant and the fibre tender, and the cows ready to appreciate the change from any feed. He thinks mangold wurtzels the cheapest green feed for that season that can be produced, but feeds ground feed and hay with them. He prefers to pit them till March and remove them, a cart-load at a time, to his bank barn, and has no trouble about freezing. As to pumpkins, they are the cheapest fall feed. The good wife always delights in the abundant flow of milk and rich, golden butter, after the cows get the pumpkins twice a day. He feeds them with bran and corn-meal and flavours with salt. In reply to the inquiry if he took the seeds out, he said no. He had, as carefully as he could, in his poor way, without scales to weigh offal and urine, fed with and without the seeds, and he could see no harm from feeding seeds.

**MEASURE OF VALUE FOR MILCH COWS.**

As a rule, a beef animal that weighs 1,000 lbs. is worth twice as much as one that weighs but 500 lbs; but this rule does not work with milk cows. That is, a cow that yields 100 lbs. of butter a year is not worth one half so much as a cow that yields 200 lbs. a year, for the simple reason that while the first or 100-lb. cow barely pays her keep, and, if highly fed, absolutely costs more than she makes, the latter or 200-lb. cow makes a profit. Too much care cannot be taken in weeding out the unprofitable members of the herd.—*Breeder's Gazette, Chicago.*

**GOATS' MILK.**

A goat dairy farm is conducted on the Surrey Hills in England. Goats' milk, and butter and cheese made from it, with goat and kid-skins as minor products, are supplied by the farm. There are thousands of acres of poor land in Surrey, and these may be utilized just as land is made profitable in this way in various continental countries. On this Surrey farm is a herd of 120 milch goats, and the milk, which is prescribed by physicians, and is now comparatively difficult to obtain in London, will find a ready market.

THE price of cheese has not advanced as was expected during the drought last summer. In most parts of the country the fall was very favourable for pasturage, and the expected high price of cheese induced dairymen to continue making as long as possible.

## HORSES AND CATTLE.

## THE BROOD MARE.

The object we have in view in horse-breeding should be an annual improvement. The investment is remunerative when applied to good shape, soundness, and vigorous action, combined with the stoutest and most fashionable blood in the several classes. Horse breeding, where rents are high, can alone pay by the breeding of the very best, for which the demand exceeds supply, and which phase of the market has ruled strong for years without alteration; the difficulty is to get horses good enough for the best London trade.

It is important to regard constitution in the parentage, apart from the essential consideration of size, freedom from hereditary blemish or defect, good sound legs and feet, a symmetrical body, wind, eye-sight. Action is contributed by the mare in regard to force, by the sire with regard to direction. These are influenced by the deep shoulder, the moderate arm, length and muscularity of the forearm, a well-defined trapezium at the back of the knee, and well defined sesamoid bones at the upper posterior portion of the fetlock, shortness from the knee down; length in all bones, capability of mobility in the superstructure. Good shoulders are deep and well laid back in all good horses. Quality in the hindquarters is determined by proportion of parts. Loins, thighs, gaskins, hocks—strong loins, muscular thighs and gaskins, clean, bold hocks, the point of the hock in all cases well-defined. We thus have considered the bases of speed, action, endurance. Beauty of proportion and style of movement are features no harness, hack, or hunter breeder can afford to despise; and the same holds good in regard to heavy draft horse stock for export.

Leading breeders have always a high standard as a fixed aim: in some cases their efforts excel, in others fall short of, their beau ideal. When such is the case, the mare is invariably at fault. An upstanding, roomy mare—that is, one with a lofty fore-hand, a long barrel, well coupled up or ribbed home, wide across the hips, deep at fore and back rib, evidencing length and gentle obliquity, but no droop in the quarter, on short, flat, clean legs—this would be the brood mare of our choice to recoup outlay.

Mares with their first foals require the greatest attention. The mare should be served nine days after foaling, and again tried at the end of a fortnight. If the mare then refuses, it is conclusive; but should she stand, she must be tried on the termination of another fourteen days' interval. Mares have a strong aversion to smells, viz.: tar, carrion, vegetable putrefaction. The leaves of the willow and of the savin are equally obnoxious. Pine varnish is the material that should be used, rather than tar, for pelings. All excitation should be avoided—the neighing of entires, etc.

The most eligible times for foaling are the months of March, April, and May. In the first of these months they must be housed, unless the weather is most favourable. A roomy, sheltered, and well-ventilated box is a desideratum—no draughts—nicely littered down, level and soft in surface, not too deep. The mare must be watered three times a day. Mares at this season are liable to gorge themselves with clean litter, and they frequently exhibit a morbid appetite, which must be restrained. Therefore dry, used litter, taken from under other horses, is the best for present use. Register the time when the mare should foal down. Ten days before she is likely to foal make the necessary preparations and frequently examine her, at least twice or three times a day without disturbing her; and, as the event nears, a nocturnal visit or two must be paid. A roomy

mare, naturally fed, neither too gross nor too poor, seldom requires external aid. A waxy substance on the teat, a sinking and expansion of the pelvis, rendering the act of parturition easy, are unmistakable signs. After delivery the mare will lick her foal—leave her to it, but watch the placenta or afterbirth that it does not recede, and when it has come away remove it. Give the mare a nice pailful of warm linseed gruel, succeeded by a bran mash. Get the foal to suck as soon as you conveniently can. In any case of difficulty or doubt, do not delay to call in your professional friend and adviser, the qualified veterinary surgeon.

Variety of feeding is held by many to be a very safe plan just prior to foaling down; and after foaling, reliance for a copious supply of milk is usually looked for in those seasonable products—greenmeat or tares, lucerne, trefoil, and clovers. Most of the treatment relative to the brood mare accepts the cardinal features of first-rate management applicable to neat stock—quiet, cleanliness, supervision.—*R. H. Hillhouse, in English Agricultural Gazette.*

## MARKET FOR DRAUGHT HORSES.

But there is also the horse market at home and abroad to be taken into consideration. For the American demand, in the first place, for draught horses in the cities, weight, size, and bone, not speed, are needed. Mr. George Cockburn, of Baltimore (Northumberland), who raises horses especially for the American market says:—

“We sell most of our horses in Pennsylvania, and they are sent to New York and Philadelphia for draying and other heavy work. The buyers come around for them at all seasons of the year, and if the horses are to be had, they are sent to the Pennsylvania farmers to bring into condition—that is, horses that are in low condition, which the Americans purchase. I would advise the farmers in this country to procure the best Clydesdale mares to breed from, as heavy horses, will, I think, always be in good demand. To raise a colt up to three years would cost about \$100, and it would be worth at that age from \$150 upwards. When I speak of Clydes, I mean horses got by a pure Clyde horse from a common mare.”

Mr. Robert Beith, of Darlington (Durham), another breeder from pure-bred Clydesdales, says:—

“We breed our own well-bred Canadian mares to the best Clydesdale stallions we can procure, and when the colts reach four years old they can be sold readily at from \$150 to \$200. These are heavy horses, weighing 1,000 to 1,500 pounds or thereabouts. I find them very useful on the farm, and when I wish to dispose of them I can do so easily.

“I would not call them general purpose horses. They are rather draught horses for the American market. I sell to jobbers or dealers. Good Clyde stallions at three years old are worth about \$1,000, bred from Canadian mares with four crosses in them.”

Mr. Wisner says:—

“There are not enough draught horses in Canada to supply the American demand.”

He goes on to say:—

“Clydesdales are, I think, altogether the best strain to use upon our native mares to improve our draught horses. I should certainly stick very closely to them for that purpose. Of this stock I would strongly advise the use of imported or thoroughbred sires.”

Mr. Patteson remarks:—

“The best horse for actual draught that we

have, is unquestionably the Clyde, as nearly pure as can be got. By draught horses I understand you mean such as are suitable for railway lorries, brewers' and distillers' wag-gons and drays, or fitted for taking about machines.”

Mr. G. A. Houghton, of Seaforth, who also looks at the subject from a buyer's point of view, with the supply of the American market as his object, says:—

“Canadian horses are preferred in New York and Boston to horses from the Western States, and command from \$25 to \$50 a head more. For ordinary horses I have been paying from \$90 to \$100, and for good Clyde horses from \$125 to \$200. I consider Clyde horses more profitable for farmers to raise than any others, as they are able to work when they are two years or two years and a half old. The reason Canadian horses are preferred to western American horses is that they are not fed up so high and will wear better. Western horses are fattened on corn like as many pigs, and it injures them. Canadian horses will thrive, while western horses go backwards.”—*Report of the Ontario Agricultural Commission.*

## TRANSMISSION OF QUALITIES.

Leaving the mysterious impregnation of the germ, we will simply assert its vivifying principle to be a portion of the vital power of the parent, employed for the purpose of giving origin and birth to the offspring. As all the families of animals appear in a state of perpetual improvement or degeneracy, it becomes a subject of importance to detect the causes of these mutations. A tendency to hereditary diseases and malformations in the sexual progeny of animals will be admitted by those who deny the hereditary descent of the diseases themselves. It is, therefore, reasonable to conclude, that the sexual progenies of animals may be less liable to hereditary diseases if the parents be of different families. This, we believe, is admitted by all who breed animals for sale; since, if the male and female be of different temperaments (as these extremes of the animal system), they may counteract each other; and, certainly, where both parents are of families which are afflicted with the same hereditary defect, it is more likely to descend to their posterity. Thus we, who are all concerned in the improvement of the sexual progeny of animals, see the necessity of attending (and especially, most especially, as regards the horse) to choose the most perfect of both sexes; that is, the most beautiful, in respect to form and proportion, and the most freely endowed with those qualities justly esteemed most desirable. So strongly do we feel on this point, and so convinced are we, from our own experience, that we cannot leave this unnoticed.

Again, we too often err in disregarding the peculiarity of temperament in our system of crossing the breed—a circumstance most especially worthy of due attention and calm reflection. By temperament, we mean that greater or less degree of energy and irritability of the instruments of the vital powers. The bodily force depends materially on the nature of the temperament. It is a fact, we believe generally admitted, that undeviating confinement to one breed, however valuable or perfect, produces gradual deterioration; yet we cannot dwell too anxiously on the judgment and

reflection necessary to be exercised on the system of crossing. The most perfect of the same breed should be selected, but varied by being taken from different stocks. It is by neglect of the application of sound principles and judgment in this particular that we sow the seeds of disease, and entail those miseries that consign many a young and suffering animal to an early end. It matters little what *points* of excellence the horse may possess; unless the mare be likewise gifted, and in good health, as also of good breed, her offspring will not possess the value to remunerate us for the rearing of such an animal.—*Breeder's Gazette, Chicago.*

#### RED POLLED CATTLE.

It is announced that American buyers manifested much interest in the Norfolk and Suffolk Red Polled cattle, at the recent show of the Royal Agricultural Society of England—two buyers proposing to export thirty head if satisfactory arrangements could be made. If we need any more breeds of cattle in this country, these beautiful hornless reds have strong claims to selection. Unfortunately the present show-yard fashion seems in favour of the small, very neat types rather than the larger and practically more useful animals to be found in the breed. It is to be hoped American importers will not be influenced by this fancy. If the breed is to be most useful and popular in this country, it must have at least fair average size.

Leaving out of view the Channel Island cattle, the larger breeds are decidedly more popular in this country than are the smaller. Had the Devon its present good qualities and also a fourth more size, it would not be in the comparatively neglected position it now holds. Had the Ayrshire the size of the Holstein, possibly it would command the same prices; and with the Channel Island cattle, present indications make it not improbable that the Guernsey will take even higher rank than the Jersey for the use of farmers. If introduced wisely, the strong, big-framed Sussex reds would probably soon out-rank the Devons, although the two breeds probably have the same origin and the Devon is clearly the more beautiful.

With care in selection, the polled Norfolks can be found of sufficient size, good merit for meat production, and fair dairy properties. Their colour is more popular in this country than is the black, and they have proven to cross admirably with the Shorthorn.

#### FEEDING UP FOR WINTER.

It is literally true that the time to make hay is while the sun shines, for the simple reason that sunshine is necessary for the drying process. It is equally true that the time to fit stock for winter is while we have, without artificial protection, congenial temperature, combined with such varieties in food as the growing season gives us. By supplementing this with grains, meal, oil cake, and the like, we are in the most rapid manner enabled to put flesh on our cattle and other stock preparatory to winter. The conditions favourable for gain will soon disappear, and it is the poorest kind of policy to delay the giving of grain or ground feed till the stock are finally

placed in their stall for the winter. At any rate, individual animals that have up to this time remained thin, should be selected out, whether cattle, horses, or pigs, and fed extra allowances of the very best of foods.

This, without any reference to marketing or to mere appearance sake, but simply for the same reason that hay making is attended to while the conditions are right for it, for the gain of a beast ends when winter is established; at least under the conditions with which they are generally surrounded. It is well understood that stock will gain more rapidly on a variety of food than when confined to a meagre assortment, and such as are in thin condition should have the special attention of the feeder during the coming few weeks.—*Chicago Live Stock Journal.*

#### CHARCOAL FOR SICK ANIMALS.

In nine cases out of ten when an animal is sick, the digestion is wrong. Charcoal is the most efficient and rapid corrective. The hired man came in with the intelligence that one of the finest cows was very sick, and a kind neighbour proposed the usual drugs and poisons. The owner being ill and unable to examine the cow, concluded that the trouble came from over-eating, and ordered a teaspoonful of pulverized charcoal to be given in water. It was mixed, placed in a junk bottle, the head turned downward. In five minutes improvement was visible, and in a few hours the animal was in the pasture quietly grazing. Another instance of equal success occurred with a young heifer which had become badly bloated by eating green apples after a hard wind. The bloat was so severe that the sides were as hard as a barrel. The old remedy, saleratus, was tried for correcting the acidity. But the attempts at putting it down always raised coughing, and it did little good. Half a teaspoonful of fresh-powdered charcoal was given. In six hours all the appearance of the bloat had gone, and the heifer was well.

#### LOSS OF THE CUD.

The so-called loss of the cud in cattle or other ruminating animals, is not in itself a disease, but is one of the symptoms of disease of some kind. In most internal diseases of ruminants, the digestive organs become more or less involved, whereby the natural act of regurgitation and remastication (more commonly known as "chewing the cud") becomes temporarily suspended. From this is derived the appellation of "loss of the cud." Treatment must necessarily vary with the nature of the disease, which, in a given case, produces this system of impaired digestive functions. The treating or attempting to treat one of the symptoms of a disease, which may be remote from the digestive organs, would, of course, lead to nothing but loss of time and risk of the life of the animal.—*Breeder's Gazette.*

At the sale of Mr. W. H. Bessey's stock at Esquesing last Friday, the following sales of Ayrshire cattle were made:—Mr. Wm. Clements, Milton, one heifer and one calf; Mr. W. C. Beaty, Omagh, three head; Mr. D. Hutcheson, Nassagaweya, three head; Mr. Wm. Newton, Esquesing, two head. Prices realized were good, ranging from \$75 to \$130 each.

#### CREAM.

Good thoughts, like rose leaves, give out a sweet smell if laid up in the jar of memory.—*Spurgeon.*

If a man's religion is pretentious on Sunday and obscure on week days, you had better do business with him on a cash basis.

WEeping WATER is the poetical name of a Nebraska town. The Indian name may be Minneboohoo—but we are not sure of it.

A HAMILTON youth who is learning to play the cornet cannot understand why people who shoot at cats will be so careless. Half-a-do. bullets have strayed through his window.

A PRESS despatch says that a man hit his wife on the head "with a hatchet under the influence of liquor." If George Washington had thought to make this excuse history would have lost a touching anecdote.

"DEACON JENKINS was yesterday threatened with a severe attack of concussion of the spine, but is now out of danger," was the way the rural editor stated that the deacon got over the fence in time to escape the old ram.

CHEERFULNESS is just as natural to the heart of a man in strong health as colour to his cheek; and wherever there is habitual gloom, there must be either bad air, unwholesome food, improperly severe labour, or erring habits of life.—*Ruskin.*

As the tree is fertilized by its own broken branches and fallen leaves, and grows out of its own decay, so men and nations are bettered and improved by trial, and refined out of broken hopes and blighted expectations.—*F. W. Robertson.*

"KINDER close, is she? Why, last month her husband died—fourth husband, mind!—and she took the door-plate off the front door, had his age added, and then nailed it on the coffin. Said she guessed likely she'd be wanting a new name on the door soon, anyway."

THE Rev. Mr. Wood was examined as a witness. Upon giving his name, Ottiwell Wood, the Judge said: "Pray, Mr. Wood, how do you spell your name?" The old gentleman replied: "O double T, I double U, E double L, double U, double O, D." The lawyer laid down his pen, saying that it was the most extraordinary name he had ever met, and, after two or three attempts declared that he was unable to record it. The Court was convulsed with laughter.

A BROAD-STREET merchant's wife yesterday gave him the following letter, with instructions that it should not be opened until he got to his place of business: "I am forced to tell you something that I know will trouble you, but it is my duty to do so. I am determined you shall know it, let the result be what it may. I have known for a week that this trial was coming, but kept it to myself until to-day, when it has reached a crisis and I cannot keep it any longer. You must not censure me too harshly, for you must reap the benefits as well as myself. I do hope it won't crush you. The flour is all out. Please send me some this afternoon. I thought by this method you would not forget it." The husband telephoned forthwith for a barrel of the best flour in the market to be sent to his home instanter.—*Nashville American.*

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## The Rural Canadian.

TORONTO, DECEMBER 1ST, 1882.

WE welcome Mr. Kells to our columns again. His contributions on the Wild Birds of the Dominion have been read with interest and profit. A goodly instalment appears in this issue.

### LOSSES BY TRANSPORTATION.

The statistics of casualties by the transportation of live stock at sea, as returned to the Privy Council by inspectors placed at the landing ports for American and Canadian cattle, show that last year alone 8,721 were hoisted overboard, forty-nine were landed dead, and 472 reached their destination so much injured and exhausted that they had to be killed at the place of landing. In the period of twelve months 9,242 animals were either thrown overboard or died from exposure or injuries received on the passage across the ocean. These are suggestive figures. It is only a question of time when the shipment of live animals, for slaughter on the other side of the Atlantic, will be mainly superseded by the shipment of dressed meat. If the methods now employed for doing this are not altogether satisfactory they will be improved and perfected until the requirements of this traffic are fully met. When this is done, the losses in this important and increasing traffic will be comparatively light, and, at the same time, a great impetus will be given to other industries in this country that attach to the slaughter of beeves.

### THE TILSONBURG SILO.

The following from a special correspondent of the *Globe* will be interesting to many of our readers, especially when read in connection with an editorial on the same subject in the RURAL CANADIAN of a month ago:

To a dairying or stock-raising country the question, whether or not the silo is a successful method of preserving fodder corn or clover, is of great importance. Mr. Tillson, whose silo was built summer before last, says it is a perfect success—and in his case it is no longer an experiment. Fodder corn, which is grown very extensively throughout Oxford, is stacked in the field, and becomes bleached and dry before being fed in the winter, and it is said loses very much of its original value. It is claimed that the silo system, by excluding in large measure the air, preserves the corn in a green and wholesome state, and so much more nutritious than cattle fed on ensilage (ensilo-age) receive more nutriment from one hundredweight of the stuff than from two or three hundredweight of the stacked corn.

Mr. Tillson's silo is built in the basement of his barn. The walls are of stone to a height

of fourteen feet, and beyond that they are double-boarded for four feet and filled in with sawdust. The area enclosed is 24 x 30 feet, divided into three compartments, two of them opening through doorways into the third, which opens by a thick door into a sloping, cement floored passage, up which the ensilage may be wheeled to the cattle. The silo contains about 240 tons. The corn to be siloed is cut green about the first of September, cut up by a forage cutting machine and dumped into the top of the silo, where half a dozen men and a couple of horses trample it down firmly as it is thrown in. When the silo is filled above the level of the stone wall, a number of board frames closely fitting to each other, and to the smooth wall of the silo, are laid on top and covered three feet deep with earth. The weight of the earth further compresses the ensilage, so that it sinks four feet before December, when the silo is opened, and becomes so compact that it will cut off clean and solid.

When the ensilage is to be used the frame nearest the doorway is lifted, and the ensilage is taken out at the top until a sufficient quantity is removed to allow of clean cutting inside the doorway. Sixty pounds per day is fed to each cow. The beasts are said to like it, at any rate they appear to thrive upon it. The ensilage is a little sour, and a visitor to the silo says that last winter he noticed the cows pawing the stuff and smelling it for some time before they would eat it. Mr. Tillson, however, says that only a little of the most exposed ensilage becomes sufficiently fermented to prove at all objectionable to the cows, and that the animals really relish the food and devour it eagerly. The floor of the silo is covered with cement, as all silos should be, but the general character of the structure is much more expensive than Mr. Tillson considers necessary. This one cost \$800; he says half this sum should construct a good silo of equal dimensions.

### THE STEP-MOTHER.

On this subject we find the following just observation floating round in the columns of our exchanges: "It is time that the cruel prejudice against step-mothers should die out. Novels do much toward fostering this feeling; but surely writers should now be wiser in this respect. Cold-heartedness and oppression toward the children of one who has preceded her in heart and home are no doubt at times to be met with; but cannot many households tell another tale—a tale of love and gentleness, and mutual affection and peace? And cannot, too, some homes tell a third story, where the sufferer is the one who is looked upon as an interloper? Are there not cases where a man, whose hearth has been early desolated, and who is left with little ones whom he can not look after, with a heart still yearning for affection, brings home some warm-hearted girl, ready to pour out no stinted measure of love on the motherless ones; and what do he and she find on settling down to their daily life? That foolish relatives or ignorant servants have already poisoned the baby minds against their second mother, and that her efforts to win their affection and trust are blighted by the unwholy influence that has been wielded. And when other little children come, too often, instead of being welcomed with brotherly or sisterly love, they are greeted with feelings of bitterness and jealousy. And yet many homes are held together by the step-

mother alone. We might tell of sickbeds watched with all a mother's devotion; of dying hours soothed with all a mother's faithful self-forgetfulness; of the young spirit sinking to the grave, clinging with fond affection to the representative of that real parent whom it was soon to greet in the spirit land; and we turn with just anger from pictures laid before us as false as they are ill-judged. Let us hope that this vulgar prejudice may soon be unfelt among us."

### EARLY MEN.

The *Agricultural Gazette* (London) says that he who intends to succeed in agriculture must be an early man, early in rising, early in getting in his crops, early in reaping them, early in meeting his men, early at fairs, early in markets, early at home, and early to bed. The youth that cannot rise until he is "called," who will not get up when he is called, who comes down to breakfast in embroidered slippers, and can not move out-of-doors until he has had his pipe, may be a "good fellow," a gentleman, and many other good things, but he is not going to succeed as a farmer, or in any other rural occupation. He has mistaken his calling, and is himself a mistake.

There is much in that good old Saxon word "early," continues the *Gazette*. It is the early sun that ripens the corn; the early bird that catches the worm; the early cabbage that catches the price; the early lamb that makes the money; the early chicken that pays the henwife; the early gooseberry that commands the market; the early swarm that makes the honey; the early sown barley that pleases the maltster; the early sack of wheat that attracts the miller; the early peas that pay the rent; the early potatoes that fetch the money; the early shepherd that fattens the sheep; the early carter that pleases his master; the early farmer who grows rich; the early housewife that keeps her maids; and the early maid that keeps her place. Earliness is the true road to success, and the fact that so few succeed in the race of life is because so few can shake off dull sloth and rise early. There are some avocations in life in which early rising is not necessary, but they are chiefly of the kind to which another wise saying applies, that you can not "burn the candle at both ends."

### BOOK NOTICE.

THE COMPLETE POULTRY BOOK. A Manual for the American Poultry Yard. By C. E. Thorne. (Springfield, Ohio: Mest, Crowell & Kirkpatrick.)—Every department of agriculture shows a marked advance. The days of hap-hazard have gone for ever. There must now be accurate knowledge and practical scientific methods adopted, if farming is to be successfully pursued. The work, whose title heads this notice, supplies all that is needful on the subject of which it treats. It is what it professes to be, "The Complete Poultry Book." It is profusely illustrated by clear, accurate, and tasteful engravings. The chapters on diseases of poultry, especially fowl-cholera, will be found specially useful, as will also those portions of the work that relate to the cure and management of fowls.

RENTS in Scotland still continue to fall. A large farm in Berwickshire was recently relet at \$3,000, after having for many years commanded \$4,650. This is a reduction of about thirty-five per cent. The conditions of the new lease are said, in addition, to be very liberal.

## SKETCHES OF CANADIAN WILD BIRDS.

BY W. L. KELLS, LISTOWEL, ONT.

### THE ORCHARD ORIOLE.

This species is seven inches in length. The plumage of the male, on the upper parts, is dusty black, that on the lower parts, brownish-chestnut, while that of the female has a grayish hue above, and light yellow beneath. It is quite common in the central states, but is rather rare in Canada, being only a summer visitor to the southern counties of Ontario. It frequents orchards and willow-groves, where it forms its curiously woven nest among the weeping branches. This structure is composed of dry grass, wool, and other fibrous materials, the eggs, four to six in number, are of a bluish white colour, dotted with dark spots. It feeds upon small fruits, and many species of insects in their various stages of development. Its long, needle-shaped bill enables it to construct its wondrous nest, on which account it is sometimes called the tailor bird. Its plumage undergoes various changes of colouring, and it does not acquire its adult livery until the fourth year. Its rapidly repeated notes are not so loud as those of the Baltimore Oriole.

### THE PIREOS.

The Pireos are a small but very interesting genus of birds, in some respect nearly allied to the Warblers. In size, colour, and general habits they are much alike, the chief difference being in the colour of the eyes, of some of the species, these organs being red in one species, and white in another. They are all remarkable for their modes of nest-building. The most common in the central parts of Ontario is the red-eyed species, which is also called the Weaver bird.

### THE RED-EYED PIREO.

The original home of this species was the wild backwood. There, in the early part of summer, from the earliest settlement of the Canadian wilderness, it has been observed by the pioneer, the sportsman, and the naturalist, to form its basket-shaped nest, and rear its young; but, as much of the wildwoods have been destroyed by the onward progress of the backwoodsmen, and extensive orchards and shady plantations have sprung up around the human residences, these birds are now often seen in those places, and their pleasant warbling notes may be heard as they glean their insect prey among the deep foliage, from the early part of June to the days of September, and here their nests are occasionally found. The length of this species is five inches, the plumage on the upper parts is of a greenish ash-colour, on the lower parts it has a whitish hue, there is also a dark band on each side of the head above the eye. The formation of the nest of this species is remarkable; this is generally suspended from the fork of a small horizontal branch, and above three inches in diameter, the twigs are united by some fibrous materials, which forms the rim of the nest, which, when finished, resembles a small basket, and is composed of dry leaves, wool, fibers of bark, moss, and spiders' webs, the inside being lined with the stalks of maple seeds. The eggs, four or five in number, are white, with a few dark spots on the large end.

### THE WARBLING FINCHES.

The American Goldfinch, known also as the yellow bird or wild Canary, and the pretty blue Warbler or Indigo bird, are the most common and remarkable species of this group.

### THE AMERICAN GOLDFINCH.

This species, commonly called the wild Canary, and also the black-cap, is among the most common and familiar of our wild birds. The male is between four and five inches in length, and its plumage is a bright golden yellow—except the wings, tail, and crown of the head, which are black; the female lacks the dark cap, and her general plumage is greenish yellow. It is an early spring visitor; indeed, small flocks of them are often seen in the winter season, feeding on the buds of the fruit trees, and among the evergreens; at this period the plumage of all resembles that of the past season, which is a mottly green. Generally they appear to resort to the Southern States until the moulting season is over, when they again return northwards, and usually associate in companies until the month of July, when they begin the labours of nidification, then the female forms a compact warm nest in the fork of a small tree or bush, or on an outspreading branch, generally not high from the ground, and often in the fruit, or shade trees surrounding human habitations, and in this she deposits five or six eggs of a blueish-white colour. The materials used in the formation of the nest, are wool, fibers of bark, rotten wood, hair, and thistle down; these are so firmly put together by the bill and feet of the bird, assisted by its saliva, that the nest after serving the purpose for which it is formed, often stands the weather of several successive seasons. This species frequents orchards, gardens, shrubberies, willow swamps, and the margins of the woods and water courses where there is low underwood, and in all such places, its nest may be found from the early part of July until October. Its flight is rapid and peculiar from the undulating, zigzag manner in which it is performed; and at each rise or fall of the body it generally, especially in the nesting season, repeats its peculiar notes, or warbles parts of its song, which pleasant melody is also often heard in the vicinity of its nesting places. And when the female is nesting, and during the time of incubation, her nest may easily be discovered by her peculiar call, in answer to the voice of her mate. When the thistle tops are in bloom, numbers of these birds may be seen picking out the down, and devouring the seeds, upon which they largely subsist during the autumn months. Its food appears to be largely vegetable, and it carries food to its young in a kind of pouch formed by an expansion of the gullet, and this it emits by a pumping process like that of the pigeon. Both parents supply the young with food, and, as they give them a large supply at a feed, they leave them, especially in damp weather, for hours at a time, and thus in some cases during heavy rains the whole brood perish from exposure.

### THE INDIGO BIRD.

The male of this species is a neat and beautiful bird, his colour being a deep indigo blue; while that of the female is dusty brown above and greyish beneath. In length it is about five inches. It frequents the margins of the woods

in particular localities where there is a thick growth of underwood, and among the foliage of this it loves to glean its insect food, and warble its cheery notes, as well as conceal itself when it becomes aware of the presence of man; and in such places, in the forks of some low bush, generally well hidden by the thick leaves, the female forms her nest. This structure is formed of dry leaves and withered stalks, lined with fine dry grass and hair, the eggs are four or five in number, and of a pure white colour. Its migratory movements appear to be regulated by the opening of the leaves, and the first frost of autumn.

### THE WARBLERS.

Under the term Warblers are arranged a very numerous and widely diffused group of little birds, of which thirty species are summer residents, or spring and autumn visitors of Ontario. They are all remarkable for their small size, variegated plumage, active movements, warbling melodies, and as being in general, residents of the wild woods, or deep shady places. They are all migratory, feed on insects, and are more or less gifted with the powers of song. Their nests are generally placed in deep concealment, but, while some place their nests in mossy banks or the roots of fallen trees, others prefer the leafy shrub, the tangled vine, or the tops of high trees, as the situation for the cradle of their progeny, and from these diverse propensities it is difficult to obtain accurate knowledge of all their habits, especially as some species that may be found nesting one season in one locality, may never again be seen in that vicinity. In the present sketches, I will give a brief notice of only those whose nests have been collected in this neighbourhood.

### THE BLACKBURNIAN WARBLER.

This species is the most beautiful of all the Warblers. The general plumage of the male is deep black, with a few white and orange spots on the wings and tail, the throat is a brilliant orange, and as it spreads its wings and flirts among the green foliage of the thick underwood, it has a most attractive appearance. The plumage of the female, though also beautiful, is dull compared to that of her consort. It does not make its appearance in the central parts of Ontario until the forest trees have assumed the emerald garb of summer, and then it is seldom seen, except in the deep shade of the thick underwood, where only a momentary glance can be obtained of its gaudy plumage, as it gleams among the shrubs, and lower branches of some thick wood, at the same time repeating a few low notes. It seems to avoid the approach of mankind, and retreats into the deep brushwood whenever it becomes aware of the human presence; even the notes of his mate, when her nest is disturbed, will scarcely bring forth the male from his concealment. It feeds on various species of small insects, in their various stages of development. The female forms an elegant, round, and firm nest in the fork of a small tree, or bush, generally a young maple. This is composed of fibrous woody matter, strips of fine bark, firmly interwoven together. The eggs are four in number, of a bluish white hue, dotted with brownish spots.

(To be continued.)

## SHEEP AND SWINE.

### THE WINTER PIGS.

Notwithstanding it is conceded by most breeders and farmers that winter is not a desirable season in which to have sows farrow, there are, from one cause and another, a considerable number every year that have their pigs in the most inclement portion of the year. So far as our observation goes, the pigs born in November, December and January do not, on most farms, pay for the extra feed, labour and vexation expended on them; February pigs are not very desirable, though in many cases, if they are inevitable, vigilance and judicious care will make them, to some extent, profitable. Aside from the great risk of losing the pigs farrowed in winter, owing to their extreme sensitiveness to cold and of being overtaxed, there is the great drawback of having the sow in such a condition that she cannot possibly produce a litter of pigs in that most desirable of all seasons, *early spring*. To those who may be so unfortunate, or fortunate, as to be booked for a consignment of juvenile porkers within the next sixty days, we would say, make the best of a bad bargain and endeavour to save all the best of them, bearing in mind that six that are well suckled and kept in vigorous growth are worth more than nine or ten frost-bitten and poorly nourished.

The sow should be provided with a comfortable nest, made so, not by a great pile of long and tangled bedding, but by having it well roofed over, and so banked up or otherwise enclosed as to ward off wind, snow, and rain, though so arranged as to admit every ray of sunlight possible. Sunshine is life, and cold and dampness in winter are death to a well-bred pig. A scantling rail or pole should be fixed six to twelve inches from the floor, according to the size of the sow, and six or eight inches from the wall, to prevent the pigs being crushed against the wall. Somebody—the owner if possible—should be on hand to see that the pig when born does not wander in the wrong direction, but at once finds where it may get a draught of its mother's milk, which will do more towards tiding him over the first and most critical thirty-six hours of his whole life than can be done by all the science and ingenuity of man. The sow, when she first leaves the nest, will be feverish, and should have some thin slop to drink, which, after a few days, may be made thicker with more bran and meal. Dry corn is poor feed for a sow suckling pigs, though a small ration of it answers well to make up a variety. Care should be taken to avoid over-feeding the sow, or causing her appetite to become cloyed, as the flow of milk is thereby much diminished, and the well-doing of the pigs proportionately checked.

The bedding should be changed as often as it becomes foul, and the pigs kept as much as possible from mud and filth. If all goes well with them they may be as large and thrifty by the following Christmas as those born in the smiling spring-time.—*Breeder's Gazette*.

### BREAKING PRAIRIE WITH SHEEP.

Do you hitch them up? No, sir, we fence them up. Five sheep will break an acre in two years, or 500 sheep will break 100 acres in two years, besides manuring the land and keeping themselves during the summer, all they need is a fence to enclose them and water to drink. They do the best kind of work, can't be beat. Our experience in this kind of work is as follows:

My flock consists of about 500 sheep. Two years ago I fenced in about 150 acres of wild prairie and used it for sheep pasture. The pasture was good until last summer. I did not think for one moment but the blue joint grass was all

right (it has immense and numerous roots which are sent down deep in the soil) and I supposed was good for ten or fifteen years pasturage, but I accidentally discovered last fall that the close pasturage of the sheep had killed it, the roots were rotted and on putting in the plough the mallowest soil a farmer could desire was turned up. My sheep in two years had broke over 100 acres, I am now (March) having it ploughed, and in hiring some done I found the party would prefer ploughing in this pasture, than "back-setting" last summer's breaking. I estimate the value to the one hundred acres added by the sheep at 600 dollars; 200 dollars in killing the prairie grass, and 400 dollars per acre in their manure. I suppose it is of greater value than this, but it is certainly this. Of course breaking prairie with sheep is another and new source of profit in these most valuable animals on the farm, and I place it on record to their credit. I have just pulled down and removed over two miles of 6 wire, 3 smooth and 3 barbed fence, and just as soon as the frost is out, I shall fence a new pasture on the wild or unbroken prairie for my sheep. On looking it over I find my fencing costs me about 250 dollars per mile. In two years I have got back 300 dollars per mile by pasturing my sheep on the land fenced. Looking at it in this light it seems to be quite a profitable thing to pasture sheep. I suppose the wire will last ten years yet. I must confess this adds a new value to sheep and is a new idea to me. My farm is on the "Slope" in Western Iowa.—*Cor. Iowa Farmer*.

### OVERFED PIGS.

When young pigs are sick it may be pretty certainly understood that they have been overfed. The general treatment of pigs seems to be based upon the idea that they are naturally greedy and gluttonous animals, and that this habit should be encouraged as much as possible. Hence all the diseases which so frequently affect pigs. When young a pig is a tender animal, with a stomach not much larger than that of a human infant about as old, and yet people will cram the little creature with sour slop, grease, milk, and corn meal until it can swallow no more. And when the pig is sick one wonders what is the matter. We do not feed lambs or calves, or colts, in that fashion, hence these are rarely diseased. Cough and difficulty of breathing is caused by indigestion, and the common disease of which partial paralysis of the hind parts is the chief symptom, and which is cerebro-spinal meningitis, is caused by indigestion and malnutrition, which cause disturbance of the circulation and congestion on the brain and spinal marrow, with loss of nervous power. The treatment is to give a dose of salts and one scruple of saltpetre daily afterward, and feed very sparingly.—*Dublin Farmer's Gazette*.

### INCREASING MUTTON PRODUCTION.

To increase the element of mutton production in those flocks that have hitherto been devoted primarily, if not exclusively, to the production of wool, need not be a difficult or unprofitable venture. The form, size, and covering of the sheep, are so readily controlled by the intelligent breeder, that but a few years will be found necessary for developing good mutton under just such fleeces as he finds it most profitable to grow. This may necessitate a reduction in the number of animals on farms already heavily stocked, and will certainly require more "forcing" than many feeders now practice; but if intelligently pursued will make possible a profitable future to owners who are already complaining of the unfavourable margin between the cost and selling value of flock products. American flock-owners have demon-

strated that Merino sheep are entitled to high consideration for their mutton-yielding capabilities, and hence the blood of such flocks need not be changed in the process of carcass development. Other types have an advantage in precocity, and are exempt from the prejudice that the Merino is forced to encounter in markets where its merits are not known and appreciated at full value. While confidently leaving the kind of sheep to be kept to be determined in the light of intelligence and experience of breeders, *The Gazette* but seeks to emphasize the fact that the sheep husbandry of the near future cannot profitably maintain itself in all sections of the country without due regard to economic facts herein hinted at, and which will become more apparent every year, until they cannot be ignored by the most indifferent observer.—*Breeder's Gazette, Chicago*.

### HOGS ARE GRADED.

The following is the grading of hogs when they are assorted for market:

Pigs are light and thin, averaging 60 to 150 lbs., and are really but light stockers.

Skips are better in quality—fit to kill—and weigh 120 to 135 lbs., too thin and light for Yorkers.

Yorkers are fat and smooth, and should weigh 170 to 210 lbs., and to sell well should be uniform.

Mixed packing hogs are irregular in weight and in quality, from rough to smooth, and from 210 to 300 lbs. in weight.

Butcher hogs are uniformly fat and smooth, usually selected for these qualities, and run from Yorker weight, or 200 lbs., to 300 lbs., or more.—*Farmer's Review*.

### VALUE OF SALT FOR SHEEP.

Mr. Russell, of Horton, England, says the *London Farm and Home*, provides salt as well as fresh water, so that his sheep may have access to it whether the weather be wet or dry. If this were done generally those wholesale losses which are now suffered would not be experienced. Salt acts as a condiment, and is no doubt an appetizer; but it also does something more in quickening the action of the internal organic system, and preventing the generation of internal parasites.

Two small hogs, maturing early, are more profitable than one large one.

It is said a dip of water one gallon, benzine eight ounces, and cayenne pepper two ounces, will kill vermin on sheep.

A HALF-BLOOD Cotswold ewe belonging to a Tennessee farmer lately dropped four lambs, all of which are living.

A good preparation to mark sheep without injury to the wool, is said to be thirty large spoonfuls of linseed oil, two ounces of litharge and one ounce of lamp black, all boiled together.

CORN can be made to reach a good deal farther by grinding before feeding, as the experience of careful feeders will testify. The gain by adopting this plan will much more than pay for the trouble if any quantity of stock is fed.

Born for its effect upon fattening and upon health, a small amount of leached wood ashes should be given to swine. The food without this is rich in phosphoric acid, but has little lime, and the equivalent should be thus supplied.—*Ex*.

To cure rot in sheep the following salve is recommended: Gradually dissolve four ounces best honey, to which add one half ounce Armenian bole; then stir in two ounces of burnt alum reduced to powder, and add as much fish, or train oil, as will convert the mass into a salve.

**BEES AND POULTRY.****BEE-KEEPING IN CANADA.**

In the *American Bee Journal* Mr. Charles Mitchell, of Molesworth, Ontario, gives some of his experience in bee-keeping.—“I often wonder what is called good work for a colony of bees to do in a certain time. One of my colonies of brown bees gathered last season thirty-four pounds in three days, and threw a large swarm the day before I commenced the test. The hive had 3,000 cubic inches. It will not pay to double up the bees in the spring of a good season, though this is not the common advice and rule. Last year I got seventy-five pounds of honey from one colony, with only one hundred bees on May 1st. The same queen has done well two seasons since. I believe many good queens lose their heads when they are not always to blame; if she is not producing drones, give her a chance. Pack the hive, inside, not outside, leaving only three frames at most, and put a few sheets of paper on top of the frames to keep the heat in and drive it down. The golden willow is the only thing in Canada that gives honey before the dandelions. Bees work on it here until quite dark in good weather; it fairly rains honey and can be seen easily with the naked eye. If you wish to plant it, and have a creek or permanent lane on your farm, with an axe cut off branches four to six feet long, any size, in the spring, and drive them where wanted; if put along a creek they make a good shade for cattle, and in three years they will support a wire fence. When my bees are getting honey I like to know how much, what from, and what kind of day. As to Bokhara clover not growing, it will grow anywhere, if there is moisture to sprout it and keep it alive until it gets hold of the ground, the same as other clover and timothy. I hoed the seed in, in rows, between mangolds, and it did well. I harrowed it in with oats, on June 1st, with last stroke of harrow, it was two feet high before I cut my oats. It has given the barn a fine smell, and the bees have haunted it all the fall, in vain, for honey. I find onions are good to use in doubling bees; I have tried them and without loss. Honey is an excellent medicine for the eyes, it is unequalled for inflammation. As to whether bee-keeping pays, I will let the bees speak for themselves. Last season there were only four colonies to make profits in the good year. They gathered 126 pounds on an average, having come through two years without loss. The willow and apple trees were killed while in bloom, and we had to kill the young bees. The expenditure in two years for bees was \$80, and the receipts \$480.”

**NATURAL COLOUR IN EGGS.**

Those interested in fowls will appreciate the following from the *Country Gentleman*:—“By the eggs, in many instances, the breed of fowl may be known, but not always. Both Brown and White Leghorns lay white eggs, the eggs of the white variety rather exceeding in size, while the brown lays the most in number. The Black Spanish, the Crevecoeur, the Houdan, the Dorking, and some others, lay white eggs, while the eggs of Cochins and Brahmas are brown, and many of their crosses

lay eggs of a lilac colour. Where there is any colour to the shell, there is more or less Asiatic blood in the veins of the fowl dropping the egg, the colour being graded according to the quality of blood. While the eggs of many breeds may be termed all white, still a close observer will note a difference. The Leghorn's egg is what is called white, yet there is a roseate glow over the fresh-laid which is easily detected by those accustomed to handling—a glow like the freshly-opened oyster shell, which is seen on the insides also. The Spanish egg possesses thicker shells, and is of a dead white—a chalky whiteness, as are also the Houdans, and these are longer and more pointed. The Dominique egg is quite similar to that of the Game, being, when in purity, a little under size and round. The Spanish, the Crevecoeur and the Houdan eggs are as large as that of the largest Brahma, while the weight of the body is less. The Leghorn, the Game, Dorking, Dominique and Hamburg eggs are medium in size, but as a rule are frequent, which latter virtue also belongs to the Spanish. The first crosses of any of these breeds are good for either flesh or eggs, rivalling in most cases the pure breed. Beyond the first cross it is not desirable to go.”

**DOES THE QUEEN LEAD THE SWARM?**

The *British Bee Journal* remarks as follows on this subject, correctly concluding that she does not:—“There is an impression prevailing among the uninitiated that the queen of a hive leads off the swarm, but this is by no means the case with first issues, for, as a rule, the queen does not come forth from the hive until the greater part of the bees are on the wing. Another erroneous idea in existence is that the queen bee is the first to alight upon a branch or a bush, and that the bees congregate about her, but the reverse of this is the fact. When a swarm begins to issue, if the bee-keeper will place himself on the shady side of the hive and watch the stream of bees which pour forth like an army through a gateway, he may see the queen come out, and, if inclined to prove our assertions, he may capture and cage her, and put her in his pocket while he watches the proceedings of the bees. When the throng is circling in the air he may imagine that the bees are searching for her, and will perhaps conclude that as they cannot find her, they will return at once to the hive; but no, they will first congregate near a convenient tree or bush, and make a great noise sufficient to attract the attention of her majesty, if she were abroad, and they will alight and form a cluster, and wait for some minutes to give her an opportunity of joining them. If now she be taken to them, she will join the mass and all will be well; if not, the bees after a short time will disperse and return to the hive. Now this kind of experiment has been so often proved that it may be taken for granted when a swarm of bees has alighted, and afterwards returned to the hive, that the queen was not able to join them, or she would assuredly have done so.”

**DARK BRAHMAS.**

While Light Brahmas are very popular, by many fanciers being considered the very best

breed extant, the Darks are not without their ardent admirers. Foremost among the latter class is our friend, Mr. Sandford, who has bred them continuously for the past nine years, having at three different times added to his stock imported birds, and in whose possession such birds and their progeny have always taken the highest honours wherever exhibited; he can justly be termed an experienced breeder of this variety.

The Dark Brahmas are one of the largest of domestic fowls, and are beautiful, upright looking birds. Among the characteristics most difficult to secure in this breed, are black breast and fluff in cocks, and evenness in penciling in pullets, qualities which are possessed by Mr. Sanford's birds in a marked degree, which have made his strain among the most celebrated, and won for him an enviable reputation.

As Mr. Sanford has never patronized our columns to any great extent, we are pleased to introduce him to such of our readers as are not already acquainted with him personally, or with his reputation as a fancier, assuring them that he ranks among practical fanciers as one of the first-class.—*The Poultry Monthly*.

**BEES PUTTING BESIEGERS TO FLIGHT.**

The *Times* “Beemaster” has been giving amusing instances of the application of bees to defensive purposes. A privateer manned by fifty men, but having on board some hives of bees, was pursued by a Turkish galley, manned by 500 seamen and soldiers. When the latter came alongside, the crew of the privateer mounted the rigging with their hives, and threw them upon their foes, who, astonished at this novel mode of warfare, hastened to escape from the fury of the enraged bees. Another instance occurred, when a rabble at Hohnstein, in Thungaria, attempted to pillage the house of the parish minister; he caused some beehives to be thrown among the mob, who in consequence soon dispersed. Again, Vauban relates how bees played an important part at the siege of Chatte, in Lorraine. After a siege, the town was being stormed, and, during the assault, the besieged threw a few hives of bees upon the heads of the storming party. The little creatures stung the besiegers so dreadfully that they had to retire; and the historian tells that “the bees were not the least cause of the siege being abandoned.”—*Chambers' Journal*.

The *American Poultry Journal* believes that to succeed in breeding fine fowls, we must first cultivate in us a love for the fowls, also an ideal fowl, and then, by thought and patient labour, produce that ideal in the living form.

The Pekin duck is nearly as large as a goose, is entirely white, and can be kept in small enclosures with only a trough to bathe in. They grow rapidly, furnish fine feathers, and are excellent for the table. They are also good layers, good sitters, and careful mothers.

ANIMALS, when first confined, and supplied with fattening food, always increase largely in weight during the first few weeks, after which the rate of increase diminishes to a considerable extent.

## HOME CIRCLE.

## THE LITTLE PEACE-MAKERS.

BY SUSAN COOLIDGE.

It was a cool afternoon in late September, when Miss Marcia Dennett, closing behind her the heavy door of her old-fashioned house, locked it with tremulous fingers, pocketed the key, and wound slowly down the path toward the gate, leaving silence and emptiness behind her.

The spectacle of Miss Marcia going out for a walk was so unusual as to attract attention from the neighbours. Miss Usher, the dressmaker, who lived opposite, was so startled thereby that she called her two assistants from their work to look at it.

"Ain't it peculiar," she said, "that she should be goin' out so? She ain't been outside that gate, to my knowledge, for these six months back, except just to the funeral the other day, and then it was in a close hack with all the blinds down. She was afraid of seein' some of the Hazards there, I suppose, but she needn't have been, for they didn't even know about Priscilla's being dead till after the buryin', Miss Allen says, down to the Point. Miss Dennett kept it close on purpose, I guess. There wa'n't even a notice in the paper; and I don't call that payin' proper respect, when folks have lived with you as long as Priscilla did with her. Well—it's all curious. Where do you suppose that old creetur has gone?"

It was toward the cemetery that the "old creetur" was going. It was quite fifteen years since Miss Dennett had taken so long a walk, and the variation upon her habit of close home-keeping affected her strongly. The sunshine in her face, the movement of the wind made her giddy, the passers-by, in the by no means crowded street, seemed to be staring at her. She was thankful to find herself at the graveyard gate, though, sooth to say, the enclosure which it guarded was a bare, unlovely spot enough. Many New England villages and towns can show such an one; a huddle of time-stained headstones, rising without order or regularity from long, ragged grasses, and the seed-pods of innumerable weeds, with here and there a pretentious monument of marble, dazzlingly white, and now and again one carefully tended plot, an oasis in the general desolation, to mark the contrast between the love that remembers and the carelessness which shuns.

The aspect of the place struck painfully upon Miss Dennett, as she made her way along the irregular foot-path to the remote corner where her old servant—her only friend—had recently been laid. It was a sentiment of late remorse and genuine regret which brought her there. Priscilla was the one creature who for years past had stood constant to her through good and through evil. Miss Marcia had hectored, brow-beaten, contradicted her, not infrequently, but all the time she had counted on Priscilla's absolute faithfulness, and had never counted in vain. Her death was the removal of a prop. Miss Dennett realized it, and felt shaken and weakened as she looked at the forlorn mound of barely sodded earth under the shadow of a tall grey fence, which covered all that remained of that long and loyal service. She sat down on a shabby little bench near by, for her limbs shook with fatigue, and fell to thinking.

Priscilla should have a head-stone. That look of neglect was too dreadful. A large, handsome head-stone she should have, and a fence, and something must be planted. Miss Marcia grew puzzled. She didn't know how people did such things nowadays. Then her thoughts swept into a gentler channel as a tide of recollection welled up in memory. How hard-working Priscilla had been, and how patient; patient always, even when things were at their hardest. She recalled those last few moments, when Priscilla, her face already gray with the shadow of coming death, had faltered out one last plea: "You'll be so lonesome," the faint voice had said; "Oh, forgive Miss Alice, if it's only for my sake. It'll be hard, I know, but you'll be glad, once it's over."

"Hard!" Priscilla might well call it so. For fifteen years Miss Dennett had not looked on the face of the niece who had once been to her as her own child. They had parted finally and forever on the day when Alice had married Wallace Hazard against her aunt's express prohibition. Much pleading, many tearful arguments had been tried before

the girl decided on the step which led to this severance.

"If you would only give a reason. If you would only tell me why you object to Wallace," she urged. "How can you expect me to give him up when you won't explain?"

"Take your own way if you must," was all the reply. "Take it; but the day you marry Wallace Hazard you bid good-bye to me." Was Miss Marcia likely to explain that her opposition to her niece's lover arose from the fact that he was son to the man who in her own youth had done her the irreparable wrong of first gaining her affections and then preferring and wedding another woman? The pride of the Dennetts had sealed her lips at the time and forever after; but none the less fiery keen was her resentment, and years had but added to it. No, she could not explain, but neither could she tolerate or forgive.

Alice waited, Alice wept; then she married her lover. For a long time the hope of reconciliation sustained her. She wrote letters, she came to the house; but the letters were not answered, and the door, which till then had always opened to her so gladly, was closed in her face by the weeping Priscilla, who must perforce obey the orders of her implacable mistress. "Don't come again, Miss Alice," she whispered, on the last of these occasions. "It's no use yet!—she's as hard as hard."

So Alice ceased to come, but none the less did Priscilla plead her cause whenever she dared. When a little girl was born, to whom was given the name of Marcia, Priscilla bore the tidings to her mistress in hopes of a softening. But Miss Dennett only closed her lips tightly, and not a word escaped her when, a few months later, Priscilla, weeping, told her of the child's death.

When relations who are at variance live in the same place, there is a constant painfulness. Though they may not meet, there is always the risk of meeting; each day deepens the irritating apprehension. It was to avoid Alice that Miss Dennett formed the habit of home-keeping which had become the rule of her life. But now, as she sat looking at poor Priscilla's shabby mound, a sense of petulant and illogical injury swept over her.

"Forgive Alice," she muttered to herself. "Pray, how did she expect me to set about it, even if I had the mind, which I haven't? It is years since she came near the house. Priscilla was always unreasonable!"

She was still sitting on the bench in the shadow of a large hemlock, lingering, she scarce knew why, but in reality, I think, because the thought of the locked and empty house to which she must return was dreadful to her, when a sound of children's voices, fell upon her ear, and presently two little girls came in sight. They were sturdy, fair-haired creatures, one apparently about ten years old, the other perhaps eight. They had long masses of rippling hair tied with black ribbons; their frocks were black, too—Miss Marcia noted that—and they carried between them a basketful of late garden flowers. They did not notice the figure in the shadow of the hemlock, but Miss Marcia could hear every word they said.

"Do you suppose little Oliver knows when we make him look so pretty?" asked the younger.

"Mamma says perhaps he does," replied the older. "She says angels can see everything."

"Then I think mamma oughtn't to cry so when she talks to us about him," pursued the little one. "It would make him feel dreadfully if he were alive."

"Oh, hush, Prilla, mamma can't help it. You mustn't say that."

The children were close to Miss Marcia now. They paused in their walk.

"Oh, Prilla—see that," said the older girl. "That poor, poor grave over there under the fence, without any stone or fence or anything. Isn't it dreadful. It makes me feel badly just to look at it."

"Yes, because it looks so lonesome," said the other; "why don't somebody come and make it pretty like Oliver's? Didn't anyone care, Lilly?"

"I don't know," replied Lilly, keeping her eyes on the grave, as if fascinated by its very bareness. "Prill, I am thinking about something; we've got a good many flowers to-day, you know. Let's save some of them, and pick a good many wild ones to put with them, and come back here after we've done Oliver's

and try to make this poor grave look better. Don't you think it would be nice?"

"Very nice. Oliver wouldn't care a bit if we did give away some of his flowers; and mamma will be glad, too. We'll tell her when we get back."

The childish voices died away. Miss Marcia, bending a branch aside, could see them at a distance, busy in one of the few carefully enclosed and tended plots, where several small head-stones showed above neatly cut turf. Later, they became visible, questing too and fro, in search of flowers, apparently. And she had relapsed into her dreary musings, broken only with curiosity as to whether they would really carry out their scheme, when she saw them coming back, still bearing the basket, heaped now with purple and white asters, and plumes of golden-rod. They went straight to Priscilla's grave.

"Let's make it like a bed—all flowers," said little Prill. "That would be nicest, don't you think so?"

"Yes—and hide all this yellow grass." Touched almost to tears, moved and affected as she had seldom been in her life before, Miss Marcia watched as the fair little hands arranged one flower after another on the bare mound, clothing its uncomeliness with grace and bloom, ordering and smoothing all with tender and reverent touches. The wild flowers were heaped in a thick garland round the edges, little Prill running off now and then for another branch of asters or a little more golden rod, or reaching up to the boughs of a low tree for sprays of crimson leaves. With a delicate perception of taste, the choicest blossoms were reserved for the middle of the grave, white honeysuckle, mignonette, a few clusters of heliotrope, one or two late roses.

"There," said the elder, as the last flower was placed, "that looks a great, great deal better. It doesn't make me feel badly at all now."

"No, it's pretty now," declared her sister. "If anybody comes to look at it, as we come to Oliver, they'll be pleased, I think, don't you?"

"Now, Prilly, we ought to go, for it's getting near tea-time, and I want to tell mamma what we've done, awfully."

"So do I;" and the little one gave a happy skip as she went off with the empty basket. Moved by an impulse which she could neither define nor contradict, Miss Marcia arose and followed.

"If I could just see their mother a moment, and tell her what they've done, and how pleased I am," she said to herself, hardly realizing that the sudden emotion awakened within her was leading her to the unaccustomed act of seeking out the home of a stranger. Step by step she followed, keeping the children in sight. The walk was a long one, but the idea of turning back never occurred to her mind.

The part of the town to which the little ones led was new to Miss Dennett. It had grown up within a few years, and her rare walks had never lain in that direction. They entered a small house, standing in a neat garden trimmed with flowers, and a minute later Miss Dennett rang at the same door.

The fair-haired Lilly opened it. She still wore her hat, and, while Miss Dennett hesitated, at a loss how to explain her errand, little Prilla dashed downstairs, crying, in a disappointed voice: "Mamma is not in her room. Do you suppose she's gone out, Lilly?"

At the sound of her call, a door in the farther end of the hall opened hastily, and a lady appeared. "Here I am, children," she said; then, realizing the presence of a stranger, she advanced, blinking at the sudden light from the open door.

"What is it, Lilly?" she asked.

"It's a lady, mamma," began Lilly, then stopped amazed, for her mother, looking pale and strangely excited, had rushed forward. There was a cry: "Aunty, aunty, have you come to me at last?" Miss Marcia, pale as her niece, stood speechless for a moment, then, as if urged by an irresistible impulse, she slowly opened her arms, and, with a deep sob, closed them round Alice, who, with a burst of wild weeping, stroked the stern face, kissed it, and poured forth a torrent of rapid words.

"Oh, Aunty, that you should come to me now! Did you hear about it, aunty? About my boy, my darling little boy, my little Oliver? It is six months since he died, but it does not seem a week. Did you only just hear of it, Aunty? Was it that brought you?"

"No, it wasn't that. I didn't know that you had a boy, Alice, or that you had lost him. It was Pris-

oilla brought me here, Priscilla and these children;" and she drew Lilly closely to her side, as though she could not let her go.

"How did they know it was you?" demanded the wondering Alice.

"They didn't. If they had I should never have come." Then the story was told, and Alice, with happy tears, kissed first one then the other of her darlings; Miss Marcia kissed them too.

"I am lonely and wretched," she confessed. "Since Priscilla died, it has seemed as if I could not endure my life any longer. She asked me to forgive you, Alice, when she was dying, and, if she knows about it, it will make her gladder yet, wherever she is. You must all come and live with me, you and these dear children; yes, and Wallace, too," answering the unspoken question in Alice's eyes. "There's plenty of room in the old house, and I haven't many years left, perhaps, in which to make up for my long harshness. I must have you all."

So a new day of peace and forgiveness dawned on the wretched heart and the empty home; and Alice, as she bent that night over the sleep of her little girls, murmured, with a smile which was half tears: "My angels, my own darlings, if it had not been for your tender thought of a stranger's grave, this had never come to us. Blessed are the peacemakers. Ah! my little peacemakers, may you be blessed indeed."—*Boston Congregationalist.*

#### "DAY UNTO DAY UTTERETH SPEECH."

The speech that day doth utter, and the night,  
Full oft to mortal ears it hath no sound.  
Dull are our eyes to read, upon the ground,  
What's written there; and stars are hid by light.  
So, when the dark doth fall, awhile our sight  
Kens the unwonted orbs that circle round,  
Then quick in sleep our human sense is bound,—  
Speechless for us the starry heavens and bright.  
But, when the day doth close, there is one word  
That's writ amid the sunset's golden embers,  
And one at morn; by them our minds are stirred:  
Splendour of Dawn—and evening that remem-  
bers—

These are the rhymes of God; thus, line on line,  
Our hearts are moved to thoughts that are divine.

—R. W. G., in the *November Century.*

#### THE TRUE ROMANCE OF POCAHONTAS.

From her first meeting with Smith she became devotedly attached to the English, and rendered the settlers many services. She often secured supplies for them, and indeed seems to have haunted the fort, utterly naked as she was, after the manner of little girls among her people, who wore no clothes and showed no modesty until they were twelve or thirteen years of age, at which time they put on a deerskin apron, and were very careful not to be seen without it. The agile little barbarian would persuade the English lads to make wheels of themselves by turning upon their hands and feet, whereupon she would follow them, wheeling as they did, all through the fort.

Her real name was Matoax; but, by order of Powhatan, this was carefully concealed from the whites, lest by their supernatural enchantments they should work her some harm. When Richard Wyffin was sent from Jamestown to apprise the endangered Captain Smith, environed by foes among Powhatan's people, of the death of his deputy, Mr. Scrivener and his ten companions, by drowning, Pocahontas hid him, misdirected those who sought him, and, by extraordinary bribes and manoeuvres, brought him safely to Smith, after three days' travel in the midst of extreme peril. So, also, when Ratcliffe was cut off with thirty men, she saved the lad Spilman, who was then living with Powhatan, and sent him to the Potomacs. But the most touching story of all precedes, in order of time, the other two. In the same difficult adventure among Powhatan's people, in which Captain Smith was engaged when Scrivener was drowned, the treacherous chief had arranged to surprise Smith at supper, and cut off the whole party, when Pocahontas, the "dearest jewel and daughter" of the aged chief, "in that dark night came through the irksome woods" to warn the captain of Powhatan's design. Captain Smith offered to repay her kindness with such trinkets as the heart of an Indian maiden delights in; "but, with the tears running down her cheeks, she said she durst not be seen to have any, for, if Powhatan should know it, she were

but dead; and so she ran away by herself as she came."

In 1613 Pocahontas was among the Potomac Indians. Captain Argall, a man of much shrewdness and executive force, but infamous for his dishonest practices, happened to be trading in the river at that time. He quickly saw the advantage the English would gain in negotiations with Powhatan for the return of the white prisoners held by him, if he could secure so valuable a hostage as the chief's daughter. With a copper kettle he bribed Japazaws, the chief with whom she was staying, to entice her on board the vessel, where he detained her, much to the sorrow of the daughter of the wilderness, whose life hitherto had been as free as that of the wild creatures of the woods. To Jamestown, where she had frolicked as a child, and whither she had so often come as a friend with food, she was now carried as an enemy and a prisoner. She had refused to enter the town since the departure of Captain Smith.

This transaction, not very creditable to the gratitude of the English, accomplished its purpose in causing Powhatan to return the white men held in slavery by him, with the least useful of the stolen arms. But he still contrived to evade some of the demands of the English, who therefore retained his daughter until the affair took a new turn. John Rolfe, who seems to have been a widower, became enamoured of Pocahontas, now growing to womanhood, and wrote a formal letter to Sir Thomas Dale, proposing to convert her to Christianity and marry her, which pleased the governor, as tending to promote peace with the Indians, and was likewise acceptable to Powhatan. The chief sent an old uncle of Pocahontas and two of her brothers to witness the marriage.

This marriage brought about peace during the life of Powhatan, who, on one occasion at least, sent a present of buckskins to his daughter and her husband. A free intermingling of the two races took place, and Englishmen were accustomed to hire Indians to live in their houses and hunt for them. This amity lasted eight years.

In 1616, more than two years after their marriage, Rolfe and Pocahontas went to England with Sir Thomas Dale. Powhatan sent some Indians with his daughter, one of whom was commissioned to count the number of the English. The arrival of the Lady Rebecca, as Pocahontas was called after her baptism, produced a great sensation. She was received by the king and many distinguished people, went to see a play, and, by the help of her naturally quick wit, bore herself very well. But it became necessary to desist from calling her the wife of John Rolfe, for the king was very jealous, and it was seriously debated in the privy council, whether, by marrying the daughter of a foreign potentate without the king's consent Rolfe had not committed treason.

The climate of London, and perhaps also the congenial habits of civilization, affected Pocahontas very unfavourably, and she was taken to Brentford, where Smith, then busy with his preparations to sail for New England, visited her. In the successful efforts of Rolfe and others to win her to the Christian faith and to marriage, they had not scrupled to deceive her, by telling her that Captain Smith was dead, probably because they knew she would not marry another white man while she believed that great warrior alive. When, therefore, she saw the "brave" who had been the object of her maidenly admiration, she turned her face away and refused to speak for the space of two or three hours. When she did, it was to claim the privilege of calling him father, which Smith granted only after importunity, afraid, perhaps, of incurring the king's displeasure. Pocahontas went to Gravesend to take ship for her return to America, much against her will, for she had become weaned from her savage life and greatly attached to the English. At Gravesend she died of smallpox three years after her marriage, leaving one son, from whom some of the most prominent Virginia families trace their descent.—*From the Century.*

#### THE STORY OF CHUB.

Everybody about the depot knew Chub, the basket boy, for he was always limping through the rooms crying, "Apples! Peanuts—peanuts—ten cents a quart! Apples—two for a penny! Right this way, Mister, for your fresh-baked peanuts and ripe red apples!"

Where Chub came from, or to whom he belonged, was a mystery. He was always at his post from early morning till nine at night. Then he would disappear, but only to return punctually the next day.

He wasn't at all communicative and said but little to any one in the way of conversation. Yet everybody liked him; his pale face and withered limb were sure to appeal to their sympathies. I used to like him myself, and it always pleased me to see him get a good day's custom.

But it's over a year now since Chub sold apples and peanuts at our depot, and I miss him yet. There is a real lonesome place over in the corner; here he used to sit and eat his lunch at noontime. It was his favourite seat, and it never seems filled now.

I often hear our agents and Simons remark when they glance in that direction: "It seems kind o' lonesome not to see Chub around."

I remember as if it were yesterday, the lady coming in loading that little witch with a blue silk bonnet crowning her curls. It was the sweetest baby I ever saw. As she ran about the depot laughing and singing she happened to spy Chub limping his rounds. She ran right up to him, and putting out her tiny hand touched his crutch.

"Oh, oo poor 'ame boy," she cooed, "I'se dot a tis' for oo."

Chub's face fairly glowed with delight as he bent his head to receive the kiss from the rosebud lips. He reached her a handful of peanuts, which she took and placed in her little sack pocket.

"Ise love oo, poor 'ame boy," she said, softly, "tause oo was dood to me."

"Come here, Birdie," called the lady.

"No, mamma, no! Ise doing with poor 'ame boy," she said resolutely, sticking close to Chub.

But the lady came and took her away, and Chub hobbled into the other room.

The lady was busy with her book and didn't notice her child slip out, but I did, and every now and then caught stray glimpses of the little figure as she ran up and down the platform.

By and by we heard a whistle. 'Twas the fast mail going up, but it don't stop. I thought of the baby and so did her mother.

"Birdie," she called, but no Birdie answered. Just then I glanced out, and there stood the little one in the silk bonnet right upon the track.

I fairly stopped breathing from very terror. The mother ran forward shrieking. "Will no one save her? Will no one save her?"

"Yes," shouted a voice. I saw Chub limp wildly out and snatch the little form from its perilous position, and throw it on one side just as the train thundered by.

The baby was saved; but upon the track was a crushed and mangled form. They lifted him sadly, and laying him down upon one of the seats, went for help.

It was too late; for he only opened his eyes once and whispered, "Is she safe?"

They brought her to him, but he did not heed. She stroked the still, white face with her tiny hands, and cooed in sweet baby fashion as she looked around upon the crowd:

"Poor 'ame boy done fast seep! done fast seep!" —*Detroit Commercial Advertiser.*

#### JENNY LIND'S CONSCIENTIOUSNESS.

Once at Stockholm Jenny Lind was requested to sing on the Sabbath, at the King's palace, on the occasion of some great festival. She refused; and the King called personally upon her—in itself a high honour—and as her sovereign commanded her attendance. Her reply was—"There is a higher King, sire, to whom I owe my first allegiance." And she refused to be present.

In 1873 Brazil had 333,201 slaves. On June 30th, 1882, their number was 147,168.

The enormous sum of \$202,000,000 is invested in the submarine cables of the world, supposed to aggregate 64,000 miles in length.

ON December 13th Mr. Gladstone will have been fifty years in Parliament. What a busy life the British Premier has lived as politician, author, and citizen.

THE Committee of the British House of Commons who have been considering the case of Gray, have affirmed that Judge Lawson acted within his jurisdiction in imprisoning Gray.

## YOUNG CANADA.

### LITTLE BIRD WITH BOSOM RED.

When the winds of winter blow,  
And the air is thick with snow,  
Drifting over hill and hollow,  
Whitening all the naked trees,—  
Then the bluebird and the jay  
And the oriole fly away,  
Where the bobolink and swallow  
Flow before them at their ease.

You may look, and look in vain,  
For you will not see again  
Any flash of blue or yellow  
Flitting door and window by;  
They have spread their dainty wings,  
All the sunshine-loving things,  
Gone to pipe away their mellow  
Tunes beneath a southern sky.

But we are not left alone,  
Though the summer birds have flown,  
Though the honey bees have vanished,  
And the katydids are dead;  
Still a cheery ringing note  
From a dear melodious throat,  
Tells that winter has not banished  
"Little bird with bosom red."

Pipe away, you bonny bird!  
Sweeter song, I never heard,  
For it seems to say, Remember!  
God, our Father, sits above;  
Though the world is full of wrong,  
Though the winter days are long,  
He can fill the bleak December  
With the sunshine of His love.

### HOW TO RUN.

Very few boys know how to run.

"Ho, ho!" say a dozen boys. "Just bring on the boy that can run faster than I can!"

But, stop a moment. I don't mean that most boys can't run fast—I mean they can't run far. I don't believe there is one boy in fifty, of those who may read this, who can run a quarter of a mile at a good smart pace without having to blow like a porpoise by the time he has made his distance. And how many boys are there who can run, fast or slow, a full mile without stopping?

It hardly speaks well for our race, does it, that almost any animal in creation that pretends to run at all can outrun any of us?

Take the smallest terrier dog you can find, that is sound and not a puppy, and try a race with him. He'll beat you badly. He'll run a third faster than you can, and ten times as far, and this with legs not more than six inches long. I have a hound so active that he always runs at least seventy-five miles when I stay a day in the woods with him; for he certainly runs more than seven miles an hour, and if I am gone ten hours, you see he must travel about seventy-five miles of distance. And then, a good hound will sometimes follow a fox for two days and nights without stopping, going more than three hundred and fifty miles, and he will do it without eating or sleeping.

Then, you may have heard how some of the runners in the South African tribes will run for long distances—hundreds of miles—carrying despatches, and making very few stops.

I make these comparisons to show that our boys who cannot run a mile without being badly winded are very poor runners.

But I believe I can tell the boys something that will help them to run better. I was a

pretty old boy when I first found it out, but the first time I tried it I ran a mile and a quarter at one dash, and I was not weary nor blown. And now I'm going to give you the secret:

*Breathe through your nose!*

I had been thinking what poor runners we are, and wondering why the animals can run so far, and it came to me that perhaps this might account for the difference, that they always take air through the nose, while we usually begin to puff through our mouths before we have gone many rods. Some animals, such as the dog and the fox, do open their mouths and pant while running, but they do this to cool themselves; and not because they cannot get air enough through their noses.

I found once, through a sad experience with a pet dog, that dogs must die if their nostrils become stopped. They will breathe through the mouth only while it is forcibly held open; if left to themselves they always breathe through the nose.

So, possibly, we are intended to take all our breath through the nose, unless necessity drives us to breathe through the mouth.

There are many other reasons why we ought to make our noses furnish all the air to our lungs. One is, the nose is filled with a little forest of hair, which is always kept moist, like all the inner surfaces of the nose, and particles of dust that would otherwise rush into the lungs and make trouble, are caught and kept out by this little hairy net-work. Then the passages of the nose are longer, and smaller, and more crooked than that of the mouth, so that as it passes through them the air becomes warm. But these are only a few reasons why the nose ought not to be switched off and left idle, as so many noses are, while their owners go puffing through their mouths.

All trainers of men for racing and rowing, and all other athletic contests, understand this, and teach their pupils accordingly. If the boys will try this plan, they will soon see what a difference it will make in their endurance. After you have run a few rods holding your mouth tightly closed, there will come a time when it will seem as though you could not get air enough through the nose alone; but don't give up; keep right on, and in a few moments you will overcome this. A little practice of this method will go far to make you the best runner in the neighbourhood.—*St. Nicholas.*

### HOW A LITTLE GIRL SUGGESTED THE INVENTION OF THE TELESCOPE.

Some of the most important discoveries have been made accidentally, and it has happened to more than one inventor, who had long been searching after some new combination or material for carrying out a pet idea, to hit upon the right thing at last by mere chance. A lucky instance of this kind was the discovery of the principle of the telescope.

Nearly three hundred years ago, there was living in the town of Middleburg, on the island of Walcheren, in the Netherlands, a poor optician named Hans Lippersheim. One day, in the year 1608, he was working in his shop, his children helping him in various

small ways, or romping about and amusing themselves with the tools and objects lying on his work-bench, when suddenly his little girl exclaimed:

"Oh, Papa! See how near the steeple comes!"

Half-startled by this announcement, the honest Hans looked up from his work, curious to know the cause of the child's amazement. Turning toward her, he saw that she was looking through two lenses, one held close to her eye, and the other at arm's length; and, calling his daughter to his side, he noticed that the eye-lens was plano-concave (or flat on one side and hollowed out on the other), while the one held at a distance was plano-convex (or flat on one side and bulging on the other). Then, taking the two glasses, he repeated his daughter's experiment, and soon discovered that she had chanced to hold the lenses apart at their exact focus, and this had produced the wonderful effect that she had observed. His quick wit and skilled invention saw in this accident a wonderful discovery. He immediately set about making use of his new knowledge of lenses, and ere long he had fashioned a tube of pasteboard, in which he set the glasses firmly at their exact focus.

This rough tube was the germ of that great instrument, the telescope, to which modern science owes so much. And it was on October 22nd, 1608, that Lippersheim sent to his government three telescopes made by himself, calling them "instruments by means of which to see at a distance."

Not long afterward another man, Jacob Adriansz, or Metius, of Alkmaar, a town about twenty miles from Amsterdam, claimed to have discovered the principle of the telescope two years earlier than Hans Lippersheim; and it is generally acknowledged that to one of these two men belongs the honour of inventing the instrument. But it seems certain that Hans Lippersheim had never known nor heard of the discovery made by Adriansz, and so, if Adriansz had not lived we still should owe to Hans Lippersheim's quick wit, and his little daughter's lucky meddling, one of the most valuable and wonderful of human inventions.

### THE WORD "WIFE."

Mr. Ruskin says: "What do you think the beautiful word 'wife' comes from? It is the great word in which the English and Latin languages conquered the French and Greek. I hope the French will some day get a word for it instead of that of *femme*. But what do you think it comes from? The great value of the Saxon words is that they mean something. Wife means 'weaver.' You must either be house-wives or house-moths, remember that. In the deep sense, you must either weave men's fortunes and embroider them, or feed upon and bring them to decay. Wherever a true wife comes, home is always around her. The stars may be over her head, the glow-worm in the night's cold grass may be the fire at her feet, but home is where she is, and for a noble woman it stretches far around her, better than houses ceiled with cedar, or painted with vermilion—shedding its quiet light for those who else are homeless. This, I believe, is the woman's true place and power."

THE PUREST AND BEST

REMEDY EVER MADE.—IT IS COMPOUNDED FROM HOPS, MALT, BUCHU, MAN-DRAGE, AND DANDELION.

The oldest, best, most renowned and valuable medicine in the world, and in addition it contains all the best and most effective curative properties of all other remedies, being the greatest liver regulator, blood purifier, and life and health restoring agent on earth. It gives new life and vigour to the aged and infirm. To clergymen, lawyers, literary men, ladies, and all whom sedentary employments cause irregularities of the Blood, Stomach, Bowels, or Kidneys, or who require an appetizer, tonic, and mild stimulant, it is invaluable, being highly curative, tonic and stimulating, without being intoxicating. No matter what your feelings or symptoms are, or what the disease or ailment is, use Hop Bitters. Don't wait until you are sick, but if you only feel bad or miserable use the bitters at once. It may save you life. Hundreds have been saved by so doing, at a moderate cost. Ask your druggist or physician. Do not suffer yourself or let your friends suffer, but use and urge them to use Hop Bitters.

If you have lameness in the loins, with frequent pains and aches; numbness of the thigh; scanty, painful and frequent discharge of urine, filled with pus, and which will turn red by standing; a voracious appetite and unquenchable thirst; harsh and dry skin; clammy tongue, often darkly furred; swollen and inflamed gums; dropsical swelling of the limbs; frequent attacks of hiccough; inability to void the urine, and great fatigue in attempting it—you are suffering from some form of Kidney or Urinary Complaint, such as BRIGHT'S DISEASE of the kidneys, stone or inflammation of the bladder, gravel and renal calculi, diabetes, stranguary stricture and retention of the urine, and Hop Bitters is the only remedy that will permanently cure you.

Remember, Hop Bitters is no vile, drugged, drunken nostrum, but the purest and best medicine ever made, and no person or family should be without it.

Don't risk any of the highly lauded stuff with testimonials of great cures, but ask your neighbour, druggist, pastor or physicians what Hop Bitters has and can do for you and test it.

WELLS, RICHARDSON & CO'S IMPROVED BUTTER COLOR A NEW DISCOVERY. For several years we have furnished the Dairy men of America with an excellent artificial color for butter; so meritorious that it met with great success everywhere, yielding the highest and only prizes at both International Dairy Fairs. But by patient and scientific research we have improved the color, and now offer this new color as the best in the world. It Will Not Color the Butter Milk. It Will Not Turn Rancid. It is the Strongest, Brightest and Cheapest Color Made. And, while prepared in oil, is so compounded that it is impossible for it to become rancid. BEWARE of all imitations, and of all other oil colors, for they are liable to become rancid and spoil the butter. If you cannot get the "Improved" write us to know where and how to get it without extra expense.

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The price of the WESTERN ADVERTISER AND WEEKLY LIBERAL has been reduced to \$1 for 1883 (balance of 1882 free to new subscribers). Eight immense pages, sixty-four columns. The latest news, valuable "Departments"—of interest to all—continued and completed stories, music, pictures, etc. For 10 cents extra a copy of our great book premium of 450 pages, entitled "HOME AND HEALTH," will be mailed, in strong tag cover; or, for 15 cents, will be sent in heavy board cover. Contains information, hints and recipes on 5,000 subjects hitherto unpublished. The latest and best! Everyone will want this popular and useful book. By renewing at once, present subscribers can secure "HOME AND HEALTH" on above mentioned terms without delay. Agents wanted everywhere. For special prices send post card for particulars. Address—

JOHN CAMERON & CO., Advertiser, Ont., LONDON, ONT.

Scientific and Useful.

To KEEP BUTTER as hard as if on ice, take a new flower-pot, wash it clean, wrap in a wet cloth, and set it over the butter.

Mix a little carbonate of soda with the water in which flowers are immersed, and it will preserve them for a fortnight. Common saltpetre is also a very good preservative.

The term *hydra* may be used to represent any manifold evil. If you would battle successfully with this many-headed monster of disease you will find it expedient to keep Mrs. Pinkham's Vegetable Compound always at hand.—Dr. Manning.

CORN CHOWDER.—Cut a half pound of salt pork in little half-inch squares; slice two onions very thin, as for frying, and boil pork and onions together in two quarts of water for twenty minutes; cut six medium-sized potatoes in rather thick slices so they will keep their shape; add them to the soup and boil ten minutes (meanwhile scald one quart of milk); after the potatoes have boiled add one quart can of corn, and lastly the milk, and let all come to a boil; cover the bottom of the soup dish with buttered crackers, and pour the soup over them.

Do boldly what you do at all. Boldly do we affirm that Kidney-Wort is the great remedy for liver, bowels and kidney diseases. Rheumatism and piles vanish before it. The tonic effect of Kidney-Wort is produced by its cleansing and purifying action on the blood. Where there is a gravelly deposit in the urine, or milky,ropy urine from disordered kidneys, it always cures.

USE OF FEATHER DUSTERS.—A Paris journal of hygiene warns housekeepers against the use of a feather duster instead of a wet cloth. The duster simply chases the particles from the furniture into the air, where they are inhaled. Dust is formed of innumerable quantities of spores and eggs and germs, as well as of inert matter. A flourish of the duster may set loose an assassinating germ. The dangerous particles attach themselves readily to a dampened cloth. The origin of many diseases is traceable to the mere specks which ought to be removed, and not simply stirred up.

The Diamond Dyes always do more than they claim to do. Colour over that old dress. It will look like new. Only 10 cents.

HOW TO MAKE PEPPERMINT DROPS.—Take a convenient quantity of granulated sugar; place it in a pan having a lip from which the contents may be poured or dropped; add a very little water, just enough to make the sugar a stiff paste, two ounces of water to a pound of sugar being about the right proportion; set it over the fire and allow it to nearly boil, keeping it continually stirred; it must not actually come to a full boil, but must be removed from the fire just as the bubbles, denoting the boiling point is reached, begin to rise. Allow the syrup to cool a little, stirring all the time; add strong essence of peppermint to suit the taste, and drop on tins, or sheets of smooth white paper. The dropping is performed by tilting the vessel slightly, so that the contents will slowly run out, and with a small piece of stiff wire the drops may be stroked off on to the tins or paper. They should then be kept in a warm place for a few hours to dry. If desired, a little red colouring may be added just previous to dropping, or a portion may be dropped in a plain, white form, and the remainder coloured.—Confectioner and Baker.

CATARH OF THE BLADDER. STINGING irritation, inflammation, all Kidney and Urinary Complaints, cured by "Buchupaiha" \$1.

PERUVIAN SYRUP has cured thousands who were suffering from Dropsy, Debility, Liver Complaint, Boils, Humours, Female Complaints, etc. Pamphlets free to any address. South W. Pawle & Son, Boston. Sold by dealers generally.

FELONS—BOILS—"Felons," which are usually termed "whitlows" by physicians, we believe, are a very painful and often a very serious affection of the fingers, generally of the last joints, and often near or involving the nails. As the fingers are much exposed to bruises, felons are quite common among those who constantly use their hands at hard work. If allowed to continue until matter (pus) forms, and the periosteum or bone sheathing is affected, lancing is necessary; but if taken in time, a simple application of copal varnish, covering it with a bandage, is highly recommended. If the varnish becomes dry and unpleasantly hard, a little fresh varnish may be applied from time to time. When a cure is effected, the varnish is easily removed by rubbing into it a little lard and washing with soap and water. Dr. A. B. Isham details in the "Medical News" a number of cases of its application

with uniform success, where formation of puss had not previously occurred. In two cases there was apparently a combination of the "run-around" with the felon, and in all of them there was swelling, redness, heat, and great pain. He suggests the use of copal varnish for felons, "run-arounds," boils, and any local acute inflammation of external parts.

DON'T DIE IN THE HOUSE. "Rough on Rats" Clears out rats, mice, roaches, bed-bugs, flies, ants, moles, chip-munks, gophers. 15c.

HAVE WISTAR'S BALSAM OF WILD CHERRY always at hand. Cures Coughs, Colds, Bronchitis, Whooping Cough, Croup, Influenza, Consumption, and all Throat and Lung Complaints. Fifty cents and \$1 a bottle. Sold by dealers generally.

THAT HUSBAND OF MINE is three times the man he was before he began using "Well's Health Renewer." \$1. Druggists.

A NOTED BUT UNTITLED WOMAN. (From the Boston Globe.)



Mrs. Editors.—The above is a good likeness of Mrs. Lydia E. Pinkham, of Lynn, Mass., who above all other human beings may be truthfully called the "Dear Friend of Woman," as some of her correspondents love to call her. She is zealously devoted to her work, which is the outcome of a life's study, and is obliged to keep six lady assistants, to help her answer the large correspondence which daily pours in upon her, each bearing its special burden of suffering, or joy at release from it. Her Vegetable Compound is a medicine for good and not evil purposes. I have personally investigated it and am satisfied of the truth of this.

On account of its proven merits, it is recommended and prescribed by the best physicians in the country. One says: "It works like a charm and saves much pain. It will cure entirely the worst form of falling of the uterus, Leucorrhoea, irregular and painful Menstruation, all Ovarian Troubles, Inflammation and Ulceration, Floodings, all Displacements and the consequent spinal weakness, and is especially adapted to the Change of Life."

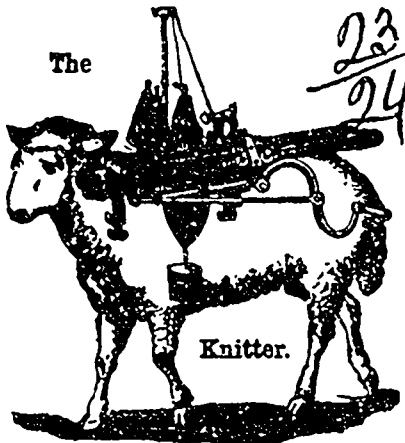
It permeates every portion of the system, and gives new life and vigor. It removes faintness, flatulency, destroys all craving for stimulants, and relieves weakness of the stomach. It cures Bloating, Headaches, Nervous Prostration, General Debility, Sleeplessness, Depression and Indigestion. That feeling of bearing down, dull pain, weight and backache, is always permanently cured by its use. It will at all times, and under all circumstances, act in harmony with the law that governs the female system.

It costs only \$1. per bottle or six for \$5., and is sold by druggists. Any advice required as to special cases, and the names of many who have been restored to perfect health by the use of the Vegetable Compound, can be obtained by addressing Mrs. P., with stamp for reply, at her home in Lynn, Mass.

For Kidney Complaint of either sex this compound is unsurpassed as abundant testimonials show. "Mrs. Pinkham's Liver Pills," says one writer, "are the best in the world for the cure of Constipation, Biliousness and Torpidity of Liver. Her Blood Purifier works wonders in its special line and bids fair to equal the Compound in its popularity. All medicines put her as an Agent of Mercy whose sole aim is to relieve suffering." P. O. Philadelphia, Pa. (C) S. W. A. M. D.

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WILL CERTAINLY CURE Coughs, Colds, Hoarseness, Sore Throat, Bronchitis, Influenza, Asthma, Whooping Cough, Croup, and every Affection of the Throat, Lungs and Chest, including Consumption. Sold by all Druggists.

A. W. HARRISON, Financial and Real Estate Agent, 30 Adelaide St. East, TORONTO. Money to Lend at lowest rates of interest. Mortgages bought. Farms Bought, Sold, Rented or Exchanged. Charges Moderate. I have a large quantity of MANITOBA and UNITED STATES LANDS for sale. As investments or speculations these are worth looking at. A. W. HARRISON, 30 Adelaide St. East, TORONTO ONT.



TORONTO WHOLESALE MARKETS.

OFFICE RURAL CANADIAN, Toronto, Nov. 30th, 1882.

Snow has come since last we wrote, and an impulse is given to all kinds of business. There is fair sleighing at several points we have heard from in this Province. Broad-stuffs are firm; flour a trifle higher than two weeks ago.

FLOUR AND MEAL.—The stock of flour here is but small, the feeling in the market is steady, and prices are about 5 cents per bl, better all round. Sales have continued to be made of 50 and 100 bbl. lots of Superior Extra at \$4.50, and at outside points at equal to \$4 55, and of Extra at \$4 40 Spring Extra has been offering at \$4 40. Oatmeal—prices maintained, sales of round lots at \$4.75 to \$4.85, small parcels bring our outside figure. Bran is scarce, and in demand at \$12.50 per ton.

GRAIN.—Wheat—Fall, stock in store 103,650 bush., against 175,244 bush. last year same date. There is a better feeling in the British market, and the past week has witnessed an advance of from 1d. to 2d. on wheat, even in the face of increased supplies, while the feeling in the United States is stronger. There have been some sales here at fairly steady prices, the bulk being No. 2 and 3, but we note a sale of No. 1, some days ago, at 95c., f.o.c., while No. 2 has since brought 93c. and 94c., and 91c is said to have been paid for No. 3, the market is easier to-day. Wheat—Spring, not much in store, the quantity being 32,926 bush., against 36,282 last year, like time. Only ear lots for millers' use have been moving, and these have changed hands at \$1 for No. 1, and 98c. for No. 2. Barley—The stock in store is reduced to 176,393 bushels, while it was 313,516 bushels at same time last year. The close of navigation has brought prices down, although since our last a good deal changed hands in both ear and cargo lots, and up to close of last week, shipments continued to Oswego. Prices obtained were from 7c. a week ago down to 75c. yesterday for No. 1; from 72c. to 70c. for No. 2, with No. 3 neglected. The market closes at about our quotations, dull, as usual at this season. Peas—Only 2,969 bushels in store, against last year 11,960 bushels. The market is firmer, and there is a better demand. Farmers are not bringing their grain forward. Oats are scarce, and wanted, 41c. would readily be paid for good No. 1. Nothing doing in corn, which remains about nominal at 75c. to 80c. Rye unchanged.

HIDES AND SKINS.—Prices of hides are unchanged as yet, but the market is well supplied with hides, and there is some weakness apparent. Sheepskins.—For best fresh city skins \$1.25 is still paid, but there is a certain loss at those figures, and a decline is talked of. Tallow continues in good request, very little in stock.

PROVISIONS.—The market for hog products is weak, with declining tendency, receipts of hogs are increasing, and packers are indifferent about purchasing at over 7 1/2c. per lb. There has been a fair jobbing trade in long clear bacon principally to the lumber districts. Mess pork is in light demand at \$21 to \$21.50. Lard is selling at 14 1/2c. to 15c., Hams at 14 1/2c. to 15c.; Butter remains unchanged, holders have no difficulty in disposing of fine goods at full prices, but common quality remains neglected. Cheese seems rather firm, all the fall make is now in, second hands having been bought at 12c. to 12 1/2c. at the factories. Eggs are firm and unchanged. Poultry is arriving freely, and selling geese 5c. to 5 1/2c., turkeys 7 1/2c. to 8 1/2c.

... (Continuation of market report text) ...

The British Canadian Loan and Investment Co., (LIMITED.)

Head Office, 30 Adelaide Street East, Toronto. CAPITAL AUTHORIZED BY CHARTER, \$1,000,000. The attention of Capitalists, Managers of Trust Funds, and Investors generally is invited to CURRENCY DEBENTURES issued by this Company, furnishing A READY INVESTMENT AT A FAIR RATE OF INTEREST, AND UNDOUBTED SECURITY. For further particulars apply to R. H. TOMLINSON, Manager. Toronto, 14th September, 1882.

EVANS & ANDERSON, MANITOBA AND NORTH-WEST LAND MART. Farms and City Property in all parts of Manitoba and North West cheap, and upon easy terms of payment. EVANS & ANDERSON, 58 Church Street, Manitoba and North-West Land Mart.

CANADA PERMANENT LOAN AND SAVINGS CO. INCORPORATED A.D. 1865. Paid up Capital, \$2,000,000. Reserve Fund, \$2,000,000. Total Assets, 6,850,000. THE COMPANY receives money on deposit at current rates of interest, payable half-yearly, the principal being repayable on demand or on short notice. It also receives money for more permanent investment, for which Debentures are issued with interest coupons attached. The Capital and Assets of the Company being pledged for all moneys received for investment, Debenture holders and Depositors are assured of perfect safety and regularity in payment of interest. Office—Company's Buildings, Toronto. J. HERBERT MASON, Manager.

MURDOCH & WILSON, LAND, LOAN AND INSURANCE AGENTS, VALUATORS, ETC. OFFICE: 14 VICTORIA STREET, TORONTO, ONTARIO. Estates Managed, Rent Collected, Property Bought, Sold and Exchanged, Valuation made of Farm and City Property, all matters in connection with Real Estate and General Commission promptly attended to. Correspondence solicited. \$100,000 to loan on farm or city property at lowest rates of interest. Send for our mammoth Farm List. KENNETH MURDOCH. THOMAS WILSON.

KIDNEY-WORT THE GREAT CURE FOR RHEUMATISM. Acts on the system of the Kidneys, Liver and Bowels. As it is for all the painful diseases of the KIDNEYS, LIVER and BOWELS. It cleanses the system of the blood, and that causes the dreadful suffering which only the victims of rheumatism can appreciate. THOUSANDS OF CASES of the worst forms of this terrible disease have been quickly relieved, and in short time PERFECTLY CURED. PRICE \$1. LIQUID or DRY, SOLD BY DRUGGISTS. (54) Dry can be sent by mail. WELLS, RICHARDSON & CO., Burlington, Vt.

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