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The Field.

The Harvesting and After-Treatment of Flax.

Two leading points to be observed in the successful culture of the flax plant, have been pretty elaborately set forth in the articles and communications on the subject, which from time to time have appeared in our columns. If these instructions have been carefully observed, by those of our readers who have sown a patch this season, their labour can hardly have failed to be rewarded by a fine vigorous crop. We have seen a variety of samples, ranging from forty-six to fifty inches in length, in which the fine clean stalk and well-bolled head plainly showed that nothing beyond careful harvesting, at the proper time, and subsequent judicious treatment were wanting to render the flax crop in this country a profitable one. In order to obtain the maximum return from this crop, it is necessary that both the seed and the fibre should be turned to the best account. The rich nutritive qualities of the former are well known, and the producer cannot use it to better advantage than for purposes of stock-feeding. Linseed in any, and every form, constitutes a valuable and healthy cattle food. Given in moderation with other fodder, it promotes the production of fat and muscle, and preserves a healthy action of the bowels. In districts where flax manufacture has been commenced, there will be little difficulty in disposing of the straw immediately after the crop has been harvested, if such a course is desired. But in localities remote from a manufactory the want of an available market that would ensure to the producer a remunerative price for his straw, is likely to limit the cultivation of this important staple for some time to come. Since the large proportion of nearly 1,500 lbs. in every ton is all but useless, it is obvious that it will not bear the expense of exportation in bulk, to any great distance. Consequently there is to be a market for the straw in its crude state it must be a home market where the producer and consumer will be brought together. This desirable consumation may be eventually realized. In the meantime, however, it is desirable that our farmers should essay the steeping and scutching themselves

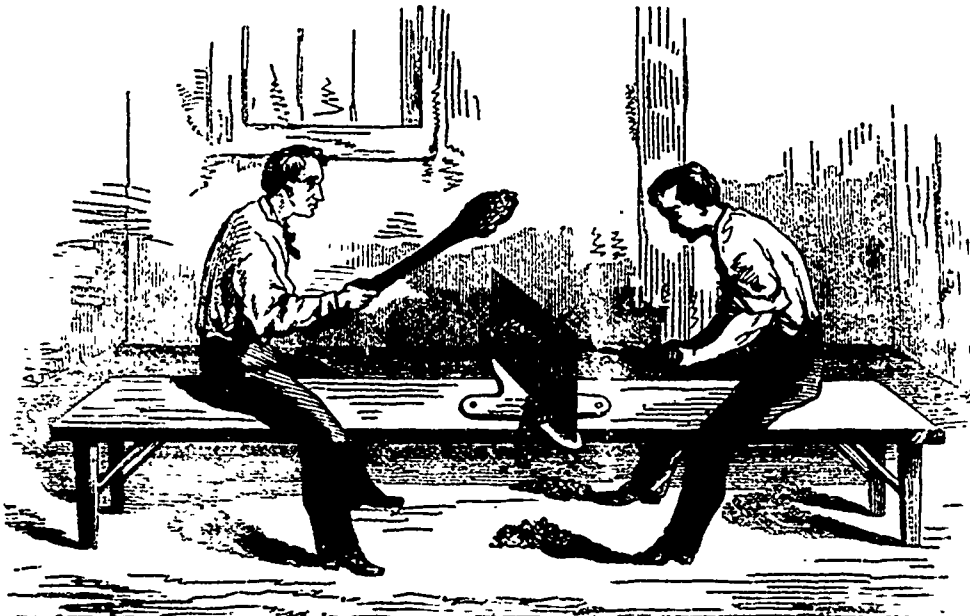
The much reduced bulk of the cleansed fibre might then be forwarded like wool to any destination. Indeed whether the producer be situated near to, or remote from, a flax mill, we are inclined to the opinion that, in all cases where practicable, it would be the most profitable course to scutch the flax before it is marketed. Moreover, fibre could then be submitted to market competition, and its value determined by its quality and absence of impurities, like other agricultural products. Without further urging this point, we will briefly describe the treatment of the crop from the time that it is removed from the ground until it is ready for the manufacturer.

PULLING. It is generally admitted that hand pulling is the only satisfactory method of harvesting the flax crop, when the fibre is intended for spinning purposes. Modern ingenuity has been repeatedly directed to the construction of a machine which would efficiently perform this operation. In this country, where farm-

to half an inch at the top. The construction of the ripple and the mode of using it are well shown in our first illustration. A winnowing sheet should be placed under, to receive the bolls as they are struck off. When flax is removed from the field to the barn before it is rippled, the straw becomes dry and rigid by keeping. In this case the seed-bolls are best separated by a "beater." A sheaf of flax is divided into two, spread out, and laid on the barn floor with the two head ends together, and then beaten with flat headed mallets. By this means the seed vessels are broken, and the seeds fall out. It is, of course, requisite that a little caution be exercised lest the fibre be broken or injured by unnecessarily rough treatment.

The subsequent processes have for their object, the separation of the fibre from the stalk. For this purpose it is necessary to remove the gummy and resinous matter, by which the fibres are glued together in the bark of the plant. Partial rotting or decomposition, either by steeping or dew rotting, is produced to effect this result. Each of these processes we will now succinctly describe.

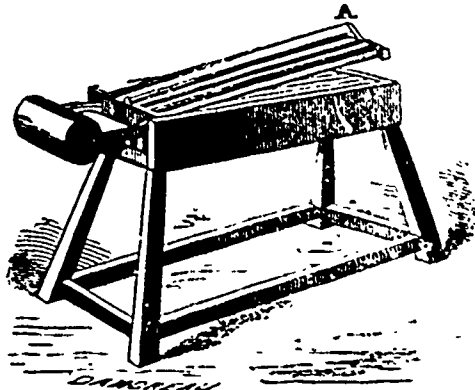
WATERING OR STEEPING.— "This process requires the greatest care and attention. River water is the best. If spring water must be used, let the pond be filled some weeks before the flax is put in, that the sun and air may soften the water. That containing iron or other mineral substances should never be used. If river water can be had, it need not be let into the pond sooner than the day before the flax is to be steeped. The best size of a steep pool is 12 to 18 feet broad, and 3½ to 4 feet deep. Place the flax



labourers are not easily procured, this is an important desideratum, and one which we hope some inventive Canadian mechanic will ere long supply. **RIPPLING.** This operation is frequently performed in the field. The handfuls of pulled flax are laid across each other diagonally, so as to be ready for rippling, previous to its being bowled up in sheaves. There is a saving of trouble and expense by causing this important operation to go on at the same time as the pulling, while the sheaves are, of course, more easily handled when the seed-bolls are removed. The ripple consists of a block of wood, into which a row of iron teeth about 18 inches long are inserted. The teeth should be formed of half-inch square rods of iron, placed with the angles of iron next the rippers, 3-16ths of an inch asunder at the bottom, and tapering

loosely in the pool, in one layer, somewhat slooped, and in regular rows, with the root end underneath the top of each row of sheaves to reach the root of the previous one; cover with moss sods, or tough old leaf sods, cut thin, laid perfectly close, the sheer of each fitted to the other. Before putting on the sods, a layer of rushes or ragwoods is recommended to be placed on the flax, especially in new ponds. As sods are not always at hand, a light covering of straw may do, with stones laid on it, so as to keep the flax just under the water; and as the fermentation proceeds, additional weight should be laid on—to be removed as soon as the fermentation ceases, so as not to sink the flax too much in the pool. Thus covered, it never sinks to the bottom, nor is affected by air or light. A small stream of water, allowed to run through a pool,

has been found to improve its colour. It will be sufficiently steeped, in an average time, from eight to fourteen days, according to the heat of the weather and the nature of the water. Every grower should learn to know when the flax has had enough of the



water, as a few hours too much may injure it. It is, however, much more frequently under-watered than over-watered. The best test is the following:—Try some stalks, of average thickness, by breaking the *shove*, or woody part, in two places, about six or eight inches apart, at the middle of the stalk; catch the broken bit of wood, and if it will pull freely out, downwards, for that length, without breaking or tearing the fibre and with none of the fibre adhering to it, it is ready to take out. Make this trial every six hours after fermentation subsides, for sometimes the change is rapid. Never lift the flax roughly from the pool, with forks or grapes, but have it carefully hauled out of the flax drain by men standing in the water. It is advantageous to let the flax drain twelve to twenty-four hours after being taken from the pool, by placing the bundles on their root ends, close together, or on the flax, with the slope, but the heaps should not be too large, otherwise the flax will be injured by heating.

“The flax water can be either used as liquid manure for meadows, or kept in the pool till the first flood—it should not be run off into the river when the water is very low, as the odour is very unpleasant.”

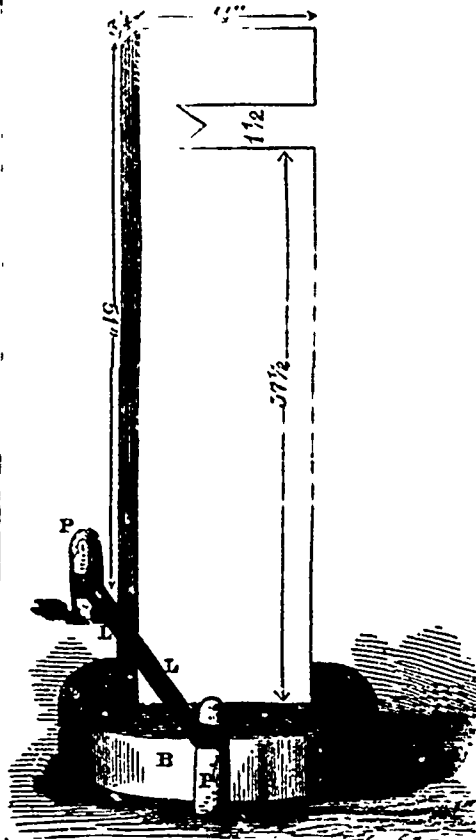
The flax is next spread on a clean, short, thick pasture ground, taking care previously to mow down and remove any weeds that rise above the surface of the sward. Lay the flax evenly on the grass and spread it thin and very equally. In ordinary weather ten days, more or less, will be about the time that it should lie on the grass. “A good test of its being ready to lift is to rub a few stalks from the top to the bottom; and when the wood breaks easily, and separates from the fibre, leaving it sound, it has had enough of the grass. Also when a large proportion of the stalks are perceived to form a *bow and string* from the fibre contracting and separating from the woody stalk.” In lifting, be careful to keep the lengths straight, and the ends even, otherwise much loss will be occasioned during the breaking and scutching processes. Let it be set up to dry for a few hours, and afterwards tie it up in small bundles. If not intended to be scutched at the time, it will be much improved by being put up in small stacks loosely built, with wood and branches in the bottom to keep it dry, and allow a free circulation of air. Of course stacks built on pillars would be still more suitable.

Dew Rotting.—In this process, decomposition, instead of being produced by the flax being submerged in water, is effected by its exposure on a meadow to the rains and dews. This course has the advantage of being more generally feasible than that just described; but as its efficacy and duration are dependent on that very fickle agent—the weather—it is often very tedious and uncertain. A long continuation of drouth materially injures the quality of the sample; and hence when convenience will admit of the flax being steeped, it is advisable to immerse it in water as before directed.

Breaking.—The simplest form of break is a flat-headed mallet like the “beater” with its face or

under surface fluted. The one is broken by repeated blows from its serrated surface. Another form of hand-break is represented by our cut, which consists mainly of two sparred frames, the upper moveable on its axis and the lower fixed. “It is so constructed that the bars in the lower frame fit between those of the upper. The operator takes hold of the implement by the left hand, at A., and with the right places some flax over the lower frame; the upper frame is then lowered, thereby breaking the woody portion of the stems.” Its construction, as will be observed, is quite simple, and any ordinary mechanic could easily construct such a break.

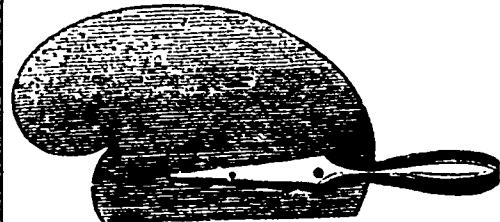
Scutching.—This operation has for its object the separation of the fibre of the bark from the woody portions of the straw or stem. If a stem of reed is taken in the hand and crushed regularly from one end to the other, nothing is left but a handful of fragments. Treat flax in the same manner, and after the brittle part is broken and fallen to the ground, a small band of strong fine threads will remain. This, in fact, is the textile portion of the flax, and consequently the scutchers get rid of the rest as completely as they can by thumping and crunching. The scutching board, as shown in our next cut, is merely



an upright plank, fifty-one inches high, fourteen broad, and of the uniform thickness of three-quarters of an inch throughout. It is firmly fixed in a solid block of wood, and at the height of thirty-seven and a half inches from the foot is a horizontal slit an inch and a half broad. “With his left hand the scutcher introduces into the slit a handful of broken flax, so that it hangs down on the side of the scutching board, which faces the reader in the cut. With his right hand he scrapes and chops at the flax with a tool called a scutch, (to be immediately described), something like a bottle-door or a monstrous wooden butter-knife.” A leather strap, L. L., an inch in breadth, stretches between two low posts P P, at the height of nineteen inches from the ground, just before the operator’s legs, at the lower part of the scutching board, in order that he may not bark his own shins while scutching the flax. The elasticity of the strap also causes the blow to rebound, and so aids the operator in his work. By these means, and by turning it about, the woody fibre and refuse are got rid of and little else but the pure fibre remains.

Our last cut shows the scutching blade, which is formed of thin, even grained wood, without knots or twists, generally of sycamore or beech. Its length from the end of the handle to the tip of the blade, is about two feet; and the greatest thickness of the blade at its upper part is a trifle over an eighth of an inch.

We have thus minutely described the scutching implements, because the operation itself is a most



important one, and requires careful manipulation to perform it successfully. In proportion to the skill and care of the operator will the value of the article produced, and the amount of waste made be determined. With a skilled workman the loss from the latter source is estimated at one-fourth less than when a scutching machine, such as Rowan’s or Friedlander’s is used. When the flax is of good quality and the scutching well done, there is just as ready a sale for it as the mill-scutched. Machines like those just named, to be profitable, must be in the hands of a capitalist, and be moreover pretty generally diffused throughout the country, if the cultivation of flax is to be an agricultural institution in Canada.

In the meantime, we strongly recommend the producers to take immediate steps to provide simple but effective implements for hand scutching, such as we have described, and set to work, with a will, during the coming winter. There is nothing unwholesome or laborious about the business, but on the contrary, a great deal of cheerfulness and merriment are evoked during the operation. By following the course which it has been our purpose in this article to indicate, the flax producer, we are persuaded, will be consulting his best interests, and will be encouraged to persevere in growing this important and valuable farm product.

The Proper Quantity of Seed.

EXPERIMENT and experience have taught me that the fulness of a crop does not depend upon the quantity of seed sown, but on the quality and condition of the soil; and, in a more limited degree, on climate and the period of sowing. Every agriculturist should, as a question of profit to himself, try on a small scale comparative quantities of seed, and if this were done generally (which I am sure it is not), a vast aggregate saving would accrue to the country at large, and a proportionate gain to the farmer himself. We often hear complaints of losses by a thin crop, but never by a thick one, although the latter too often subtracts considerably from the farmer’s profit. I related last year that a peck of seed wheat per acre, dibbled at intervals of about 4 1/2 inches, one kernel in a hole, produced 5 1/2 bushels of heavy wheat per acre, and 2 1/2 tons of straw; in fact, the thickest and heaviest crop of corn and straw on my farm. It was seen at various periods of its growth by many agricultural and other visitors. During winter, a single stem only having appeared from each kernel, the land at a distance appeared as if unsown, and we were often asked why we had omitted to drill that particular portion of the field. In the spring each stem radiated its shoot horizontally, to the extent in some instances of 30 to 48 stems, and ultimately became the best crop on the farm, and, which is often convenient in harvesting, about four days later than the thick-sown put in in October, at the same time as the rest of the field was drilled with one bushel per acre. In October last, rather late in the month, we repeated the experiment

on a heavy land clover lee, as last year. The ground was rough and hard, and very dry, and although a kernel was placed in each hole, only about one-half, or half a peck per acre, came up. Of course, we anticipated a partial failure, but spring came, and each stem threw out horizontally a large number of shoots, so that now it is admitted by all who see it that it will exceed in produce the adjoining crop drilled at one bushel per acre. It appears to be about four or five days later than the rest. I invite all who feel an interest in the matter to inspect this and my general crops in July, because, on public grounds, it is lamentable to waste so much food as we do in useless or injurious thick sowing, and it teaches us that deeper cultivation, drainage, and unwashed manure have more influence on the crops and on the seasons (whether wet or dry) than most people imagine. In spite of drought, my crops promise abundantly. This is a good heavy-land season, and particularly favourable to the stiff, crackling clays. Thin, hot soils, especially where shallow ploughed, must suffer considerably. A week ago I was in company with some (good) practical farmers, who astonished me by saying that, although only within 40 miles of London, they continued to sow 7 bushels of oats and 4 bushels of barley per acre! As I only put in 6 pecks of barley and 2 bushels of oats per acre, I presume that the astonishment was mutual. Even at present low prices, a self-taxation to the extent of some 7s. or 8s. per acre is surely worthy of consideration. I do not wonder at my friends finding gaps in their clover, caused by prematurely laid crops. According to Mr. Caird, the average increase of our corn crops is 8 for 1—one million quarters of seed to produce nine millions of corn! This is discreditable to us, for surely one good seed in properly cultivated soil cannot produce so little, if it be allowed sufficient space to develop its growth. Forty for one is nearer the increase on my farm.—*J. J. Mechi, Tipree Hall, June 27th, 1865.*

Hay-Making.

The following extracts, from an excellent paper by Mr. Baldwin, of Glasnevin, are taken from the *Scottish Farmer*, and will doubtless be read with interest:

TIME OF MOWING.

As all grasses do not bloom at once, it is necessary so to time the mowing that the majority of the plants present in the swath shall be at their best. The following rules are a sufficient guide:—

In the case of Italian rye-grass, always mow on the appearance of the flowers, as this grass is such a fast grower, that if cut at this stage a second cutting is obtained equal to the first; and on good land a third and fourth very little inferior. Ordinary rye-grass may be allowed to produce the flowers. Clover is best cut when the heads are in full blossom. Mixed meadows should be mown when the bulk of the herbage is in full flower, or when the seeds of the earliest grasses are fully formed, such as sweet-scented Vernal Grass (*Anthoxanthum odoratum*), Meadow Fox-tail (*Alopecurus pratensis*); and the late grasses, such as crested Dog's-tail (*Cynosurus cristatus*), and Meadow Fescue (*Festuca pratensis*), are just beginning to produce the floral organs. With us, Timothy (*Phleum pratense*), Italian rye-grass (*Lolium italicum*), Perennial rye-grass (*Lolium perenne*), and Cock's-foot (*Dactylis glomerata*), flower during the latter half of June, which, as these grasses constitute the great bulk of good meadow land, is our mowing season.

COST OF MOWING.

This will vary from year to year according to the crop and the abundance of mowers, more than 100 per cent. It is amazingly cheapened by horse-drawn machines, and the following valuations may be accepted as near the truth. For mowing a heavy crop of grass—

1. By manual labour—say	4s. 6d.
2. By mowing machine—	
Manual labour - - -	3d.
Horse labour - - -	6d.
Percentage per acre -	9d.
	1s. 6d.

This gives a gain of 3s. per statute acre. If (says Mr. Baldwin) we assume the saving effected by the machine at 2s. per acre, (and any calculation on the subject is only approximate), we find that the introduction of this machine on all the meadow land of Ireland (supposing the ground sufficiently even for the purpose) would effect a national saving of £150,000 annually! The saving over the greater extent of grass lands in our own dairy counties would, of course, be proportionately large.

HAY-MAKING.

The making, again, is a process cheapened by the use of the hay-tedder and horse-rake, so that from 8s. to 10s. per acre for good hay in good weather, and

10s. and 15s. for inferior hay in bad weather, as the whole cost of it when in the stack the expense may be reduced to 1s. with a mowing and other horse-drawn implements are used. The process essentially consists in so separating and scattering the grass after mowing that no two blades shall cling together in drying. It is perpetually tedded and shaken out as long as it is drying, and gathered together during night, or when left for any length of time exposed to the risk of rain; and as soon as dry enough it should be ricked. The practice of letting it remain too long in cocks in the field is injurious to it.

John Johnston Tries a Little Salt.

THAT veteran agriculturist Johnston writes to the *Genesee Farmer* under date of June 8th:

"I did last year what I never did before: that was ploughing up wheat stubble and sowing again with wheat. It is a respectable looking crop now, but if you saw the half of the field that I sowed salt on, say a full barrel to the acre, I am almost sure you would order forty or fifty barrels of second quality salt to sow in September or October. The salted wheat stands much thicker on the ground, is considerably taller, came in ear fully four days before the other, and altogether looks richer every way; and as I had not salt enough to sow the whole field, I sowed the half that has hitherto brought the worst crop and latest in ripening. Now it is much the best. I can stand in the middle of the field and look forty-five rods each way and see distinctly how far the salt came, or I can walk or ride down the side of the field where not salted, and see the line as plainly as if the one side was corn and the other wheat. If this won't make men experiment with salt, I don't know what will.

"My great crop this season is winter barley. It is my first crop of that kind, and if it don't get laid it is as good as any man could wish to see. It is now beginning to get yellow for the harvest. It was sown I think on the 11th and 12th of September, the field thoroughly summer-fallowed, rolled after the drill, and full one barrel of salt sown to the acre. I never saw such a crop. My neighbour, Mr. Noyes, has also a very good crop, but I have not been to it; still should we have heavy showers, mine might be greatly damaged, as it is both too thick and too tall. I guess it stands about four and half feet high, or nearly. I sowed two bushels to the acre, but I am sure one and a half bushels would have been enough. We need rain here very much for spring crops. There was heavy rain and hail some three miles from here yesterday. If you lack faith in salt, I want you to try one barrel on an acre of wheat, on dry land. If it don't pay, charge the cost of the salt to me."

Peas and Wheat.

SPEAKING of the best preparation for a wheat crop in connection with its great necessity, we are reminded of a fact brought to our notice within a week or two of the remarkable fertilizing value of the common field pea or black-eyed pea. A piece of land of apparently the worst description, a reddish clay, naked almost and gullied, it was found desirable to bring under improvement, and it was determined, as much was being said about the value of the field pea, to give it a trial. The ground was therefore well ploughed, and a bushel and a half to two bushels sown to the acre. When these came up plaster was sown upon them, and the result was a very handsome crop. It is a quality of this pea that it will grow luxuriantly where our common farm crops will hardly live. This crop was left untouched in the fall—neither gathered nor ploughed down. In the spring following everything remaining was turned under, and a crop of oats sown with clover seed. The oats made a fair crop, the clover following a very heavy one, which was grown two seasons in succession, and has left the land in a high state of improvement. This is plainly shown by a crop of corn now growing upon it. It is hardly creditable that from so poor a beginning such improvement should have been made without the help of any fertilizer but the pea and a little plaster. It very well accords, however, with a statement made to us by an intelligent farmer, and with very many facts which have come under our notice in the journals. The gentleman referred to stated that he had last season sown peas among his corn when laid by, and that wheat being sown on this field in the fall gave a better crop than his clover fallow. His experience of several years had convinced him that a good crop of vices, turned down, is a better dressing for wheat than the usual quantity of guano.—*Baltimore Sun.*

SAVE the seeds. Look well to this subject. Select the best of every variety as they ripen—cure properly, label, and store away for future use.

A HEAVY ROLLER. The granite roller that is used for the preparation of the Hillsborough, N. H., Fair ground, weighs six tons and seven hundred and fifty pounds.

LOW PRICE FOR POTATOES.—It is said that the farmers in Oxford, Maine, have contracted to furnish potatoes this fall for the manufacture of starch at twenty cents per bushel.

SURFACE MANURING.—In a recent communication to the *Genesee Farmer* on this subject, John Johnston states: "I have used manure only as a top-dressing for the last 26 years, and I do think one load used in that way is worth far more than two ploughed under on stiff land."

GOOD BARLEY CROP.—The *Genesee Farmer* says: "John Johnston has just thrashed his twelve acres of winter barley, and had six hundred bushels. He sowed two bushels per acre, but thinks he should have had more barley had he sown only a bushel and a half."

SEEDING LAND TO GRASS.—Where grass seed is sown alone, August is the best time to sow it, or, if not convenient before, it will do in September. We have known excellent crops obtained the next season from land sown the previous September. On low land that can only be ploughed at this season, there is a manifest advantage in seeding at this time. In such situations, red-top (*Agrostis vulgaris*) is, of course, the best kind to sow.

WHEAT A PLEASANT CROP.—It is a pleasant crop to put in; pleasant to see it cover the ground in autumn; pleasant to see it grow in summer; pleasant to look at as it whitens for the harvest; pleasant to see a good self-raker lay it down in sheaves ready for the binders at the rate of ten acres a day; pleasant to "pitch" on to the load; pleasant to thrash and get ready for market, and if you have a good crop and obtain a good price, it is not unpleasant to receive the money for it.—*Genesee Farmer.*

ECONOMY OF MOWING MACHINES.—A gentleman of experience has given as his opinion that a good mowing machine will save a farmer, upon an average, one-eighth of his crop of grass, aside from the fact that "laying is done" much sooner, and thereby a great saving must be made. He says the average height of grass is about 16 inches, and that a machine mows, upon an average, two inches closer than the scythe, thus saving two inches of grass over the whole surface. If a man cuts forty tons of hay with a mowing machine, he saves five tons of hay, as he would have got but 35 tons with the scythe. Calling hay worth, upon the average, \$3 per ton, there is a saving of \$10 a year in hay, to say nothing of labour. Thus the price of a mowing machine is saved in three years—no inconsiderable item. But this is a small item when compared with the saving in labour and "the wear and tear of the disposition" in swinging a scythe through a hot forenoon. Commend us to the mower as a labour-saving machine over all others invented for the use of the farmer.—*N. H. Farmer.*

UTILIZATION OF NIGHT SOIL AS A MANURE IN STRASBURG.—At Strasburg a company of middlemen engages to empty the cesspools, of which every house has at least two (built air and water-tight), once a year for nothing, and pays, moreover, 6 francs per charette, containing 96 baquets of the capacity of four gallons each. This quantity the company sells afterwards to the farmers for 10 francs. Now, as there are 14,000 houses in Strasburg, 10,000 of which have cesspools affording the soil in question (which is always semi-liquid), supposing the latter to be emptied only once a year, and to furnish each three charettes only, at 6 francs, we have 10,000 x 6 x 3 = 180,000 francs which the company pays yearly to the inhabitants of a town having a population of 70,000 souls. But as the company re-sells to the farmer the said soil for manuring purposes at 10 francs per charette, it follows that this article of traffic produces yearly at Strasburg 300,000 francs, or just about 4 1/2 francs for each inhabitant. The average sum, therefore, for each inhabitant of a city, where the material contents of cesspools are sold for their benefit, may be adopted with safety as founded on fact.—*Scottish Farmer.*

Rural Architecture.

A Cheap Country Dwelling House.

The accompanying plan and elevation exhibits a small inexpensive country dwelling house. It is designed so as to be built with either brick, stone, or wood. The exterior, as will be seen, presents a neat and graceful appearance. The front is broken

quiet deep land, so as to be in keeping with the surroundings.

A farmer having stone on his own land, would find it more profitable to build with that, than any other material, and if the work was executed neatly, and the joints struck with care, a very neat structure would be the result.

No space, as will be seen, has been lost in laying out the rooms. The plan is in the form of an in-

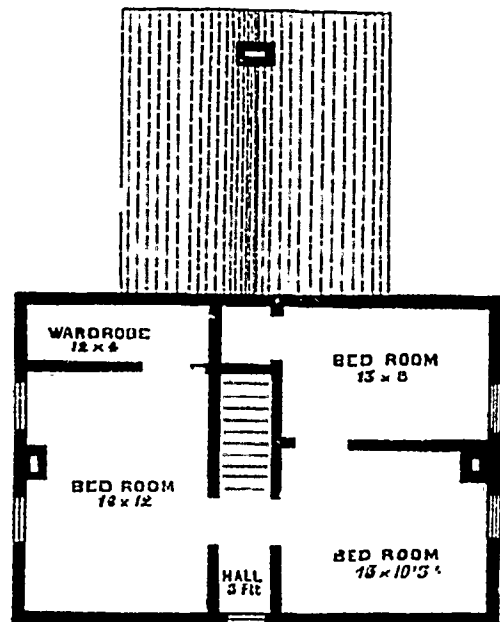
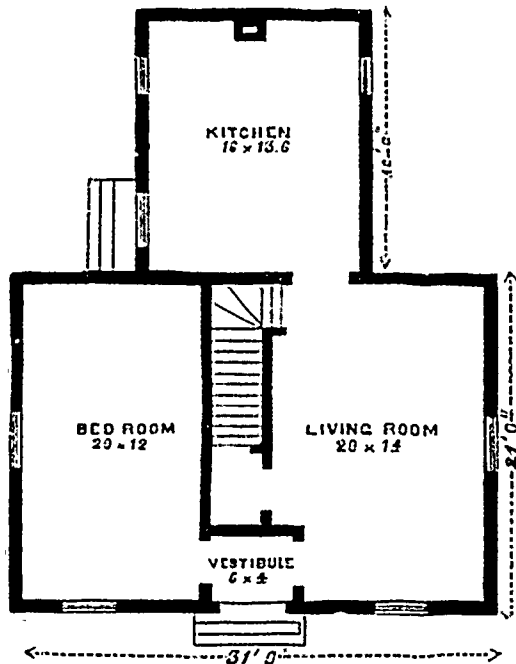
with an entrance to it under the stairs. The cellar should have at least 6 feet clear headway, and be floored with cement flooring. This kind of flooring will be found a little more expensive at the outset, but the comfort and durability of it will far more than compensate for the extra outlay. The kitchen is entered from the dining-room, and has an outside entrance in the side, as shown on the side elevation. Up stairs there are three bed rooms, a lumber room,



by raising a small gable over the front door, and is ornamented with a pinnacle, and arched barge board. The front door entrance is protected from the weather by a projecting hood board supported on ornamental cut brackets, and covered with shingles cut in patterns. The front and end windows are furnished with moulded drips, with return ends. If the house is built of wood, the boards should be nailed vertically to the girths and plates, the joints covered with a three-inch batten and the whole painted some-

verted T. The main building is 31 feet long by 21 feet wide, with a rear addition for the kitchen, 15 feet by 16 feet. The main building is divided as follows. At the entrance, a small vestibule adds to the comfort of the rooms, by keeping out the cold, when the front door is opened. To the right of the entrance is the sitting or dining room, 14 by 20 feet, with a pantry in connection, under the stairs, and to the left of the entrance a large airy bedroom, 20 by 12 feet. There will be a cellar under the dining-room,

and wardrobe. The lowest part of the bed-room ceiling is five feet, and the highest 8 feet, but any height can be got by increasing the dimensions. The bed-rooms can be heated by passing the stove pipes up through the floor, and into a flue coming two feet under the attic ceiling. This arrangement saves the expense of carrying the flues up from the foundations. A house of this sort, if built where the materials can be obtained at reasonable prices, could be finished for about four hundred dollars.



OLD FASHIONED COMFORTS.—The crowning glory of the ancestral kitchen was the old fashioned fire place with its blazing embers, huge back-logs, and iron fire-dogs, that shed glory over the whole room, gilded the plain and homely furniture with its light, and rendered the place a type of true New England in "ye olden times." Before the fire was a wooden settee, and here the children were wont to sit in the long winter evening telling stories, cracking nuts, conning their lessons for the morrow, or listening in silence to the words of wisdom that fell from the lips of their superiors, and anon gazing in silence into

the fire, and conjuring up all sorts of grotesque, fanciful images from among the burning coals. No fabled genii, with magic lamp of enchantment, could build such gorgeous palaces, or create such gems as the child could discern amid the blazing embers of the old-fashioned fire-place. And we must not neglect the chimney corner, where sat our grandfather in his accustomed seat, his hair silvered by the snows of many winters—a venerable man, to whom age had come "frostily but kindly," and whose last days were like those of an Indian summer, serene and beautiful, even till the stars appeared in heaven. How pure

was the air in those days? The hugo fire-place, with its brisk draught, carried off the impurities of the atmosphere, and left it pure, life-giving and healthful. Now, we crouch around hot cooking stoves, and think it strange that we feel so stupid and drowsy of an evening, or we huddle about air-tight stoves, and wonder that the air seems burned and impure; or we sit down in chilly rooms heated by a furnace, and marvel that with all our costly furniture, soft carpets, bright mirrors, and damask curtains, they are cheerless places—so unlike our ideas of a New England home.

The Dairy.

Is the Factory System of Cheese-making profitable in Canada?

THAT cheese factories are profitable in the United States, there can be no question. Their rapid multiplication, and the large amount of business done by them, prove this. Our American neighbours are too shrewd to pour water into a tub full of holes. Their proverbial hankering after the "dollar" is good security against their pushing doubtful enterprises on an extensive scale. It has, however, been predicted by some of the agricultural journals on the other side of the lines, that when the inflation of the currency ceases, and things come down to the gold standard, factory cheese-making will not pay.—During the past season, 20 cents per lb. was the average price of cheese as sold by the factors. But this was in reality only about 9 cents in specie. Regarding the other 11 cents as fictitious, it has been prophesied that on the subsidence of the currency, a collapse would be suffered by the cheese men. On the other hand it is urged that the factory business paid a good profit before war prices set in, and on the settling down of all things to the gold level, it will still be found profitable.

Our money market having been undisturbed by fluctuations in the value of the circulating medium of commerce, we are in a position to take a calm and sober view of the cheese business. Last year 9 and 10 cents per lb. were obtained for their cheese by Canadian factory makers. This year in consequence, no doubt, of the established reputation of the article produced, an invariable price of 10 cents has been, and there is little doubt will be given for what is manufactured in this country. It is not easy, from the newness of the business in Canada, to come at an exact calculation of cost and profit. Only an approximate estimate can be arrived at. At present prices, the Ingersoll Cheese Factory carried on by Mr. Harris, will yield a profit of from \$1,800 to \$2,000, after making a liberal allowance for working expenses, interest on investment, wear and tear, &c. With but little additional outlay, however, for premises, &c., and an extra cost of about \$2 a day for working expenses, a ton of cheese per diem could be made, and then the profits would be more than doubled. If we take the smaller factory, carried on by Mr. Galloway, we find that he is allowed \$1 per 100 for manufacturing the cheese, and that about 30 tons will probably be the season's work. This gives the manufacturer \$600. There are four partners in the investment of about \$2,000. At present prices, they will net about \$750. Allowing 12 per cent. for interest, wear and tear, &c., each partner will have a profit of \$125. If Mr. Galloway were the only party interested, he would have, after allowing for interest, &c., \$1,100, from which there would be scarcely any deduction, as the help is furnished by his own family. Judged by these bare estimates, cheese-making is much more profitable than ordinary farming. But these rough calculations do not fully represent the case. The cheese-factor himself keeps a large proportion of the cows from which the supply of milk is obtained. If he debits the factory the usual price paid others for the milk, he credits himself a profitable return for one of his farm products. Besides this, he raises a variety of crops, and these enhance the gains of his business. We hope to be able ere long to give the creditor and debtor side of factory-cheese-making in full detail. Mr. Galloway has promised to send us at the close of the season a minute account of his experience, which we shall take pleasure in publishing, as an example and guide to others.

We have no doubt that it is equally profitable for the farmer to sell his milk to the cheese-factor. It certainly pays better than to manufacture either butter or cheese at home. Cheese, the product of private dairies, never brings so good a price as the

factory article, mainly for the reason that however carefully made, the home manufactured cheese is not of uniformly good quality. At present, while factory cheese brings 10 cents per lb., that made in private dairies only brings 5½ cent. The labour of cheese-making is great, and presses very heavily on the female members of the farmer's family. Were factories in operation within reach, it would pay better to take the milk to them, pay 2 cents per lb. for its manufacture into cheese, and sell at 10 cents, than to make cheese at home and sell it for 8½ cents. It admits also of easy proof that it pays better to send milk to a cheese factory than to retain it for the purpose of butter making. Twenty cows will average milk enough to make 41 lbs. of cheese per day. The same milk made into butter, will only yield 12 lbs. of the latter article. A patron of Mr. Galloway's tested the two courses. He made butter from the milk of ten cows for one month. The proceeds of his butter-making amounted to \$13. Next month he sent his milk to the factory, and received for it \$38. Another party sent the milk of eight cows to the Ingersoll Cheese Factory for a month, retaining his Sunday's milk for the family supply of butter. His receipt for the month's milk amounted to \$30. This is a rather large yield, but it is explained by the fact that he paid two cents per lb. for the manufacture of cheese from his milk, so that he really obtained about 8 cents per gallon for his milk. Still another illustration. A farmer in Norwich owning 20 cows sent his milk to Smith's Cheese Factory last season. His farm consists of 100 acres of land, and besides keeping his cows, he raised considerable grain and other crops. His season's milk footed up \$650, at 6 cents per 10 lbs. Had he taken the proceeds in cheese, his receipts would have been more. We doubt if there were many 100 acre farms in Canada, that, with the poor returns of last year, told so good a tale.

The necessity for a change in our system of farming, the importance of manufacturing manure on a larger scale,—the wisdom of a rotation of crops, and succession of products, together with many other weighty considerations, commend the cheese factory system to Canadian farmers. It is proved that we can successfully compete with American dairymen. The market is a steady and permanent one. There is no danger of it being over-stocked for a great while to come. And while this, like other departments of agricultural industry, is not a money-making business in the sense in which that phrase is used by financiers and speculators, it is a fairly remunerative occupation, and one that it is desirable to see entered into more largely. Those who have embarked in this business are encouraged and sanguine. Many parts of Canada are peculiarly well adapted to the dairy business, and though we are somewhat cautious and slow about adopting novelties, there is little doubt that the good beginning made in Oxford, will be followed up in various parts of the land.

A cautionary word perhaps is needed as to having factories too near one another. It is possible for them to be planted too thickly for profit. To avoid this, it is well that there should be some concert of action in getting up these institutions. One factory doing up the milk of 800 or 1,000 cows, will pay better in proportion than four small ones doing each one-fourth the work of the large one. We hear of a design to start factories in several quarters, and hope that we shall speedily have the pleasure of chronicling their actual and successful operation.

Soiling Milch Cows.

The following statement on this subject occurs in an article published some time since in the *Utica Herald*, giving an account of the dairy management of Dr. L. L. Wight, of Whitesboro:—

The Doctor made an interesting experiment last year, by adopting in part the system of soiling for 20 cows. Twenty acres were employed for the purpose of producing food for these cows, and were divided up in the following manner: pasturage, 15 acres; clover, three acres; rye, half acre; oats, half

acre; sowed corn, one acre. The rye is put in the previous season, by the last of August or first of September, and is therefore ready to be cut early in the season following. By the time this is used up the clover will be large enough to be used, and after that the oats, which are sowed early in April. The corn fodder comes last, and different parts of this acre of land are sowed with the corn, so as to have a succession in food, the earliest corn being put in by the 6th of May. In this way the 20 acres were amply sufficient to keep the cows in feed until some time in October, when they were turned into the aftergrass. The Doctor is of the opinion that the cows do as well, if not better, both as to health and yield of milk, than they would at pasture, and that when land is valuable and arable, or adapted to this system, it can be employed with profit. The cows were generally fed by 6 o'clock in the morning, and remained at their feed about three hours, when they were turned into the pasture, and at 3 o'clock, P. M. they were brought up and received their afternoon's meal. To cut the feed and take charge of the cows, it takes one man about half his time.

It may be observed here that it usually takes from two to three acres of land to pasture a cow, while by the system adopted as described about two-thirds only of an acre suffice. The system of green soiling is not generally understood, nor are its advantages appreciated by the dairy farmer. All experiments of this kind are valuable, and it is well worthy of thought and investigation whether the smaller farms, under this system, may not be enabled to keep quite as much stock, realizing more profit annually than farms of double and treble their size under the ordinary methods of culture.

Dr. Wight grows mangolds to some extent for stock feeding, and prefers them to other roots, taking the cost of cultivation and the relative nutritive value in account. We looked over a field which appeared to be forward for the season, though considered by the Doctor as a very ordinary crop, their growth having been checked by the dry weather. On this farm there is a large and handsome barn, fitted up with hay-scales and hay-presses, where hay is pressed and put up in bundles for the market. The cows on the farm are grade cattle, being a cross of Durham and Devon, and were yielding on an average 27 pounds of milk each per day. The farm is one of the best in this locality, and indicated neat, thorough, and intelligent culture.

PROPORTION OF BUTTER TO YIELD OF MILK.—According to Johnston, while a Holderness cow gave 29 quarts, producing 1 lb. of butter to the 12 quarts, an Ayrshire cow gave 20 quarts, and 1 lb. of butter to the 8½ quarts; an Alderney cow gave 19 quarts, and yielded 1 lb. of butter to the 12 quarts; a Devon cow gave 17 quarts, and butter at the rate of 1 lb. to the 9½ quarts.

CLOSE CONFINEMENT FOR COWS.—The custom of confining cows to the stanchions for weeks or months, without exercise, has, of late, found numerous advocates, on the ground that thus kept, they will lay on more flesh and give more milk. A recent writer on this subject says: "Such cows may give more milk and lay on more flesh, but it will be at the expense of health and vitality. There is not a respectable medical authority in the universe that dare recommend the dispensing with daily exercise in the open air, for man or beast, where health and physical development are sought. Horses for the race-course, and man for the ring, are subjected to severe and regular exercise. Weakness and incapacity are induced by confinement. Beware of sacrificing indispensable ends to temporary profits and convenience. Provide warm sheds and well-ventilated stables, with bedding, and then feed well, groom well, and furnish plenty of good water, and opportunity every day for free exercise of at least two hours."—*Rural American*.

REMEDY FOR LEAKY TEATS.—As soon as the cow is milked clean, wrap a rag about one inch wide twice around each teat, an inch from each tip, and tie it on with woollen yarn, which is more elastic than linen or cotton. They should be tied in a bow knot sufficiently tight to prevent the milk from coming down to the end of the teats, but not tight enough to produce pain by stopping the circulation of the blood. The rags are of course removed when the cow is milked. Light India rubber bands slipped over each teat are much better and more convenient than strings, and may be obtained at any stationery store. They may be made by cutting narrow slices off from the end of rubber tubs, or by cutting rings out of a piece of old fashioned rubber shoe. If they clasp the teats too tightly, make them thinner. A joiner's gouge is the best tool to cut out such rings with. After a few weeks the teats will be so contracted that they will not leak.—*American Agriculturist*.

The Breeder and Grazier.

A Well-proportioned Horse.

Look when a painter would surpass the life in limning out a well-proportioned steed, His art with nature's workmanship at strife, As if the dead the living would exceed, So did this horse excel a common one, In shape, in courage, colour, pace and bone Round hooped, short-jointed, fetlocks slag and long, Broad breast, full eyes, small head, and nostrils wide, High crest, short ears, straight legs, and passing strong, Thin mane, thick tail, broad buttock, tender hide, Look, what a horse should have he did not lack, Save a proud rider on so proud a back.—*Shakespeare*.

Pig, Pork, and Bacon.

AN animal in a state of rearing may be considered as a vessel open at both ends, in which the supply and the waste being nearly equal, it can never be filled: fattening an animal may be considered as an attempt to fill the vessel, and which can only be done by excess of supply; the waste being the same as before, the excess must be great; if it is not so, the vessel may be rendered fuller than before, without ever becoming full. An important hint might be taken from this simile by many who know little of the difference between feeding and fattening. We have known swine kept for months and fed with a view of fattening them, without their gaining a pound of meat.

There exists, perhaps, in creation no animal which has less justice and more injustice done to him than the pig. We see him gifted with every faculty of supplying himself and of providing even against the coming storm, which no creature is better capable of foretelling, and we begin our treatment of him by putting an iron ring through the cartilage of his nose. Having thus barbarously deprived him of the power of searching for and analyzing his food, we then generally condemn him for the rest of his life to solitary confinement in a sty.

When his faculties are still his own, only observe how with a bark and grunt or snort, he starts if you approach him; and mark what shrewd intelligence there is in his bright twinkling little eye. But with pigs as with mankind, idleness is the root of all evil. The poor animal, finding that he has absolutely nothing to look forward to, but the pail which feeds him, most greedily he greets its arrival. Having no business or diversion—nothing to occupy his brain—the whole powers of his system are directed to the digestion of a superabundance of food. To encourage this, nature assists him with sleep, which, lulling his better faculties, leads his stomach to become the ruling power of his system—a tyrant that can bear no one's presence but his own. The poor pig thus treated, gorges himself, sleeps, eats again, sleeps—awakens in a fright, screams, staggers against the blue apron, squeals fainter and fainter; turns up the whites of his little eyes and dies!

The fat and flesh of the hog are peculiarly valuable for their quality of absorbing salt to a large extent. It is owing to the property that we have salt or pickled pork, bacon and ham—all three preparations being known all over the world.

The flesh of a hog that has been fed for bacon is rather inferior to that which has been intended only for pork, and is called pig-meat in contradistinction to pork.

The best bacon is generally considered to be that which is streaked with fat and lean alternately, having a greater proportion of the fat. But in order to attain this desirable result, which is of course managed by feeding the animal for the purpose, we must not do as did the Irishman, who crammed his pig one day and gave him nothing to eat the next. Such bacon is in particular request with the Irish peasantry in Europe—when they can get it—and in some cases, as we have been informed, is used with their potatoes after the manner called "point". Potatoes are eaten with point in the following manner:—a piece of bacon is hung in the middle of the room over the table, and each person on taking a mouthful of potato, points at the bacon.

The excellency of pork greatly depends on the feeding of the animal. The difference between a properly fed pig and one that has been badly managed is plain enough when the pork is roasted; but if it is boiled the result is very decided. Badly fed pork never roasts firm, and is devoid of that crispness which is one of the great charms of roast pork. But badly fed boiled pork is lamentable.

The best pork we ever saw or tasted, was that from some pigs under the charge of a lad who took care of them as if they were his own children. Every day he used to give them a dinner of hot potatoes; for he said he did not see why his pigs should not have

their masters hot as well as himself. He also fed them each day with corn-meal pudding. They were plentifully supplied with clear water. Then he used to scrub them dully with a brush and soap, rinsing them well with clean water. The animals seemed to enjoy their lavation, and used to press quite eagerly towards him as he came in sight with pail and scrubbing brush. Their sty also was kept perfectly clean and dry, and their feeding troughs washed out frequently. In consequence the pork was perfection.

In fattening pigs it will be found better to let them have a little charcoal, and now and then a little earth. In their natural state of existence, they are always rooting in the ground, and they therefore necessarily swallow a small portion of earth with every root. Their "peck of dirt" is not an unpleasant necessity, but an essential improvement to their health.—*Stock Journal*.

CATTLE SUCK-CHEWING.—Some years ago my cattle contracted the habit of suck-chewing, licking and lapping boards saturated with chamberlye, around the doors and sides of the barn, and after getting all the salts and alkalis from the surface, trying the teeth to dig out what could not be reached by the tongue. Thinking that their health and constitution demanded what they so persistently sought after, I made it a practice to give them one foddering a week of straw or meadow hay saturated moderately with either chamberlye or soap-suds. They ate it with avidity, and I soon found that it was having a salutary effect, not only in quieting their gnawing propensities, but in the general appearance and thrift of the animal. They became more quiet and ruminating—less inclined to rub and tear about. Probably every farmer has noticed how greedily cattle will devour straw that has been in a bed, also how some cattle will chew old rags, bed quilts, &c. This is undoubtedly to satisfy the craving for the same elements they obtain from soap-suds and chamberlye. I would rather have my stock, in winter, lack salt than soap or its equivalent, and I would say the same about summer management if they are kept in an old pasture without access to sprout land or woods. At this season of the year, whether lousy or not, there is no better practice, according to the cost, than to wash the entire bodies of neat stock with soap-suds in the morning of some of our sunny days. It washes out the dirt and dandruff that makes cattle rub or lick continually. Let those farmers who have suffered from chilblains think of the suffering of neat stock tied for days together where they can neither lick, rub, nor scratch.—*N. H. Jour. of Ag.*

CHEWING THE CUD. Nearly all the cud-chewing animals, instead of cutting teeth, have pads in the upper jaw. When browsing on leaves, or grazing on grass, they press the leaves or grass against the pads, and cut them from below with the front or incisive teeth of the lower jaw. They do not bite their fodder as we do our food, with cutting teeth above and below: they cut it from below against a pad, as we do our bread from above against wooden trenchers. Goats, and horses, camels, giraffes, as well as deer, show the build which adapts them by raising their heads high up for browsing upon the leaves and sprouts of shrubs and trees. Their tongues are their hands, taking or catching instruments, serving them as the trunks serve the elephants. They take their fodder with their tongues, pads, and cutting teeth, and they chew it with their grinders or molars while kneeling down upon the ground, with looks of sleepy satisfaction. Endowed with four sacks in their stomach, they shake up the fodder and chew the "cud," which means chew the chewed. The stag shakes up his fodder from his first sack or stomach, with violent shakes, into his mouth; but most cud-chewers, or ruminants as they are called in Latin, get up their leaves or grass with little difficulty, except when they have eaten too much. And the tongue of a deer is not so awkward a hand as might be supposed, for it can scratch above his eye.—*Fr*

CHINESE TREATMENT OF ANIMALS.—They never punish; hence a mule that, in the hands of a foreigner, would not only be useless but dangerous to every one about it, becomes, in the possession of a Chinaman, as quiet as a lamb and as tractable as a dog. We never beheld a runaway, a jibbing or a vicious mule or pony in a Chinaman's employment; but found the same rattling, cheerful pace maintained over heavy or light ground by means of a *tarr-* or *clack-*, the beast turning to the right and left, and stopping with but a hint from the reins. This treatment is extended to all the animals they press into their service. Often have I admired the tact exhibited in getting a large drove of frightened sheep through narrow crowded streets and alleys, by merely having a little boy lead one of the quietest of the flock in front; the others steadily followed without aid either from a helping cur or cruel goad. Cattle, pigs, and birds are equally cared for.—*Travels on Horseback in Tartary*.

Sheep Husbandry.

Bleeding Place on Sheep.

A FRIEND at Canandaigua writes us:—"You will remember that at the State Sheep Fair you pointed out to myself and others what you termed the German place for bleeding sheep, and you remarked that it was well worth knowing, especially to persons unable or unwilling to bleed from the jugular vein. I mentioned this in a letter to a friend in the West, and he asks me for more particular information. Will you give it to him, both because you can do so better than I, and because if you will do so publicly, it will be of great advantage to other persons?"

If any one who picks up a sheep's skull after it is free from its covering, will look at it in front, he will observe two holes, each not far from the size of a goose-quill, between the orbit of the eyes, and probably from half to three-quarters of an inch from the edges of these orbits. These holes are termed the supra-orbital foramina, and out of them pass the nerves and blood-vessels which supply the forehead. They are found also in the skulls of horses, cattle, &c. On the skull of the living sheep, these holes are readily felt by pressing down over them with the point of the finger. They must be felt far from the eye, and a little lower relatively to its apparent orbit than they appear in the naked skull. A little examination and experience will enable any one to find them readily, and there need be no mistake about it, as there are no other such small round depressions to be found on the forehead of a sheep. A slight incision with the point of a sharp knife directly down into one of these cavities will produce a sufficient discharge of blood for ordinary purposes. It will flow far more freely and rapidly than from bleeding in the ear. As these foramina extend upwards, the knife point encounters their lower bony walls after penetrating but a small distance, and there is not therefore any danger of its going too deep unless a very unnecessary amount of force is applied.—*H. S. RANDALL, in Rural N. Yorker.*

Report on Scoured Fleeces.

THE following elaborate Report has been prepared by the committee of the New York State Wool Growers' Association whose names are appended. It will be read with interest, and will well repay careful study.

The Committee entrusted with the duty of awarding the premium offered by Hon. D. D. T. Moore, "for the fleece of one year's growth, or thereabouts, which on being cleansed, shall be found to give the greatest weight of wool, in proportion to its time of growth and to the live weight of the animal," submit to your Association the following Report:

On the 11th day of May last, at Canandaigua, fifteen sheep were shorn in competition for Mr. Moore's premium—five of them rams, ten ewes. All of these sheep, except one Cotswold, were Merinos. The liberal offer of \$50 for the heaviest fleece of wool, to be tested by having it cleansed as wool is cleansed by manufacturers, excited much interest among breeders of sheep and the public generally. The fifteen sheep that competed were, it is to be presumed, supposed by their several owners to be as good as could be produced; and it is quite probable that in the main they were correct in this opinion, though in some instances the result of the cleansing shows to the contrary.

The true value of a fleece of wool must depend on its quantity and quality. Mr. Moore has asked for a test of only one of these points—quantity. It is perhaps well that he confined himself to this single point, for by so doing a breeder of Cotswolds, Mr. Gazley, was induced to compete. The well known fact that the sheep that produce the coarser wools give fleeces that shrink much less in cleansing than the finer wools, has led many persons to believe that, of clean wool, the so-called mutton breeds produce nearly or quite as much, in proportion to their weight, as the fine woolled sheep. The opinion was freely expressed on the Fair Grounds that the Cotswold would win the prize. It is to be regretted that the mutton breeds had not been more fully represented, that the comparison could have been more complete than it now is. We will venture to express the hope that in future trials more of this kind of sheep will compete, and if necessary to induce this competition, that premiums be offered for the fleeces not only of fine woolled sheep, but for the fleeces of the breeds raised principally for mutton. This might involve, perhaps, three classes, viz., fine woolled sheep, long woolled and middle woolled sheep.

We feel confident that Mr. Moore's plan of having the true weight of fleeces determined by positive

ests must lead to important results in instructing both wool grower and wool manufacturer, and lead to both branches of the common interest engaged in producing the clothing of our people to a better understanding of the facts involved. The wool grower desires to get the most he can for the produce of his flock; the manufacturer as naturally desires to get as much wool for a given sum of money as he can. However disposed the parties may be to deal fairly by each other, they will fail to come to an understanding, mutually satisfactory, unless they are both in possession of a knowledge of the facts in the case. It may be true that much labor and cost is involved in cleansing fleeces and making the necessary figures to determine the relative merits of a great many of them, but knowledge in regard to so important a matter is worth the price.

It is due to your Association and the competitors that the processes adopted by us in the discharge of our duties should be set forth. Mr. Goffe, one member of the committee, is the manager of the Syracuse Woolen Mills, and under his immediate direction the fleeces were cleansed. His statement of the manner as by him given is as follows: "The wool was washed by taking 10 pounds of soda and 5 pounds of salt dissolved in 150 gallons of water in a large tub. I then took a small tub and dipped out a sufficient quantity to wash one fleece, then put in the fleece and scoured it in the small tub then took out the wool and discharged the liquor, and washed each fleece in this manner, so that none of the wool was lost, wasted or mixed with the other. In drying the wool we laid it on a cloth on the wire screen over our dryer, (which is inside the mill.) so that none of it was lost in drying. The strings were kept with each fleece and put with them when weighed after scouring."

These precautions appear to make it certain that there could be no error or unfairness in the process, and the result was that the wool was scoured, as Mr Goffe says, "as we would for manufacturing—that is we take out all the animal oil or 'nature' as we term it, which is necessary in order for the wool to take colour in dyeing."

The wool thus cleansed was carefully weighed, and then the weights, together with the weights of the uncleaned fleeces, the time the wool was growing, the live weights of the shorn animals, and the other facts necessary, were placed in the hands of Mr Homer D. L. Sweet, a member of the committee, and by him the table that accompanies this report was made. This table shows by inspection the whole matter—placing the competitors in the order of their merit. The work of making this table was considerable, and Mr. Sweet's associates on the committee feel under great obligations to him for having taken it on himself. His manner of making the computations he describes as follows: "Divide the weight of the scoured fleece by the number of days it was growing. This gives the amount produced by the animal in a day. Divide this small fraction by the live weight. This gives the amount grown by one pound of animal in one day. Multiply the fraction by 365 and it gives the amount grown by one pound of animal in a year, (this is the figure that decides who has won,) and this, multiplied by the live weight of the animal, tells how much it would produce in a year. This last operation proves the three foregoing calculations. The per centages of fleece to live weight, and of scoured wool to live weight, are computed in the usual way."

By this process Mr. Sweet has made a table that gives at a glance all the facts necessary to a side who has won the premium, and the exact standing, in all particulars, of each competitor in the contest. By simply reading the first line it appears that Addison H. Clapp, (who stands at the head of the list,) had a ewe that was two years old, in fair condition—weighing forty nine pounds—that sheared a fleece that weighed (as it came from the animal) nine and eighty five hundredths of a pound—that it cleansed four and seventy-five hundredths of a pound of wool—that the uncleaned fleece weighed twenty per cent. of weight of animal—that the scoured wool was nine and six-tenths per cent. to weight of animal. The scoured wool to shorn fleece, is forty-eight per cent—making the loss in cleansing fifty two per cent. The age of the fleece was 367 days; the quantity of wool produced in a day by the animal was .01294 of a pound, the quantity of wool produced by one pound of animal in one day is .009264: the quantity produced by one pound of animal in a year is .0030, and the quantity produced by the animal in a year would be 4.72 pounds. This is the standing, as appears by the table, of the prize animal.

To contrast this animal with one of its same age, sex, breed and condition, we will take Mr. C. J. Sweet's ewe, No. 12 in the order of merit. Mr. Sweet's ewe was two years old, in fair condition, weighed 78.5 pounds—fleece, 17.5,—the scoured wool, 5.31,—percentage of fleece to live weight, 22,—percentage of scoured wool to live weight, 6,—percentage of scoured wool to fleece, 30.3—percentage of shrink-

age, 69.7. This comparison followed through will give the whole case.

It may be well to institute some comparison between two rams. We will take M. F. Gibbs' No. 5, and L. J. Bovee's No. 13. Mr. Gibbs' ram was one year and one day old, in good condition: he weighed 50.5 lbs. His fleece weighed 11.31 pounds—it scoured 3.97—the per centage of fleece to live weight was 22.3—the per centage of scoured wool to live weight is 7.6—the percentage of scoured wool to fleece is 33.1—the per centage of shrinkage 61.9 Mr. Bovee's ram was a year and fifteen days old, in good condition, weighed 108.5 pounds, sheared 18.09—scoured wool, 5.18—per centage of fleece to live weight, 16—percentage of scoured wool to live weight, 4.7—per centage of scoured wool to fleece, 28.6—per centage of shrinkage, 71.4.

In this connection we will take the Cotswolds. Mr. Gazley's ewe No. 8, one year and twenty days old, fat, weighed 99.5 pounds—fleece as shorn, 8.9 pounds,—scoured wool, 7.31 pounds—per centage of fleece to live weight, 8.9—per centage of scoured wool to live weight of animal is 7—per centage of scoured wool to fleece, 81—per centage of shrinkage, 18, which is only about one-third as much as that of the prize animal. Mr. Bovee's ram, though a Merino, produces more weight of animal in a year than Mr. Gazley's Cotswold ewe, but much less scoured wool,—and this ram weighs more than twice as much as the prize ewe, sheared twice as much fleece, and in the prize column stands less than half as high.

Masses of figures present few attractions to most people,—but we suggest to producers of wool and mention a careful study of the table we give, being confident that useful information will be derived therefrom. We will content ourselves with one more comment.

It will be at once seen that the small sheep have greatly the advantage in the contest—not that the very smallest sheep proved the winner, but the rule, in the main is proved to be true, that small sheep, having more surface in proportion to their weight, do give more wool per pound of body. This is entirely in accordance with the elaborate tables made by Mr. Sweet of the weights of animals and fleeces as shown in his own flock. His tables have been extensively published, and the lesson they taught is confirmed by our investigations.

For the mere purpose of wool-raising very large sheep are not desirable. Respectfully submitted by
GEO. GLODES; HOMER D. L. SWEET, A. J. GOFFE,
JAMES M. ELLIS; CHARLES TULLMAN.

Order of Merit	Sex of the Animal	Age in years and days	Condition of the Animal	Weight of Animal	Weight of shorn fleece	Weight of scoured wool	Percentage of scoured wool to live weight	Percentage of fleece to live weight	Percentage of scoured wool to fleece	Age of fleece in days	Quantity produced in each day	Quantity produced by 1 lb of animal in one day	Quantity of wool produced by 1 lb of animal in a year	Quantity by each animal in one year
A. H. Clapp	ewe	2 367	fair	49	9.85	5.31	10.7	22.3	30.3	367	.01294	.009264	4.72	4.72
L. J. Bovee	ewe	1 15	good	108.5	18.09	5.18	4.7	16	28.6	15	.0117	.0042	1.52	1.52
M. F. Gibbs	ewe	1 1	good	50.5	11.31	3.97	7.6	22.3	33.1	1	.0224	.0078	2.84	2.84
H. Clapp	ewe	2 367	fair	49	9.85	5.31	10.7	22.3	30.3	367	.01294	.009264	4.72	4.72
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Entomology.

A Cherry-Tree Beetle.

A few specimens of a small beetle were sent us some little time ago, by a correspondent, who mentioned that they had proved very injurious to the young leaves of cherry-trees in his neighbourhood soon after they were put forth in the spring. Being new to us we submitted them to a friend, who kindly determined them to be specimens of *Galeruca rufosanguinea*, Say. We have since found them in large numbers upon the leaves of the wild cherry (*Cerasus pennsylvanicus*, Linn.) They belong to an extensive tribe of beetle, called Chrysomellans, all the members of which feed upon the leaves of plants. The species before us and other allied ones, generally feed together in swarms, eating large holes in the leaves, and often completely devouring those that are young and tender. In their larval state they are short round grubs, of a dark colour, and furnished with six legs. The perfect insects of this species are oblong oval, slightly convex beetles, about one-fifth of an inch in length, entirely dull red colour, except the antennae, eyes, and feet, which are black. They fly mostly by day, and generally fall to the ground when an attempt is made to seize them.

A mode of destroying them which we have no doubt would prove efficacious, is to spread white clothes or newspapers under the infected trees, strike the branches smartly with a stick so as to cause the beetles to fall to the ground, and then gather them up quickly and destroy them. Insects such as these would rarely, or ever, prove troublesome were small birds and toads suffered to remain unmolested about our farms and gardens. They are our best friends, and ought by all means to be encouraged, even though the former take a little payment for the benefits they confer upon us, by helping themselves to a portion of the fruit they have assisted to preserve. Surely no one can grudge them this, or wantonly destroy these beautiful and harmless little creatures, which are of such inestimable service to us in keeping down the farmer's and gardener's insect plagues.

Spare the Toad.

DR. TRIMBLE, the famous entomologist, makes the following remarks concerning this much despised creature:—"The toad has a jewel in his head, and that is, his tongue, which, like a flash of lightning, takes in bugs and other plant pests. The toad is a funny creature, and if you look at him as a philosopher should, without being angry, because he is ugly looking and sometimes eats strawberries, you may find a great deal of amusement in him. I have seen animals go backwards into their burrows, but except the toad, I have never seen any make their burrows backwards. Find one a little belated in the early morning,—confront him,—and watch sharply as if you suspected he had been eating strawberries or lady-bugs, and his eyes will begin to wink and blink, soon his head will be averted, as if he felt ashamed, but all the while he is settling away, going down as a canal boat does when about to leave a lock; his feet have been throwing out the earth from under him, reminding one of the description of the first steamboat—a grist-mill afloat, with the water getting out from under."

Toads are fond of strawberry beds. They partially burrow beneath, and the broad Hoveys above, the hosts of insects and ripening fruit around make such a residence comfortable. I know a little girl, a great lover of fruit. She watches the fruit. Some very large ones are taken in the evening and carefully examined, but not being quite ripe they are allowed to remain. In the morning they are gone. She asks why? I say it is hard to know. Near by is a mutilated strawberry; the mark of a bite is plainly to be seen, and close by under a broad leaf, I observe the eyes of a toad. Could that concave wound in the strawberry be brought in juxtaposition with the convex mouth of that toad, there would probably be found a remarkable resemblance between the two. But nothing is said about it, for the little girl, though old enough to appreciate strawberries, is not old enough to discover the jewel in the toad's head.

When young, I was told if I killed toads the cows would give bloody milk; being fond of milk, the fear of such a catastrophe saved the toads. Like the snake, the toad sheds his skin annually, the manner of unjacketing himself being somewhat different from that of the snake, whose skin starts near the head, and then by drawing himself through a tight place, strips it off.—thus skinning himself alive—the cast off garment being left for curiosity collectors. The toad works at his with his mouth, first taking off his coat, and then his pants, and then he cuts them both. The curculio, with other beetles, I have found in his stomach."

GOOSEBERRY MIDGE.—Several kinds of worms prey upon the gooseberry, one of the most common of which is the "gooseberry worm"—a round bodied and curiously marked worm, measuring about an inch long, having ten legs, six in front and four behind. This worm is sometimes very destructive to the leaves, often completely stripping the bushes of them, and it is frequently found rolled up in them like the bud worm. In descending from the bush, this worm suspends himself by a thread. The most effectual remedy is to knock the worms off into a dust-pan and burn them. It is not so slow a process as would at first seem.

Very often the fruit, of the gooseberry becomes prematurely ripe, turns red and drops to the ground. This is caused by insects puncturing the berry and depositing their eggs within. Early in July the maggots appear in the fruit, which complete their transformations and give out the winged flies the latter part of the month. They not unfrequently deposit a second crop of eggs in the gooseberry, the larva of which remain in the ground during the winter, and are ready again to deposit their eggs in June. This insect is called the gooseberry midge (*Cecidomyia Grossulariae*). Something can be done towards destroying them by gathering the fruit which ripens prematurely, and that which falls to the ground—burning it in the fire. This destroys the worms contained in the berries, and by giving attention to the matter they can be got rid of, if there are no wild gooseberries for them to prey upon. The bushes of the latter should also be destroyed.—*Maize Farmer.*

The Apiary.

Management of the Apiary in August.

AT OUR request, Mr. J. H. Thomas, of Brooklyn, has engaged to furnish brief monthly directions as to the management of bees. The following hints for the month of August were intended for our last issue, but did not reach us in time. They are not yet out of date, however.

In many localities the honey harvest is past hence it will be necessary to keep an eye to weak stocks, and see that they are not robbed; for as the bee pasturage begins to fail, bees are apt to commence robbing. Honey or sweet of any kind attracts them now; while during a few weeks past they would pay but little attention to it when offered to them. In some localities the pasturage is still very good, and no watching for robbing is yet necessary. Whenever it does commence, the entrance of the hives should be contracted, so that only two or three bees can enter at the same time, it will then be more easily guarded. All miller grubs that can be found should be destroyed. Box hives should be turned up every week at least, as the grubs often crawl under the edges of the hive to spin their cocoons. When moveable comb-hives are used, and there are signs of grubs in the hive, remove the combs and examine them; if any grubs are in them, cut them out. If there are any queenless stocks not provided for in July, they should be seen to now. If possible, give them a queen (spare queens should be kept for this purpose), or if drones still appear about the apiary, worker-comb containing eggs may be given them and they will produce themselves a queen. All honey-drawers that are full should be removed, and where the pasturage is good, the box may be returned after taking out all the honey except a small piece, which may be left (say a pound or two), to induce them to go to work again. For full directions for giving queen or worker eggs to a stock, for getting bees out of honey-boxes, &c., see "Canadian Bee-Keepers' Guide."



The Cause of Rust in Wheat.

To the Editor of THE CANADA FARMER:

Sir,—In an article in a late No. of the CANADA FARMER, entitled "Thoughts on Ploughs and Ploughing," some suggestions are made as to the probable cause of rust in wheat. As the subject is one of importance, I trust you will allow me to lay some thoughts and facts on the same subject before your readers. I have no doubt that a careful collation of facts, elicited by experience, together with a thorough scientific chemical analysis, would decide the question of its cause beyond peradventure. Could not, for instance, Professor Croft, from his scientific knowledge, and with the aid of his instrumental appliances, ascertain whether the substance we term rust be a component part of wheat straw, or something foreign and extraneous to it? This would be an important point gained. In my opinion the most probable, although by no means new, theory of the cause of rust in wheat is, that it is produced by the seeds of an exceedingly minute fungus, which floating in the atmosphere, lodge on the stalk, and taking root, extract the juice or sap which is required for maturing the grain. Certain conditions will be more favourable for its development than others. These I take to be,—1st, a moist foggy state of the atmosphere;—2nd, the contiguity of localities where this fungus is generated;—3rd, whatever tends to produce a soft, spongy quality of fibre in the stalk, which last arises from an insufficient supply of the ingredients to be found in most abundance in our heavy clays.

In support of this theory, I will submit a few facts which seem to confirm it, while they upset other theories, and among them that advanced in the article referred to. I may claim some thirty years experience in growing wheat on newly-cleared unploughed lands, where the vegetable soil lies wholly upon the top, and where, I think I am within the mark in saying, the danger of injury from rust is at least four times as great as on ploughed land. I will mention some phenomena, which seem clearly to indicate the whereabouts of the truth we are in search of. First, whenever a ditch of considerable depth was made and the contents scattered on the surface, the straw was invariably clean, white, exceedingly hard and free from rust, and the grain well filled and flinty. Secondly, early wheat is never so liable to injury from rust as that which is late. Is it because the straw in the former case has become hard and parted with the sap necessary for the growth of the fungus before the seed of the fungus is ripe? Thirdly, foggy weather seems favourable for the growth of rust, whereas a smart shower is always welcome at the season of the year when rust is expected,—a fact noticed by your correspondent which might be expected, as the rain would wash off the seeds of the parasite.

I have no doubt others could add facts to this list bearing more or less directly on the subject. I frankly admit the "fungus theory" requires confirmation, but assuming that rust is produced by the bursting of the straw, it appears none the less evident that by supplying the ingredients to be found abundantly in sandy soils, and in marly clay, i. e., silica, lime and alumina, the wheat straw can be successfully fortified against rust. The clay here referred to is that description which crumbles down like lime when exposed to the air, and contains more or less of fossil shells, &c., indicating the presence of marl.

BEN. BEARCOLT.

Wyoming, August 8th, 1865.

The Last Election to the Board of Agriculture.

To the Editor of THE CANADA FARMER:

Sir,—It will be in the recollection of your numerous readers that prior to the annual meeting of the Agricultural Societies, the Directors of the South Riding of Wellington addressed circulars to the several Agricultural Societies in Upper Canada, requesting their co-operation in endeavouring to infuse some new blood into the Board of Agriculture, by nominating the following gentlemen to serve as members

for the ensuing year, viz.: Messrs. Jenison, Stone, Fergusson, and Dr. Richmond. The result of our appeal was only known through the press, by which we learned that Messrs. Christie, Burnham, Fergusson, and Richmond, had been selected; but through the kindness of D. Stirton, Esq., M.P.P. for this county, I received a list from the office of the Bureau of Agriculture, showing how the vote was cast, and as I think it would be well for all concerned to know by what majority the above gentlemen were elected. I proceeded to give the names and figures, viz.: Messrs. Christie, 26; Burnham, 21; Fergusson, 41; Dr. Richmond, 37; Johnson, 20; Stone, 21; besides six other gentlemen who received 1 and 2 votes each. In looking over the returns, I found 18 Societies whose vote had not been recorded, which seemed rather strange after what had taken place in regard to the election. I therefore addressed a note to the Secretaries of those Societies, asking for information as to how they voted, and where the resolutions passed at their general meetings nominating members to the Board of Agriculture were sent. The Secretaries, with the exception of four, have kindly answered my enquiries, and have enabled me to make the following statement as to how the election would have terminated had the votes of the 14 out of the 18 Societies been correctly recorded. I may state that some of the Secretaries sent their communications to the Board of Agriculture, Toronto, and some direct to the Minister of Agriculture at Quebec. Why their votes were not taken account of is a matter for them to enquire into. Had all the votes been recorded, the result would have been as follows: Messrs. Christie, 30; Burnham, 27; Fergusson, 50; Richmond, 41; Stone, 30; Johnson, 26. Five out of the fourteen did not vote at all. It will therefore be seen that the contest would have been a close one, and I sincerely hope the action this Society took may lead to a more satisfactory mode of electing members of the Board of Agriculture. In conclusion, I would beg to return, in behalf of this Society, grateful acknowledgments to those Societies who co-operated with us in our endeavours, and trust they will continue their efforts in furtherance of the same object.

GEO. MURTON,

Guelph, Aug. 8th, 1865. Sec. S. R. W. A. S.

SUMMER-FATTENED HOGS.—On this subject "Farmer" writes as follows: For several months there has appeared in your paper, communications from the various pork packing establishments of Hamilton, sometimes full of very disinterested advice to farmers, as to how they should fatten and upon what food—at other times, when to sell—and in a multitude of suggestions urging us to have a supply of fat hogs for "summer curing." I should like to hear from some of them, what the poor simpleton of a farmer, who has taken their advice, is to do with his hundred fat pigs this summer. From all the enquiries I have made, I cannot find that there is any one in Hamilton, and in Toronto only one person (Mr. Cuff) ready or willing to purchase a single grunter from May to September. The consequence is that those tending to obesity will most assuredly smother themselves in their own lard this hot weather, and thus prove a deal loss to their feeders. If some of those gentlemen will advertise the number of hogs they can kill, and the price at which they will contract, the pork will be forthcoming, if the terms offered are likely to be remunerative.

SEX OF THE OFFSPRING INFLUENCED BY THE STATE OF THE DAM.—On this subject "A. Bellwood," of Clarke, writes as follows:—"Having had an extensive practice in the raising of stock, I have noted the fact that cows which are served early in the season, and with milk in the bag, invariably produce heifer calves; while those served late, and without milk, usually produce male calves. I am satisfied that these results are not from mere chance, but are governed by some fixed law of nature. I should like to know if any of your readers have noted similar results, or can throw any light on the subject."

ANS.—We commend the above communication to the special attention of such of our readers as are engaged in practical breeding. The subject belongs to the most difficult points of animal physiology, and modern researches have done but little towards eliciting definite or reliable information. If our correspondent's experience should be confirmed by that of others, some clue may be afforded for unravelling this complicated and mysterious matter. We shall be happy to make room for opinions and judgments that may be based on correct observation or experiment.

A FINE SAMPLE OF GOOSEBERRIES.—"James Corbett," of South Oshawa, writes: I send you a sample of gooseberries, composed of the following varieties: Globe Seedling, Red Rover, and Whitesmith. The mammoth seedling I sent you last year was as good or better than last year, bearing very early, but is now past. The above samples are of my own raising, and are good producers, and free from mildew.

ANS.—We thank our correspondent for affording us the opportunity of testing the qualities of his fruit. The gooseberries were very large, and finely developed, and the flavour unexceptionable. A connoisseur friend, who happened to pay us a visit shortly after the sample came to hand, expressed the opinion that it was equal to anything produced in the "old country." We should like to know what special system he pursued to produce such results.

BEE SWARMING EXTRAORDINARY.—W. H. P., of Toronto, writes: "I enclose you a slip cut from the *Devon Weekly Times* (English paper), of June 9th, 1865, respecting bees, thinking it might be worth insertion in your journal.

Mr. R. Hammond, a respected yeoman, of the parish of Silverton, has had extraordinary swarms of bees this summer. From one stock alone he has had four swarms (from the Friday to the Monday week following)—a circumstance almost unheard of in bee history.

"There is nothing in this which cannot be accounted for by a practical bee keeper, but it is certainly rather unusual to have bees so strong in the old country as to throw off four swarms in the time mentioned. If you would like to receive a few practical letters on bee management, from one who has made them his study for some years, I would be happy to write them, in order to contribute to the general stock of knowledge on the subject."

ANS.—We shall be happy to receive the proposed communications on bee-keeping.

The Canada Farmer.

TORONTO, UPPER CANADA, AUGUST 15, 1865.

Carcase and Fleece.

We invite the attention of our readers generally, and especially those interested in sheep husbandry, to an able and elaborate report which appears on another page, and embodies the results of the investigations of a committee of the New York Wool Growers' Association, into the comparative merits of a lot of scoured fleeces, entered for competition at the recent State Wool Show. The lot comprised fourteen Merino fleeces, and one Cotswold, and while it is to be regretted that the assortment was not larger and more varied, the results of the exhibition are most valuable and instructive. The committee have evidently spared no pains in the discharge of the duty entrusted to them, and the thoroughness with which they have done their work, not only redounds to their credit as conscientious and trustworthy judges, but proves how warm an interest, and how keen a competition there is among our American neighbours, in the matter of sheep-breeding.

This examination brings out clearly what has often been affirmed respecting Merino fleeces, viz.: that there is a large percentage of waste, and an enormous shrinkage about them. Thus it will be seen by reference to the table embodied in the report, that the fleeces from the fourteen Merino sheep, weighed 176½ lbs.—and after cleansing, only 64½ lbs. In other words, 100 lbs. of fleece contained 64 lbs. of refuse, and only 36 pounds of real wool. The only coarse-woolled sheep shown, a yearling Cotswold ewe, far out-distanced the Merinos in this respect. Its fleece after scouring, gave at the rate of 82 lbs. of wool to 100 lbs. of fleece. In other words, 100 lbs. of Cotswold fleece, contains as much wool as 227 lbs. of Merino fleece. The per centage of shrinkage in the

single Cotswold fleece was 18, while in that of the best Merino fleece it was 52. The premium offered was "for the fleece of one year's growth, or thereabouts, which on being cleansed, shall be found to give the greatest weight of wool, in proportion to its time of growth, and to the live weight of the animal." The committee set forth very distinctly the grounds on which their award was given, but there is one point in regard to which there is plainly room for friendly criticism, if not dissent from the conclusion arrived at by them. This point is well put by the *Genesee Farmer*, in some judicious comments on the report under consideration. Our excellent contemporary well observes, that it is a very important matter to decide in such a case, what is the real "live weight." Referring to Mr. Lawes' well-known experiments with various breeds of sheep, he calls attention to the fact that the live weight was determined by taking the mean of the weight of the sheep at the commencement, and at the end of the experiment. Instead of this being done at the recent competition, the column headed "weight of animals," gives the weight at the time the fleece was sheared, instead of the mean weight of the sheep during the time the wool was growing. It would have been difficult, if not impossible, to get at this mean weight, but it is manifestly a point of no little importance, and one which must be noted in order to obtain a thoroughly accurate judgment. Thus the Merino ewe to which the premium was given, was two years old, and weighed at the time of shearing, 49 lbs., while the Cotswold ewe was only 1 year and 20 days old, and weighed 99½ lbs., when sheared. Of course the Cotswold did not weigh 99½ lbs., during the whole time her fleece was growing. The *Genesee Farmer* proposes to assume that her weight a year ago was 54 lbs., and that she gradually increased till at shearing time she weighed 99½ lbs. Her mean weight on this supposition would be 52 lbs. Assuming on the other hand, that the prize Merino weighed 25 lbs. a year ago, her mean weight during the time her fleece was growing would be 37 lbs. Our contemporary sums up the matter thus: "Now as she produced 4.75 lbs. of scoured wool, it will be found that 100 lbs. weight of animal would produce less than 12½ lbs. of wool, while a similar calculation will show that a Cotswold produced for 100 lbs. of average weight of animal, 14 lbs. of scoured wool. So that in point of fact, the Cotswold produced more wool in proportion to the real weight of animal, than the prize Merino sheep." Our Cotswold breeders in this province, will smile with inward satisfaction at this line of argument, and assuredly they have no reason to blush for the result of a competition which tells a tale so creditable to the coarse-woolled varieties of sheep. Our American neighbours have certainly worked up their favourite fine-woolled breed to a high pitch of perfection, and it is only necessary to contrast the portrait of the Canadian first-prize Merino ram, given in our last number, with the portrait of "Gold Drop" in our issue of March 15th, to see how far we are behind them in this respect. In the progress of events, they will pay more attention to the coarser-woolled varieties, and we shall become ambitious to cope with them, in the production of the finer-woolled breeds. The general deduction, with which the report in question concludes, corresponds with what has thus far been the chief, if not the sole object of sheep farming in the United States: "for the mere purpose of wool-raising, very large sheep are not desirable," British and Canadian farmers have always had an eye to carcase as well as fleece. Our American cousins are not a mutton-eating people. We are. Next to our national dish of roast beef, we prize a good roast or a boiled leg of mutton. We feel in this respect, and with far better show of reason, as the Frenchman did in regard to the English aversion to frog-eating, that "our neighbours do not know what is good for themselves." But they are learning, and while no doubt they will keep up their Merinos to the high standard already reached, and if possible out-do themselves, they will by and by be as just and generous to the claims of the butcher and cook, as they are to those of the wool-carder and cloth manufacturer.

The Exhibition of the Royal Agricultural Society of England.

THE annual show of this great national society was held this year in Plymouth, during the third week of July, and embraced more especially the district comprehending Devonshire, Dorset, Somerset and Cornwall, thus taking in the entire south-west corner of England. In a country of comparatively small extent, abounding in railways, canals, and the best common roads, the articles brought into competition at the Royal Agricultural Show of England, are collected more or less from all parts of the country, even as far north as Scotland, and occasionally as far west as Ireland; but of course the great bulk of the material constituting the show is furnished by the district in which the exhibition takes place, consisting of some half dozen counties. A show therefore in the south-west angle of England, as in the present year, or in the south-east, as in Canterbury in 1860, must necessarily be more restricted in the number of animals and articles exhibited, and also of visitors, than when such gatherings take place in more central and populous situations. But as the main object of the society in its annual perambulations is not so much to make money by increased admission fees, as to improve the agricultural practices of the country at large, it accordingly visits, in rotation, some principal city in each of the districts into which the council has divided the country for this particular purpose, a plan very similar to the one proposed by our own Provincial Association.

The Plymouth show, as from its situation might be anticipated, was much smaller, in every department, than is usual at the Society's exhibitions in the more central and populous parts of England. But, as compared with Newcastle, in the extreme north of England, where the Society held its show last year, Plymouth does not appear to have fallen much short, particularly in machinery and implements, a department that was well filled up with articles of very superior quality. At Newcastle, last year, the entries in the cattle classes, exclusive of those for the local committee's special prizes, numbered 361; for Plymouth the number is 339, showing a loss of 52. The entries for the local prizes of the latter, however, were 32, as compared with twenty for the former. The following table will afford the reader some more definite idea of the relative numbers belonging to the principal breeds of cattle.

1864.		1865	
Males	95	Males	51
Females	59	Females	51
Total	175	Total	92
HEREFORDS.			
Males	18	Males	21
Females	24	Females	29
Total	42	Total	50
SHORTHORNS.			
Males	11	Males	28
Females	33	Females	45
Total	47	Total	83

At Plymouth there was a large and fine assortment of Channel Island cattle, usually designated Alderneys; and also a number of other local breeds, both of cattle and sheep for which special prizes were provided by the locality. But it would appear that there was but little in these departments that possessed much general interest.

The *North British Agriculturist* observes:—"In the cattle classes the best represented breeds, in point of number, are the Devon and Channel Island breeds. In the sheep classes the Leicester is best represented both in numbers and quality, while next in merit are the Shropshires and Southdowns. The various breeds of horses are indifferently represented. In the thoroughbred class, indeed, there is only one horse competing for two prizes, one of £160 and another of £25.

SHORTHORNS.

These, the most valuable of the English breeds of cattle, were not brought out in any great numbers in the several classes. The animals shown were generally superior; but there was an absence of animals of very distinguished merit. Compared with that at Newcastle, the show of bulls was meagre as to num-

bers, and none of the animals exhibited were equal in merit to the prize bulls "Forth" and "Royal Butterfly 11th." In the aged class—six animals being entered and five exhibited—the first prize bull "Lord Chancellor," bred by the late Jonas Webb, and purchased at his sale by the present exhibitor, at the sum of 400 guineas, is of red colour, aged 4 years and 1 month. He is the best in his class; and although he has never hitherto been successfully exhibited at the Royal, he has taken a number of prizes at local shows, while this year he won at the Bath and West of England. The second prize was awarded to "Favourite" (19,727) exhibited by Mr. Bolitho of Trewidden. This bull is a year younger than the first prize one, and has several very good points. Colour roan, hair and touch good. The third prize was awarded to "Holwood," a roan, exhibited by Mr. Coryton of Pentliffe Castle. The brown spots of this bull are so dark that few breeders would use him for breeding Shorthorns. Neither the first nor second in this class have pedigrees of any repute. In the class for bulls above two and not exceeding three years there were six entries. The first prize was awarded to "Duke of Devonshire," a somewhat small, plain animal, colour red with a little white, exhibited by Mr. Ford, of Luson; the second prize going to "Baron Blencow," a white bull which has acquired some notoriety in the showyard in Yorkshire, and which ought to have been placed first in his class. The third prize went to "Knight of North Essex," shown by Mr. Clayden of Littlebury. Bulls above one and not exceeding two years old were a superior class, four or five animals of great merit competing. The first prize was awarded to a very perfect animal, colour roan, aged one year and ten months, shown by Mr. Fawkes, of Farnley Hall—generally a very successful exhibitor in the bull classes. The second prize was awarded to "Commander-in-Chief," bred by the late Richard Booth, and exhibited by Mr. Thomas Booth, of Warlaby. His age is one year and one month, consequently he is nine months younger than the first prize bull. Had there not been such a difference in point of age, the judges might have had considerable difficulty in placing the animals. Both animals are very well brought out. Bull calves was also a very good class, there being fifteen entries and three absentees. The first prize was awarded to "Friar Bacon," exhibited by the breeder, Mr. Fawkes. "Friar Bacon" is own brother to "Friar Jack," the first prize bull in the yearling class. In the calf class the second place was awarded to "Corporal," shown by the exhibitor, Sir Anthony de Rothschild, Bart. "Plymouth Candidate," exhibited by the breeder, Mr. Garne, of Churchill Heath, was placed third. In this class Mr. Thomas Booth exhibited two very good calves, aged eight and nine months respectively, both bred by the late Mr. Richard Booth. These calves were not in very high condition.

The female classes of the Shorthorns are all good, indeed, nearly the whole of the animals may be said to be very superior. The best class is that of the yearlings, although the class for cows above three years has seldom been surpassed at any meeting of the Royal Society. In this class there were ten entries. The first prize was awarded to "Corriane," five years old, bred and exhibited by Mr. Wood, of Stanwick Park. The second place was gained by "Diatem," bred by the exhibitor, Mr. Richard Stratton, of Walls Court. The third prize was awarded to "Elegant," shown by Mr. Sharpe, Courtlands, the exhibitor of the first prize aged bull. Of heifers in milk or in calf, not exceeding two years old, there were six entries of good animals. The first prize was awarded to "Lady Fragrant," bred by the late Richard Booth, and exhibited by Thomas Booth. She is unquestionably the best animal in any of the Shorthorn class—long, level, and extremely handsome, aged two years and four months, girthing at Warlaby eight feet. She has had seven calves, six heifers, and one bull. In 1864 she had three calves, and at the present time she is half gone in calf. The second prize was awarded to "Charlotte 4th," shown by Mr. Logan, of Maidce House, a somewhat celebrated breeder. The third prize went to "Lady Rosalea," shown by the breeder Lady Pigot. This heifer has been exhibited seventeen times, and has been awarded thirteen first prizes, two seconds, one third, and three challenge cups as the best female in the yard. There were twenty-four yearling heifers exhibited, forming a very superior class, and remarkable for general excellence. The first place was rightly assigned to "Princess," shown by the breeder, Lord Feversham. She is, for her age, a remarkably well-developed animal. The second place went to "Miss Farwell," purchased when a month old, for fifty guineas, at Colonel Townley's sale, and shown by Mr. Tennant, of Sarcroft Lodge, Leeds. The third prize was awarded to "Chloilde," a red and white heifer, shown by the breeder, Mr. Wood, of Stanwick Park. Taking into account the limited numbers shown, and excluding the class of old bulls, the Shorthorn has been seldom exhibited to greater advantage than at Plymouth.

HEREFORDS.

The Herefords are somewhat limited in number, doubtless from Plymouth being so distant from the home of the race. The best classes are the yearling heifers and heifer calves. In the class for aged bulls there are five entries—the first prize being awarded to "Peremptory," shown by the breeder, Mr. Read, of Elkstone. The second place was awarded to "Chieftain the Second," which was placed first at the Bath and West of England Show. The third prize went to "Battersea," shown by Mr. Baldwin of Luddington.

There were three bulls, above two and not exceeding three years. The first place was assigned the "Commodore," exhibited by the breeder, Mr. Duckham, of Bay-sham Court, editor of the "Hereford Herd Book."

Of yearling bulls there were six entries. The first prize went to Mr. Paramore, of Dinedor Court; the second to Mr. Wright, of Halston Hall; and the third to Mr. Tudge, of Adforton—a well-known breeder.

In the class for cows above three years old there were seven entries,—the first prize going to Mr. Baldwin of Luddington; the second, to Mr. Walker of Westfield House, for a large framed cow, red colour, with a yellow tinge—long looked upon in Herefordshire as an indication of rapidly acquiring flesh.

Of heifers in calf not exceeding three years old, there were four exhibited—the first prize being awarded to one shown by Mr. Baldwin, Luddington; the second to Mr. George Pitt, of Chadnor Court, Yearling heifers were a remarkably good class, there being eleven entries. All the animals were either placed or commended. The first place went to Mr. Wright, Halston Hall, and the second to Mr. Monkhouse, for a heifer that was first as a calf at Newcastle, and third at the Bath and West of England meeting. Mr. Phillip Turner's heifer was placed third. The breeders of Herefords are entitled to great praise for having brought their animals such a long distance to the Plymouth Show—some of them having come 300 miles. The Hereford cattle, generally owned by tenant farmers, have been greatly improved within the last ten years, breeders now bestowing considerable attention upon pedigree.

DEVONS.

This, one of the oldest of the established English breeds of cattle was shown in great numbers—total eighty-five—and many of the animals were of very superior quality. The judges evidently took size as well as symmetry into account in the placing of the animals, and in this respect acted wisely. The most successful exhibitors were Mr. Sobey, of Trewolland, Cornwall; Viscount Falmouth; Mr. Turner, of Beacon Downs, Exeter; Mr. Taylor, of Harptree Court, Somerset; Mr. Quarity, of Southampton; and Major-General Hood for Her Majesty.

The reporter of the *Irish Farmers' Gazette*, in reference to this class observes:—"The aged bulls were of the most massive proportions, but maintaining the most perfect symmetry—so much so, that the whole class was generally commended. The two-year old bulls were, for the most part, equally good, and so were the yearlings of which the whole class was commended; and we don't think a finer lot than the dozen that composed this lot were ever exhibited at any show. The bull calves were also excellent, and no disgrace to their sires and dams, whose place they are destined to occupy some years hence."

The Sussex cattle were in small numbers, arising in great measure from the distance of their limited locality from Plymouth. There were, however, a few good specimens of this breed, which was originally derived from the Devon, to which they have close general resemblance, being however coarser and larger, and furnishing very strong oxen, the best workers, perhaps, of any breed.

THE SHEEP.

The Leicesters never turned out in finer style; there were 50 shearing rams, 26 aged rams, and 8 pens of five each of shearing ewes. We noticed a couple of pens in the aged class disqualified for unfair shearing, and we wish sincerely that the same rule was put in force with the short wools, which, excellent as they undoubtedly were, had too much about them of what Mr. Beale Browne designates sculpture. The Cotswolds as a class were excellent, and have fully maintained their credit at this grand show. The rams were fine and the ewes superb, the Lincoln rams were also very fine, but we thought the shearing ewes, though nice, below the standard as to size. The Oxford Downs were good, but we scarcely think them up to the mark of those shown at Worcester. The south Downs were just as compact and lovely as we have ever seen this nice breed of sheep anywhere; the rams made their appearance in goodly numbers, Lord Walsingham taking all the prizes in shearing rams, and the first and second in

aged rams, Mr. Waters coming in third in the aged rams; but in the class for shearing ewes of 5 each the Duke of Richmond stood first, Lord Walsingham second, and the Earl of Radnor third. The Shropshire Downs mustered strong—13 shearing rams, 19 aged rams, and 10 pens of 5 each of shearing ewes. As a class they were beautiful and highly bred, but there was too much sculpture amongst them. Over hollow places the wool was more than two inches long, while on the more salient points it was scarcely half an inch, so that more is due to the artistic clipping than to the breeding. The Hampshire Downs were well represented in quality, though short in numbers, and the Somerset and Dorset horned were better, more compact, and symmetrical than we have ever seen them. The South Hams sheep were very few, and the wool of a coarse description. The Dartmoor and Exmoor sheep were shown in their wool, which was long and serviceable, and there were two Merinos; though 27 months old, they were small, but miserable things as compared with those shown at Battersea. Pigs, as a class, were shown in pretty fair numbers; they were divided into four classes, viz., large white breed, small white breed, small black breed, Berkshires, and a fifth or miscellaneous class, to take in those not qualified to compete in the others. The several specimens shown were of first-rate quality, and scarcely leaves us anything to wish but a hope that they may be severally kept up to the degree of perfection they have arrived at; they numbered in the aggregate 121 lots.

HORSES.—THOROUGHBRED.

For the Society's two prizes of £100 and £25, only one horse competed—the handsome but somewhat small horse, "Motley," exhibited by Mr. Carson, of Middleton Lodge, Linlithgowshire. If the society is to continue the offering of prizes for thorough-breds "calculated to improve and perpetuate the breed of sound and stout horses for general stud purposes," some other measures require to be adopted to ensure a better description than has appeared for the last three years. Perhaps the members of the Jockey Club might assist the society in offering a cup or prizes of triple the amount of those hitherto held out for thorough-breds. Such an arrangement would doubtless bring forward better horses than shown of late years. No sum that the Society can offer will bring forward such horses as Newminster, Blair, Athole, or Stockwell. There was nothing very remarkable in the class for hunters and hackneys, although several well-bred stud horses competed. There was a very limited show of hackneys and ponies; indeed the horse department was the least successful section of the Exhibition.

The visit of the Prince and Princess of Wales to the exhibition, and the presence of the iron clad navy of England and of France in friendly juxtaposition in Plymouth Sound, tended to draw a large number of spectators. The former event cannot be otherwise regarded than auspicious in the history of the Royal Agricultural Society;—the Prince thus affording another proof of his disposition to tread in the footsteps of his illustrious and lamented father; while the latter is pregnant with hope for the continuance of peace and good will between two of the greatest and most advancing nations of the world. The elaborate trials of machines and implements that preceded the show, we must defer noticing, till a report of the judges reaches us.

The Agricultural Society of South Wellington and the Board of Agriculture.

We publish elsewhere a letter from Mr. George Murton, Secretary of the above-named Society, in which some information is given which will interest and perhaps surprise our readers. Its chief item is a statement to the effect that the votes of fourteen Societies were, for some reason or other, taken no account of in the last election of members to the Board of Agriculture. No conjecture is ventured as to how this happened, and we have none to offer. The Bureau of Agriculture will no doubt be able to furnish an explanation of the matter, and perhaps it would have been well had Mr. Murton sought information from that quarter, and embodied it in his narration of circumstances. It would appear that had all the votes taken effect, Mr. Stone would have been elected in place of Mr. Burnham. In consequence, however, of the vacancy created by the lamented death of Col. Thomson, Mr. Stone has become a member of the Board, an appointment universally felt to be well deserved by that gentleman. The movement made by the Society of South Wellington had nothing

in it designed or calculated to give offence in any quarter. Its objects were to promote a more free and full expression from the Societies throughout the Province,—to secure a better mode of electing members of the Board, and to infuse some new blood into that body. As we observed at the time, not enough publicity was given to the Convention which was called, and as our report of the whole affair showed, remarks were made by individual members of the Convention which the Board of Agriculture considered unjust to it, and which it adopted means to rebut. While doing so, however, the Board took occasion to express its concurrence in the main in the wishes of the South Wellington Society, and we have no doubt that the individual members and the Board as a whole, will do their utmost to have the voice of all the Societies fairly heard, and to have every part of the country as efficiently represented as possible.

The Fergus Cup.

Owing to an oversight, the Prize List for the Provincial Exhibition this year does not contain the offer of the Fergus Cup, first presented by the late Hon. Adam Fergusson, some years back, and continued by his son the Hon. A. J. Fergusson Blair.

We have the pleasure of stating, however, that since the list was printed, the Secretary of the Board of Agriculture has been informed by the Hon. Mr. Blair, of his intention to continue the prize. The terms of the competition will be slightly altered; the prize will be for the best 2 year old Durham grade heifer.

Agricultural Intelligence.

Meeting of the Board of Agriculture.

A MEETING of the Board of Agriculture took place on the 1st inst. at the Tecumseh House, London, the object being to ascertain the state of preparations in regard to the Provincial Exhibition and attend to other business which might come up.

The following members were present, viz: Hon. D. Christie, President, Wm. Ferguson, M.P.P., Vice-President, Hon. G. Alexander, Hon. Asa A. Burnham, R. L. Denison, Dr. Richmond, F. W. Stone, J. C. Rykert, Esq., President of the Association, Dr. Beatty, President of the Board of Arts.

A number of communications were submitted and read, amongst which were a letter from the Bureau of Agriculture, stating that F. W. Stone, Esq., of Guelph, had been appointed by the Government a member of the Board in the place of the late President deceased. From the Managers of the Grand Trunk and the Great Western Railways respectively, stating that the same reduction would be made in the railway fares to and from the exhibition as last year. From Mr. Ferguson, of Kingston, accompanying the copies of Mr. Dickson's work on Flax, ordered some time ago by the board, and which had now come to hand from London. From the East Middlesex Agricultural Society, appropriating its funds in aid of the Association. From J. C. Tache, Esq., Bureau of Agriculture, stating that the warrants for the public grants for the Societies, which had not yet been received by the Board, had been duly applied for by him. From John A. Donaldson, Esq., report of progress in regard to flax cultivation. From the Committee on the Ploughing Match, draft of rules and regulations for governing the match.

The following resolution was then adopted.

Moved by Hon. Mr. Alexander, seconded by J. C. Rykert, and

Resolved,—That this Board have upon a previous occasion been required to express the great inconvenience experienced by the officers of the Local Societies from the delay in awarding to them annually their share of the Public Grant, and would now beg

respectfully to impress upon the Minister of Agriculture the importance of transmitting the amounts due to the Board of Agriculture at a period not later than the 1st of August of each year, so that the annual appropriations to the Local Societies may be transmitted to them in due time."

The Board adjourned at 5 p.m. to the City Hall to confer with the Local Committee. On arriving at the Committee Room, full explanations were given by the Chairman, Mr. Jas. Johnson, the Mayor of the city, Mr. Glass, the Hon. John Carling, and others, as to the funds at the disposal of the Committee, and the progress which had been already made, when it appeared that there would be considerable difficulty and uncertainty in the Committee being able to carry out the guarantee of the city given at Hamilton last year, to provide all the necessary preparations for the Exhibition, unless the Board rendered some assistance. The Board then retired from the Council Chamber.

The Board resumed at the Tecumseh House at 7 p.m.

The Rules for the Ploughing Match were then considered. They are as follows:—

1. Each ploughman competing must be a member of the Association, and will not be required to pay any additional fee.
2. The match will take place on Tuesday, the 19th September, commencing at 11 a.m.
3. The fields selected for the match are on the farms of Richard Thomas, B. Birch, and, if required, on the farm of David Patrick, at the junction of the road to Delaware.
4. The quantity of ground to be ploughed by each man will be about one-third of an acre, and will consist of two crown ridges and two open furrows equal in all to two lands 7 yards each in width.
5. Each ploughman will be required to drive his horses.
6. No person will be allowed to assist the ploughman except in setting his poles. Ploughmen will not be allowed to touch the furrows with their hands.
7. The ploughing shall not be less than 6 inches deep, no false cutting will be allowed. Each ploughman may, subject to the above restriction, choose the dimensions of his own furrow slice, but must cut to an angle of not more than 30 degrees, and set to an angle of 45 degrees. Any ploughman cutting to a less angle must set to half the angle he cuts.
8. Each ploughman shall draw his number, and the lot having a corresponding number shall be the one which he shall plough.
9. After drawing his number the ploughman shall stake off his lands, and shall be allowed an assistant to set and remove his stakes. Any ploughman receiving further assistance shall forfeit all claim to a prize.
10. On proceeding to open his land, each ploughman shall commence at the stake corresponding to his number, and shall back his own furrow; he shall then open the centre and finish the white land on the right side before commencing on the left.
11. Ploughing shall be commenced after the timekeeper shall have given the signal. The time allowed for the performance of the work shall be at the rate of an acre in twelve hours.
12. Each competitor on completing his work, shall place his stake with his number on it, on the centre of his land, he shall then at once remove his team and plough from the ground and report to the timekeeper.
13. Should two or more competitors be considered equal in merit, the preference shall be given to the person finishing in the shortest time; and in order to aid the Judges in the performance of their duty, the timekeeper shall furnish to them a list of the numbers of the various lots, with a statement of the time occupied in ploughing each lot.
14. All the land ploughed shall be judged.
15. No person will be allowed to interfere with the ploughmen while at work.
16. The decision of the judges shall in all cases be final, if in accordance with the rules. The Board of Agriculture will only interfere in cases where appeals set forth that the Judges have not given their decisions in accordance with the rules.
17. Boys under 18 years shall only be admitted to compete in the Boys' Class.
18. Persons intending to compete at the ploughing match shall make their entries on or before the 9th day of September.

The Judges are requested to attend promptly at the Secretary's office on the Exhibition Grounds, at 9 a.m. on Tuesday the 19th September.

Moved by Mr. Alexander, seconded by Mr. Burnham, that the Rules for the Ploughing Match just read be adopted, and ordered to be printed.—Carried.

Sundry questions of detail in regard to the fitting up of the buildings from the Local Committee were considered and replied to.

The following resolution received from the Local Committee was then submitted:

Moved by His Worship the Mayor, seconded by A. Lerman Melie, and

Resolved—“That the Board of Agriculture be respectfully requested in view of the holding of the Provincial Exhibition at this place, to take into consideration the propriety of granting some assistance to the Local Committee in the preparation of the necessary buildings, and this Committee truly pledges itself to use every exertion in the procurement of further grants to the Exhibition fund, and to use the whole in the construction of the buildings.”

The Hon. Mr. Carling, and Mr. Glass, Mayor, were in attendance, and gave further explanations.

It was then moved by Mr. Rykert, seconded by Dr. Richmond,

“That this Board appropriate to the use of the Local Committee the sum of \$1000.00, provided the city of London erect permanent buildings (except for sheep and pigs,) to the satisfaction of the board.”—Carried.

In view of the expected invitation by government of distinguished persons from the neighbouring Provinces to visit Canada this autumn, it was then moved by Mr. Rykert, seconded by Mr. Denison,

“That in the opinion of this Board it is highly desirable that an invitation be extended by the government to the Boards of Agriculture, as well as to the members of the Legislature and the Boards of Trade of the Maritime Provinces, to visit the Provincial Exhibition to be held at the City of London, in the month of September.”—Carried.

The list of Judges for the approaching exhibition was then examined, and vacancies filled up.

On motion of Dr. Beatty it was ordered that Messrs. Edwards and Fleming be instructed to visit London as soon as necessary, to give instructions for the internal fittings.

After some further business of a detail character the Board adjourned.

IMPORTED RAM. We learn from a local exchange that Captain Wallis, of Peterborough, one of the enterprising farmers who are fast raising the character of Canada West for choice stock, has imported a fine ram by the “Slendon,” now in port.

ITALIAN BEES AT THE PROVINCIAL EXHIBITION.—We are glad to learn that the Messrs. Thomas of Brooklyn, intend to have a stock of Italian bees, with a beautiful queen, on exhibition daily, at the coming Provincial Fair. They will also have a supply of moveable comb-hives, and all the requisites needed in the apiary.

THE DEHL WHEAT.—We learn that meetings have been held in Paris and Brantford for the adoption of measures to obtain a supply of this wheat for the farmers of Brant County. It is said to be a choice white wheat, as early and as hardy as the Red Mediterranean, and therefore not liable to be ravaged by the midge. A committee has been appointed to select and purchase a quantity of this wheat for next season's sowing. We perceive by an advertisement in the *Country Gentleman*, that for six cents forwarded in stamps to T. J. & J. T. Sheldon, Cleveland, Ohio, that firm promises to send samples and information to parties desiring to buy the “Dehl Select Wheat.”

CHEESE SHOW. Our New York neighbours are making arrangements for a large display of cheeses at their approaching State Fair. Some of the leading dairymen in Oneida county are on the alert to the matter, being resolved that the interest in which they are engaged should take a prominent place in the public eye. A thousand cheeses are to be shown. The Executive Board have engaged to place at the disposal of the dairymen a large hall or tent, and it is expected that one of the most attractive features in the coming Exhibition will be “Cheese-makers' Hall.” The State Fair is to be at Utica, which is in the very heart of the dairy region.



Care of Orchards.

To the Editor of THE CANADA FARMER:

Sir,—In the Horticultural leader, in a recent issue, the subject of “Exhausted Fruit Trees,” is brought forward; and, as orchard management is a subject in which we are all deeply interested or concerned, a discussion of it will prove beneficial to the whole horticultural community.

As you observe, the soil in which fruit trees are planted is frequently robbed, by an injudicious system of cropping of most of its constituent parts, necessary for the healthy growth of trees. As a rule, manuring is dispensed with, and the combined effects of starvation, and injuries inflicted by cattle, soon disappoint the “great expectations” of the planter.

During the first five or six years of its existence, the young orchard should be thoroughly cultivated, and the soil kept in good heart, so that a sound and well-ripened growth of wood is obtained; for we cannot expect trees, any more than members of the animal kingdom, to arrive at a good old age, after having been starved and rendered decrepid during infancy. A sound constitution must be built up, and then all goes well. Yet, during this period in the life of an orchard, we may cultivate too much, and that without cropping. A gentleman in this vicinity planted out a large number of dwarf pears, which, during the first season, grew well. In the autumn the ground was ploughed, too close to the trees, and the consequence was that next spring quite one-half were found to be so much injured from the roots being cut, that they died, and a great many of the remainder languished through the summer, only to be killed by the frosts of the following winter. Many of the varieties were also unsuited to the quince stock, and would never have made healthy trees. In this case there was a lack of knowledge on the part of the proprietor as to selection of sorts, and a want of discretion in ploughing so near the trees, that many of them were heaved over considerably. In horticultural, as in all other pursuits, a want of knowledge and experience can only result in failure.

Thus far, I have endeavoured to show that during the early stages of its growth, an orchard should be well kept, the ground made clean and rich, and a thrifty growth insured; then with judicious pruning handsome trees, and of course a handsome result will be obtained. Mr. Robson, a correspondent of the *English Journal of Horticulture*, remarks—“There is one thing that ought always to be borne in mind—good tillage in the first instance promotes rapid growth, and therefore it is advisable to bestow some pains in the first formation of a plantation.”

With regard to trees which have arrived at a bearing state, Mr. Robson's opinions coincide with mine, and I will therefore again quote his remarks:—“Trees, like men, have their period of youth, maturity, and old age, and when due encouragement has been given them, in the first period of life, the succeeding stages derive the benefit. Now, in a fruit tree destined to attain great dimensions, the earlier period of its existence is devoted to growth, rather than to producing fruit, and if let alone, or judiciously managed, its period of bearing comes on by degrees, and just in proportion its growth is less rapid. Though its growth and bearing vary according to the seasons and other circumstances, its maturity approaches sooner or later; and the aim of the cultivator is to retain it in a healthy state as long as possible; nevertheless there is a time beyond which his utmost skill is insufficient to do this. Probably some natural cause, as an adverse season or other misfortune, may bring on the tendency to decay, and

though the tree may have all the attention and assistance that can be given, it must in time succumb. . . . From what observations I have been able to make, I should be inclined to say that the spade (or plough) is an enemy to old trees, and, coupled with that, I am strongly disposed to add, that the knife is so also. Of course I am speaking of old full grown trees, past their best, for, like ourselves, old trees are unable to bear violent changes, when they no longer possess the vigour requisite to enable them to recover from any injury we may have done them. I certainly have never seen a fruit tree in a cultivated orchard, so old as those in some that have been long laid down in grass. . . .

“In classing both the knife and spade (or plough) as enemies to great age, I expect many will except the latter, and, perhaps adduce some good reason for doing so, but let us take an ordinary but somewhat severe example, and mark the result. Take two aged apple trees, that are still in fair bearing condition, and supposing both to be alike in health, &c., let one of them be headed down to a dozen or twenty branches, and grafted in the usual way. The scions we shall suppose to take pretty well (as they generally do if well managed), and a good growth ensues, which is followed by a certain amount of cutting and pruning, in the succeeding winter, to give the proper shape. This is repeated for two or three seasons, when, probably, it is discovered some spring that a large limb, involving quite one-third of the tree, has died, and probably next year the remainder follows. The other tree, on the contrary, never having been mutilated in any way, will remain in much the same condition as before, a little older looking, certainly, but still likely to live for many years. This picture is by no means overstrained, it being, in fact, of so frequent occurrence that the heading down of old trees is very little practiced now, and many whose experience is worthy of much attention, have expressed their disapprobation of meddling with old trees in any other way than by entirely removing them, affirming that extreme measures only tend to hasten their dissolution. I could point out many examples where old trees that had become crowded with mossy covered branches, did not seem to produce any more or any better fruit, by having their branches thinned, and cut into better form. Nature seemed to rebel against the proceeding, and refused to make amends in any way for the injury done.”

I think the success attending the experiment you allude from the *Horticulturist*, was entirely owing to the stimulus given to the roots of the trees, by the application of manure,—and in that way only can aged or decrepid trees be made to assume their pristine vigour. As you observe, the trees are not exhausted,—but the soil in which they grow.

W. T. GOLDSMITH.

St. Catharines, July 16, 1865.

Hogs in the Apple Orchard.

NOBODY sends such apples to market as my neighbour, John Jacobs. He always has apples to sell, and gets the highest prices. Folks prefer large apples; and such are always packed in Jacob's barrels. You might search them with a candle, and not find a knotty fruit or a worm hole. Such Rhode Island Greenings and Roxbury Russets I have never met with in the old States. They are as handsome as anything in the virgin soil of the west.

I was going by Jacobs' orchard last summer, and I had the curiosity to call and examine for myself. Says I, “Neighbour, what is there in your soil that makes such smooth, large apples? They are a third bigger than anything I can get, and my trees look as well as yours.”

“The secret is not in the soil,” John replied, with a twinkle in his eye, “but on it. Do you see those granter's there? My pork brings me fifty cents a pound—eight in flesh and the balance in fruit. I began to pasture my orchard ten years ago with hogs, and since that time I have had no trouble with wormy fruit. Apples, as a general thing, don't fall from the tree unless something is the matter with them. The apple worm and curculio lay their eggs in the fruit, and the apples drop early. The pigs devour the apples, and by September every unsound apple is gone, and I have nothing but fair fruit left. The crop of insects for the next year is destroyed by the pigs. They root around under the trees, keep the soil loose, manure the land some, and work over what manure I spread. The apples help the pigs, and the pigs help the apples.”

I saw John's secret at once, and have profited by it. I never had so few insects as this spring, and I have given the pigs credit for it. In turning the orchard into a pasture, put in pigs—not land-pigs, with snouts like levers. You might lose trees as well as insects in that case. But well-bred animals, with judicious snouts, will root in a subdued and Christian-like manner.—*American Agriculturist*.

The Trumpet Honeysuckle.

(*Lonicera sempervirens*.)

Among the woody climbers, the different species of *Lonicera* or Honeysuckle occupy a prominent place. The Woodbine, so woven into English poetry, is a well known species valued for its fragrance; and there are several others, the flowers of which are both beautiful and highly perfumed. As a covering for trellises, walls and flat screens, the honeysuckle does not answer as good a purpose as several other vines. Its nature is to wind or twine about some support like a pole, pillar, or trunk of a tree. As an ornament for pillars or poles, no vine is more suitable. The posts of a veranda or summer-house can be speedily covered by them. Supports of an ornamental sort are often made of cedar or pine, the shaft being about ten feet high, three inches in diameter at the base, and tapering to two at the top. Short, transverse rods are run through them at about eighteen inches apart, and the honeysuckle allowed to twine about them. If one has a heap of boulders, or a rocky ledge in his grounds, that he wishes to hide or embellish, let him set a scarlet or yellow Trumpet Honeysuckle at the base, and they will trail over the rocks very soon. The honeysuckle may be trained and kept as a standard five or six feet high, by simply cutting off the leading shoot every year. It will then throw out laterals which will be covered with flowers all summer. Set a stout post of cedar or other imperishable wood in the center, to which the main stem is to be tied, and then the branches will hang down and trail upon the lawn in a beautiful manner. The species figured above, though not fragrant, is very showy, and has the merit of being a native. It has fine dark green leaves, the upper pairs being united at the base so as to surround the stem. The flowers are tubular, about two inches long, of a fine scarlet outside, yellow within, and very brilliant. The engraving shows a portion of the plant of the natural size. Though the specific name, *sempervirens*, would indicate that it was an evergreen, it is not so at the North, but it retains its leaves during the mild winters of the Southern States. The neighbourhood of New York city is believed to be the northern limit at which the plant is found growing wild, but it is abundant farther south. Several varieties differing in the size of the leaves and size and colour of the flowers have been obtained from seed. It may be readily multiplied both by layers and cuttings.—*American Agriculturist*

Cultivating Chestnuts.

We notice in an Ohio journal, a communication from Dr. Kirtland, in relation to the cultivation of chestnuts. He raised in his garden, from seed, the French, Spanish, and Italian chestnuts, some twenty years ago, which he transplanted, and which, when ten years old, commenced bearing crops. He thinks they will pay well to cultivate, and also recommends the shellbark hickory nut for cultivation. He says the three kinds of chestnuts named are about equal in quality. Is he so of this? We find that the French is superior to either the Spanish or Italian, and we believe this to be the general opinion. But neither of them equal in quality our own natives, though

twice to three times as large. We have fruited neither, having only the French variety growing.

While on the subject, we desire to add, that we have often been surprised that farmers generally did not give some attention to the growing of chestnuts and English walnuts. On almost every farm is a plot of ground that is useless for farming purposes. Chestnuts will grow almost anywhere, however poor and stony the land. No doubt the French variety is more profitable, from being more marketable than



our own. These can be raised either from the plant, or our native varieties can be grafted with them. They grow as readily from the graft as apple or pear. Even for home use, a tree or two of the French is very desirable. Plant them out, protect them from cattle, and let them alone; and in course of time the fruit will come, in abundance.

But we desire to say a word for the English walnut. We consider this fruit as more profitable to cultivate than the chestnut. The tree grows readily, affords good shade, and will commence to produce regular crops of fruit in ten years, and will add to the quantity each year as the tree increases in size. The fruit is much sought after in its green state for pickling; and in its ripe state it is better than those imported from England. Its quality every one relishes. The price it commands at the fruiterers, will always doubly repay all trouble and expense attending the gathering and marketing. We believe the English walnut, as well as the chestnut named, can be obtained at the nurseries advertised in this paper.—*German Town Telegraph*.

The Harrisburg Telegraph gives the following advice to owners of old hoop-skirts:—"Suspend them on a pole in your garden five feet high; plant the seeds of some flowering vine around it, and you will soon have a trellis covered with beautiful vegetation."

Walks.

Walks, to be useful, should have some object in view; a summer house, an arbour, rustic seat, &c.; as used as an approach to the out-houses, stabling, &c. To be convenient, they should start from a point on the street line nearest to our place of business; not too steeply graded—yet, if necessarily steep, well guttered to prevent washing; of material that would render no uneasiness to pedestrians, as stone flagging, bricks, pebbles laid in cement; not so narrow as to render single file marching necessary as ladies always prefer to walk side by side: and it is they who frequent our walks most in their hours of recreation—yet, not too wide. Five feet is a sufficient width for small places, and eight feet for larger grounds. To be ornamental, they should be composed of gentle curves, not straight lines at right angles to each other, nor crooked lines; but seemingly to avoid some natural or artificial obstruction, as flower-beds, clumps of trees, shrubs, uneven surfaces, &c. To avoid undue multiplication of walks—as an uninterrupted lawn of green is preferable to one too frequently intersected with walks and carriage-ways; when convenient, let the secondary paths go under the main ways, through culverts wide enough on top to permit of shrubbery being planted on either side of these main walks, thus hiding any walk from the view of the other, besides giving to a small place the appearance of extent.—*Rural World*.

Mildew on the Grape Vine

A VALUABLE article on this subject, recently appeared in the *Horticulturist*, from the pen of Dr. Siedhof, of Weehawken, New Jersey. The following is the treatment by which the disease has not only been prevented, but vines nearly dead have been restored to health and vigour. The same application also frees the vines from the thrips.

I. Treatment of the vines before the leaves appear.

They must be thoroughly syringed, also walls, posts, trellises, etc., with the following mixture: Dissolve 3½ ozs. of common salt and 4 ozs. of saltpetre in 36 ozs. (1 quart and ½ pint of water, adding 10 drops of *Oleum Anthos* (essence of rosemary) and 10 drops of *Oleum Lavendulae* (essence of Lavender), shaking the mixture thoroughly before using it. Add one part of it to 100-120 parts of water.

II. Treatment of the vines when they are in leaf.

Sprinkle them thoroughly with flour of sulphur.

1. As soon as the leaves appear. This first sulphuration is the most important of all. Mr. Noubert says in a letter to us, received in October last, that it has more effect than all the others combined.

2. As soon as they are in blossom.

3. As soon as the berries are of the size of peas.

4. As soon as they commence colouring.

The most convenient and successful implement for the application of the sulphur is de la Vergue's bellows, made in France. A tin sprinkling box, or an extemporised bellows, may be employed in the absence of the French bellows, which is extensively used for dusting hop vines, &c., as well as grapes.

ECONOMY.—When a Spaniard eats a peach or pear, by the roadside, wherever he is, he digs a hole in the ground with his foot, and covers the seed. Consequently, all over Spain, by the roadsides and elsewhere, fruit in great abundance tempts the taste, and is ever free. Let this practice be imitated in our country, and the weary wanderer will be blest, and bless the hand that ministered to his comfort and joy. We are bound to leave the world as good, or better, than we found it, and he is a selfish churl who basks under the shadow, and eats the fruit of trees which other hands have planted, if he will not also plant trees which shall yield fruit to coming generations.

British Cleanings.

Probable Rise in the Price of Silk.

THE *London Pall Mall Gazette* says: "The silk breeders of France are, we are told, in a position of the greatest distress. A strange disease which has reappeared among the worms from time to time—notably in 1688 and 1710—has, since 1860, recommenced its ravages, till the price of seed has risen tenfold, and the demand for mulberry leaves has so fallen off that the planters threaten to cut down the tree, and use the lands for some more profitable cultivation. The disease shows itself, according to a petition analyzed in the *China Telegraph*, just as the worm is about to cocoon, so that the breeder has the trouble of rearing for nothing, and has to purchase seed, as it were in the dark.

Repeated experiments seem to prove that the only seed which can be trusted is that from Japan, and the breeders, therefore, pray the state to aid them by bringing home their supplies in men-of-war. It seems probable that this request will be granted, and also that the evil has spread through all silk-growing districts except Japan, is not temporary, but may last as long as the potato rot or the odium. The real obstacles to silk growing seem to be the slow growth of the mulberry. The worms will live and work in most countries, but they want mulberry leaves, and nobody is willing to plant orchards which will not begin to bear for five and twenty years. It would be no matter of surprise if silk in the next generation became as costly as under the Roman empire, and a silk dress as complete a test of wealth as it was two hundred years ago."

Bell's Messenger reports that a poultry show has been held at the Zoological Gardens of Brussels with great success.

A GOOD PROVERB.—English farmers say: Send produce to market on four legs, instead of four wheels.

A NEW DESCRIPTION OF HORSE-SHOE.—We learn from a British exchange that there is an invention under trial at Versailles with the object of replacing the iron shoes at present used for horses. The composition experimented on is said to be almost equal to iron in durability, is 75 per cent cheaper, and will never hurt the horse's feet.

LOW CARTS.—The *Agricultural Gazette* says a man in spading will turn over about one hundred tons of earth per day. If he had to throw it over the side of a cart or wagon five or six feet high, he could not handle more than one-fifth of the weight he lifted in the first place. Consequently, for every foot the cart is lowered a fifth part of the labour will be saved.

LIEBIG'S EXTRACT OF MEAT.—We learn from a British exchange that this valuable preparation—to a discussion of which, our readers will remember, we recently devoted an editorial—is attracting much attention at the International Exhibition at Cologne. Its price is twenty-four shillings (nearly six dollars) per pound; and a pound, it is stated, would make sufficient soup for a battalion.

STRAWBERRIES IN ENGLAND.—Several of our British exchanges report that the strawberry crop has been almost a total failure in England this season. This is in part attributed to the extensive planting of new varieties that had not been sufficiently tested. Sir Charles Napier, a variety which very rapidly acquired a reputation, was largely planted and has proved so worthless, that we have accounts of it being ploughed under by the 100 acres. Sir Harry and Grove End Scarlet are mentioned among the sorts which have done well the present year.

A COW NURSING YOUNG PIGS.—We learn from the *Caledonian Mercury* that a "rather interesting case of motherly affection has been seen for some time at the home farm of Balgowan, near Methven, Perthshire. A cow, which had lost her calf, took a fancy for a litter of pigs about two months old; and they, in turn, soon became attached to her. For a number of weeks she nursed them tenderly; but as the adopted family consisted of seven members, and the cow had only four teats, the harmony which existed for a time began to break up, and so quarrelsome did the hitherto happy family become, that the cow had to be removed from her charge. She has now been put to nurse a calf, but seems quite dissatisfied with her new foster-bairn. She often leaves the calf in the field, and sets out in search of her former family, from which her affections do not seem to have been withdrawn."

A FORTUNATE INVENTOR.—The enormous demand that has sprung up for the series of dyes that are prepared from coal, has probably no parallel in the history of colour manufactures. Mauve, magenta, picrofila, and other popular colours, are all produced by scientific treatment of certain substances that are produced during the distillation of coal. The inventor, or perhaps we should say, the discoverer of these dyes was a lad in the City of London School, now grown to man's estate, and enjoying an income of several thousands a year, as his share of the profits of the manufacture of these dyes.

EXPENSE OF STEAM CULTIVATION. At a recent meeting of the Central Farmer's Club, Mr. Dring, of Spilsby, is reported to have made the following remarks:—"Steam power, after all, is not very expensive in the long run. I have now in constant use one engine, which I bought of Messrs. Clayton & Shuttleworth in 1855, and the expense of keeping it in repair has been quite a two-penny half-penny affair. I always bring that engine out after harvest, and the result of employing it is that I have but little to do all the rest of the year; I have plenty of time to go to the Central Farmer's Club, or anywhere else."

POUNDS GULLS IN THE ORKNEYS.—"R. B.," writing to the *Field*, says:—"A most curious adventure happened to my friend and self, which may be worth recording. One Sunday afternoon, during a ramble some six or seven miles from Kirkwall, we parted company for a short time—I to explore one side of a loch, and my friend the other. When we met we each had the same wonderful story to tell one another, viz. that we were actually attacked by these small gulls. I was wading knee-deep, and felt a sudden blow on the top of my head (I wore a flannel cap.) I looked up and saw a gull in the act of pouncing upon me; and if I had not ducked my head, I feel convinced it would have been one for my blinkers. I pelted him with stones, but without success—he was as plucky as ever. My friend, however, was more fortunate: he managed to bowl one over completely, by hitting him in the neck with a stone; however, before he could get up to him, he had recovered himself and flew away."

THE PLAGE OF FLEAS, &c.—A correspondent of the *London Field* thus states the precautions he invariably adopts to escape the annoying sensations occasioned by those minute but blood-thirsty "jumping cattle": "When I travel I invariably take with me some muslin bags, each containing an ounce of refined camphor. Being kept in my portmanteau or box, they repel intruders from my clothes. At night I take out two or three of the bags and put them into my bed. Two for this special purpose I have sown to a double tape, and so sling them next my skin, one in front of, the other behind, my chest. I am seldom bitten, or nothing to speak of." He elaborately fortifies his house against the attack of other kindred invaders as follows: "At my own house I have a number of poor people coming every morning. I use the powdered pyrethrum, dusting it over the floor and druggery; and I am never annoyed by insects, although some of my poor friends (as I can testify from ocular demonstration) are

FRINGS.

As!—A word that good manne's never all lours ye. I have seen animals down stairs, but they never pass the pyrethral barrier."

THE FRENCH METHOD OF MAKING BUTTER.—We have frequently heard that cream may be converted into butter by simply being buried in the ground. It was not without some surprise, however, that we learned from a recent issue of the *Journal of the Society of Arts* that this mode is in common use in Normandy and some other parts of France. The process is described as follows:—"The cream is placed in a linen bag of moderate thickness, which is carefully secured and placed in a hole in the ground, about a foot and a half deep; it is then covered up and left for twenty-four or twenty-five hours. When taken out the cream is very hard, and only requires beating for a short time with a wooden mallet, after which half a glass of water is thrown upon it, which causes the butter-milk to separate from the butter. If the quantity of cream to be converted into butter is large, it is left more than twenty-five hours in the ground. In winter, when the ground is frozen, the operation is performed in a cellar, the bag being well covered up with sand. Some persons place the bag containing the cream within a second bag, in order to prevent the chance of any taint from the earth. This system saves labour, and is stated to produce a larger amount of butter than churning, and of excellent quality, and is, moreover, said never to fail."

Poultry Yard.

Feeding and Care of Poultry.

BROOD COOPS are usually made by nailing boards about two feet long together, so as to form a triangle about three feet deep; the back is boarded up closely, and laths nailed in front wide enough apart to permit the chicks to run in and out.

FEED COOPS are long boxes with slatted sides, the spaces wide enough to permit the free ingress and egress of the young, who are thus protected from the voracity of the old fowls. These coops should have shallow troughs in them for food and water, and be moved every few days to a fresh clean place.

COOPS for fattening fowls for the table should be kept clean, and always supplied with water, gravel, and a box of dry dust or ashes. No fowls will thrive without these provisions. The food should be varied and of the best quality. If the grain is cooked, and some meat allowed, it will greatly increase their thrift.

FOOD.—In summer we only allow food enough to the grown fowls to habituate them to the yard. But the feed coops of the young should be liberally supplied with soft bread, cooked vegetables, scraps of meat finely minced, curd, milk, melons, anything which observation teaches us they seek. The troughs should be washed out daily, and supplied with clean fresh water. It is a good plan to deposit for the benefit of your ducklings, in some corner of the yard, an occasional wheelbarrow of stable manure, or tub of soap-suds, anything that will breed a good supply of insects. In winter all fowls should have access to abundant supplies of food and water. Grain of all kinds, and for hens every day or two, animal food strongly peppered. Without this and lime you need not expect your supply of eggs. A favorite plan of winter feeding fowls with us, has been to scatter oats, straw and all, over our poultry yard. It makes a comfortable temporary pavement, the hens pick among it as cheerily as if it was summer, and the straw in the spring, and sweepings from our poultry-houses, make a compost for any root crop, that we have never seen equalled.

NEST EGGS.—To have a supply of these, indestructible to heat or cold, just empty some eggs as you need them, through as small an aperture as possible; mix up with water, to the consistence of cream, some pulverized plaster; fill up the shells brimming full; when they have hardened, if you choose to peel them you will find them perfect; and if you think your Brahmas will be fastidious about colour, a little annatto mixed in will render the illusion perfect.—A HOUSEKEEPER, in *Country Gentleman*.

Terms Used in Describing Poultry.

The following list of important technical words commonly used in describing the characteristics of our domestic poultry is culled from a recent issue of the *Maine Farmer*:

Hackle—The feathers growing from the neck, and covering the shoulders, and part of the back.

Saddle—Those growing from the end of the back, and falling over the side.

Fluff—The silken feathers on the thighs and hinder part of the Cochlin and China fowl.

Dubbing—Cutting off the comb and gills of a cock.

Tail Coverts—The feathers that grow on either side of the tail. These are longer than body feathers, and shorter than those of the tail.

Flight—The last five feathers of the wing.

Vulture—Feathers growing from the thigh.

WONDERFUL HEN STORY.—A correspondent of the *Prairie Farmer* supplies the following: "I have a brownish white hen, with the feathers about the neck slightly pencilled in gold colour, and her head decorated with a small crest. A month or so since, she desired to sit; I tried for a week or so to break her of the notion, having no eggs I cared about putting under her; but she seemed so determined, that I obtained eleven eggs of the Poland variety, and gave them to her. When she came off to feed next day, I discovered a large buff egg in her nest; I then marked the Poland eggs and shut the other fowls out, suspecting them of intrusion. Next day, I found another egg, and so on, for fifteen days Miss Biddie continued to furnish her one egg daily. At the proper time, she came off with eleven chickens. They are now nearly a week old, and lively as crickets. If Mr. Bement, or any other man, who is a fancier of fancy poultry, can produce anything to beat this uncommon h. n-yard fowl, I should like to know of it."

The Household.

Items for Housekeepers.

Do every thing at the proper time.
Keep every thing in its place.
Always mend clothes before washing them.
Alum or vinegar is good to set colours, red, green, or yellow.

Sal-soda will bleach; one spoonful is enough for a kettle of clothes.

Save your suds for the garden and plants or to harden yards when sandy.

A hot shawl held over varnished furniture will take out white spots.

A bit of glue dissolved in skim milk and water, will restore old crape.

Ribbons of any kind should be washed in cold suds, and not rinsed.

If flat irons are rough, rub them well with fine salt, and it will make them smooth.

If you are buying a carpet for durability, you must choose small figures.

A bit of soap rubbed on the hinges of doors will prevent them from creaking.

Scotch snuff put in holes where crickets run will destroy them.

Wood ashes and common salt, wet with water, will stop the cracks of the stove and smoke from escaping.

Green should be the prevailing colour for bed hangings and window drapery.

Future Housekeepers.

We sometimes catch ourselves wondering how many of the young ladies whom we meet with are to perform the part of housekeepers, when the young men who now eye them so admiringly have persuaded them to become their wives? We listen to those young ladies of whom we speak, and hear them not only acknowledging, but boasting, of their ignorance of all household duties, as if nothing would so lower them in the estimation of their friends, as the confession of an ability to bake bread and pies, or cook a piece of meat, or a disposition to engage in any useful employment. Speaking from our own youthful recollections, we are free to say that taper fingers and lily hands are very pretty to look at with a young man's eye, and sometimes we have known the artless innocence of practical knowledge displayed by a young miss to appear rather interesting than otherwise. But we have lived long enough to learn that life is full of rugged experience, that most people live on cooked or other food, and that the house is kept clean and tidy by industrious hands. For all the practical purposes of married life, it is generally found that for a husband to sit and gaze at his wife's taper fingers and lily hands, or for a wife to sit and be looked at and admired, does not make the pot boil, or put the smallest piece of food therein.

A Yorkshire Pie.

First of all a receptacle is built of the shape and size of a good large cheese-box, composed of "scald crust," (that is, made with boiling water) about an inch thick; put no butter in the crust but in its place fresh beef suet, chopped as fine as possible, so that, when kneaded together, the walls of the receptacle stand firm and erect.

Now for the inside: take a fine mellow ham (a Yorkshire one if you can get it; if not a sugar-cured Virginian) a fine turkey, a goose, a couple of chickens, a couple of ducks, a couple of rabbits, a hare, a brace of pheasants, a few slices of venison, half a dozen pigeons, a dozen quail or woodcock, two or three pounds of sausage meat, some sweet herbs, and seasoning, and having deprived the foregoing of all their bones, proceed to stow them away in layers in your crust receptacle, just as tight as ever you can get them, until all the interstices are filled up; then put a top-crust of the same thickness as the other on, place the pie on a piece of sheet-iron in a quite cool oven, and let it slowly bake for three or four hours; take it out very gently, and let it stand until the next day, and then when you cut it you will find it will come out quite solid, like a piece of variegated marble, tasting of everything in general but nothing in particular; a dish that would "raise an appetite beneath the ribs of death."

It will be a beautiful big pie, too; but there is no fear of its spoiling, for it will keep a couple of months, if needful, or you can manage any how to keep it. Don't talk any more of boned-turkey with trufflet, or *pate de fois gras* from Strasburg, for neither are to be named with the Yorkshire pie.—*Wilkes' Spirit*.

Bride and Groom a Century Ago.

To begin with the lady. Her locks were strained upward over an immense cushion that sat like an incubus on her head, plastered over with pomatum, and then sprinkled over with a show of white powder. The height of this tower was somewhat over a foot. One single white rose-bud lay on its top like an eagle on a haystack. Over her neck and bosom were folded a lace handkerchief, fastened in front by a bosom pin rather larger than a dollar, containing her grandfather's miniature set in virgin gold. Her airy form was braced up in a satin dress, the sleeves as tight as the natural skin of the arm, with a waist formed by a bodice worn outside, from whence the skirt flowed off and was dis-ended at the top by an ample hoop. Shoes of white kid, with peaked toes, and heels of two or three inches elevation, inclosed her feet and glittered with spangles, as her little pedal members peeped curiously out.

Now for the swain. His hair was streaked back and plentifully be-floured, while his queue projected like the skillet. His coat was a sky-blue silk, lined with yellow; his long vest of white satin, embroidered with gold lace; his breeches of the same material, and tied at the knee with pink ribbon. White silk stockings and pumps, with laces and tie of the same hue, completed the habiliments of his nether limbs. Lace ruffles clustered around his wrist, and a portentous frill worked in correspondence, and bearing the miniature of his beloved, finished his truly genteel appearance.—*Er.*

SYDNEY SMITH'S RECEIPT FOR A SALAD DRESSING.—

The following may be useful to such of our friends as wish to put up fancy bottles of salad dressing for sale during the summer months. We have given it a long trial at our table, and can recommend it as the best mixture of the kind. It should be sold in capped or sealed bottles.

Two large potatoes pass d thro kitchen stove
Smoothness and softness to the salad give
Of mordant mustard add a single spoon,
Disturb the condiment that bites too soon,
But deem it not, thou man of herbs, a fault
To add a double quantity of salt.

Four times the spoon with oil of Lucca crown,
And twice with vinegar procured from town,
True flavour needs it, and the poet begs
The pounded yolk of two well-boiled eggs
Let onion atoms lurk within the bowl,
And, scarce suspected, animate the whole.
And lastly, in the flavoured compound to
A magic spoonful of anchovy sauce

"Oh, great and glorious! oh, herbaceous treat!"
'Twould tempt the dying anchorite to eat;
Back to the world he'd turn his weary soul,
And plunge his finger in the salad bowl.

(Grocer.

He who asked the daughter's hand and got the father's foot had the consolation of knowing that his wooing was not bootless

DOMESTIC MAGAZINES.—Wives who are always blowing-up their husbands, or vice versa husbands who are always blowing-up the wives.

REFINEMENT.—A dealer in ready-made linen advertises his shirts and chemises under the mellifluous appellation of "male and female envelopes."

TO CURE PILES.—Ira F. Scudder writes the *Rural*: "Wild turnips will cure the piles. Prevention is better than cure. Let the afflicted carry it in their pockets. A very simple thing will make a man sick, why not a simple thing cure him?"

People who are resolved always to please, at all events, frequently overshoot the mark and render themselves ridiculous. A lady of this sort, going to a friend's house one morning, ran to the cradle, as soon as she came in, to see the "fine boy." Unfortunately, the cat was occupying the babe's place; but, before she could give herself time to see her mistake, she exclaimed with uplifted eyes and hands, "Oh, what a sweet child!—the very picture of his father."

CALF'S HEAD SOUP.—Boil the head until quite tender in salt and water. Take the meat from the bones and cut it in small pieces. Strain the water, and then put in the meat with a teaspoonful of cloves two pounded nutmegs a little black pepper, and as much red pepper as will lay on a five cent piece. Add a piece of butter the size of an egg, and one pint of browned flour, rubbed up in cold water. Boil all together for half an hour, then add two chopped eggs. A whole head, liver and lights make about three gallons of soup. The liver should only boil half an hour. A skinned head, with the bones of a leg of veal will make about as much. This soup, if well made, cannot be surpassed; but any soup, poorly made, of which there is so much—is the least palatable of all dishes.

Miscellaneous.

Conservatism and Particularity of the British Farmer.

In Canada, where land is cheap and plentiful, we do not adhere so rigidly to custom, nor lay so much stress on apparent trifles as they do in Britain. There, owing to high rents, tithes, poor rates, assessed and other taxes, every foot of land must tell, and must be made to produce its required quota. There but few dare to leave the beaten path. The British tenant-farmer knows that by certain manipulations he can produce given results; and he will not vary from what he has been originally taught. Now plans and new methods are universally (and with great difficulty) introduced by those who have the means to dare the risk. For many years the farmers in the neighbourhood of experimental farms, such as "Mech's" or "Coke's," or other great improvers, continued to conduct their operations in the same manner as had been done for ages on their farms; they dared not alter. There was a kind of traditional knowledge handed down from father to son, often through the old farm labourer who had been born on, and was likely to die on the farm. These people have a great opinion of the value of what has gone before, and although they do not presume to dictate, often strongly influence their employers by advice offered in a peculiar manner. All recognize certain rules and maxims, most of which are founded in truth, but none in advancement, and few know why such a course as they recommend has been successful. They all have a dread of certain agricultural sins, one of which is, leaving the smallest bit of land in ploughing unmoved. The path of rectitude of the British ploughman is the straight, unbroken furrow; a badly-groomed team or a moment's inattention will sometimes cause a deviation in this respect. When such is the case, the ploughman's strict duty is to back up and mend the mischief; but laziness or willfulness will sometimes cause this to be omitted. One of the traditions of the farm there is, that on such an occasion, where the ploughman had passed over such a blunder, and was so absorbed in covering it with the next slice of land that he did not notice the approach of his master, who, walking up the furrow after the slow team, observed the defalcation, and hurrying up to point it out, arrived behind the man just as he had successfully covered the error—it had been done by a considerable exertion—and calling to the horses to stop whilst he paused in triumph over his achievement, he cried—"Well, that's covered." The farmer was by this time close at hand, his step all unheeded on the soft ground; he had discovered the offence; indeed, it had been committed in his own presence; his temper was up, and snatching off the man's hat, he dealt him a good crack over the crown with his stick, and then popping on the hat again, cried out—"Yes, and that's covered too!" When so trifling a matter as this becomes legendary, it may be easily imagined how great a crime (agriculturally speaking) such a deception is there considered, and what particularity, as well as conservatism, characterizes the British farmer.

EARTHQUAKE IN OTTAWA.—"On Monday night" says the *Pembroke Observer*, "the inhabitants of the city of Ottawa were awoken from their slumbers by the noise and shock of an earthquake."

A solemn murmur in the soul
Tells of the world to be,
As travellers hear the billows roll,
Before they reach the sea.

HORSE THE TOOLS.—Many farmers, especially laborers of the irresponsible sort, have a shiftless habit of leaving their tools and implements wherever they used them last. We have had constant difficulty, on our own farm, in having these things kept in their place, and find the habit so inveterate among farm hands that it is hard to eradicate it. Nothing is more indicative of bad farming, for a carelessness which commences with the tools will extend through all the ramifications of the season's work. "A place for everything and everything in its place," is, and ought to be the motto of every good farmer and mechanic. It is only by this practice sedulously pursued, that tools can be kept in fit condition for use, proper economy insured in the expenses of the farm, and all its operations performed with the requisite facility. Without good tools work will be ill done and always behind time.—*Working Farmer*.

Poetry.

Angling.

By golden gravel shallow--
By dark an' solemn eyes,
Where th' gudgeons wait--
Where the barbel sleeps,

Markets.

Toronto Markets.

"CANADA FARMER" Office, August 15, 1865.

The weather for the past two weeks has been all that could be desired for the labours of the harvest field, which have commenced and progressed throughout the whole Province.

Flour--market dull with few transactions; No. 1 superfine at \$4 40 to \$4 50; if from superior spring wheat, high ground, \$4 60 to \$4 70; extra do. at \$5 20 to \$5 25; superior extra at \$5 70 to \$6 00.
Full Wheat in fair demand and steady, at \$1 to \$1 08 on the street.

Montreal Markets.--Flour--Superfine extra, \$6 85 to \$6 20; Extra, \$5 50 to \$5 60; Fancy, \$5 10 to \$5 20; Welland Canal Superfine, \$4 65 to \$4 70; Superfine No. 1 a n n Wheat, \$4 75 to \$5 10, do. No. 1 Western Wheat, \$4 65 to \$4 70; do. No. 2 Western Wheat, \$4 40 to \$4 45; Big Flour, \$2 60 to \$2 65.

Berlin Markets, Aug 8.--Full Wheat, per bushel, \$1 06 to \$1 25. Spring Wheat, \$1 to \$1 06. Flour, per 100 lbs., \$2 75. Oats, 40c to 45c. Barley, 70c to 75c. Pease, 60c to 65c. Potatoes, 25c to 30c. Onions, 75c to \$1. Butter, 12c. Eggs, 12 1/2c. Cornmeal, \$2 to \$2 25. Hay, per ton, \$8 to \$9. Straw, per load, \$3 to \$4.

Galt Markets, Aug 8.--Wool, per lb., 41c to 42c. Flour, per 100 lb., \$2 60 to \$3. Full Wheat, per bushel, 90c to \$1. New Fall Wheat, \$1 to \$1 02. Spring do., 90c to 96c. Barley, per bushel, 65c to 65c. Oats, do., 35c to 40c. Flax seed, do., \$1 to \$1 25. Pease, do., 60c. Butter, per lb., 14c to 16c. Wood, per cord, \$2 50 to \$3. Beef, per 100 lbs., \$5 to \$7. Pork, do., \$5 60 to \$6 10. Mutton, per lb., 6c to 10c. Hides, per 100 lbs., \$2 to \$3. New Potatoes, 75c to 80c. New Hay, \$7 to \$9. Considerable quantities of new wheat are being offered at Galt market.

Brantford Markets, Aug 8.--Full Wheat, \$1. Spring do., 90c to \$1. Oats, 41c. Barley, 45c. Rye, 60c. Pease, 45c. Corn, 30c. Hay, per ton, \$7 to \$10. Straw, per load, \$2 63. Flour, per cwt., \$2 25 to \$2 50. Potatoes, per bushel, \$1. Beef, per 100 lbs., \$4. Pork, do., \$5 50 to \$6 00. Mutton, per lb., 4c to 5c. Lamb, do., 4c to 5c. Butter, per lb., 15c. Eggs, per dozen, 12 1/2c. Wood, 41c.

Windsor Markets, Aug 8.--New Fall Wheat, per bushel, \$1 to \$1 04. Old Fall Wheat, per bushel, \$1 10 to \$1 12. Spring Wheat, per bushel, \$1 to \$1 03. Oats, do., 44c to 45c. Pease, do., 60c. Barley, do., 45c to 50c. Hides, \$3 to \$3 50. Pork, \$4 to \$4 60. Beef, \$5 60 to \$6 00. Hay, per ton, \$5 60 to \$7. Straw, \$3 to \$4. Wood, 35c to 40c. Butter, 15c. Eggs, per dozen, 10c to 12 1/2c.--Herald.

Dundas Markets, Aug 8.--Flour, per barrel, \$5 25 to \$6 25. Do., per cwt., \$2 62 to \$3 12. Full Wheat, per bushel, 90c to \$1 05. Spring Wheat, per bushel, 85c to 90c. Oats, per bushel, 43c to 45c. Pease, per bushel, 60c to 60c. Barley, 60c to 60c. Corn, 60c to 60c. Beef, per lb., 7c to 10c. Mutton, per lb., 7c to 10c. Wood, 40c to 45c. Hay, \$5 to \$7.--Banner.

Buffalo Markets, August 9.--Flour--the market without change, chiefly for local and interior trade; XX white wheat Canada at \$7 75, XX Indiana at \$7 25. Stocks light, and buyers have but little choice. Wheat, dull and unsettled. No samples of Chicago spring offered on Change. The continued fine weather and the prospect of a good crop, prevents holders' views from being sustained. \$1 28 was offered for No. 1 Chicago and Milwaukee wheat in the morning early, and \$1 30 asked; No. 2 Milwaukee club at \$1 20, No. 1 Milwaukee club at \$1 30; No. 1 Chicago spring at \$1 25, deliverable all August; closing quiet. Corn, very active, with upward tendency at noon, which was not sustained to any extent in the afternoon. No. 1 mixed Western at 78c; No. 2 do. at 76c. Oats quiet, but advanced after receipt of New York reports, at 64c; held at the close at 64c, and firm. Pease, dull and nominal at \$1 15 to \$1 20 at retail.--Courier.

New York Markets, Aug 9.--Flour--receipts 12,491 barrels, market 5c to 10c better, with more doing; sales 12,000 barrels at \$5 75 to \$6 10 for superfine State; \$6 40 to \$6 55 for extra State; \$6 55 to \$6 60 for choice do.; \$5 75 to \$6 15 for superfine Western; \$6 40 to \$6 75 for common to medium extra Western; \$7 15 to \$8 for common to good shipping brands extra round hoop Ohio. Canada flour 5c to 10c better; sales 300 barrels at \$1 50 to \$1 60 for common, and \$1 80 to \$1 90 for good to choice extra. Rye Flour quiet. Wheat--receipts 74,242 bushels; market 9c to 10c for winter, and dull for spring; sales 1,400 bushels. Winter Red Western \$1 90, and 600 bushels new crop Red State \$1 95. Rye, dull. Barley, quiet. Corn--receipts 120,632 bushels; market steady; sales 63,000 bushels at 87c for unshelled, and 88c for shelled mixed Western. Oats, n shade firmer at 61c to 62c for Western. Potatoes, dull and lower, sales 500 barrels at \$3 40 for new mess; \$2 90 to \$3 00 for 1863 and 1864 do.; and \$2 40 to \$2 50 for prime. Beef, dull.

Advertisements.

PROVINCIAL

EXHIBITION

AGRICULTURAL ASSOCIATION

OF UPPER CANADA,

TO BE HELD AT LONDON,

18th to 22nd September, 1865.

PERSONS intending to exhibit will please take notice that the entries of articles in the respective classes must be made with the Secretary at Toronto, on or before the undermentioned dates, viz:--
Horses, Cattle, Sheep, Swine, Poultry, on or before Saturday, August 13th.
Grain, Field Roots, and other Farm Products, Agricultural Implements, Machinery, and Manufactures generally, on or before Saturday, August 26th.

MILLER'S Celebrated Scab & Tick Destroyer, FOR SHEEP.



THIS preparation is a certain remedy for removing those destructive affection. Every day brings additional testimony of its thorough effectiveness. No stock-master should be without it. Prepared only by HUGH MILLER & CO., Chemists, Toronto.

DAIRY FARM FOR SALE, OR RENT ON LEASE.

400 ACRES, near WOODSTOCK, Co. of Oxford, with extensive improvements, well adapted for a Dairy or Stock Farm. Also, 150 ACRES near CHARLESTON, Co. of Peel, with considerable improvements, having a spring on the lot well adapted to run a Cheese Factory. Also, 100 ACRES near EMBRO, Co. of Oxford, with considerable improvements. For particulars, apply (post-paid) to JOHN DUNLOP, South Zorra, C. W.

SHORT-HORN COWS FOR SALE, NOW IN CALF TO "LORD HENDON."

MARTHA, 567 (Upper Canada Stock Register) roan, calved Nov. 3, 1860, by President (204) dam Margaret, by Snowball--bred by Mr. John Iles, Puslinch, C. W. MAIDEN, 990 (Upper Canada Stock Register) roan, calved March 15, 1862, by Frier John 3d, 600, dam M'y Flower 3d, by Prince of Wales, (2065), g. d. Imported May Flower, by Tortworth Duke, (12892), etc., also bred by Mr. Iles. The above cows, now in calf to "Lord Hendon," (see U. C. Stock Register,) are offered for sale. Address JOHN PIPE, Guelph, C. W.

IMPORTANT TO FARMERS. MONEY TO BE LENT.

THE UNION PERMANENT BUILDING AND SAVINGS SOCIETY is prepared to lend money on Mortgage on improved farms, at periods from 1 to 10 years, and in sums to suit borrowers. Office, No. 80 King Street, West of Church Street. WM. PIPER, Secretary.

BERLIN MONTHLY MARKET!

THE 1st Market, for the sale of Cattle, Sheep, Butter, and Farm Produce generally, will be held on the NEW FAN GREENS, ON THURSDAY, SEPTEMBER 7th, 1865, when premiums, amounting in the aggregate to \$50, will be awarded for best Cattle, Sheep, and Butter exhibited. For particulars see Handbills. HUGO KRANZ, Town Clerk.

To Cheese Factors and Dairymen.

If you want the best Annotin in use, call at the Ingersoll Cheese Factory, where you can get the English Carbonised Extract, which gives the cheese or butter a beautiful orange colour, not to be produced by any other Annotin. F. H. ELDRID sole manufacturer for Canada. All orders addressed to "F. H. Eldred, Ingersoll Cheese Factory," will receive prompt attention. Price \$1.25 per gallon.

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